
Photo Credit: USAID

Handwashing at Critical Times

People wash their hands with soap at four critical times: after defecation, after changing diapers, before preparing food, and before eating.

KEY FACT:

Handwashing with soap is one of the most effective and inexpensive interventions for preventing diarrheal diseases and pneumonia, which together account for 3.5 million child deaths annually worldwide.[1]

WHAT IS HANDWASHING WITH SOAP?

Handwashing is a long-term behavior that should be practiced multiple times a day. The only resources it requires are soap, a small amount of running water, and time.

The key steps to the practice of this behavior are:

1. Easily see and access a handwashing station for use after defecating, after changing a baby's diapers (or cleaning their feces), before preparing food, and before eating. Ideally, a hand washing station will be located 15-20 steps from areas where contact with feces and food commonly occur.
2. Access flowing water to wet hands.
3. Access soap and spread it on hands. If soap is not available, ash may be used.
4. Rub soapy hands together for 15-20 seconds to create lather.
5. Access flowing water to rinse soap from hands.
6. Air dry hands or use a clean cloth to avoid re-contamination.
7. Receive respectful, quality care from a trained service provider.

WHY DO WE CARE ABOUT HANDWASHING WITH SOAP?

When handwashing with soap is carried out properly at the four critical times, it breaks key contamination routes. This includes contact with an object or food that eventually goes into one's mouth. Contamination refers to the transmission of disease-causing germs from one human to another or via contact with human or animal feces. (A single gram of human feces can contain up to one trillion germs.[2])

Adults and children who practice proper handwashing will enjoy direct health benefits and other benefits:

	Diarrheal disease ⬇	**Neonatal mortality** ⬇	**Pneumonia incidence** ⬇	**Other infectious diseases** ⬇	**Nutritional status** ⬆
DIRECT HEALTH BENEFITS	Reduces the risk of diarrheal diseases by as much as 50%[3]	Reduces the risk of newborn death by as much as 44%[4]	Reduces the number of pneumonia-related infections in children under the age of five by as much as 50%[5]	Helps prevent infections such as Ebola, skin and eye infections, intestinal worms, and infections within a health care facility[6]	Increases the likelihood of healthy growth in children

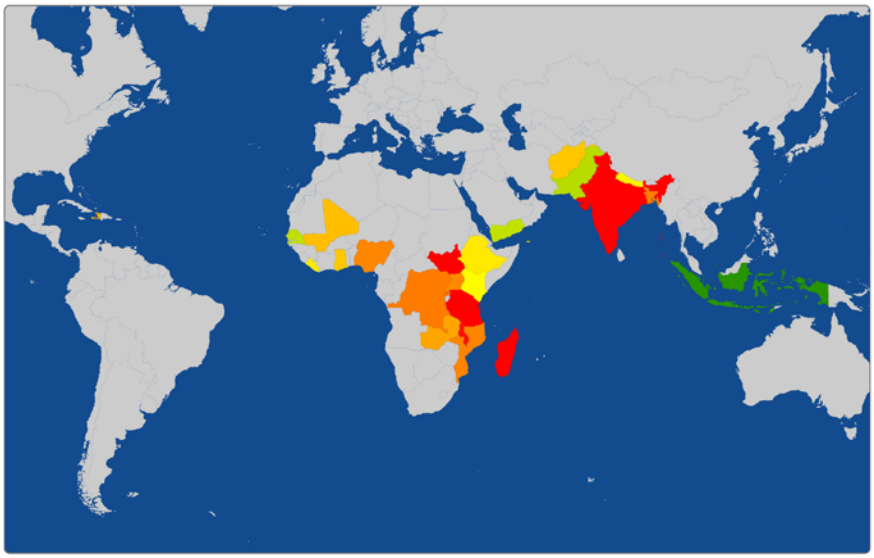
	Productivity ⬆	**Cost savings** ⬆	**Well-being** ⬆
OTHER BENEFITS	Reduces the number of work days and school days missed due to illness or caring for ill children	Reduces family spending on health due to fewer illnesses	Reduces stress on the family as a result of fewer illnesses

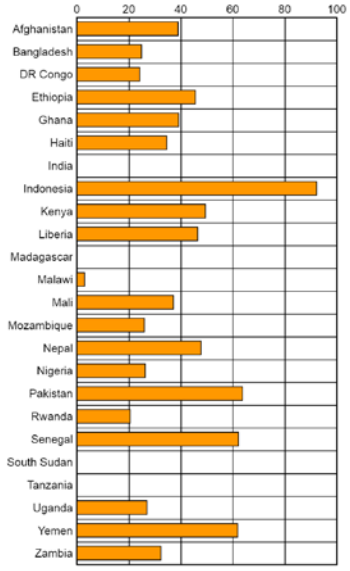
WHAT DO THE DATA TELL US?

Despite its lifesaving potential, relatively few people practice handwashing with soap at the times and in the manner recommended. Around the world, the observed rates of handwashing with soap at critical times vary greatly and are not measured consistently.

INDICATOR

The percentage (%) of households with soap and water at a handwashing facility commonly used by family members.





WHY DON'T PEOPLE WASH THEIR HANDS?

Ideally, handwashing becomes a habit. Yet, despite its simplicity, handwashing has proven to be difficult for many people to practice regularly and even harder for them to practice optimally. The reasons vary by context, but common challenges confronted in adopting optimal handwashing include:

Lack of perceived benefits

Many people believe their hands are only unclean when they can see dirt on them.[7] Other benefits such as clean smell are not recognized.

Lack of knowledge

Individuals are unaware of or do not remember when and how to wash hands properly—there is no trigger.[8]

Lack of access and convenience

Individuals are not near water and soap because their households do not have a conveniently - located handwashing station.[9]

Economic constraints

Households cannot afford the materials needed to build a handwashing station and to keep it supplied with soap.

Social norms

People do not see handwashing with soap commonly practiced among members of the community.[10] There is no shame or sanction for not practicing.

HOW CAN WE ENABLE HANDWASHING WITH SOAP?

Enabling people to practice handwashing with soap at the four critical times requires programming to overcome context-specific challenges like those above. In addition, creating triggers (i.e., disruptions or cues) may be a necessary part of establishing handwashing as a new behavior or improving existing handwashing practices. The solutions to these challenges can come from actors at different levels. The key is to enact solutions that respond to the challenges efficiently and effectively for the most people. Below are examples of actions that might enable successful practice for this behavior:

Create visual cues at the latrine or near a handwashing station that trigger handwashing to become a habit.

Create community pressure by tracking progress in handwashing station construction.

Leverage private sector interest in soap sales to sell soap in smaller quantities and/or co-packaged with other household products.

Provide social proof of the benefit by correlating handwashing with diarrhea cases.

As part of group education sessions in the community or health facility, demonstrate how hands can be unclean without looking

Ensure that there are good models of handwashing at schools, health facilities, entrances to religious gatherings, etc.

Work with communities and the private sector to build low-cost, locally-sourced handwashing stations in households and throughout the community.

Promote the health benefits and other benefits of handwashing (e.g., having a clean smell, ridding oneself of germs, doing a good thing) through appropriate media.

PROGRAM EXAMPLE:

Effectiveness of SMS Reminders on Childhood Immunization Programme, Kadoma, Zimbabwe. Photo Credit: CDC Global, 2013

The importance of conveniently locating handwashing stations and then triggering a new behavior pattern, one of handwashing, is illustrated by looking at results from a program evaluation and a behavioral trial. In Bangladesh, after five years of project work to promote improved handwashing practices through community mobilization and communication, a BRAC-led project found that knowledge of the importance of handwashing and of the critical times for washing hands reached about 95%. Yet, the actual practice of handwashing increased minimally, from 8% to 22%.[11] This was clearly not enough to create population-level health impact. Also in Bangladesh, researchers tried to demonstrate how the knowledge-practice gap could be closed by identifying a trigger that could change people's habit of leaving the latrine without washing their hands. Program workers painted bright footprints on a cement path between latrines and handwashing stations at a number of schools. They then observed what happened the following day, two weeks later, and again six weeks later. Handwashing rates improved from 4% of students washing hands prior to the footprints to 68% one day after, and 74% two and six weeks after the placement of the footsteps.[12]

SELECTED RESOURCES

USAID Water and Development Strategy 2013-2018
https://www.usaid.gov/sites/default/files/documents/1865/USAID_Water_Strategy_3.pdf

USAID's WASH and Nutrition: Water and Development Strategy & Multi-Sectoral Nutrition Strategy
https://www.usaid.gov/sites/default/files/documents/1865/USAID_WASH_Nutrition_Brief_2015.pdf

WASHplus.org: Supportive Environments for Healthy Communities
http://www.washplus.org/

USAID Water and Sanitation
https://www.usaid.gov/what-we-do/water-and-sanitation

USAID Nutrition Strategy
https://www.usaid.gov/nutrition-strategy

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[3] Curtis V. & Cairncross, S. (2003). Effect of washing hands with soap on diarrhea risk in the community: a systematic review. Lancet Infectious Diseases 3(5):275-81. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/12726975
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[8] Ibid.
[9] Kane, M. (2009) Rapport Etude Lavage des Mains Au Savon Senegal, unpublished study, Water and Sanitation Program, World Bank, Washington, DC.
[10] Ibid. vii.
[11] Rabbi, Sifat E. and Dey, Nepal C. *Exploring the gap between hand washing knowledge and practices in Bangladesh: a cross-sectional comparative study*. BMC Public Health, 2013. Volume 13, number 1, pages 1-7, issue number 1471-2458. DOI: 10.1186/1471-2458-13-89, http://dx.doi.org/10.1186/1471-2458-13-89.
[12] Dreibelbis, Robert, Anne Kroeger, Kamal Hossain, Mohini Venkatesh, and Pavani K. Ram. *Behavior Change without Behavior Change Communication: Nudging Handwashing among Primary School Students in Bangladesh.* International Journal of Environmental Research and Public Health (Impact Factor: 2.06).01/2016; 13(129). DOI: 10.3390/ijerph13010129.

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