How to design handwashing facilities that *change behaviour*

In a crisis, humanitarians are often responsible for providing or repairing handwashing infrastructure for the affected population.

This creates an opportunity for us to build infrastructure and provide products which encourage people to practice handwashing with soap.





Why are handwashing facilities important?

Did you know that having a handwashing facility makes you 50% more likely to wash your hands? If it is conveniently placed near the toilet or kitchen and has soap and water available, then people are up to 80% more likely to practice handwashing.

There are several reasons why handwashing facilities can have an important effect on behaviour. Imagine you are leaving the toilet. If you see a handwashing facility, this is likely to act as a trigger, reminding you to wash your hands. If you don't see a handwashing facility you might get distracted with other things and forget to wash hands. Even if you did want to wash your hands where there was no handwashing facility present, you would probably have to go to a lot more effort to walk to somewhere that has soap and water. In the process you may touch and contaminate lots of other surfaces. Often the level of effort required would act as a barrier to regular handwashing.

As humanitarians it is unethical and a waste of resources to do hygiene promotion if handwashing facilities, soap and water are not readily available to the population. In the acute phase of a crisis, handwashing infrastructure and products must be our first priority.

What is wrong with the way we are currently doing things?

Consider the hand washing facilities you have visited in camps, they are typically shared facilities for more than 30 people, with same recurrent problems:

- They get dirty as they are regularly used and no one takes responsibility for cleaning them.
- Their regular use results in them breaking or becoming dysfunctional.
- Water containers often stand empty as no one replenishes these regularly.
- Soap is not kept at the facility as people don't like to share bar soap or think that it will get stolen or wasted if left at the facility.

When handwashing facilities are in a poor state they become a disincentive to good handwashing behaviour. As humanitarians this means we have to build higher quality handwashing facilities. Once the acute phase on an emergency is over efforts should also be made to build household level toilet and handwashing facilities.

Can't we just build tippy taps?

Tippy taps are amazing in that they can be completely constructed from locally available materials and made by the local population. However, they have several limitations:

- They are fragile and break easily
- The water containers need to be replaced regularly.
- They have become associated with poverty and are not considered desirable to use.
- Most tippy taps are dysfunctional within a month.

"I don't like those tippy tapps. They are just for poor people. I would not want to use one"

An internally displaced woman in DR Congo who earned less than 50c per day

How should I design handwashing facilities for my context?

As with all types of humanitarian response it is important to take time to learn from the population about what they want. Use the Wash'Em Handwashing Demonstration tool to rapidly **learn about current handwashing practices and barriers** that exist in the physical environment.

Through our Wash'Em research we found that people in different countries and from different cultures often have very similar preferences when it comes to handwashing facilities - **everyone wants something beautiful and easy to use.**



As a general rule it is useful to understand **what types of facilities were used by the population prior to the crisis.** Try to ensure that your organisation provides handwashing facilities that are at least up to this standard or preferably of a higher standard. Providing poorer quality facilities may discourage handwashing and lead to people feeling dissatisfied or that their dignity is being compromised. Remember the simple act of handwashing with soap can help people feel refreshed and more able to cope with the crisis.

Humanitarians will often say that they don't have the budget for high quality handwashing facilities. But given that handwashing with soap can reduce diarrhoeal diseases by half and reduce respiratory diseases by a quarter it is easy to justify spending more on handwashing infrastructure. Remind your donors that this is a necessary investment if they want to see public health benefits.

Make sure that **you and your colleagues try out the handwashing facilities and soaps you are providing.** Ask yourself if you would enjoy using the facility every day for several months. If the answer is no, then consider what you could do to make it more desirable. Before mass distributing handwashing facilities, give them to a small number of families to try out for a few days. This will help you identify any problems with the facilities before you mass produce them.

Here are some useful questions to ask when designing a handwashing facility:

- How will I ensure there is always water available at the facility?
- How will I ensure that water can drain away safely?
- How will I ensure there is always soap available at the facility?
- How can I reduce water splashing on the user during use?
- Can I design a facility that everyone can use? Or can I design specialised facilities for people children, older people and people with disabilities?
- Can I make the facility more beautiful?
- Can I make the facility more durable?
- What locally available products can I use?
- If the facility breaks, is it possible for the local population to repair it?
- Can people intuitively use it?
- How frequently does the water or soap need to be refilled/ replaced? Is this realistic?

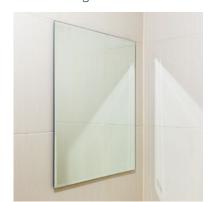


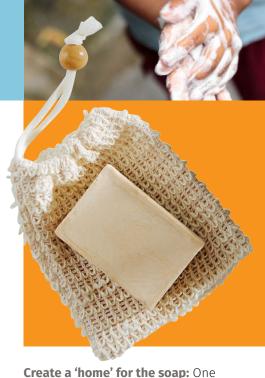
Handwashing facility tweaks that can change behaviour

Invest in good quality soap: When our resources are stretched it tempting to purchase the cheapest possible soap for crisis affected populations. However cheap soap often smells bad and dries out hands, making handwashing undesirable. If you are distributing soap as part of hygiene

kits remember that the soap
that is suitable for laundry
or dishes is often not
suitable for bathing and
handwashing, so your kit
should include different
types of soap for these
activities. In almost all
settings people prefer
to have a dispenser with
liquid soap or soapy water
at the handwashing facility
rather than bar soap (as this goes
missing more easily and is perceived
as less clean).

Add a mirror: We all enjoy looking in a mirror – even if we don't always admit it! In a crisis mirrors will be valuable commodities so adding one near a handwashing facility will likely increase the amount of time people spend at the facility and make the process of handwashing more desirable.





create a 'home' for the soap: One of the main reasons people do not use soap when handwashing is because it is not kept at the handwashing facility. There are several potential solutions to this. If using liquid soap or soapy water, then mount the dispenser to the facility or to a wall nearby. If using bar soap then consider installing a soap dish at the facility. You can ensure that the soap stays at the facility by making 'soap on a rope' or putting the soap in a soft mesh bag.

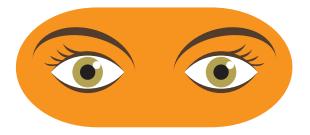


Make your handwashing facility stand out:

You can draw more attention to your handwashing facility by making it a bright colour, painting or decorating it (getting crisis-affected populations involved in painting it will help increase a sense of ownership) or by adding a 'nudge'. Nudges are changes to the physical environment that influence our behavioural choices. In the image on the right footprints were added to the path that led from the toilet to the handwashing facility.

Painting these footprints led to a 40% increase in handwashing with soap and users simply found it more difficult to walk past a facility when there were clear visual cues.

Make people feel that others are watching: People are almost 50% more likely to wash their hand when there are other people around. So we can increase behaviour by making people feel like others notice their behaviour. Try adding a sticker with a picture of eyes over your handwashing facility. This has been found to increase handwashing by 12%.





Who can I get to make my handwashing facility?

In most counties you will find artisans who work with metal, wood, plastics and porcelain. Try to engage these local fabricators in designing and creating your handwashing facilities. In many regions displaced people find it difficult to work so you might also like to consider how you could involve your population in the design and creation of handwashing facilities, particularly if this could generate income. To ensure that your handwashing facilities are creative and desirable try engaging university students, creative agencies and people from the crisis-affected population throughout the process.

Importing handwashing products

If you have the funding and logistics to support product importation, then you may want to consider some of the following products which have been designed and used in emergencies.



Practice Handwashing Station: This complete handwashing facility has been designed for camp settings and can be positioned outside shared sanitation units. It is easy to construct and comes with features that make handwashing desirable (e.g. a mirror) while also keeping water use to a minimum. The current station is the fourth iteration, the station has been continuously adapted based on user feedback. Replicate this process for your stations.

The first version will rarely be

the best.

The Oxfam Promotion and

The British Red Cross/Arup
Handwashing Station: These
facilities have been designed to
look like standard handwashing
basins. They feature a large
mirror and can be connected to
different types of water supplies
including a simple jerry can. You
can also order models that have
been customised for children
and for people with disabilities.



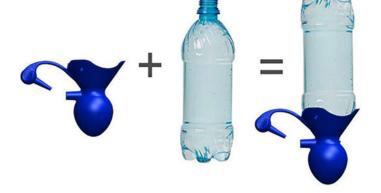
The SuperTowel: This affordable product looks like a microfiber dishcloth but has a special antimicrobial treatment applied to it. This means that if the product is dipped in water and rubbed on hands then it will remove any germs and they will be killed upon contact with the towel. These product is idea for crises where water and soap are scarce or valuable commodities or where people are on the move. The product has been well tested and is completely safe and does not lose its antimicrobial properties over time. It is best to distribute Supertowels to each household member.







The Sanitap: This bag-like device which can be filled with water and then hung to create a handwashing facility. It has the benefit of being compact and light to transport. This type of device can be useful to distribute at a household level to enable handwashing in the home. This product may need to be replaced after about 6 months to 1 year of regular use.



The SpaTap: With this silicone add on, any plastic water bottle can become an easy to use handwashing facility that doesn't consume much water. This type of device can be useful to distribute at a household level to enable handwashing in the home. This product can be used for showering also and could be beneficial in settings where women and girls do not want to use shared bathing facilities.









