

TACTIC REPORT

Using market-based approaches for hand hygiene

Solutions designed for the local context lead to behavior change and improved health in developing countries.



Several districts competed in a competition designed to increase knowledge of hand washing and change behavior in rural Vietnam. (iDE Photo / 2017)

Increasing hand washing requires more than creating awareness of the link between hand hygiene and disease, but making sure people have the right resources in the right place to follow through on that knowledge.

Background

Hand washing is one of the most effective ways to avoid illness from both bacterial and virulent sources. Unfortunately, the United Nations' Sustainable Development Goal estimates that three billion people lack basic hand washing facilities at home. Even when people have access to water and soap, only 50% wash their hands regularly after using the toilet.

For successful hand hygiene promotion, not only do people need to understand why and how hand contamination affects their individual and family health, they need products that support good hand hygiene. An attractive and easy-to-use hand washing station in a convenient location, access to water and quality soap, and visual and other cues to remind them to wash their hands regularly are all critical to behavior change.

Promoting hand hygiene in combination with sanitation efforts can lead to a remarkable difference in improved health in rural communities where open defecation has been the practice for centuries. Over a decade ago, iDE chose to add Water, Sanitation, and Hygiene (WASH) to its mission to improve people's incomes and livelihoods. The following sections detail some of our discoveries and lessons learned in promoting hand hygiene in Vietnam, Bangladesh, Cambodia, and Ghana over the last ten years.

Vietnam—

Washing hands requires more than just water

iDE began its WASH work in Vietnam in 1995 when iDE staff noticed households using treadle pumps intended for agriculture to fill water in buckets, which they could then use in their homes for cooking and cleaning, as well as to irrigate household gardens. Realizing that a hand pump would be more useful, iDE designed a less expensive, easier-to-install model, resulting in sales of over 64,000 pumps. Since then, Vietnam has been on the forefront of iDE's research into both sanitation and hand hygiene.

In September 2016, iDE Vietnam conducted Human Centered Design hand washing research across two provinces in Vietnam. We learned about the factors that limit people's adoption of hand hygiene, which allows us to create interventions (e.g., programs, products, behavior change campaigns) to address their specific issues.



Human-Centered Design includes household interviews and focus groups to identify hand washing behaviors and attitudes related to cleanliness.

Deep Dive in iDE Vietnam, 2016

For example, water conservation is not a concern as most households have extensive faucet access, an important difference compared to other areas like rural Cambodia where households do not generally have piped water. Rural households in Vietnam also have plenty of bar soap accessible, but it is often stored in the shower shelter or other locations that are not convenient for post-defecation hand washing. Like other places in the world, if the soap is not readily available, users do not necessarily go searching for it and will simply use water only to wash their hands. Therefore, the solution with the most potential for impact centered around correct soap use.

The Women's Union is a trusted information source and viewed as the chief source for villagers on germs and disease. The Women's Union is also one of the primary distribution channels for health information to rural areas. This made them the perfect partner for activities focused around hand hygiene that aimed to alter soap buying and usage behavior in households.

Contests are a popular and scalable way of sharing information with large numbers of households in Vietnam, but they have not been used for sanitation or hand hygiene behavior change. iDE implemented a hand hygiene contest in two provinces, whereby 98,937 members of the Women's Union and their family members completed a hand hygiene quiz. Those who answered all questions correctly and gave the closest estimate of the number of participants to complete the quiz from their community received a small prize. A quasi-experimental impact evaluation revealed that contest participants had a 47 percentage point increase in hand hygiene knowledge retention, and that owning an improved sanitation facility (ISF) increased this retention by 13 percentage points. When looking at hand hygiene practices, the contest had a significant effect equal to 22 percentage points, and ISF ownership increased this effect by 87 percentage points.

Cambodia—

Integrate hygiene as a part of a complete sanitation marketing strategy

In Cambodia, the majority of rural households do not have access to piped water and instead use wells, have water delivered, or collect rainwater, which is then stored in large ceramic or concrete vessels next to the home. Water from this vessel is transported to a basin inside the latrine, from which the users scoop water out with a bucket to clean themselves after defecating and to flush the toilet. Taps for hand washing are uncommon and most households use the same water scoop to flush the toilet, clean themselves afterwards, then wash their hands. This water scoop has long been recognized as a potential vector for spreading fecal contamination.

Connecting dedicated hand washing facilities to the latrine makes sense for iDE, not just for post-defecation hygiene use, but because our signature WASH program in Cambodia for the last decade has focused on promoting affordable improved latrines directly to households. After researching and designing the Easy Latrine, and training basic concrete manufacturers on its construction and installation, iDE discovered that a quality latrine shelter was an important factor in promoting latrine use and changing

open defecation practices. With the addition of the shelter, the natural next step in the evolution of the rural latrine was to add a hand washing component.

In 2015, iDE began work prototyping a hand washing facility integrated into a new shelter product, the Easy Shelter. Using the Human Centered Design approach, the program progressed through several iterations of the design, incorporating feedback and insights from users and business owners throughout the process. Late that year iDE began selling this shelter equipped for hand washing, and to date the program has sold nearly 1,200 to rural Cambodian households.

We continued to integrate hand washing devices into new latrine shelter product designs. The program has also revisited earlier designs as new customer insights were gathered, and as new products like water efficient taps have become more available in the country. Currently, iDE sells three latrine shelters with integrated hand washing devices: the Easy Shelter, the Ring Shelter, and the Interlock Shelter.

iDE Cambodia also sells a temporary “Soft Shelter,” which is eligible for a partial subsidy if purchased by a poor household that is registered in the Cambodian government’s nationally-administered IDPoor database. In order to nudge purchasing households towards better hand washing practices, each Soft Shelter comes with a hand washing promotion gift. These gifts are small hanging signboards with soap attached in mesh bags. The signboards are branded with the “Yey Komru” national hand washing behavior change campaign (developed by the iDE Cambodia Innovation Lab and partners), which uses a grandmother role model to encourage kids and adults to wash their hands. This board is designed to be hung on the inside of the shelter above where the water jar sits.



Yey Komru, the role model grandmother, shows her grandchildren how to wash their hands in this promotional still that appeared on television, social media, and in retail shops. The Yey Komru National WASH Behavior Change Campaign was developed by the iDE Cambodia Innovation Lab in partnership with the World Bank, the Ministry of Rural Development, Melon Rouge Agency, and in consultation with multiple WASH and nutrition stakeholders. (Photo 2019 Yey Komru National WASH Behavior Change Campaign)

In January 2018, iDE began training sales agents on how to speak to households about hand washing with soap during their sales presentations. Along with this instructional pitch, 5,827 hand washing promotional mobiles were distributed. In order to develop a deeper understanding of hand washing environments, iDE staff took a photo of nearly every recipient of the gift, with the mobile hung near where they report washing their hands.

Households who received the hand washing promotional gift were also requested to take a brief survey on their hand washing behavior and perceptions. The response totaled 2,874 individuals, the majority of whom were women (81% of respondents). We have used these insights and other human-centered design research to inform the design of all of our hand washing devices, including a new standalone handwashing station. Already, over 7,200 people have gained access to convenient and easy-to-use options for practicing good hand hygiene, demonstrating the efficacy of integrating hand hygiene into market-based sanitation approaches.

Bangladesh—

Build market systems to deliver solutions

Bangladesh has one of the highest population densities in the world, creating additional challenges for hand hygiene. In addition, many rural households still lack piped water supply. However, messages regarding the importance of washing hands has filtered throughout the communities, driven by television, posters, radio, word of mouth, and, especially, through children's education that influences the older generation. The emphasis on cleanliness is also ingrained in the predominantly Muslim culture, which stipulates that hands must be washed for ablution prior to praying, occurring five times per day.

Handwashing practices in Bangladesh remain limited, with over 16 million rural Bangladeshi households not having soap and water on their premises. The Joint Monitoring Programme (JMP) highlights that 61% of rural households have availability of a handwashing facility on premises but without soap and water.¹ Despite hand washing knowledge being high in Bangladesh, the practice of handwashing at key moments remains very low.²

To build on these positive trends in Bangladesh, we have brought our signature market lens through a strategy that supports good hand hygiene practices by generating demand, ensuring supply, and strengthening support systems.

To generate demand, iDE trains latrine producers to incorporate hygiene messages and demonstrations in their demand creation sessions. We also continue to work with these producers to experiment with different marketable local designs that encourage hand washing behavior and demonstrate these at local events. On the supply side, we encourage producers to package sanitation and hygiene products together, sometimes

¹ JMP 2019. Bangladesh Rural Households

² Bangladesh Bureau of Statistics (BBS) and UNICEF Bangladesh 2019. Bangladesh Multiple Indicator Cluster Survey

at a slight discount, to encourage uptake. We are developing marketing materials that depict hygiene and sanitation items together, as well. Finally, to build the necessary enabling environment support, we focus on public-sector partnerships to expand awareness of the issue, working with health-based non-governmental organizations to find opportunities for demand creation and include hygiene provisions as a requirement for an improved latrine under governmental guidelines.



Our Bangladesh team uses a market systems approach to strengthen handwashing practices in schools through environmental nudges.

iDE Bangladesh, SanMarkS, 2018

In 2018 we piloted gentle nudges towards hand washing by drawing on theories from behavioral economics and environmental nudges. These nudges create indirect cues to promote improved behavior. Nudges seek to create a gentle spatial or visual nudge towards improved behavior without overtly asking someone to do the behavior. This is especially effective in behaviors which people know is the right thing to do, but may not necessarily do it. We used school settings to place spatial cues leading from the latrine to the handwashing station in schools to improve handwashing behaviour of students after toilet usage. As a result to date, 3,854 primary and secondary school children have access to handwashing facilities in schools promoting stronger hand washing habits. We mobilized iDE-trained local service providers to set up these nudges in schools for greater sustainability.

Ghana—

Incorporate local materials for effective hygiene solutions

As part of our Ghanaian social enterprise, Sama Sama, which promotes and sells latrine products, iDE engaged in a human-centered deep dive to test three options for a hand washing station to be installed with a Sama Sama toilet. The very rural and dry nature of Ghana creates a hygiene environment that is almost opposite that of Bangladesh, although some of the challenges remain the same. Learning from our deep dive and from products developed in other countries, we established a set of design principles to guide the product creation that fit the Ghanian context. These principles included:

- The product had to enable users to wash both hands simultaneously.
- Enable the user to fetch water for hand washing with unclean hands without contaminating the water source and to be able to do so individually, without help from others
- Minimize water and/or soap waste
- Can be used by both adults and children without additional assistance
- Easy to clean and maintain



After product testing, a final design incorporated the simplest and most effective elements that are locally available.

iDE Ghana, Sama Sama Deep Dive, 2016

After testing three different products, a final design incorporated elements of all three, but focused on the simplest and most effective for enabling hand washing without contact for a specific duration. A plastic dish and a jerry can hanging above it is installed on a shelf connected to the Sama Sama toilet. The user fills the jerry can prior to using the toilet. After using the toilet, the user goes to the shelf and tips the jerry can to fill the dish, which then slow drips water so the user can wet their hands, rub them with soap, and rinse them, using the water level in the dish to understand how much time is needed to do a complete job.

Promoting hand hygiene during the COVID-19 pandemic

Hand hygiene is a critical part of addressing the root causes of poverty in developing nations. The COVID-19 pandemic has brought this issue to the forefront by showing how necessary hand washing is for preventing disease transmission while highlighting the failure of the global marketplace in supplying the necessary products to support this practice.

iDE is leveraging its “boots on the ground” network of last-mile actors and years of experience to increase communities’ resilience to the spread of the disease.

- In Ghana, our WASH social enterprise, Sama Sama, is building and servicing public hand washing stations in high-traffic areas like markets, as well as sponsoring informational campaigns through local radio stations.
- In Bangladesh, iDE is designing, developing, and installing hand washing facilities in public spaces such as schools, marketplaces, and union parishads using a model involving operation, maintenance, and private sector investment in exchange for advertising rights.
- In Cambodia, our village sales agents and village mobilizers are distributing hand washing kits and accurate, targeted information on how to prevent disease transmission.
- In Zambia and Mozambique, our agricultural programs are providing examples in the rural countryside on how to safely conduct business using hand hygiene best practices.

These activities are both absolutely necessary in response to the pandemic but also important in our long-term efforts to promote sanitation and health in these locations, where we face the real danger of wiping away gains made in the past years if COVID-19 lockdowns prevent sanitation promotion activities. Indeed, the efforts of our social enterprises and our entrepreneur networks to counter misinformation and be present at a critical time in the community further establishes credibility and builds trust that will bolster their ability to serve their neighbors’ needs in the future.

The economic impact of the COVID-19 crisis has also been an impetus to expand on strategies for increasing equity in access to finance for WASH products and services. Most notably, we are exploring targeted subsidies as a means of ensuring households continue to have access to high-quality sanitation and hygiene products while also providing a steady stream of business to our entrepreneurs in an otherwise very difficult market.

iDE Global WASH

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