


User-Centered Community Engagement (UCCE) Approach to Design Child-Friendly WASH Facilities in Humanitarian Settings




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BACKGROUND




Bangladesh has been hosting the Forcibly Displaced Myanmar Nationals (FDMN) since 2017 in one of the largest refugee settlements in the world.



Approximately one million FDMN are residing across 33 camps in Cox's Bazar and half of the population is children.



In these FDMN camps, sanitation facilities such as toilets and handwashing stations are limited. This contributes to unsafe hygiene practices with open defecation being one of the most common practices among children.



The lack of clear guidelines for construction in emergency services is one of the major reasons why children often do not use toilet facilities.

Objectives

1. Design and develop child-friendly toilets and handwashing stations utilizing UCCE method
2. Assessment of changes in reported use of WASH facilities and user satisfaction levels
3. Qualitative evaluation of the implementation process to understand the factors affecting widespread adoption

Outcomes

- ✓ Co-creation and development of a prototype of child-friendly toilet and handwashing station model
- ✓ Increased use and satisfaction among users due to improved accessibility and a sense of ownership.
- ✓ Clear understanding of the factors influencing the UCCE adoption to guide future expansion and sustainability.

Ideas implementation through construction of 80 toilets and handwashing stations based on users' needs and implementers' feasibility.

METHODS

Study design:

- Implementation research by adopting User-Centered Community Engagement or UCCE method

Study sites:

- Two sites: camp 8W and 17

Study period:

- 20 months (1 April, 2023 - 30 November, 2024)

Sample size:

- Interactive Digital Survey 1: 397 children and 381 caregivers
- Interactive Digital Survey 2: 413 children and 414 caregivers

Inclusion criteria:

- Children aged 3-12 years and their caregivers living in the selected camps
- Registered residents of the selected camps

Adapted framework of UCCE Approach



"UCCE is a collaborative process that places community members at the forefront of developing solutions to their shared issues, ensuring their voices, needs, and local knowledge directly inform and influence the outcomes."

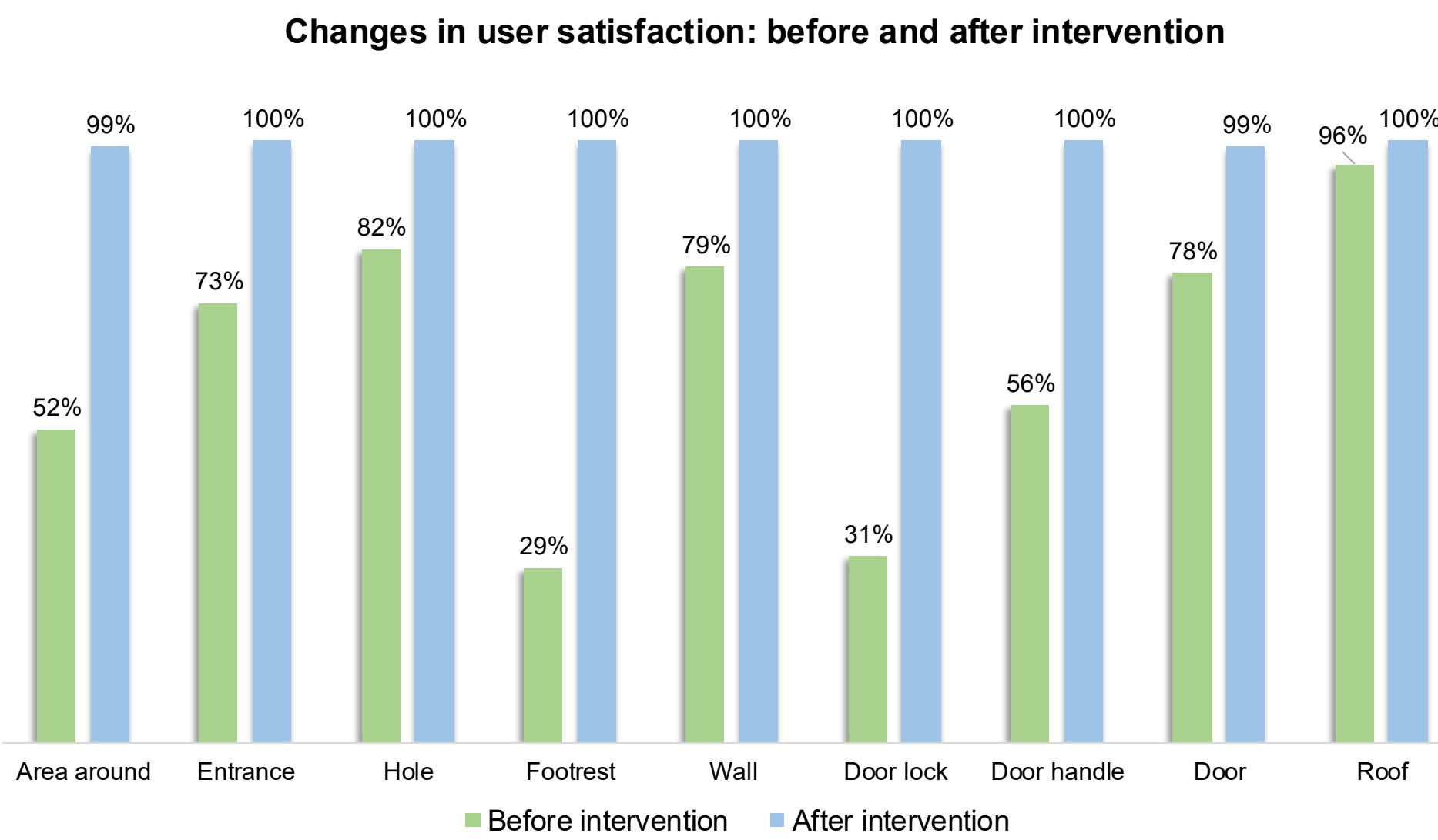


A child washing hands using child-friendly facility

Identified problems	Possible solutions
Toilet facility (inside and outside)	
Wall makes the inside of the facility hot	Ventilation Heat insulated sheet in roof
Large pan hole	Mid-sized pan and reduced footrest height Vertical support handle
Too high door lock and handle	Height adjusted extra handle and child-friendly lever lock
Dark surrounding	Solar light
Handwashing Station	
Too high sink and water tap	Height-adjusted sink and water tap
Structural theft	Semi-permanent structure

Interactive Digital Survey 2 assessed the current sanitation practices and the satisfaction of children after the construction of new WASH facilities.

- Full-time toilet users increased from 7% to 18%
- Overall satisfaction increased from 8% to 41% for toilets and 3% to 34% for handwashing stations
- According to caregivers, handwashing practices among children increased during critical times, including after defecation (84%), after urination (27%), and after noticing visible dirt on hands (19%)



RESULTS

Interactive Digital Survey 1 identified pain points, frequency of toilet use among children along with satisfaction level regarding existing toilets and handwashing stations.

Major findings from IDS 1

- Only 7% of the children were **full-time latrine users** means they used the toilet facilities to urinate and defecate throughout day and night.
- While 86% of children used toilets for defecation, only 7% used them for urination. Among non-users, 65% of children **urinated at home**.
- Low satisfaction** was reported by 64% of children for toilet facilities and 57% for handwashing stations.
- 72% of caregivers reported toilet facilities to be **unsafe** for their children to use.



Survey app by Eclipse



Photo: Co-creation sessions in camp 8W

Co-creation sessions gathered potential solutions from children and their caregivers to design toilets and handwashing stations. Voting segments, problem trees and pictures of traditional facilities were used to better visualize the barriers.

CONCLUSION

- User-Centered Community Engagement (UCCE) offered a **responsive** and **context-specific** approach. This study found UCCE effective in **rapidly promoting WASH adoption** aligned with community needs while addressing practical challenges. By engaging users directly, it supported **sustainable behavior change**, assured **practical intervention** and strengthened **community ownership** for long-term impact.
- The principles of this community centered approach can be further scaled and adapted in similar humanitarian and low-resource settings.

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