



# Handwashing with soap: Why it works and how to do it

## Why focus on handwashing with soap?

- Diarrhoea causes 1.4 million preventable child deaths worldwide per year. These deaths could be avoided with access to adequate hygiene, sanitation and water (Prüss-Üstün *et al.* 2008).
- Around 73% of the mortality due to infectious diarrhoea in this age group occurs in 15 developing countries (Prüss-Üstün *et al.* 2008).
- HWWS can reduce the incidence of diarrhoea by 47% (Curtis & Cairncross 2003) and respiratory diseases by 23% (Rabie & Curtis 2006).
- Some evidence suggests HWWS by birth attendants and mothers can reduce neonatal mortality caused by infections. Improving HWWS practice also reduces the risk of diarrhoeal diseases and its associated complications among those living with HIV/AIDS.
- Most diarrhoea is caused by human faeces spread from the stool of one person to the mouth of another. Hands act as a vector by which pathogens are transmitted to food, drink, and directly to mouths. Similarly, many infections are transmitted by hands.
- With the potential to save one million lives a year, hygiene promotion has been suggested to be the most cost-effective way of reducing the global infectious disease burden (World Bank 2006).

## When should hands be washed with soap?

Handwashing, with or without soap, reduces childhood diarrhoea. Recent evidence suggests that handwashing with water alone might be seen as a stepping stone: "handwashing with water is good; handwashing with soap is better" (Luby *et al.* 2011). Handwashing with soap is seldom practised at times when it could have the most significant public health impact. To interrupt disease transmission, HWWS should be promoted at critical times:

- After contact with faeces, e.g after going to the toilet or cleaning a child's bottom.
- Before handling food or eating, especially before feeding a child.



The 'f-diagram above shows faecal-oral transmission routes. The long red bar represents sanitation barriers, the short red bar at the top of the diagram represents water, and the short red  $_1$  bar at the bottom represents hygiene.







# Whose behaviour should change?

- Mothers and caregivers are the usual target of behaviour change campaigns because their actions have the greatest implications for a child's health.
- Schoolchildren are another common target group. Handwashing with soap can have a positive impact on a child's education by reducing school absenteeism (Bowen *et al*. 2007).
  - Schoolchildren can also be used as an instrument of change in their household. To be effective, school programmes need to have adequate handwashing facilities and provide soap.

# Behaviour change: Why it's difficult and how to do it

- **Changing behaviour has never been easy:** It is determined by many factors, including habits and motivations.
- Raising germ awareness is not enough: Hygiene promotion campaigns have traditionally focussed on educating people about germs and the value of soap. Evidence suggests that such approaches may raise germ awareness, but are unlikely to lead to substantial behaviour change.
- A "bottom-up" approach is necessary: An understanding of the current habits, motivations and factors constraining handwashing practice are essential. Formative research conducted by Curtis and colleagues (2009) in 11 developing countries has shown that key triggers for handwashing with soap are unrelated to health; people are typically motivated by feelings of disgust (due to presence of visible dirt or other contamination of their hands), affiliation (desire to conform and belong), nurture (desire to care for children) and comfort (desire to remove sticky/smelly substances from hands). Other factors affecting handwashing behaviour include how habitual the practice is, environmental constraints such as lack of water, and access to handwashing facilities.
- **Tailor-made messages are needed:** Appropriate, effective, and context-specific behaviour change messages need to be developed for the target population.
- **Simple messages work:** Research suggests that delivering single messages is easier and can have a bigger impact than multiple behaviour change approaches.





#### How to promote handwashing with soap

Conduct formative research to understand the interests, needs, opportunities and motivations of your target group – one size does not fit all. Consider using a range of methods to investigate, e.g. interviews, questionnaires and focus group discussions.

Keep messages simple and tailored to the needs and motivations of your target group.

#### E.g. Elicit feelings of DISGUST

Vill you take food from someone esn't wash her hands with soap ing to toilet? .....I Won't



Could depict contamination or use graphic images, e.g. use a glow germ demo kit

Make people feel everyone is doing it - SOCIAL NORM

More and More people in your village are using soaps to wash hands. Do you?



Could also include pledging in public, giving households badges: "this is a handwashing household"

Remind mothers to teach children good manners - NURTURE



Headteacher could send home letter asking mothers to support a school campaign to ingrain **habits** early



- Visit www.choosesoap.org for more details on the posters above and the rest of the Choose Soap handwashing toolkit, including information on family pledging, an animated film and village signage. The activities can be carried out in households, schools, communities and by the mass media.
- Minimise environmental barriers by ensuring convenient access to water and soap, e.g by providing handwashing stations and cues such as soap dishes. Consider acceptability of design.
- Monitor campaign for effectiveness. Pay particular attention if the campaign is integrated in other programmes. Are stakeholders and key players on board? 3





#### **Case Studies**

#### • Ghana: A hygiene promotion success story

• Multiple channels used to communicate message: Mass media (TV and radio ads), billboards, materials for district programme, road shows

• Impact: 71% know TV ad (69% can sing song), reported HWWS increased by 13% after defecation and by 41% before eating

#### • Global Handwashing Day: A fast-growing campaign

- GHD was created by the Global Public-Private Partnership for Handwashing in 2008
- Each year, over 200 million people are involved in celebrations in over 100 countries around the world
- Bangladesh made history on GHD in 2009 when 52,970 schoolchildren washed their hands with soap and water

# For truly clean hands



#### Want to know more?

- Aunger R, Schmidt W, Ranpura A, Coombes Y, Maina PM, Matiko CN, Curtis V (2009) Three kinds of psychological determinants for hand-washing behaviour in Kenya. *Social Science and Medicine* 70(3): 383-391.
- Bartram J, Cairncross S (2010) Hygiene, sanitation and water: forgotten foundations of health. *PLoS Medicine* 7(11): e1000367. doi:10.1371/journal.pmed.1000367.
- Bowen A, Ma H, Billhimer W, Long T, Mintz E, Hoekstra RM, Luby S (2007) A cluster-randomized controlled trial evaluating the effect of a handwashing-promotion program in Chinese primary schools. *American Journal of Tropical Medicine and Hygiene* 76(6): 1166-73.

Choose Soap handwashing toolkit: <u>www.choosesoap.org</u>

• Curtis V, Schmidt W, Luby S, Florez R, Touré O, Biran A (2011) Hygiene: new hopes, new horizons. *Lancet Infectious Diseases* 11(4): 312-321.

• Curtis V, Cairncross S (2003) Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. Lancet Infectious Diseases 3(5): 275-281.

- Curtis V, Danquah L, Aunger R (2009) Planned, motivated and habitual hygiene behaviour: an eleven country review. *Health Education Research* 24 (4): 655-673.
- Global Handwashing Day: <u>www.globalhandwashingday.org</u>
- Luby S, Halder AK, Huda T, Unicomb L, Johnston RB (2011) The effect of handwashing at recommended times with water alone and with soap on child diarrhea in rural Bangladesh: an observational study. *PLoS Medicine* 8(6): e1001052. doi:10.1371/journal.pmed.1001052.
- Prüss-Üstün A, Bos R, Gore F, Bartram J (2008) Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. Geneva: World Health Organization.

• Rabie T, Curtis V (2006) Handwashing and risk of respiratory infections : a quantitative systematic review. *Tropical Medicine and International Health* 11(3): 258-267.

• World Bank (2006) Disease control priorities in developing countries (2<sup>nd</sup> edition). New York: World Bank and Oxford University Press.

These guidelines were written by Katie Greenland, Research Fellow at the Hygiene Centre, and edited by Guy Collender, Policy and Communications Officer at SHARE. The Hygiene Centre at LSHTM is devoted to developing a better understanding of hygiene and sanitation practices to inform public health policy. SHARE is a research consortium led by LSHTM and funded by the UK's Department for International Development. SHARE synthesises existing knowledge and generates new knowledge for improved policy and practice in the sanitation and hygiene sectors.

# www.hygienecentral.org.uk

www.shareresearch.org