



Evaluation of the SOPO School Handwashing Promotion Programme: Nyanza and Rift Valley Provinces, Kenya

INTRODUCTION

Diarrhoea and acute respiratory infection are leading causes of death in Kenyan children (WHO, 2010). In order to move toward Millennium Development Goal 4 to reduce childhood mortality, it is critical to address behaviours that can reduce these infections.

In 2009, the Kenya National Strategic Plan for Handwashing with Soap set a goal of increasing handwashing with soap at critical times, such as after toileting or before eating, from 5% to 30% by 2011. The Strategic Plan recommended targeting handwashing programmes to school children because they may be more amenable to behaviour change than adults and because they can act as advocates for behaviour change in their families and communities.

DESCRIPTION OF INTERVENTION

The SOPO handwashing campaign was an entertaining, participatory programme developed by UNICEF Kenya Country Office, the Kenya Ministry of Public Health and Sanitation, and the Kenya Ministry of Education to increase handwashing with soap among school children and caregivers of young children. The campaign recommended washing with soap at four critical times (after toileting, before eating or feeding a child, after changing a baby's nappy, and before cooking or preparing food) using a five step method (wet hands, apply soap, scrub all surfaces of hands, rinse, and air dry). The message

KEY POINTS

- *The SOPO school programme aimed to increase handwashing with soap among school children and caregivers of young children.*
- *The SOPO evaluation showed that increasing knowledge does not necessarily improve behaviour.*
- *The school campaign was tested in 225 primary schools in Nyanza and Rift Valley provinces in 2010; the evaluation was conducted in 2012.*
- *Two years after programme implementation:*
 - *Recognition of the SOPO mascot or name was high among schoolchildren;*
 - *Soap was rarely observed at schools. Nearly half the children reported difficulty accessing soap at home to wash hands;*
 - *Handwashing behaviour was low among students at school and was not increased in SOPO schools versus comparison schools.*

was promoted by the SOPO mascot, a caricature of a green bar of soap, introduced as a "child's best friend". The campaign also included a song and dance that reminded children of when to wash their hands.

The SOPO campaign was implemented through three mechanisms: a school-based programme, a community programme, and mass media. The school campaign was tested in 225 primary schools in Nyanza and Rift Valley provinces in 2010. The school programme consisted of a single three-hour



assembly where activation teams promoted the SOPO messages by introducing the SOPO mascot, demonstrations of proper handwashing technique, teaching the SOPO song and dance, and distribution of SOPO activity booklets and promotional materials, such as t-shirts.

The community programme included placing posters, murals, billboards, fliers, and wall stickers in the marketplace. Teams conducted stage productions in marketplaces and door-to-door campaigns to promote SOPO messages and demonstrate proper handwashing techniques. In 2010, SOPO activation teams, separate from the school activation teams, visited 69 communities. Radio and television advertisements were also released nationwide during this time. Messages were in English and Kiswahili languages.



SOPO Mascot

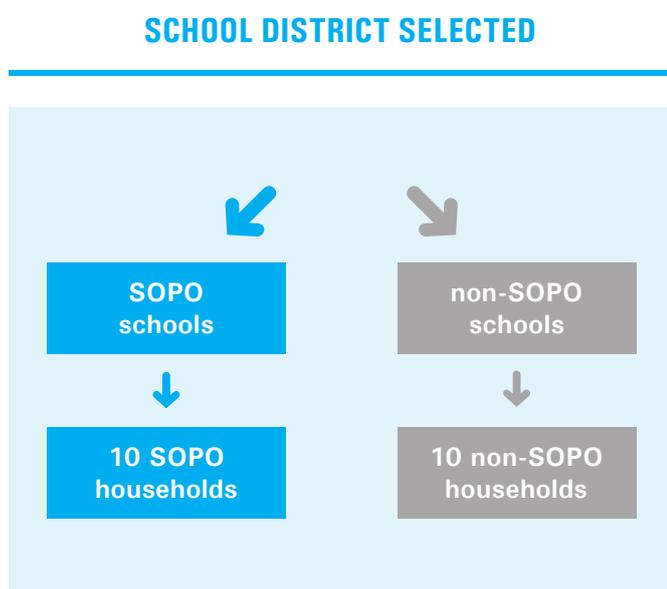
EVALUATION METHODS

In 2012, the SOPO school programme was evaluated by comparing 30 schools that received a SOPO activation assembly to 28 schools that did not receive a SOPO activation assembly but were located in the same district as a SOPO school. At each school, enumerators conducted interviews with the headmaster and the Water, Sanitation and Hygiene (WASH) club advisor or other teacher knowledgeable about the WASH programmes at the school. Handwashing measures that were selected for the evaluation were objective and directly observed by the field staff. These measures

included observation of handwashing facilities at the school and student handwashing behaviours after toileting and before eating during one school day.

After each school was enrolled, 10 households with a child attending the school were enrolled. Because the evaluation was conducted in 2012 and the SOPO assemblies were conducted in 2010, the school child in the household had to have attended the school in 2010 and be enrolled in the same school in 2012. SOPO households had a child attending a SOPO school and non-SOPO households had a child attending a non-SOPO school. The mother or primary caretaker of the school-aged child and the school child were interviewed. Handwashing was objectively measured by observation of handwashing facilities and observation of handwashing with soap at the four critical times among all household members during a three-hour period.

Figure 1 – Overview of household selection



The evaluation was limited to the school programme because it was unclear which schools were located in the communities where the SOPO community programmes occurred. It could not evaluate the impact of the community programme because it was not possible to identify with certainty the populations that had received both the school and community programmes, as opposed to those that had only received one programme, or had received neither programme. Thus, the evaluation compared respondents that had received with those that did not receive the school programme.

OUTCOME

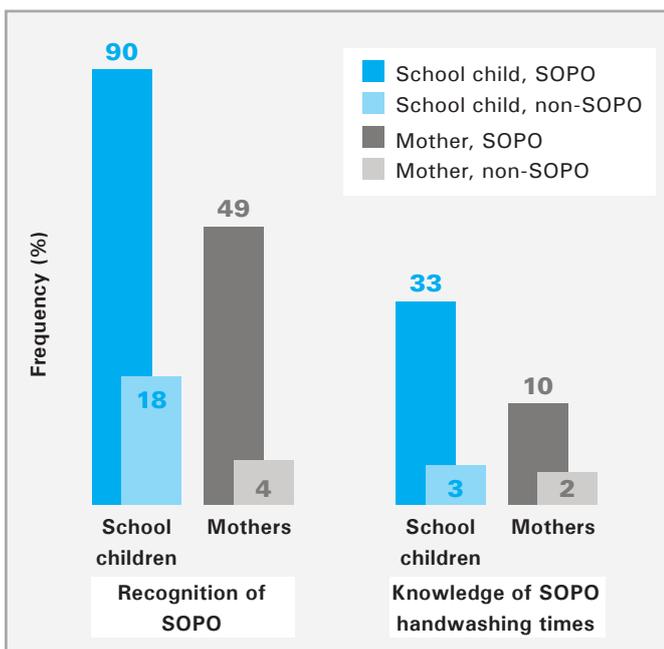
Description of SOPO and non-SOPO groups

The SOPO schools had a slightly higher student enrolment than the non-SOPO schools (average enrolment of 540 in the SOPO schools compared to 499 in the non-SOPO schools). Although school wealth was not measured directly, several characteristics suggest that the SOPO schools had greater resources compared to the non-SOPO schools: SOPO schools had a lower student-to-toilet stall ratio (55 students per toilet v. 70 students per toilet) and fewer SOPO schools participated in a lunch or feeding programme than non-SOPO schools (30% v. 43%). Several characteristics also indicated the SOPO households were wealthier than the non-SOPO households. More mothers in SOPO households completed secondary school (12%) than mothers in non-SOPO households (7%). More SOPO households had an improved water source (68% v. 49%) and a latrine (81% v. 71%).

Retention of SOPO messages

Children and mothers in SOPO households were more likely to recognize the SOPO brand and be able to report the four critical times for handwashing with soap promoted by the programme, compared to those in non-SOPO households. Mothers were less able to recognize the brand and messages compared to the school children in both SOPO and non-SOPO households.

Figure 2 – Recognition of SOPO campaign and knowledge of four times for handwashing recommended by SOPO

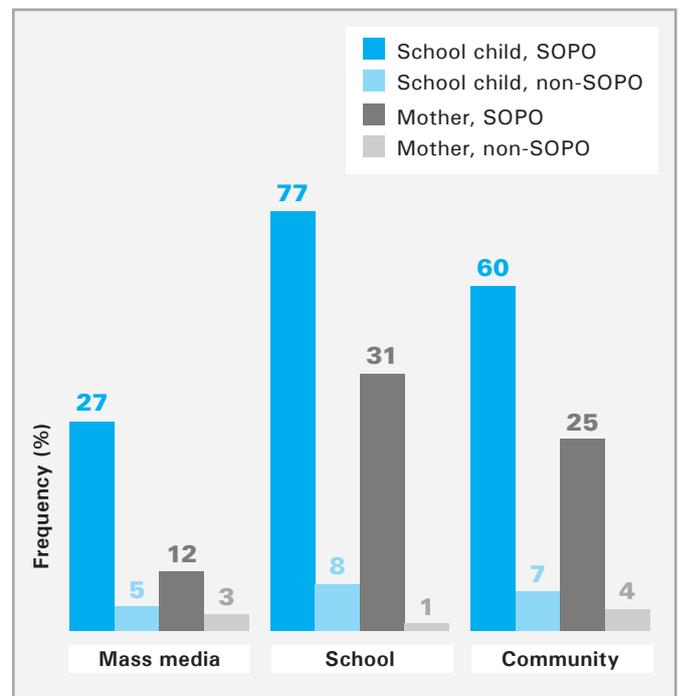


Dissemination of SOPO messages

Among mothers with a child attending a SOPO school, 31% reported they heard of the programme from their child, suggesting a minority of the children were able to successfully share the message with their mothers.

Sixty percent of school children and 25% of mothers in the SOPO households reported hearing about SOPO through the community programme; 27% of children and 12% of mothers reported hearing about SOPO through television or radio advertisements. A few respondents in the non-SOPO group (<10%) also reported hearing about SOPO through community programmes or mass media.

Figure 3 – Reported communication channels among school children and mothers



Handwashing with soap

Despite recognition of the SOPO programme, children were unable to apply the message, as indicated by poor handwashing behaviour at school and at home. Among all toileting and eating events observed at the schools, only 3% of events in SOPO schools and 2% in non-SOPO schools were accompanied by handwashing with soap.

At home, school-aged children in SOPO households were observed to wash their hands with soap at 16% of critical events, compared to 9% of events in non-SOPO households. However, after accounting

for the difference in maternal education between SOPO and non-SOPO households (mothers in SOPO households were more educated than mothers in non-SOPO households), the SOPO school programme was not associated with improved handwashing behaviour among school-aged children at home.

Figure 4 – Observed handwashing with soap among schoolchildren at school

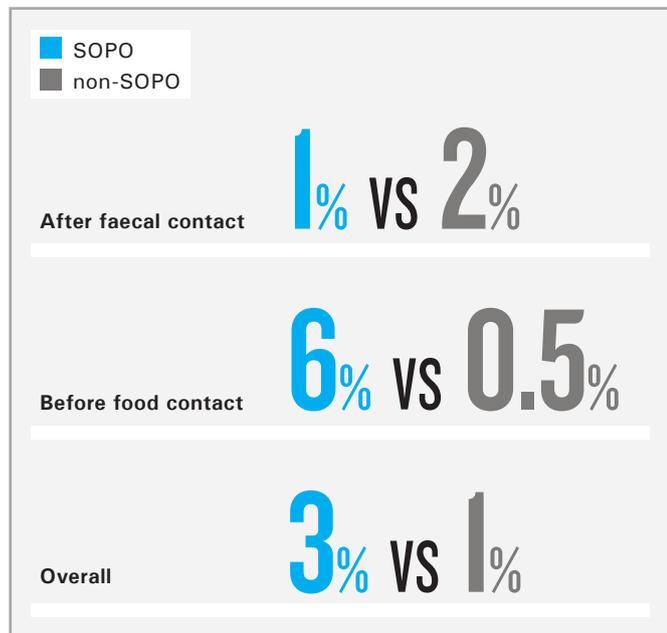


Figure 5 – Observed handwashing with soap among schoolchildren at home



Although mothers washed their hands with soap at critical times more frequently than school-aged children, handwashing with soap was equivalent between mothers in the SOPO (18%) and non-SOPO (17%) households.

Figure 6 – Observed handwashing with soap among caregivers at home



Duplication of hygiene promotion programmes

More than 60% of both SOPO and non-SOPO schools reported another WASH programme (other than SOPO) had been conducted at their school concurrently with SOPO or since 2010, when the SOPO activations occurred. In both groups, schools in Nyanza Province (72%) were more likely to have had another WASH programme compared to schools in Rift Valley Province (25%).

Due to the high proportion of schools with other WASH programmes and the varied number and



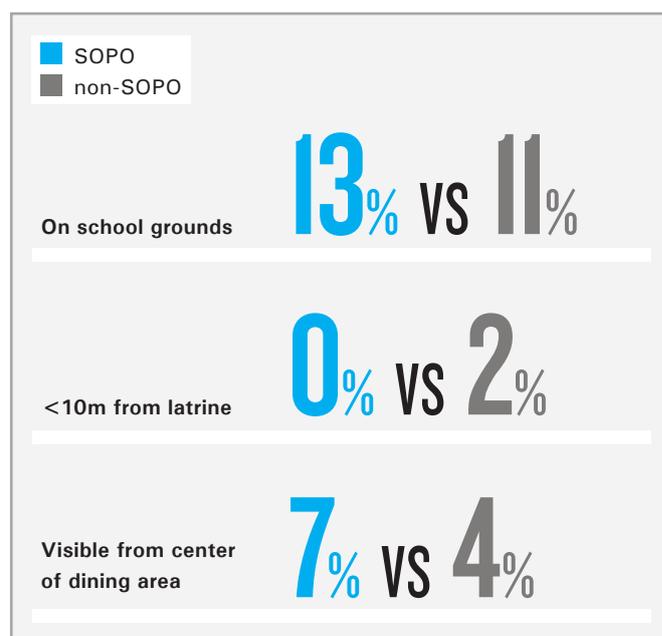
A woman washes her hands at a handwashing station after cleaning her family's pit latrine in Bulla Bakari Village in North Eastern Province.

content of these programmes, the evaluation was unable to determine what impact may have been due to the SOPO programme alone compared to the SOPO programme plus other WASH programmes.

Barriers to handwashing

Handwashing behaviour among school children may have been limited by access to soap. Although 70% of SOPO schools and 86% of non-SOPO schools had a handwashing station on school grounds, only four (13%) SOPO schools and three (11%) non-SOPO schools had soap and water at a handwashing station. School children also reported limited access to soap at home: 44% of children in SOPO households and 47% of children in non-SOPO households reported they could not always wash their hands with soap when they wished. The most commonly reported barrier was lack of soap in the home (37%) and inability to find the soap (18%).

Figure 7 – Observed presence of handwashing stations at SOPO and non-SOPO schools



LESSONS LEARNED

Encourage equity in programme dissemination. Many of the schools reached by the SOPO programme pilot were larger, wealthier schools. Programme implementation should take principles of equity into account. Although in this study, we could not compare the effect of the programme in wealthy and less wealthy schools, the SOPO programme might have had a stronger impact on handwashing behaviour in schools with fewer resources.

Address access to soap in order to enable handwashing with soap. Soap was available to children in a minority of schools, limiting the students' ability to wash their hands, regardless of their knowledge and desire to do so. At home, nearly half the school children reported that soap was unavailable to them when they wanted to wash their hands. Without access to soap and water, handwashing with soap is not possible.

Exclusively addressing knowledge will not improve handwashing behaviour. The SOPO evaluation showed that increasing knowledge does not necessarily improve behaviour. Although many schoolchildren and caregivers in SOPO households were able to report when SOPO recommended handwashing with soap, this knowledge was not reflected in observed behaviour.

Improve communication and coordination between programme activities to reiterate the programme message within the implementation area. Within

the SOPO programme, the community and school activities did not necessarily occur in the same communities. In our evaluation sample, some respondents may have been exposed to the school programme as well as the community and/or mass media programmes, which impacts the ability to evaluate the impact of the school programme alone. The handwashing message may be best delivered through repeated messaging using multiple communication channels to reinforce the message, but the evaluation was unable to assess this due to difficulties identifying respondents who received the community programmes.

Coordination and communication with other ongoing or planned WASH programmes will improve the quality of an evaluation and increase reach of WASH programmes overall. Nearly two-thirds of the sampled SOPO schools had recently received at least one other WASH programme. An overlap in programmes may have improved the impact of SOPO by providing complementary hardware or reinforcing hygiene messages, or may have duplicated efforts or resulted in conflicting messages. The presence of overlapping programmes limited our ability to evaluate the impact of SOPO because the SOPO group and non-SOPO group differed on exposure to the SOPO programme as well as other WASH programmes. It is important for agencies working on WASH projects in similar areas to be in communication with each other and have a clear understanding of the programmes occurring in each school.

NEXT STEPS

Handwashing promotion programmes in schools have been successful at reducing absenteeism and improving child health. Although SOPO was successful at producing a recognizable programme, the pilot implementation did not result in sustained improvements in handwashing behaviour.

Future programmes should consider how each component of the programme is designed to improve handwashing behavior and evaluate the impact of these factors. By creating an evidence base of successful approaches to behaviour change, reductions in childhood diarrhoea and school absenteeism can be achieved.

- Handwashing promotion programmes should address multiple factors that impact behaviour change in their design. The practical but essential concern of maintaining availability and access to soap and water must be addressed. Schools

and household environments likely have different motivating factors and different barriers to maintaining soap and water accessible to children. Additionally, psychosocial factors and social pressure should be considered as motivating factors for behaviour change. Thus, agencies should consider these factors while designing programmes. Depending on the scale and available resources, formative research may be useful to identify motivators specific to the target population.

- In order to capitalize on the opportunity to use school children to disseminate handwashing messages to their families and communities, additional research is needed to understand effective methods for teaching children to disseminate programme messages. Programme activities, such as discussion groups in which students can share their experiences to convince other peoples to change behaviours or community



A woman washes her hands at a tap outside newly built latrines at a school in Naros Village, near the town of Lodwar, capital of Turkana District, in Rift Valley Province. Illustrations on walls at the latrines promote healthy hygiene behaviours.

activities in which child-focused messages are reinforced to adults, may support children as agents of change in their communities and households.

- Plan for a rigorous evaluation during the early stages of programme conception. Comparing endline data from an intervention area and a comparison area cannot determine whether any differences between the groups are due to the programme or some other factor. By collecting baseline data from the intervention area and a comparison area prior to implementation of the programme and again after implementation, an evaluation is better suited to assess the impact of the programme.
- Monitor the implementation of the programme and maintain detailed records in order to ensure the programme is conducted as planned. This is especially critical when an outside organization is

implementing the programme, but should also be conducted by funding agencies. Detailed records of the programme activities and locations allows the evaluation to assess the impact of activities by comparing areas that did and did not receive the programmes and determine which activities were the most beneficial to the programme objectives.

- Ongoing data collection for evaluation can provide evidence for the impact of the programme or guide revisions to the programme to improve impact during implementation. For instance, real-time monitoring of the SOPO programme in schools would have identified lack of soap as a major barrier to improved handwashing, allowing the programme an opportunity to add in a mechanism for sustaining the supply of soap at schools. The data must be received in a timely manner from the field teams and the results addressed by programme managers in order to allow for real-time programme modifications.

WHERE THERE IS NO BASELINE: REFLECTING ON THE EXPERIENCE OF EVALUATING THE SOPO PROGRAMME IN THE ABSENCE OF BASELINE DATA

Collecting baseline data is important in order to attribute behaviour change to a programme. However, budget and time constraints may limit collection of quality baseline data, creating a need for alternative evaluation methods. The SOPO evaluation demonstrated that a scientifically sound evaluation is still possible in the absence of baseline data.

A sound evaluation without baseline data requires a comparison group that was not exposed to the programme but is similar to the group that was exposed to the programme on key characteristics that may influence the behaviour of interest, i.e. exposure to other WASH programmes, wealth, maternal education etc. The SOPO evaluation selected comparison schools of similar size and demographics to SOPO schools, but was constrained in finding exact matches on other parameters of interest due to lack of detailed information about the schools prior to data collection for the evaluation. In the SOPO evaluation, the groups differed in maternal education and indicators of household wealth; these characteristics may explain the behaviour differences, not exposure to the SOPO programme.

The SOPO evaluation was conducted more than a year after implementation; short term changes in behaviour were not assessed but long term recall of the brand and message could be described and are useful to guide future programming. The evaluation found that awareness of SOPO brand and message was associated with exposure to the programme but not associated with improved handwashing behaviour. This type of finding can be used to strengthen future programming using SOPO by leveraging the staying power of the SOPO mascot with improved communications for motivating behaviour change in handwashing with soap.





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