

Changing handwashing behavior in schools and households in urban Zimbabwe

Handwashing with soap at key handwashing times substantially reduces diarrheal disease, but handwashing rates in many countries remain low. This fact sheet describes the content and effects of a systematic handwashing behavior change campaign that was implemented in Harare, Zimbabwe. The campaign aimed to promote frequent and effective handwashing at key times among primary school children at school and their caregivers at home. Handwashing frequency of caregivers at key handwashing times increased to 28%, and caregivers performed up to 7 out of 8 recommended handwashing steps at follow-up 6 weeks after the campaign. In schools, approximately half the classrooms had handwashing stations with soap and water available. Handwashing frequency among children before lunchbreaks increased to 42% in classrooms where soap and water were available and to 23% over all classrooms.

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Context

Domestic handwashing with soap reduces diarrhea morbidity and mortality considerably. Handwashing with soap at key times, namely after contact with feces and before contact with food, is being intensively promoted worldwide. However, despite ongoing promotion efforts, handwashing rates around the globe remain low.

Objectives

The main goal of this project was to promote frequent handwashing at key times and effective handwashing technique in areas of high population density in Harare, Zimbabwe. Specific objectives were

- to assess current handwashing practices and the behavioral factors determining these practices among adults and primary school children and
- to design, implement, and evaluate systematic behavior change strategies in households and schools to promote handwashing.

Activities

Step 1 & 2: Identify, measure, and determine behavioral factors steering handwashing.

- Qualitative research was conducted to identify potential behavioral factors.
- Additional potential behavioral factors were derived from the RANAS Model
- A baseline survey on handwashing practices and behavioral determinants of handwashing was conducted with 600 primary school children and their caregivers in June and July 2014.
- For caregivers, the behavioral factors influencing handwashing frequency and technique were identified by bivariate correlations. Behavioral factors steering handwashing frequency were *Disgust*, *Others' approval*, *Confidence in*

performance and Continuation, *Action control*, *Remembering*, and *Hindrances*. Additional behavioral factors of handwashing technique were *How-to-do knowledge* and *Action planning*.

- For children, the behavioral factors influencing handwashing frequency were *Vulnerability*, *Others' behavior*, *Confidence in performance and continuation*, *Action control*, and *Remembering*. In most schools, functioning handwashing stations and soap were not available.



Figure 1: Interview with a primary caregiver.

Step 3: Select behavior change techniques (BCTs) and design behavior change strategies to promote handwashing:

- For caregivers, six BCTs were selected. These were (1) *Describe feelings about performing and about consequences of the behavior*, (2) *Prompt public commitment*, (3) *Prompt guided practice*, (4) *Organize social support*, (5) *Prompt specific planning*, and (6) *Prompt self-monitoring of behavior*.
- For children, six BCTs were selected. These were (1) *Inform about and assess personal risk*,

- (2) *Prompt public commitment*, (3) *Provide infrastructure*, (4) *Organize social support*, (5) *Prompt self-monitoring of behavior*, and (6) *Use memory aids and environmental prompts*.
- The BCTs were combined in behavior change strategies for caregivers and children.
 - For caregivers, the strategies comprised (1) a handwashing exercise to visualize dirt on hands and attach the feeling of disgust to not washing hands with soap at key times, (2) planning of when, where and how to wash hands and documentation of plans, (3) filling of a self-monitoring calendar, (4) household discussion how household members can support each other to wash hands with soap at key times, (5) a handwashing song including critical times and recommended technique for handwashing, and (6) a public commitment ceremony.
 - For children, the strategies comprised (1) a handwashing exercise to visualize dirt on hands and highlight risks when not washing hands with soap at key times, (2) installation of handwashing stations in classrooms and planning how children maintain them, (3) a handwashing song including critical times and recommended technique for handwashing, (4) filling of self-monitoring calendar, and (5) public commitment of classes through a poster.

Step 4: Implement and evaluate behavior change strategies:

- The strategies' effectiveness was assessed through a before-after control trial.
- The behavior change strategies were implemented by local health center staff and primary school teachers under the supervision of the local NGO, ActionAid Zimbabwe.
- The school intervention (including the strategies for children), the community intervention (including the strategies for caregivers), and a combination of both were each implemented in areas which were spatially separated from areas receiving other treatments.
- The strategies were compared to control areas that received no intervention.
- A follow-up survey on handwashing practices and their behavioral determinants was conducted in 422 households and 20 schools six weeks after the campaign.

Findings

- Among caregivers, observed handwashing frequency after the campaign was highest in the household and combined intervention groups (see Figure 2).

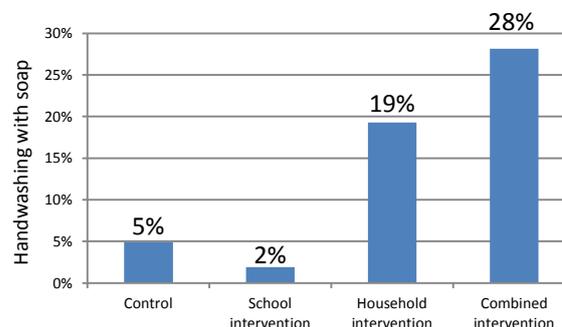


Figure 2: Observed handwashing frequency of primary caregivers at follow-up.

- Handwashing technique, measured as the number of correctly performed handwashing steps, improved from, on average, 5 correctly performed steps to 7 in the combined intervention group and to an average of 6.5 performed steps in the community intervention group.
- In intervention schools, 62% of classrooms had a handwashing facility with water and 55% of classrooms had a handwashing facility with soap six weeks after intervention.
- Handwashing frequency of children before the lunch break increased to 42% in classrooms where soap and water were present.
- Interventions were only partly implemented as planned. Effects are expected to be larger after a completely implemented intervention.

Conclusion

The data-driven and population-tailored campaign substantially changed

- handwashing frequency and technique of primary caregivers at home;
- availability and maintenance of handwashing stations at classrooms; and
- handwashing frequency of school children before lunchbreaks.

Duration

October 2013 to February 2016

Partners

ActionAid Zimbabwe, Government of Zimbabwe, Ministry of Primary and Secondary Education, Government of Zimbabwe, Ministry of Health and Child Welfare

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Further information

<http://www.eawag.ch/en/department/ess/main-focus/environmental-and-health-psychology-ehpsy>

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