LEARNING BRIEF
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Effectiveness of the Jengu Handwashing Facility to Increase Handwashing with Soap among Crisis - affected Populations in Kyangwali Refugee Settlement, Uganda:

Findings and Recommendations

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Introduction

Crisis-affected populations often have limited access to Water, Sanitation and Hygiene (WASH) services, which affects hygiene behavior such as washing hands with soap. Access to a desirable and conveniently located handwashing facility with soap and water is important for promoting good hygiene behaviour.

For three years (2022-2024), the African Population and Health Research Center (APHRC) worked in collaboration with the Uganda Red Cross Society, (URCS) International Federation of Red Cross and Red Crescent Societies (IFRC), London School of Hygiene and Tropical Medicine (LSHTM), ARUP, and the British Red Cross (BRC) on a study, aimed at understanding the effect of the provision of soap and the Jengu handwashing facility on hand washing with soap among crisis- affected population in the Kyangwali refugee settlement in Uganda.

Specifically, the research project intended to increase handwashing with soap behavior, and understand the acceptability, usability, durability and the maintenance aspects of the Jengu handwashing facility.

This learning brief relates to five months of the intervention (March - July, 2024) in the refugee settlement located in Kikuube district, Western Uganda, and is home to over 137,000 refugees.

Approach

Formative research was conducted at the start of the project to understand handwashing (with soap) practices as well as handwashing facility preferences among the community members

Thereafter, **a baseline survey and structured observation** were conducted in 300 randomly selected households across four villages (Kyebitaka and Kinakyeitaka in Zone A, and Kirokole and Nyambogo in Zone B). Of the selected households, 150 were randomly assigned to the control group, and 150 to the intervention group. The intervention group received a Jengu handwashing facility, a 20 - litre jerry can for water supply to the facility (Figure 1), and soap (4 half bars per household). These items were received at the intervention start, and soap was still provided two months after the start and at endline. The control group also received soap in the same quantity as the intervention group and at the same period (at the start, two months after, and at endline).

A **follow-up survey and spot check** were conducted at the one-month mark and at endline (two months post-intervention). As part of process monitoring, spot-check evaluations were conducted by trained Red Cross volunteers to assess how the Jengu facility was being used and maintained.

Figure 1: Jengu unit for different users (adults, persons with disabilities and children) and Figure 2: A Jengu unit in a household in Kyangwali

Key Findings

A. Access to Water, Sanitation, and Hygiene (WASH) services

- Boreholes (47%) and public standpipes (34%) were the main sources of water among the households in the study villages.
- Households contributed for the maintenance of their water sources, and the average monthly contribution was UGX 1,500 (~USD 0.41).
- Nearly half (46%) of the respondents spent over one hour on water collection, 28% spent between 30 minutes to one hour, and only 26% spent less than 30 minutes on water collection.
- Most (71%) of the sanitation facilities were private (not shared with other households). Approximately 45% of the participants used pit latrines with slabs, 29 used pit latrines without slabs (mud floor), and 16% used open pits.
- Most (88%) of the handwashing facilities were mobile vessels such as basins, cups, small jerry cans, saucepans among other containers.

B. Observed water and soap availability

- At the endline, there was a 27% (control group) and 50% (intervention group) increase in availability of water at or near the handwashing facility (Figure 3).
- Most households believed that they can always have water for handwashing when needed (baseline self-reported 85%, endline 92%).
- Compared to baseline, there was a 9% (control) and 21% (intervention) increase in availability of soap at or

near the handwashing facility.

- More households were observed to have soap in the compound at the endline (23% and 24%) compared to the baseline (19% and 21%).

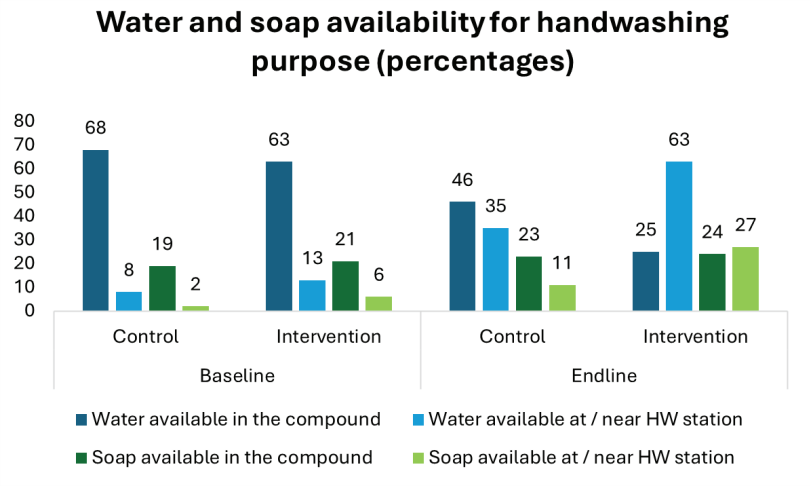

Figure 3: Observed availability of water and soap for handwashing

C. Changes in observed handwashing across time-points and groups

- Compared to the baseline, there was a three-times and four-times increase in the performance of handwashing with soap in both the control and intervention groups respectively (See Figure 4).
- Most handwashing moments were performed with water only, rather than handwashing with soap.

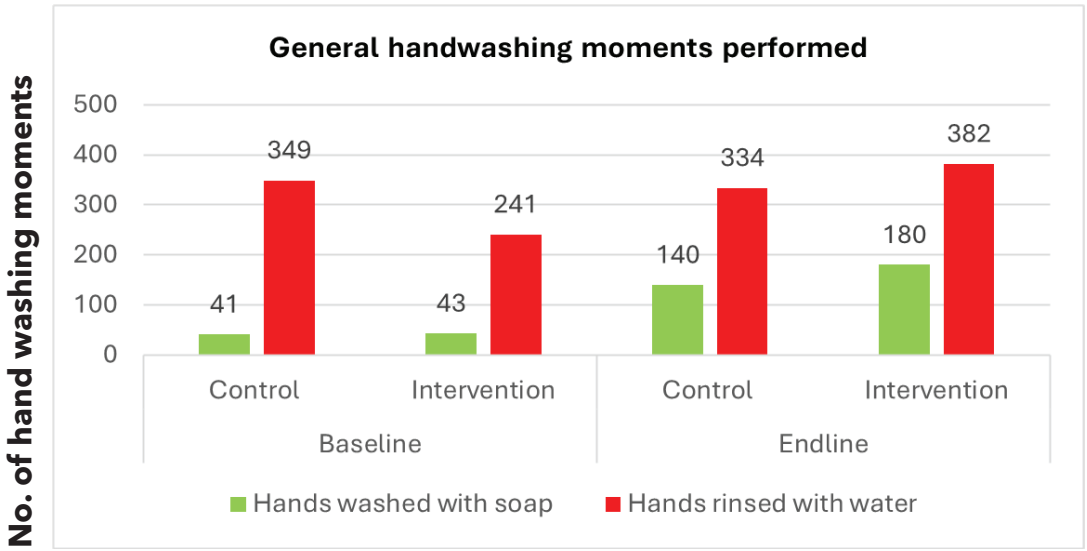

Figure 4: Observed availability of water and soap for handwashing

D. Key moments of handwashing with water and soap

- Overall, endline observations show an increase in the number of handwashing moments with soap compared to baseline.
- There was an increase in handwashing with soap before eating, after using the toilet and after eating. Child-related handwashing moments before breastfeeding and normal feeding (non-breast milk) were least practiced.

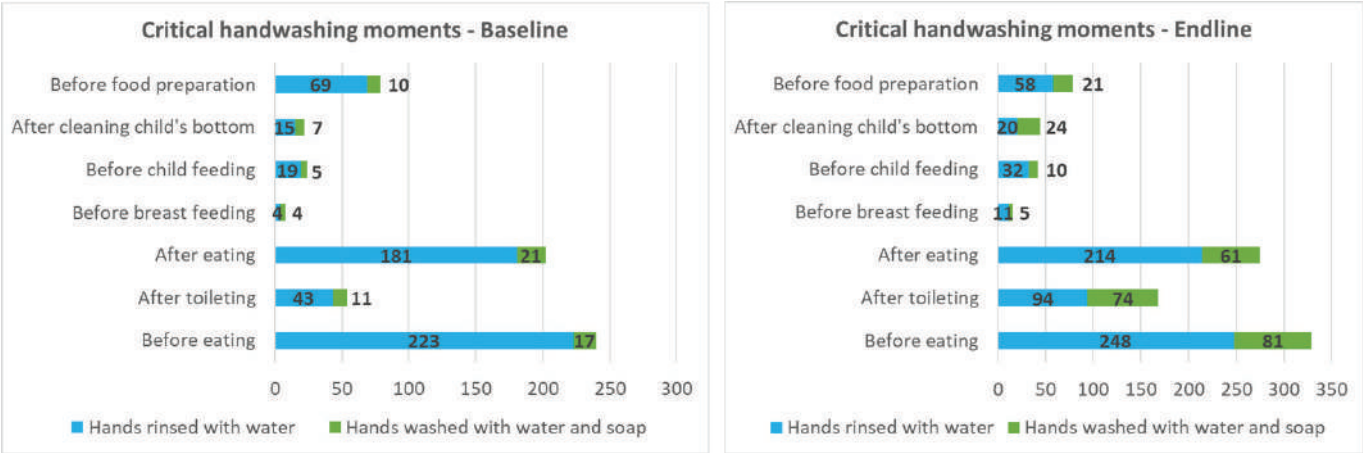

Figure 5: Number of times hands were washed with soap during the critical moments of handwashing

E. Changes in household reported diarrhea cases

- Compared to the baseline, there was 3.8 times decrease in household reported diarrheal cases in children under 5. This was across all the households who were in the study at baseline, one-month post the intervention rollout and after the intervention at endline.

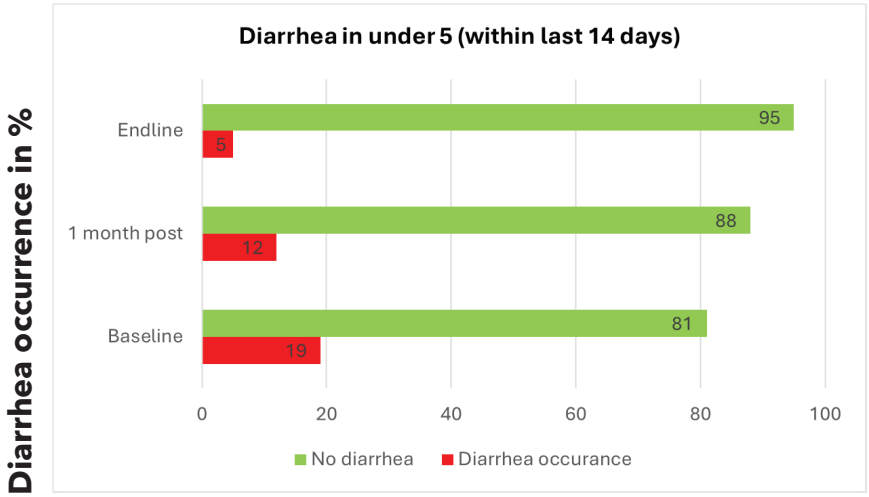

Figure 6: Self-reported household diarrheal cases in children under five years old

F. Jengu unit and functionality

- Overall, 71% of the Jengu units had all parts functioning after five months of intervention rollout.
- Of the 29% of the Jengu unit parts not fully functioning, the type of basins used accounted for 90% (less resilient to breaking).
- The community expressed a preference for the Jengu unit, with the mirror being the most liked part of the unit (91%).
- Families kept Jengu units in the household for fear of being stolen.

Key Highlights and Implications for Policy and Practice

1. **Accessibility of hygiene facilities for public health in humanitarian settings:** The availability of fixed handwashing facilities with soap has potential to significantly enhance handwashing with soap behaviour that is critical in preventing the spread of disease in emergency settings.
2. **Community participation and user acceptability:** The Jengu handwashing facility was positively received by users and local leaders, with requests for scaled provision to all households in the community. This community-centered feedback needs to be considered in future WASH planning to ensure that the facilities are culturally appropriate and meet the needs and preferences of the affected communities.
3. **Building local community capacity and self-reliance:** Build the capacity of community members to locally produce and repair the Jengu units and where possible within the humanitarian settings. Equipping the local communities with these skills will ensure the sustainability and use of the facility within the community
4. **Collaboration between diverse WASH stakeholders:** WASH lead partners and UNHCR could champion the promotion of fixed handwashing facilities with water and soap within humanitarian settings ensuring that basic hygiene needs are met in a sustainable manner.
5. **Hygiene promotion and targeted messaging:** While having a dedicated facility that was accepted by the community did increase rates of handwashing, overall handwashing rates remain low, and there may still be a need to pair the units with hygiene promotion and resource availability activities. Local community participation in the design and implementation of hygiene messaging is needed to ensure cultural relevance and acceptability.
6. **Promote cost effective and sustainable technology:** Future technology improvements of the Jengu facility could be focused on exploring the resilience of the facility to the environmental factors. These innovations can also focus on durability and adaptability of the facility to different humanitarian settings.

Acknowledgements

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