



Handwashing Behaviour Change

Learning from Water for Women

Introduction

The purpose of this learning brief is to consolidate and analyse approaches and lessons learnt with regard to improving handwashing behaviours across the 20 Water for Women civil society organisation (CSO) projects in 15 countries. It is based on a rapid scan of the secondary sources available from Water for Women projects, including mid-term reviews, knowledge and learning products, and project reporting. The brief describes strategies partners have adopted to improve handwashing with soap (HWS). Examples include evidence and data collection with knowledge partners at various levels. The brief also examines social and cultural factors that influence HWS behaviour change. Finally, the brief reports on Water for Women partners' successful initiatives to promote handwashing before and during the COVID-19 pandemic.

In Brief

- **Handwashing with soap must be at the heart of all WASH programming**, because of its potential to maximise and improve health, wellbeing and dignity.
- Initiatives that have enhanced knowledge and technical skills, **strengthened delivery approaches**, promoted innovative and new technologies and improved systems should be explored.
- More **monitoring and analysis is required to determine which approaches are achieving the most impact** and whether they are being sustained.

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This learning brief predominantly refers to 'handwashing with soap' (HWS). Where specified, the term 'hand hygiene' refers to broader measures, such as the use of gloves and hand sanitiser in health care facilities.

Abbreviations

ABCDE	Assess, Build, Create, Deliver, Evaluate
BCC	Behaviour Change Communication
BCD	Behaviour-Centred Design
CCWC	Commune Committee for Women and Children, Cambodia
CDC	Centres for Disease Control
CDH	Community Development for Health (Bhutan)
CDH+	Community Development for Health plus (Bhutan)
CDPO	Cambodian Disabled People's Organization (Cambodia)
CFAR	Centre for Advocacy and Research
CHAMP	Changing Hygiene Around Maternal Priorities
CLTS	Community-Led Total Sanitation
CSO	Civil Society Organisation
ESCOW	East Sepik Council of Women (PNG)
HCF	Health Care Facility
HfH	Habitat for Humanity
HWS	Handwashing with Soap
IEC	Information, Education, and Communication
IRC	International Rescue Committee
JMP	Joint Monitoring Program
Lao PDR	Lao People's Democratic Republic
LSHTM	London School of Hygiene & Tropical Medicine
MHH	Menstrual Health and Hygiene
ODF	Open Defecation Free
OPD	Organisations of Persons with Disabilities
PHED	Public Health Engineering Department, Pakistan
PNG	Papua New Guinea
SBCC	Social and Behaviour Change Communication
SDG	Sustainable Development Goal
SHOMOTA	The Strengthening Gender Equality and Social Inclusion in WASH project (Bangladesh)
SNV	Netherlands Development Organisation
STBM	Sanitasi Total Berbasis Masyarakat programme, Indonesia
Thrive/EMW	Thrive Networks/East Meets West
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
YPII	Yayasan Plan International Indonesia

Setting the scene

Handwashing with soap (HWS) is widely recognised as one of the most impactful public health interventions to reduce the global infectious disease burden. HWS can help in reducing diarrhoea by 30% (Cairncross et al., 2010; Ejemot et al., 2008), acute respiratory infection by up to 25% (Curtis & Cairncross, 2003; Rabie & Curtis, 2006) and reduce health-care-associated infection spread by 40% (Kampf et al., 2009). The COVID-19 pandemic has amplified the importance of HWS as a critical preventive measure. It has brought renewed attention to the ongoing efforts to ensure universal access to handwashing facilities equipped with soap and water and promote change in HWS behaviours. Handwashing with soap also forms part of the water, sanitation and hygiene (WASH) targets covered under the United Nations Sustainable Development Goals (SDGs)¹.

Water for Women operates across South Asia², South East Asia³ and the Pacific⁴. There are differences between and within these regions in access to a handwashing facility with soap and water in the household (which the Joint Monitoring Program (JMP) defines as a basic hand hygiene facility). As the figure below shows, progress on HWS has stalled since 2015 in India, Lao People's Democratic Republic (Lao PDR), Papua New Guinea (PNG), Timor-Leste, Myanmar and Vietnam. Data for 2020 is not available for Solomon Islands or Vanuatu. Achieving universal access to basic HWS facilities by 2030 will require a significant increase in current rates of progress.



Household data service levels

Source: washdata.org

¹ Specifically SDG target 6.2, Population with basic handwashing facilities at home

² South Asia: India, Nepal, Bangladesh, Bhutan, Pakistan

³ South East Asia: Vietnam, Lao PDR, Cambodia, Indonesia, Timor-Leste, Myanmar

⁴ Pacific: Papua New Guinea, Fiji, Vanuatu, Solomon Islands

Approaches to handwashing with soap behaviour change

Contemporary approaches to HWS behaviour change include community-based approaches, market-based approaches, interventions based on psychosocial theory, and health-based messaging.

Community-based participatory approaches

Community-led total sanitation (CLTS) is a key participatory approach that was developed to change sanitation behaviours within communities, with the specific goal of ending open defecation. Hygiene and sanitation are interlinked behaviours within the CLTS process given the critical nature of handwashing (after defecation in particular). In some settings, CLTS also promotes the availability of handwashing facilities with water and soap or ash near latrines, and evidence of regular use. CLTS programs can trigger a sense of disgust/shame at having dirty hands, in order to encourage handwashing behaviours (Maulit, 2014). Many countries have established indicators of open-defecation free (ODF) status that include the construction of handwashing facilities and evidence of use. Combining sanitation and HWS behaviour change is considered time and cost-efficient because they target the same people, include similar motivations/emotional drivers for triggering behaviour change, and use the same resources (facilitators, health workers, community leaders).

Market-based approaches

Hand hygiene has been promoted by strengthening domestic private sector supply, activating customer demand for handwashing technologies and services, and supporting the maintenance and sustained use of hardware.

Psychosocial theory

Motivational drivers are used to promote HWS. Examples of frameworks include 'Focus, Opportunity, Ability, Motivation' (known as FOAM, Coombes and Devine, 2010); IBM-WASH, (Dreibelbis, 2013) a behaviour-centred design (BCD) approach utilising a five-step process ('Assess, Build, Create, Deliver, Evaluate' [known as ABCDE], see Aunger & Curtis, 2016); Evo-Eco or BCD behaviour determination models; the 'Risks, Attitudes, Norms, Abilities, Self-regulation' (known as RANAS, Seimetz, et al, 2017) framework; and behavioural science-informed approaches such as nudge theory.

Sanitation and hygiene messaging

Health-based messaging has been used to promote HWS, aiming to inform and educate people about the dangers of unhygienic practices and show them the ideal way to do it and the importance of undertaking HWS at critical times. Communities receive information about germ theory and transmission routes and are shown demonstrations of good handwashing technique to break the faecal-oral transmission route.



A school student practices handwashing during COVID-19 awareness raising sessions
Credit: Plan International / Live and Learn Environmental Education

What works?

We all know that we ought to wash our hands and know that there are health benefits, but we still don't always do it. There are relatively few well-evidenced examples of what works. Traditional, standalone 'knowledge-based' approaches, in which messages on the health benefits of good handwashing with soap (educating people about health, germs and disease) are repeated, are not enough to inspire change without attention to underlying drivers, the impact of habit formation, and the availability of enabling technologies (water, durable handwashing facilities, and soap) (de Buck et al., 2017). As outlined above, contemporary approaches to hygiene behaviour change include community-based approaches, marketing approaches and interventions based on psychosocial theory. Changing people's behaviour is difficult and complex (Curtis et al., 1997), but is thought possible with the right approach as well as change in cultural or social norms (Curtis et al., 2009) and the environment, such as access to WASH facilities and products.

De Buck et al. (2017) found that community-based approaches to promoting handwashing work better than educational/didactic methods that concentrate on health benefits alone, and that the resulting behaviours are more sustainable than those instilled through BCD approaches. De Buck et al. (2017) concluded that a BCD/theory-based approach performs well for handwashing adherence (the extent to which a person continues handwashing without close supervision) through motivational triggers such as shame/disgust, nurturing and affiliation. However, the sustainability of behaviour changes and cost-effectiveness of these interventions is under-researched, although the 4-day SuperAmma intervention appeared to have some success in sustaining levels of behaviour change after 12 months (Biran et al., 2014). BCD approaches seem promising at small scale, but are usually resource intensive, and their effectiveness at scale is usually much less than their efficacy in local trials. There are few examples of at-scale government-led roll-outs of such packages.

There is some evidence to suggest that hygiene behaviour change programs are more successful if they use emotional triggers, and change the environment where the behaviour occurs.

There is some evidence to suggest that hygiene behaviour change programs are more successful (in terms of uptake⁵, adherence⁶ and sustainability⁷) if they use multi-modal approaches, address a range of determinants, use emotional triggers (such as disgust, nurture, social status and affiliation), and change behavioural settings through the placement of infrastructure with visual cues (sometimes referred to as 'nudges') to change the environment where the behaviour occurs (Biran et al., 2013; Gautam et al., 2017). The effectiveness of various interventions to create lasting hygiene behaviour changes is indicated on the figure below.

Intervention	Uptake	Adherence	Sustainability
Information and education			
Community-based approaches			
Social / commercial marketing			
Psychological and social theory			

■ Likely ineffective ■ Mixed evidence ■ Possibly effective ■ Effective ■ Insufficient data

Source: Dreibelbis, R. (2020)

⁵ Uptake: use during the implementation of the program

⁶ Adherence: use until 12 months after the end of the program's implementation

⁷ Sustainability: use >12 months after the end of the 'project period' (program's implementation)

Good practice in handwashing behaviour change

Formative research

Formative research is intended to identify what motivates people to wash their hands (such as disgust, nurture, affiliation and status) and to understand barriers to good behaviours (Aunger and Curtis, 2016).

Behaviour-centred design

A creative handwashing promotion package includes games, competitions, public pledging events, 'emo-demo' (emotion-based demonstrations) all intended to evoke emotional responses instead of telling people that they ought to wash their hands (Aunger and Curtis, 2016). Sector actors (including government) require capacity to conduct formative research, creatively design and implement HWS behaviour change interventions, and monitor and evaluate the effectiveness of the program.

Change in behavioural settings, products and facilities

Changes to the physical and social environment can motivate people to think and act differently. For example, Dreibelbis et al (2016) have shown that handwashing can be made more intuitive by providing a clear path from the latrine to an attractive and easy-to-access handwashing station, which might have visual cues such as a mirror and space for soap. Attention-grabbing cues (visual or auditory) placed around the handwashing facilities are thought to trigger timely handwashing, remind people how and when to practise HWS, and have a sustained effect.

A campaign style approach, delivered at scale

Change at scale is needed to change HWS norms. Nation and district-wide campaigns must reach people with HWS messages multiple times to reinforce the behaviours (Curtis et al., 2009).

Gender equality, disability and social inclusion

The GEDSI dimension is important because the lower status and power of women and people with disabilities in most societies can mean that their specific hygiene needs are not prioritised by decision-makers. Ensuring people in vulnerable groups are actively involved in decisions about hygiene and providing opportunities to take leadership is required.

System strengthening

Achieving and then sustaining universal HWS practice requires ongoing political attention and a joined-up approach across governments, businesses and communities, and life-cycle costing for handwashing facilities (Chokey et al., 2017).

Novel measurement

Measuring hygiene behaviour change, especially its long-term sustainability, remains difficult. There is a tendency for people to over-report their HWS behaviour. There are also incentives for projects to overestimate the extent of change in reporting as projects can benefit for reporting achievement. The quality and sustainability of HWS are even harder to measure and communicate.

These elements of good practice in HWS behaviour change are assessed in relation to Water for Women projects in the sections below.

Synthesis of learnings

Water for Women projects typically focus on HWS promotion in households, schools and health care facilities (HCFs) within their programs. Community-based programs are the main pathway for promoting hygiene in many countries, because the presence of handwashing facilities with soap and water is a criterion for declaring the community ODF (although it is acknowledged that having hardware for HWS doesn't mean it will be used, sustained, and maintained over time). Several projects indicated that their HWS behaviour change programs are based on formative research on emotional drivers and creative design to prompt HWS behaviour change. However, experience suggest that issues such as resources intensiveness must be resolved before programs can go to scale.

COVID-19-related HWS

Water for Women partners have promoted HWS during the COVID-19 pandemic. Handwashing with soap investment has been a critical component of pandemic response, recovery and preparedness plans.

It is not yet clear how far the changes in HWS behaviour have 'stuck' to create lasting change and how many were reactionary, short-term responses. Some approaches may have been ineffective, contributing to the 'info demic' (messaging overexposure/saturation). Further monitoring is required to assess whether people are continuing to wash their hands at the additional COVID-specific times (or just the times required to prevent faecal-oral disease).

Partners pivoted quickly, redirecting existing activities to embrace remote ways of working. Household follow-up visits haven't been possible in Water for Women projects during the pandemic, which could contribute to slippage or reversion of behaviours. Regular face-to-face training with community workers was not possible due to movement restrictions and safety concerns during the pandemic. Moreover, physical distancing prevented workers reaching rural families to disseminate messages, promote safe behaviours and monitor changes. Nonetheless, aspects of these remote ways of promoting behaviour change and training appeared to be successful, and could be continued post-pandemic to sustain behaviour change. It is now necessary to build on the strong enabling environment for HWS promotion created by COVID-19 to maintain the momentum and priority around HWS.



A child uses a Happy Tap handwashing station at their kindergarten in Vietnam to wash their hands with soap and water
Credit: Thrive Networks / East Meets West Vietnam

Handwashing behaviour change

This section outlines the ways in which Water for Women has contributed to improving HWS behaviour change across the Asia-Pacific region. Projects are targeting both handwashing hardware (infrastructure) and software (behaviour). De Buck et al.'s (2017) review found that community-based interventions achieved the most consistent increases in HWS. Despite this evidence on what works for HWS, many projects are still promoting messaging. The following summarises the approaches used within Water for Women projects, often in conjunction, to promote HWS.

Lessons learnt

- Water for Women projects are simultaneously tackling hygiene behaviours such as handwashing, menstrual hygiene, child faeces management, open defecation and household water treatment. Each behaviour involves different cues and timing, and often targets different individuals in the household. More research is needed to understand whether tackling too many behaviours at the same time dilutes effectiveness and thwarts HWS uptake, or reduces the potential for sustained adoption of HWS behaviours.
- The pandemic delayed the formative research and design and implementation of BCD HWS campaigns, reflecting the level of resources and external expertise required to produce them. For those partners requiring a theory-based approach, a lighter-touch package (such as WASH 'Ems) could have been rapidly rolled out instead.
- Programs typically adopt a blend of HWS behaviour change approaches; health workers, community-level volunteers and program facilitators are very likely to have worked on other hygiene promotion and behavioural change programs, and so are acquainted with a range of techniques and tools. Monitoring, evaluation, and learning is required to understand whether a blend of approaches is likely to lead to less behaviour change than an intervention based on formative research and motivational factors (emotional drivers) such as nurture or disgust.
- Whether people are washing hands at all critical times (for faecal-oral disease and/or COVID-19 prevention) or perhaps at just some (e.g., only before food handling) requires further investigation.

Psychosocial theory or behaviour-centred design

- WaterAid projects (e.g., in PNG) have undertaken formative research to understand motivations and norms in relation to behaviour change that could be targeted through a campaign. In Bhutan, the Netherlands Development Organisation (SNV) undertook formative research on innovative behaviour change communication (BCC) for HWS. In Nepal, the findings of formative research on people with disabilities' experience of WASH services was shared in two rural municipalities in Sarlahi.
- Promotion strategies drawn from LSHTM work include WASH'Em, a behaviour-change approach designed specifically for emergencies. In Bhutan, LSHTM designed an intervention to improve HWS using the nurture motive. HWS was added to the government's national Community Development for Health (CDH) program (Chokey et al., 2017). The Public Health Engineering Department uses CDH workshops as tools to create demand for sanitation amongst household members, using a hybrid of Participatory Hygiene and Sanitation Transformation (PHAST) and Community-Led Total Sanitation (CLTS) approaches. The intervention, called CDH+, included a nurture motive, a glow germ demonstration and household visits. Its evaluation showed significant improvement in self-reported HWS before feeding children and preparing food compared to the CDH and the control clusters. Overall, HWS on all occasions increased in the control area by 13%, in the government CDH intervention by 17%, and in the additional CDH+ intervention area by 20%. LSHTM is also running a dedicated research project focused on handwashing behaviour change under Water for Women in Cambodia, the Changing Hygiene Around Maternal Priorities (CHAMP) project⁸ and its second phase, CHAMP Plus⁹.

⁸ Led by the LSHTM, together with WaterAid

⁹ Led by WaterAid, together with the LSHTM

- WaterAid projects use an ABCDE approach¹⁰ to hygiene behaviour change. In Timor-Leste, WaterAid is working with experts to create a HWS behaviour change campaign that targets and motivates changes to social norms by appealing to emotions (motivators). In Lao PDR, SNV used BCD to develop a tailored HWS behaviour change campaign that has been implemented in communities, schools and HCFs. Scientific behaviour change methods have also been included in an adapted Healthy Islands approach (e.g., PNG).

Multi-channel messages for the COVID-19 pandemic

Mass media behaviour change is a one-way transfer of information, often making it less effective than face-to-face communication. For this type of behaviour change to be effective, it is thought that people must be exposed to messages multiple times, and that the frequency of exposure to messages has to be greater than in face-to-face interactions. Partners such as World Vision Bangladesh used multi-channel message dissemination via TV, community radio and mobile phone platforms to raise HWS awareness related to COVID-19. As a result of COVID-19, Water for Women partners adapted their methods of communication, turning to practices such as using loudspeakers to play pre-recorded audio, television, and distributing leaflets. In the COVID-19 context, the use of virtual learning media was found to be the best option for influencing WASH behaviours. In Nepal, SNV deployed a digital social and behaviour change communication (SBCC) campaign on HWS and menstrual health and hygiene (MHH), reaching 21 million mobile subscribers through text messages and voice calls. In Timor-Leste, WaterAid and partners delivered COVID-19 prevention activities through a WhatsApp campaign targeting local networks. In Bangladesh, World Vision used TV, community radio and mobile phone platforms to raise HWS awareness focusing on COVID-19. The number of people reached with each message, or the number of times that they are exposed to hygiene messages, has not been monitored.

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Producing new behaviour change materials for the COVID-19 response

Water for Women partners developed, or adopted from others (e.g., the Centres for Disease Control, World Health Organization), packages of information, communication and education (IEC) materials that support COVID-19 prevention. In PNG, World Vision distributed over 10,000 reusable shopping bags with HWS messaging and shared COVID-19-related messages to schools and on three billboards in strategic locations. World Vision held mass hygiene awareness events in PNG, targeting leaders of churches, business houses, armed forces, and schools; IEC materials were disseminated in 35 communities. Also in PNG, WaterAid installed information boards in busy urban centres to increase public awareness on COVID-19 prevention measures. In Bangladesh, World Vision's SHOMOTA project facilitated and set up 16 billboards to raise awareness about preventing COVID-19 transmission. IDE in Cambodia distributed UNICEF-produced and government-endorsed leaflets, posters and handwashing promotion signboards, along with soap, to targeted households. In August 2021, the Cambodian government recognised IDE's efforts towards COVID-19 awareness with a 'certificate of appreciation', presented by the Rural Health Care Department and the Ministry of Rural Development. Whether people had regularly seen or heard the relevant promotional materials and if they recalled the HWS messages (i.e., when to wash hands, how and for how long) and the extent to which the overall approach was effective, are unknown.

Sanitation and hygiene messaging

Information, education, and communication materials

Handwashing with soap has been promoted through mass media campaigns (SNV Nepal), leaflets (IDE Cambodia), posters (SNV Bhutan, Yayasan Plan International Indonesia (YPII)), leaflets and hand-fans (Thrive Networks/East Meets West Vietnam) and dramas (Plan PNG), as well as education delivered in health centres, community-based volunteer groups and via household visits by health extension workers. Other examples include using mobile phones (World Vision in Bangladesh) and social media (e.g., Facebook in PNG, supported by Plan) to disseminate HWS messages in insecure and hard-to-reach settings.

¹⁰ WaterAid's behaviour-centric five-step model (ABCDE) helps explain behaviour and provide guidance on how to assess, build, create (design), deliver (implement) and evaluate an intervention that could change sustained behaviour

Professional and peer counsellors

In India, the Centre for Advocacy and Research (CFAR), with support from the Health Department, facilitated professional and peer counsellors to strengthen awareness around handwashing.

Radio campaigns

Plan Solomon Islands broadcast a month-long pre-Christmas sanitation and HWS awareness campaign on national radio in late 2020. The format included radio shows and recorded messages encouraging people to build latrines during the Christmas break (e.g., 'take a toilet home this Christmas') as well as promoting HWS as a key preventative measure against COVID-19 and to keep healthy during the festive season.

Community awareness programs

In Cambodia, Thrive Networks/East Meets West (Thrive/EMW) educated households about how and when to wash their hands with soap. The Commune Committee for Women and Children (CCWC), supported by Thrive/EMW, organised education meetings at the commune's offices or in public places in the villages. They also conducted home-based visits to educate villagers on WASH. In 2020, Plan PNG ran a songwriting and video-recording competition for local artists, aimed at promoting good HWS. The winning products were used as part of HWS promotion materials.

Social and behaviour change communication

The International Rescue Committee (IRC) used BCC campaigns in Pakistan's Khyber Pakhtunkhwa province. In Nepal, SNV's SBCC strategies and campaigns were informed by GEDSI and disability-related formative research.



In an urban slum community in Myanmar, children explore a poster on COVID-19 prevention measures, including handwashing with soap, with their caregiver
Credit: WaterAid Myanmar / Myo Thwet Myat Noe

Community-based participatory approaches

Integration in CLTS

Besides ending open defecation, CLTS encourages households to build handwashing facilities. CLTS-based 'triggering' approaches for handwashing has been adopted in several countries, including in Lao PDR by SNV. The triggering method seeks to generate personal and communal commitment towards handwashing. At municipality level in Timor-Leste, WaterAid and partners have made significant progress on HWS within CLTS type programming. For example, the post-ODF 'area liman mos' (ALMO; 'clean hands area') approach requires every household and institution to have at least basic handwashing facilities (under the JMP definition). In PNG, World Vision's CLTS interventions disseminated key messages on handwashing and COVID-19 prevention. In Indonesia, YPII has promoted handwashing through its Sanitasi Total Berbasis Masyarakat (STBM) program in the project's targeted villages. Pillar 2 of the STBM program consists of a handwashing station near the toilet, knowing at least three critical times for washing hands, and practising 'correct' handwashing. YPII also launched HWS triggering guidelines with support from three ministries (health, education and religious affairs), together with the national WASH working group, local stakeholders, and organisations of persons with disabilities (OPDs). The guidelines were published on the ministries' YouTube channels and websites.

The Healthy Islands concept

The Healthy Islands concept¹¹ has been adopted widely in the Pacific; it uses a participatory community engagement, planning, and monitoring approach. In PNG, World Vision uses the Healthy Islands approach endorsed by the National Department of Health to encourage health promotion. 'Training of trainers' has facilitated the sustainable delivery of Healthy Island training in communities, where Healthy Island Committees have direct responsibility for HWS behaviour-change promotion. GEDSI has been fully integrated into the Healthy Islands training manual.



A woman in Beremana suco uses a handwashing station to clean her hands with soap and water
Credit: WaterAid Timor-Leste / Agiu

¹¹ <https://wedc-knowledge.lboro.ac.uk/resources/conference/39/Yeung-2527.pdf>

Changing behavioural settings, handwashing products and facilities

Different types of handwashing facilities have been promoted in various projects. Handwashing facilities range from simple, non-commercial handwashing stations that can be quickly built (and repaired) with local materials to more robust, commercial facilities made with good-quality materials. The sustainability of facilities depends on access to soap and water as well as the durability of the hardware itself. Few projects have addressed the supply chain for soap and handwashing devices.

Lessons learnt

- The extensive promotion of the tippy tap has pros and cons. They are not durable (which could be positive in that they can be quickly and cheaply rebuilt) but are often not replaced once broken, meaning that handwashing practice tails off. Other devices – like a bucket with a tap, which may be considered more user-friendly and durable, but is more expensive – have been promoted. An expanded range of HWS products (beyond the tippy tap) is required to support improved/sustained HWS behaviours. In particular, innovative products are needed for the ‘hardest to reach’.
- Projects have initiated various physical changes in the places where people wash their hands at home and in their community, although the use of nudges across the projects is limited. Attention to social norms change has been less well integrated in HWS interventions, with the exception of the CHAMP project in Cambodia.
- Government and businesses have a role to play in bringing HWS supplies to low-income households. Manufacturers/fabricators can be incentivised to include child-friendly, disability and gender-sensitive and climate/disaster-resilient HWS stations in the package of services they offer. Regular market assessments are necessary for HWS products, because a permanent supply of products (e.g., soap) is needed to practise improved HWS.
- Climate change and the supply of water are particular constraints on handwashing practices. For increasingly water scarce areas, CSOs must strengthen supply chains for affordable, water-saving HWS devices. Attention to diversifying water supply sources and improving water storage capacity will enable people in households, schools and HCFs to maintain their HWS practices.

Locally-driven solutions

The emphasis within Water for Women projects is on supporting locally driven solutions through change agents and/or enabling individuals to build their own facilities. In Vanuatu, World Vision and partners have promoted bamboo tippy taps to provide handwashing facilities and trained Vanuatu Red Cross volunteers in their construction to further increase access. Tippy taps were also installed at the provincial health office. At a national level, World Vision Vanuatu produced a ‘how to’ video on constructing a bamboo tippy tap alongside the promotion of handwashing behaviours. Similarly, in PNG, Plan promoted the tippy tap and supported tippy tap construction training for women. WaterAid PNG focused on ‘how-to-build’ guides for low-cost handwashing facilities (also opting for tippy taps), and gave safe handwashing demonstrations. In Fiji, Habitat for Humanity (HfH) worked with change agents (health workers and youth leaders) to promote regular handwashing in communities and the construction of dedicated handwashing facilities, including tippy taps, with soap and water.

Healthy competition

In Indonesia, YPII ran a handwashing station design competition for use in schools and HCFs. There were 42 entrants (14 women without disabilities, six women with disabilities, 15 men without disabilities, seven men with disabilities). The jury consisted of OPD representatives, women WASH entrepreneurs, an engineering lecturer from Kupang University, and representatives of YPII. Selection criteria included the level of inclusiveness, form/aesthetics, use of materials, and innovation. The winning designs were drawn on to support the professional design of inclusive handwashing facilities for schools and HCFs.

Market-based approaches

Market-based approaches are not strongly represented in Water for Women, although emphasising the importance of the private sector has also improved access. A small range of plastic, mass-produced handwashing devices have been promoted, such as the Happy Tap/Labobo (a portable handwashing device consisting of a plastic bucket with a tight-fitting lid and tap, metal stand and plastic washbasin), along with buckets with taps operated by foot, elbow or hand. Enabling technologies such as the Happy Tap have been promoted by various partners. In Cambodia, iDE's Water for Women project found little consumer interest in a standalone handwashing device, so iDE used human-centred design research to integrate the HWS device into latrine shelter product designs. Latrine business owners have also been trained to manufacture and cross-sell hygiene-improving products. There are further examples of artisans (masons, mechanics, small business retailers, etc.) being trained in HWS promotion techniques, to both extend the reach of the message and provide an income-generating incentive for the artisan.

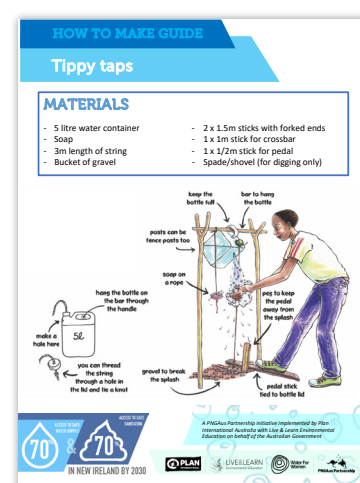
Other initiatives have helped bolster the supply chains for WASH consumer goods, including soap. World Vision Bangladesh promoted female-operated feriwala (street carts) selling a range of hygiene products including sanitary pads, handwashing devices, toilet cleaners, bins operated by pedals and soap. Sales agents visit communities to generate demand, increase supply, and avoid transport costs for the consumers. Some partners have promoted inclusive devices for people with disabilities or older people, and offer low-cost hardware options that can facilitate physical and financial access. In India, RTI offered a capacity-building workshop on the design and engineering of handwashing stations. In Cambodia, iDE promotes HWS during sales presentations for latrines, but does not market handwashing facilities directly.

Soap-making

It can be difficult to maintain a reliable supply of soap in the village shop/household. Soap making became a focus of some partners (including Plan and WaterAid) in PNG and elsewhere during the pandemic, because many people were unable to buy commercially produced soap due to travel restrictions and/or states of emergency. Soap-making often became necessary for self-reliance and meeting hygiene-related supply needs in communities. In PNG, WaterAid supported East Sepik Council of Women (ESCOW) members to learn about and train others in soap-making skills. For some women, soap-making became an income-generating activity during this time. Also in PNG, Plan trained and supported community-based women's groups to make and market soap to improve access to hygiene products and provide additional income opportunities.



These inclusive handwashing behaviour change materials were developed by Yayasan Plan International Indonesia (YPII) during COVID-19. YPII also supported the development of Indonesia's national handwashing with soap guidelines, launched in March 2021
Credit: Yayasan Plan International Indonesia



A 'how to make' guide for tippy taps in Papua New Guinea, also supports handwashing with soap practice
Credit: Plan International / Live and Learn Environmental Education

Technologies promoted during the COVID-19 response

During the pandemic, there were few instances of the provision of hardware and materials to enable HWS; partners' main focus was on promoting low-cost simple technologies and empowering people and communities to build it for themselves. For instance, World Vision Vanuatu promoted construction of bamboo tippy taps. Yet, in some instances, where the pandemic exacerbated vulnerabilities faced by marginalised groups, the poorest and most vulnerable households were given handwashing devices, for instance World Vision Vanuatu distributed a durable handwashing container with a lever. In Cambodia, Thrive/EMW established a relationship with local suppliers, utilising a women-led, output-based aid model to support households with affordable handwashing devices. Coordination was also demonstrated during the pandemic; for instance, RTI India supported the procurement and maintenance of contactless handwashing stations for UNICEF and a partner handwashing program (Sajag Swachh Nagar aur Gaon), and developed a directory of more than 100 fabricators across Odisha.

Handwashing demonstrations

In Solomon Islands, Plan distributed materials to construct handwashing facilities and training for community members as a precursor to handwashing demonstrations. In Bangladesh, World Vision facilitated handwashing demonstrations while maintaining safety, security and social distancing at community level. Household follow-up visits have not been possible because of the pandemic, and it is acknowledged that this may contribute to slippage or reversion of behaviours.



Members of the Ruteng Women's Participatory Action Research Group promote hand hygiene and mask wearing for COVID-19 prevention
Credit: Yayasan Plan International Indonesia

Hand hygiene away from home

This section reviews how HWS has been addressed in institutions such as schools, health facilities and other civic spaces, including:

- healthcare settings, such as local hospitals and other health institutions
- educational settings, such as schools and informal education centres
- public spaces, when possible and in collaboration with local partners, such as local markets, transport hubs and beaches.

In 2021, 38% of HCFs in Eastern and South-Eastern Asia had basic hygiene, meaning most have no water and soap for handwashing, and compliance with hand hygiene behaviour by facility staff can be low (WHO and UNICEF, 2022a). Poor hygiene practices in HCFs contribute to the growing problem of health care-associated infections, and to public mistrust of health care services. Globally, 42% of schools still lack basic handwashing services. In the Pacific region, coverage of basic hygiene services in schools remains under 50%. The consequences of poor hygiene within the health and education sectors are devastating for patients, staff and students. Happily, coverage of basic hygiene in schools is increasing steadily in Southern Asia. Between 2015 and 2021, the total number of children without a basic hygiene service at their school decreased by 69 million in Eastern and South-Eastern Asia (WHO and UNICEF, 2022b).

Lessons learnt

- Cross-sectoral linkages provide more opportunities for the integration of hygiene into the routine interventions of the health and education sectors, including in plans, budget and guidelines on hygiene standards for schools and health care settings.
- Ownership and resources are needed to overcome challenges in the operation and maintenance of hand hygiene facilities. Schools and HCFs are more likely (than public places) to have budget and caretakers to manage the operation of hand hygiene facilities, including ensuring continuous supply of water and soap.



In Bhutan, SNV has worked collaboratively with the World Health Organisation and the Ministry of Health to improve WASH systems in health care facilities, including access to handwashing facilities and waste bins at points of care
Credit: SNV / Aidan Dockery

Healthcare facilities

Adequate hand hygiene practices by health workers and patients are essential for infection prevention, in particular for safeguarding maternal and infant health. WASH improvements needed often include handwashing facilities within clinics. In Bhutan, SNV has supported WASH FIT assessments in 56 health centres and improvement plans are in development. Plan PNG supported WASH infrastructure improvements within HCFs, informed by WASH action plans developed by facility WASH committees. In Lao PDR, HCFs now have permanent handwashing facilities with soap and running water for patients and visitors as a result of SNV support. In Nepal, SNV supported two rural municipalities with pedal-operated handwashing stations (with permanent water supply) and soap or alcohol-based rub at the point of care. In addition, accessible and inclusive WASH facilities have been installed in four model HCFs (two in Sarlahi and two in Dailekh) for other districts to emulate.

Schools

Partners have used a range of school-based participatory approaches, as outlined below.

A child-to-child approach

World Vision Bangladesh focuses on the school setting for implementing its HWS promotion activities, using a child-to-child approach. The approach includes daily teacher-supervised handwashing and the dissemination of HWS messages at school and community level. Stakeholders including teachers, school management committees, student councils, student cabinets and education officers are engaged to help facilitate HWS behavioural change

Children's clubs

In Pakistan, IRC facilitated children's clubs to promote HWS behaviour change among boys and girls. World Vision PNG supported School WASH Club activities and provided Happy Tap devices to increase the number of children and teachers practising handwashing.

Installing handwashing facilities in schools is a key feature of many projects. In response to water shortages, World Vision PNG installed a dual water supply, with utility supply supplemented by rainwater. Meanwhile, SNV Nepal installed pedal-operated handwashing stations in schools in two rural municipalities. Thrive/East EMW in Vietnam also provided Happy Tap/Labobo handwashing devices with HWS promotional messaging for 173 kindergartens, reaching approximately 50,000 children under six years of age. World Vision PNG are also trialling Happy taps in institutions in PNG.



Students in Peshawar, Pakistan, celebrate Global Handwashing Day 2021
Credit: IRC Pakistan

Support to HCF, schools and public places during the COVID-19 WASH response

As part of their COVID-19 response, Thrive/EMW in Vietnam distributed handwashing devices to health stations, and World Vision PNG distributed soap and Happy Taps to HCFs to increase handwashing practices. The latter also constructed water tanks and blocks of toilets in health facilities managing COVID-19 cases. In Solomon Islands, Plan (with the support of Ministerial COVID-19 funds) supported the construction and installation of handwashing facilities connected to rainwater catchments and storage tanks in primary schools. In PNG, Plan engaged local builders and school community members to construct water supply (rainwater catchment) and handwashing stations at 21 schools, launched during Global Handwashing Day celebrations in October 2021.

The school infrastructure upgrades responded to the action plans developed by school management committees and the focus on HWS to help schools meet national COVID-safe protocols. Similarly, Thrive/EMW in Cambodia installed handwashing facilities in public areas, such as in front of health centres. Several other partners have done likewise, primarily as part of their COVID-19 WASH response. For instance, SNV Bhutan, together with the Ministry of Health and UNICEF, installed 77 tap-points for handwashing with safe drinking water stations at 25 public places in 10 districts, supported by communication materials, benefiting 21,650 people.

In Solomon Islands, Plan (with the support of Ministerial COVID-19 funds) supported the construction and installation of handwashing facilities connected to rainwater catchments and storage tanks in primary schools.



Students in Solomon Islands wash their hands with soap and water at a school handwashing station during COVID-19 awareness raising sessions
Credit: Plan International / Live and Learn Environmental Education

Cross-cutting themes

This section provides an overview of cross-cutting themes in the Water for Women projects: GEDSI, system strengthening (policies, plans and strategies, budget, institutional arrangements, coordination, cross-sector linkages, research and learning), sustainability and measurement. A summary of the approaches used by Water for Women projects is outlined in the table below. Projects often use a range of approaches in combination with one another to bring about change.

Aspect	Examples
Formative research	All CSO partners have performed some kind of rapid assessment to determine knowledge, barriers, and motives to understand current HWS practices (e.g., SNV Bhutan, World Vision Bangladesh). Some have done evaluative (Thrive/EMW Vietnam) and formative research (SNV Nepal), although not always before their handwashing programming started. Others have planned formative research (WaterAid Timor-Leste, WaterAid PNG) that has been delayed by the pandemic.
Behaviour-centred design	Some CSO partners have focused on hygiene promotion/didactic educational approaches for increasing knowledge (but which according to the literature have less impact on behaviour change), while others are delivering theory-based hygiene behaviour change interventions using emotional drivers and social norms. Partners such as SNV and WaterAid are following the steps outlined in the BCD approach to intervention development and evaluation, including formative research and a collaborative approach to intervention design. Some agencies, such as SNV Lao and WaterAid Timor-Leste, have a BCD campaign planned but are undertaking other handwashing activities in the meantime. The CHAMP research project in Cambodia was designed as an intervention based on formative research using nudges and cues, participatory education for midwives, and the promotion of new norms using social influence.
Change in behavioural settings, products and facilities	Handwashing with soap has been promoted in a range of household, community, institutional and public settings. Cues in the environments where people wash their hands are essential to nudge people into handwashing. Partners have focused on the installation of handwashing facilities, but few (aside from CHAMP) reported making other changes to the setting (e.g., with nudges or visual reminders to prompt handwashing in the kitchen, by the toilet, or in public places) to prompt or reinforce key HWS behaviour.
A campaign style approach, delivered at scale	Partners planning/delivering an evidence-based HWS campaign include SNV Lao, WaterAid PNG, WaterAid Timor-Leste and SNV Nepal. Most of these campaigns include digital, social and mass media, brochures, posters and billboards/banners. The pandemic delayed the implementation of a number of campaigns. YPII supported the CDC 'Clean Hands Count campaign' as part of the COVID-19 response, partnering with the Ministry of Health (Kementerian Kesehatan Republik Indonesia).
Gender, disability and social inclusion	Engaging men and boys, working with people with disabilities and those in vulnerable groups has become a routine way of working for Water for Women partners. Promoting handwashing with older people, and people with chronic illnesses, became more important during the COVID-19 pandemic than working with mothers and children under five (the mainstay of most agencies prior to the pandemic). Messages on use of handwashing facilities were targeted to reach COVID-19 vulnerable people. HWS tools and materials were made accessible and user friendly (including representing excluded groups in the images). The CHAMP project was designed to challenge existing gender stereotypes of women as sole caregivers with responsibilities for household duties and childcare.
Systems strengthening	Working with government has maximised the impact of work on HWS, including through advocacy for evidence-based approaches to promote HWS behaviour change and adequate allocation of long-term resources (including financial and human resources). Within the projects, less attention has been given to the enabling environment for strengthening market systems and the capacities of market-based service providers, and the supply of HWS products such as handwashing devices and soap. 'Project-based' hygiene promoters and other 'volunteers' are needed for the constant reinforcement of handwashing to be incorporated into wider systems.
Novel measurement	Monitoring HWS behaviour change remains difficult. Household surveys include sections on hygiene practices; the surveyor visits a handwashing facility and observes if water and soap are present, but practice itself is not monitored (other than through self-reporting). Regular monitoring and reviewing of adherence is required. Partners typically use face-to-face HWS behaviour change sessions in the community; the effectiveness of mass media campaigns is often uncertain.

Gender equality, disability and social inclusion

Equality is embedded in all Water for Women projects' ways of working. Partners are committed to programming that focuses on transforming the lives of the poorest and most marginalised people. Difficulties in maintaining HWS are significantly more common for people with disabilities, as well as older adults. Poor hygiene also disproportionately impacts women and girls. In most societies there are well established gender roles in relation to hygiene, with most of the responsibility (and unpaid labour) for household hygiene assigned to women and girls. GEDSI approaches have sought to improve access to and use of HWS facilities by marginalised groups.

Lessons learnt

- People in vulnerable groups may require long-term follow-up beyond the intervention to overcome barriers to HWS such as behaviour change and financial costs, as well as modified hardware to support behaviour change.
- Accessibility audits for HWS facilities would be useful to assess the accessibility of the facility itself as well as the route to the facility. These audits could have particularly positive impacts for those who are more vulnerable to diseases caused by poor hygiene, such as children, older people and people with disabilities
- Formative research and Knowledge, Attitudes and Practice (KAP) studies provide insight into social norms and power relations within communities and households. These findings can help ensure interventions benefit the most marginalised and do not inadvertently reinforce harmful social norms and stereotypes that have a negative effect, particularly on women and girls.
- Whether mass media campaigns (on TV or radio) reach the most vulnerable groups with handwashing messages is not routinely monitored.

Inclusive planning

Several projects used their baseline demographic data to inform inclusive HWS messaging for specific groups. World Vision Bangladesh, for example, helped to identify vulnerable people to be included on the government welfare list, allowing them to access support including handwashing devices. Projects have included marginalised groups in planning activities such as the production of accessible BCC materials. SNV in Nepal undertook formative research, collecting GESI and disability-related data to understand the perspectives of women and men, children and marginalised people, including older people and people with disabilities.

People in vulnerable groups may require long-term follow-up beyond the intervention to overcome barriers to HWS...

Several projects used their baseline demographic data to inform inclusive HWS messaging for specific groups.

Inclusive facilities

Several Water for Women partners supported change agents in the community to build inclusive handwashing stations in locations where people (especially those from vulnerable groups) can access them. SNV supported the development of six inclusive handwashing stations in rural municipalities in Nepal. In Fiji, HfH mobilised the youth community in Marou (Ba province) to build basic handwashing facilities with water and soap that community members are using regularly. IRC Pakistan supported the construction of inclusive WASH facilities in special schools and women's crisis centres. This project also supported the establishment of handwashing stations in religious minorities' places of worship (churches, mandirs, gurdwaras).

Inclusive BCC strategies

Partners have developed strategies to identify vulnerable groups and make sure that the information communicated is accessible. In Nepal, SNV supported the development and rollout of BCC strategies, with supporting budgets, in eight rural municipalities, focusing on the needs of persons with disabilities, women, Dalits¹², and other marginalised communities. In Solomon Islands, Plan used a thorough pre-triggering community visit to identify people that needed assistance to attend triggering events and conducted activities at times and in locations that specifically accommodated people with additional needs. Their strengths-based approach, combined with CLTS, provided an effective way for people to share their experiences and aspirations with others in their community. In Pakistan, IRC developed IEC materials targeting the COVID-19-related needs of people with disabilities. OPDs designed the materials, and were engaged in their distribution both within and outside the districts where the project was focused. In Bangladesh, World Vision published flip charts on the empowerment and leadership of people with disabilities and integrated COVID-19 messaging. Finally, in PNG, WaterAid produced a special design for more vulnerable groups, including women and people with disabilities, which government and other organisations used during the pandemic.

Disability-inclusive HWS

In Bhutan, as part of Global Handwashing Day in 2020 and 2021, SNV – in partnership with government and OPDs – distributed videos on HWS in HCFs and posters promoting HWS using braille tactile text for people with visual impairment. In Cambodia, Thrive/EMW expanded their partnership with the Cambodian Disabled People's Organisation (CDPO) on hygiene training for persons with disabilities on inclusive WASH and COVID-19 prevention. In Vanuatu, World Vision's rights-based training was complemented by the Rainbow Disability Theatre tour. It reached thousands of people with songs promoting handwashing in the context of COVID-19 and a play highlighting the discrimination and challenges people with disabilities face. Thrive/EMW also supported the CDPO with online training sessions on inclusive WASH and COVID-19 prevention for both OPDs and individual households.

Shifting social norms

Gender-specific social norms can affect HWS behaviours. CSO projects have the opportunity to shift norms using handwashing as an entry point to avoid reinforcing harmful traditional norms. Aspects of gender equality and inclusiveness in hygiene work include avoiding gender stereotypes in the portrayal of people in IEC images, use of inclusive language, as well as using multiple channels to reach vulnerable and marginalised people. In Cambodia, the LSHTM-led CHAMP research project challenged social norms by making handwashing during childbirth and newborn care a shared responsibility among all caregivers, including fathers and facility staff. Findings show that, as a result, men have improved their handwashing practice and taken on more responsibilities for domestic care, suggesting that gender norms are shifting. However, a lack of support from other family members such as mothers-in-law inhibits such change. New mothers did not always feel empowered to correct the hygiene practices of family members, given social norms about respectful or obedient wives, daughters or daughters-in-law.

Supplies to vulnerable households during the COVID-19 pandemic

In response to COVID-19, SNV Nepal supported eight rural municipalities to help vulnerable families (totalling 1,000 households, including people with disabilities and the very poor) with the supply of HWS and MHH materials. In Vanuatu, World Vision distributed 500 kits including soap on a rope (for easy grip), handtowels, washing lines, powdered soap (for washing clothes), solar lights, a basic first aid kit, a bucket (for mixing cleaning liquids), a handwashing container (with accessible lever tap), reusable face masks produced by a local social enterprise, and reusable sanitary pads.

¹² Defined by the National Dalit Commission of Nepal as "Those communities who, by virtue of atrocities of caste-based discrimination and untouchability, are most backward in social, economic, educational, political and religious fields, and deprived of human dignity and social justice".

In PNG, World Vision focused on people with a chronic illness to raise COVID-19 awareness among tuberculosis patients due to their vulnerability, and equipped all treatment sites with preventive measures. In Lao PDR, SNV disseminated information on COVID-19 to rural, hard-to-reach villages (without access to electricity, TV or internet), and among ethnic groups that do not understand Lao Loum (the national language). SNV used mobile trucks, loudspeakers and radio spots (in Lao Loum and ethnic languages) as part of its communication campaign to include those with visual impairment. As mentioned above, in Vanuatu, World Vision distributed kits including a handwashing container with a lever tap. As physical mobility and access to water sources can disadvantage people with disabilities, the container has a fixture that allows it to be used as a portable handwashing station for easier access. In Bhutan, SNV produced materials for Global Handwashing Day (2020 and 2021) with a focus COVID-19, and posters using braille tactile text for people with visual impairments were developed and distributed in partnership with the government and OPDs.

Systems strengthening

This section provides an overview of the enabling environment for HWS, which is often mandated by a government health ministry. Water for Women partners have contributed to improved prioritisation of hygiene by government, and supported those ministries or sub-national governments where capacity or experience of hygiene issues is minimal. Partners have engaged in national HWS policy and strategy formulation processes and worked in partnership with government on implementation and monitoring. Lessons and practical models are shared across regions within the country and nationally.

Lessons learnt

- Handwashing with soap is commonly described as the most cost-effective public health intervention. However, this does not mean that it is cheap to implement. Ideally, HWS behaviour change would be delivered at scale (nation and district wide) meaning that costs could be reduced by piggybacking on government programs already being delivered by frontline workers. Opportunities should be identified to integrate HWS behaviour change into existing large-scale health programs (such as vaccination (including COVID-19) campaigns, child health and nutrition programs) to achieve better public health outcomes.
- Working with government maximises the impact of HWS projects, including through advocacy for evidence-based approaches to promote HWS behaviour change and adequate allocation of long-term (financial and human) resources.

Hygiene strategic framework

Water for Women partners have supported the development of strategies/frameworks with a variety of delivery approaches (as highlighted above), incorporating sustainability principles, monitoring and a budget allowing for follow-up. In Pakistan, the Public Health Engineering Department (PHED) requested IRC-Pakistan facilitate the development of a BCC strategy for the WASH sector, which will serve as guidelines for PHED's community-based work.

Global Handwashing Day

Water for Women partners have used the annual Global Handwashing Day as a strategic advocacy opportunity and to increase handwashing awareness. It is celebrated by staged events, handwashing songs and dance activities that also promote COVID-19 messaging. In Vanuatu, in 2020, World Vision launched a TikTok handwashing challenge to promote handwashing and handwashing technique, reaching more than 30,000 people via social media channels.

Human resources and capacity strengthening

Investing in training and support for professionals (frontline workers, teachers, health care workers, etc.) to apply their skills to improve HWS programs and personal lives is vital. Water for Women projects reveal that activities are often performed by project staff, HCF staff, community health workers, community volunteers and WASH committees. Training community health workers in hygiene promotion can serve to block disease transmission through behaviour change as well as providing a means to disseminate health-based messaging more broadly within the community. In Cambodia, the CCWC was the main educator of households about WASH and health, delivering one-to-one home visits to create awareness and encourage households to adopt hygienic habits. CLTS-trained facilitation staff have developed skills to 'trigger' communities to assess their situation and to mobilise participatory action to change it. CLTS committees and 'champions' have been trained to promote improved HWS behaviours and provide one-to-one support by demonstrating enabling technologies and key behaviours in people's homes. Such initiatives are supported in Bangladesh by World Vision, in PNG by WaterAid and World Vision, in Lao PDR by SNV, and in Solomon Islands by Plan. Community health volunteers (RTI in India, YPII in Indonesia, WaterAid in PNG) provide follow-up through home visits, house inspections and clean-ups. These activities encourage communities to sustain improved hygiene and sanitation practices, which would be very resource intensive if performed by program or government staff.

Extensive efforts have been made to build up organisational capabilities on hygiene. Partners such as SNV and WaterAid have provided in-house training for staff on formative research and BCD for hygiene behaviour campaigns. SNV has designed interventions online with partners in multiple countries through BCC hubs. WaterAid PNG ran a 'train the trainer' program on the Healthy Islands concept with district and local health managers and workers, local governments, ward councillors and ESCOW members. These actors then conducted training sessions in their respective communities and provided continuous on-the-ground support, advice and monitoring. The International WaterCentre at Griffith University produced GEDSI WASH-at-Work guidelines for hotels and tourism industry stakeholders, including on HWS. Finally, SNV Bhutan (with the support of LSHTM) built the capacity of sub-national government agencies by designing and delivering a CDH (+) workshop.

Support to government during the COVID-19 pandemic

The pandemic raised the political profile of handwashing, strengthening the foundation for future hygiene behaviour improvement. In Lao PDR, SNV supported the Savannakhet Province district government with a communication campaign to disseminate information and key messages on COVID-19 prevention (including the importance of soap, safe handwashing practices, and other basic protective measures). SNV helped the provincial health department to disseminate information on COVID-19 vaccination and preventative measures, using radio spots and video clips through mobile trucks and loudspeakers. In Pakistan, IRC promoted awareness on the government's COVID-19 standard operating procedures through sessions in the community and in schools for children, teachers and parents. WaterAid PNG developed a COVID-19 prevention and preparedness manual and delivered training for district and local health managers and workers to facilitate ongoing awareness in their respective HCFs and local governments. In Nepal, SNV and its partners assisted rural municipalities with the preparation and broadcasting of handwashing-related messages through local radio stations. In Cambodia, Thrive/EMW supported the CCWC to carry out COVID-19-related educational activities, using materials they received from the Provincial Department of Rural Development, including posters/pamphlets, books, presentation slides, marker pens and pre-recorded audio clips.

Investing in training and support for professionals (frontline workers, teachers, health care workers, etc.) to apply their skills to improve HWS programs and personal lives is vital.

CLTS committees and 'champions' have been trained to promote improved hygiene behaviours and provide one-to-one support by demonstrating enabling technologies and key behaviours in people's homes.

Support to community groups during the COVID-19 pandemic

In Bangladesh, World Vision facilitated sessions with community-based organisations, OPDs, women's groups, water and sanitation committees, and cash-and-voucher-assistance working groups, to demonstrate handwashing with soap was vital to preventing the spread of COVID-19. In India, master communicators were designated as COVID facilitators to help prevent community transmission under CFAR's Water for Women project.

Coordination

Water for Women worked with a broad range of partners in various ways on program delivery, advocacy and coordination. Partners included government (via technical assistance), the private sector and knowledge partners as well as community actors. Handwashing with soap needs a routine institutional coordination mechanism: partners are often part of sub-national coordination mechanisms. Harmonising behaviour change approaches across stakeholders also promotes better coordination. This requires consensus within the local or national WASH sector to develop consistent HWS behaviour change approaches, messages and campaigns.

Research and learning

Water for Women projects have used experience on the ground to fill hygiene promotion evidence gaps. The results have informed program design and contributed to an evolving evidence base. The CHAMP (and second-phase CHAMP Plus) project is an innovative research initiative in Cambodia, which documented hygiene practices, motives and environments at both HCFs (labour and delivery rooms, postnatal care wards) and in homes (to the extent possible during the pandemic). Interventions included nudges and reminders, social influence and participatory hygiene training, BCC and provision of hand hygiene infrastructure and material (WaterAid, 2022). Information gathered through this process has been used to identify and agree on target behaviours and practices, particularly relating to hand hygiene and washing for midwives, mothers and caregivers. Tools for prompting improved hygiene practices during pre- and postnatal care have been developed.

Harmonising behaviour change approaches across stakeholders also promotes better coordination. This requires consensus within the local or national WASH sector to develop consistent HWS behaviour change approaches, messages and campaigns.



A newborn Cambodian baby's hat reminds parents and caregivers to wash their hands before handling the baby, part of LSHTM's CHAMP research project
Credit: WaterAid / Remissa Mak

There are examples of joint learning and sharing between projects, including between communities, to promote handwashing. In Indonesia, YPII 's project has a process of replication underway, whereby trained STBM volunteers from pilot villages share what they have learned with similar villages to extend the program's reach. In Nepal, SNV has worked with rural municipalities and ward-level WASH coordination committees to promote BCC initiatives (MHH, HWS at critical times) in households, schools and HCFs. The rural municipalities identified 16 hamlets as 'model' clusters for other hamlets to emulate, often led by women from marginalised groups within the community.

The findings of a World Vision Bangladesh (2020) study support the development of communication materials aimed at helping community volunteers to encourage safe WASH practices among the communities they serve. Participants knew the benefits of handwashing but lacked a comprehensive understanding of all the critical times when hands should be washed. They also lacked an understanding of HWS technique. Persons with disabilities, older people and caregivers had no knowledge about disability- or older-people-friendly infrastructure for maintaining HWS – another major barrier. Financial constraints, lack of interest in buying or arranging the necessary infrastructure and facilities, and the unavailability of products in local markets are other barriers.

COVID-19 related HWS research

Thrive/EMW studied the extent to which the Vietnamese Women's Union's hygiene promotion activities and distribution of handwashing stations and water tanks in the COVID-19 response influenced the knowledge, attitudes and HWS behaviour of households and staff at commune health centres and kindergartens in two provinces in rural Vietnam. Women's Union interviewees perceived a strong sense of collective duty to promote their communities' health and wellbeing, which was driven by the Union's mandated role in Vietnam's political system. This socio-political role afforded them the legitimacy and authority to carry out hygiene promotion in the community. The study also found that while handwashing stations and handwashing materials influenced respondents' motivation to wash hands, they were not drivers of changed handwashing practices. Access to materials as well as communication style were found to influence handwashing practices.

The study highlights the importance of understanding community-based BCC in various contexts, and methodological challenges in assessing the effectiveness of such practices, particularly in the context of Vietnam.



An elderly women in Trung Nghia village, Vietnam, enjoys access to clean piped water at her home after receiving support through Thrive Networks / EMW Women-Led Output Based Aid project and the Vietnamese Women's Union
Credit: Thrive Networks / EMW / Dzung Ngo

Projects need to regularly assess whether changes in behaviour and improvements in the WASH system are being sustained.

Lessons learnt

- Evidence on sustained hand hygiene is limited by the use of infrastructure as a proxy indicator for behaviour. Few partners are following up on their projects to see if HWS is being sustained and whether people are washing their hands at all or just at some critical times (e.g., for prevention of faecal-oral disease or COVID-19), or whether social norms on HWS are changing more broadly.
- Achieving and then sustaining universal HWS practice requires action planning with long-term targets for HWS behaviour, and life-cycle costing for handwashing facilities. Reinforcement of behaviours is required to achieve sustained results (such as weekly follow-up visits). It is acknowledged that this would be very costly and may not be possible for all agencies and governments. Longer, more intense WASH programs – in fewer places, with a smaller reach – could support sustained behaviour change.
- Ongoing political attention and a joined-up approach across government at different levels, businesses, and communities is required. It calls for mobilising relevant stakeholders across sectors to strengthen hand hygiene compliance in diverse settings, including schools, health centres, and public and work settings, especially among poor and vulnerable populations.

The sustainability of hand hygiene is questionable without durable and aspirational hardware to support behaviour change; that is, good-quality handwashing devices and reliable and convenient water supply. Many households construct temporary handwashing facilities to meet the requirements of the ODF verification process, or in response to the COVID-19 pandemic, but the global experience is that few maintain or continue to use these facilities over time, evidenced by so few demonstrating the presence of water, soap or ash upon follow-up. Some Water for Women projects (e.g., SNV Bhutan, SNV Nepal) found that lack of availability of soap at existing and new facilities was a long-term problem, suggesting that more attention to supply chains and affordability is needed.

Dedicated institutions or management structures (e.g., school management committees) are required to operate and maintain HWS facilities and put in place plans and secure budgets for ongoing sustainability. This is required to ensure that soap is made available, that water and drainage arrangements are working, taps and basins are clean, and no repairs are needed. Partners share some ongoing responsibility to ensure facilities built in public places, schools and HCFs remain functional. WaterAid Timor-Leste produced Joint Sustainability Monitoring reports to understand progress towards hygienic status.

Achieving universal hand hygiene involves multiple government departments and coordination across government levels. Engagement with community workers can help ensure multiple exposures to hand hygiene behaviour messages. This necessitates strengthening the capacity of community workers to overcome the critical barriers to hand hygiene, but will be costly and labour intensive. District government staff have carried out post-certification follow-ups and regular visits to communities to monitor behaviour change, but these visits have resource and time implications. Follow-up and recognition are known to be important factors for sustaining hygiene behaviour change, but achieving this through 'champions' or peer-to-peer monitoring could be a less resource-intensive monitoring approach.

Dedicated institutions or management structures are required to operate and maintain HWS facilities and put in place plans and secure budgets for ongoing sustainability.

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Measurement

The pandemic has shocked people into practising HWS more regularly and created a willingness to improve. Assessing whether this change is being sustained requires long-term monitoring, especially of intra-household behaviour, and including among persons with disabilities, based on a common set of definitions and data standards. Handwashing with soap changes are being measured through household surveys (e.g., YPII in Indonesia), mid-term data collection, ODF monitoring and verification data (e.g., SNV Lao PDR) and latrine verification surveys (e.g., Thrive Vietnam).

Lessons learnt

- Globally, WASH actors struggle to measure HWS and use infrastructure as a proxy for behaviour. Proxy indicators do not guarantee that household members wash hands consistently at key times or at all. Poor measurement also undermines efforts to understand if HWS is being sustained and by whom. Observation is a more useful way to measure handwashing behaviour rather than overstated self-reporting, while recognising that people tend to behave differently when being observed.
- More monitoring and analysis is required to determine which approaches are achieving most impact and if behaviours are being sustained. This can be conceptualised in terms of reach (can approaches be scaled?), fidelity (are they implemented as intended?), engagement (who is targeted?) and perceived effectiveness (do they work and for whom?). Action learning is required to understand the effect of different approaches on HWS behaviour change. For instance, CLTS targets HWS behaviour change through triggering disgust, but the quality and variability of handwashing promotion within CLTS programs is unknown and would be worth evaluating.

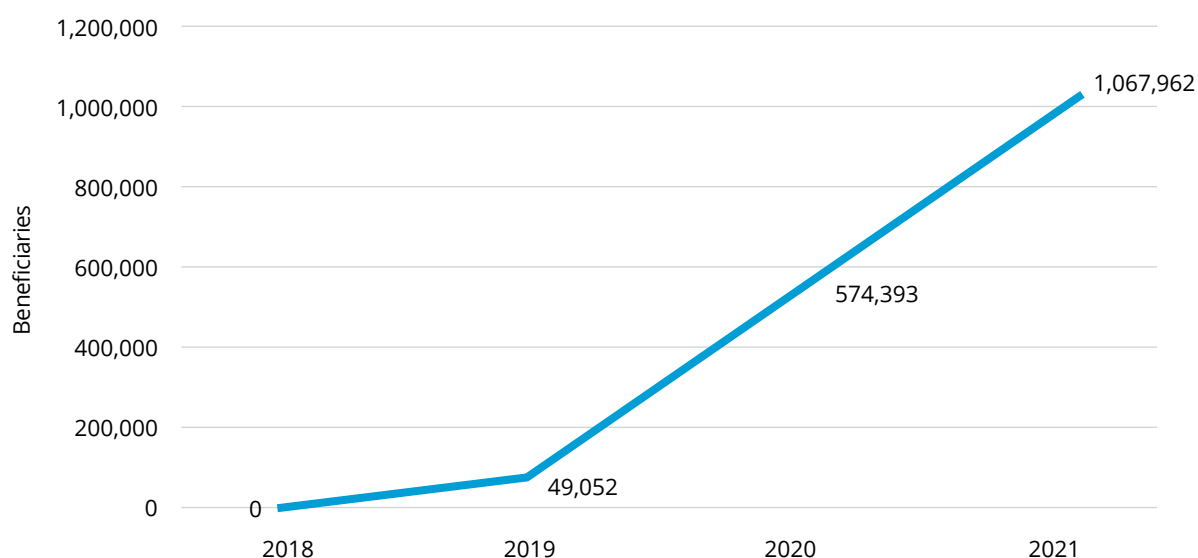


In Thantikandh Rural Municipality, Dailekh, SNV has observed an increase in HWS practice, including at critical times such as after defecation, before cooking, before eating and before feeding children
Credit: SNV Nepal / Aastha Chhetri

Projects are required to collect baseline data on current rates of access. Reliable data on hand hygiene is notoriously hard to gather. Projects monitor number of people with basic handwashing facilities through household surveys with a section on hygiene practices; the surveyor visits the handwashing facility and observes if water and soap are present. Intra-household variability – differential use of services by gender, age or disability – is monitored together with disaggregation by geographic location (urban/rural). Projects are using mixed methods approaches, iterative/flexible monitoring, evaluation and learning processes, as well as community-based monitoring and self-assessment systems. Baseline data on HWS has enabled country teams to build an evidence base, utilise the data in their planning, and influence their implementation.

Proxy indicators like ‘soap and water present together at a handwashing place’ are used. However, best practice suggests observation of handwashing practice by spot checks is also required. For instance, the WaterAid and LSHTM CHAMPS intervention in Cambodia (a controlled before and after study) aimed to improve hand hygiene practices among midwives during childbirth and caregivers during postnatal care. The study used observations to monitor change in hand hygiene, including semi-structured observations within the facility and the home as well as direct birth observation. Hygiene spot checks were also conducted in all homes to record availability of water and soap, locations in the home for handwashing, and sanitation facilities in the home. Strengthening monitoring systems for hand hygiene behaviour change by improving evidence of actual hand hygiene, through spot checks, is important even if it means showing modest improvements rather than overstated self-reporting.

Baseline GEDSI data has been collected in some instances. WaterAid Timor-Leste is systematically collecting information about gender and disability through mWater (a data collection and management platform) and is planning to streamline disability data collection to guide future adaptations to HWS approaches. In Fiji, HfH WASH officers regularly contact community health workers from the Ministry of Health to discuss the progress of WASH plans, including how well HWS messages have been sustained. The chart below shows the year-on-year increase in number with people with basic handwashing facilities in their household. The change from 2019 to 2020 was sustained in 2021. However, whether and when people are washing their hands is not known, nor the types of handwashing facilities – whether fixed devices like sinks and taps, or mobile and potentially temporary devices like jugs and basins. Given the national scale of COVID-19 messaging and the variety of sources promoting HWS messages at the same time, it would be difficult to attribute all the change indicated in the graph to the effectiveness of partner interventions alone.



Number of people with basic handwashing facilities in their household (JMP), Location, 2018–21

Conclusion

Handwashing with soap must be at the heart of all WASH programming, because of its potential to maximise health, wellbeing and dignity. The initiatives outlined above have enhanced knowledge and technical skills, strengthened delivery approaches, promoted innovative practices, improved organisational and management systems and promoted new technologies.

Water for Women partners have helped galvanise the overall commitment to advance hand hygiene for all in 15 Asian and Pacific nations. They have also helped in mobilising key line ministries and agencies, governments, the private sector, civil society, research and educational institutions, and the media, by engaging them to set specific objectives and initiatives to increase HWS practices. This will be a major step towards achieving the vision of universal access to WASH by 2030 (SDG 6.2). The benefits of strengthening HWS interventions will also be felt in other sectors including child survival, nutrition, health, education, equity and gender.

In addition, Water for Women has supported the organisational capacity development of partners, including national knowledge partners and community-based organisations. It is expected that Water for Women's partners will continue to build on their success in promoting handwashing, thereby reducing disease transmission and burden across Asia and the Pacific. More monitoring and analysis of results is now required to determine what approaches are achieving the most impact and are being sustained.



A child washes their hands with soap and water from a newly installed tap stand in Wewak District, Papua New Guinea
Credit: WaterAid PNG / Dion Kombeng

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About Water for Women

Water for Women supports improved health, gender equality and wellbeing in Asian and Pacific communities through socially inclusive, sustainable and resilient water, sanitation and hygiene (WASH) projects and research. It is the Australian Government's flagship WASH development assistance program, investing AUD 118.9 million over five years. Water for Women is partnering with civil society organisations and research organisations to deliver 33 projects in 15 countries. Knowledge and learning are central to Water for Women, positioning the Fund as an important contributor to global knowledge development and sharing in inclusive and resilient WASH to support long-term transformative change to policy and practice globally.

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