

## **Project End-Line Assessment**

**CARE Bangladesh**

Improved WASH Services to the Myanmar Refugees Population  
in camps 15 (Jamtoli) and 16 (Potibonia),  
Ukhiya Upazila, Cox's Bazar

The project is funded by Unicef



# END-LINE ASSESSMENT REPORT

UNICEF's WASH Program in Camp 15 and 16, Rohingya Refugee Camp, Bangladesh

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Implemented by CARE Bangladesh

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## DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of UNICEF.



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Md. Kamrul Hasan and Mahmud Hossain  
Author of this study

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## EXECUTIVE SUMMARY

Applying both quantitative and qualitative tools and approaches, the end-line assessment was conducted in February 2022. It covers 415 respondents' households from camps 15 and 16—data collection done with tablets in KoBo. The samples were drawn systematically. First, the sample size was determined following the most common statistical formula. The objectives of the study are as follows: 1) To know the present situation context on WASH; 2) To identify the targeted respondent's current Knowledge, Attitude and Practice (KAP).

The study findings reveal the following:

### Water

- The most commonly reported primary sources for drinking water were Piped water tap/Tap Stand, reported by 66% of households.
- In terms of water collection, male engagement has been increased. Overall, 86% of households reported women, followed by adult males (55%) and Children (6%). However, the male also helps them when they cook and cloth wash.
- Overall, only 2% of households reported a combined travel and waiting time of more than 30 Water containers.
- Females preferred to get 'Kolsi' (a pitcher) instead of Bucket or Jerrycan for carrying water. On the other hand, male and adolescent children preferred Jerrycan for carrying the water.
- 76% of respondents feel safe collecting enough water to meet their households' needs, such as drinking, cooking, laundry, bathing etc. However, women also reported that they feel unsafe because men go to water points to collect water.
- A significant proportion of households (88%) do not treat drinking water. Because they believe the drinking water source is safe—12% of households use the aqua tab to treat their water.

### Sanitation

- The most-reported defecation (sanitation options) for household members five and above was communal latrines 86%, followed by shared latrines 14%, and single-household latrines 7%. Others places (2 %), bucket and open defecation was seldom reported 1%.
- The accessible latrine is one of the beauties of this project. This latrine is included: The railing on the way, The handle inside, The tap, The commode, The single-use.
- The community also thinks that these latrines will be equally helpful for elderlies.
- A significant 79% responded to the affirmative of privacy of latrine use. A significant number of
- 18% of the households' female members use the designated bathing facilities. However, this figure is low because of privacy concerns.

### Hygiene

- All (100%) respondents mentioned that they cleaned every time they filled with fresh/clean water. While at the time of hurriedness, that type of cleaning activity has disrupted.
- 100% of households owned soap at the time of the interview. The study further explored other hand washing options/solutions households use when they do not have soap; because of CoVID-19, all respondents, even children, are aware of handwashing. They can recall the critical time of handwashing.
- Regarding the best way to receive health and hygiene messages, 45% stated Home visits by volunteers, and 2<sup>nd</sup> choice is by the local leaders. However, the study findings also revealed that only 7% of households said they do not know how to prevent diarrhea.
- 69% of females used reusable clothes, 16% used disposable pads. The reusable cloth is the most preferred for use during the menses.
- Most female respondents said they wash and reuse the MHM materials and dispose of way is Household/Trash bin, Throw in the open waste area/communal bins, In the latrine, Bury in the soil, and, Burn them

### RECOMMENDATION

- Consideration of men, women and girls carrying water and provide water container that these particular groups prefer;
- The child-to-child session needs to discuss the importance of Gender Marker because children remove the gender markers frequently, which causes a problem for the women;
- Need to keep attention to the elderly person in terms of WASH facilities along with Persons with Disabilities;
- Video documentaries for hygiene promotion may be more effective together; in this connection, CARE can collaborate with "shongjog" which is the open platform of CwC in Rohingya Camp.

## 1. Introduction and project background

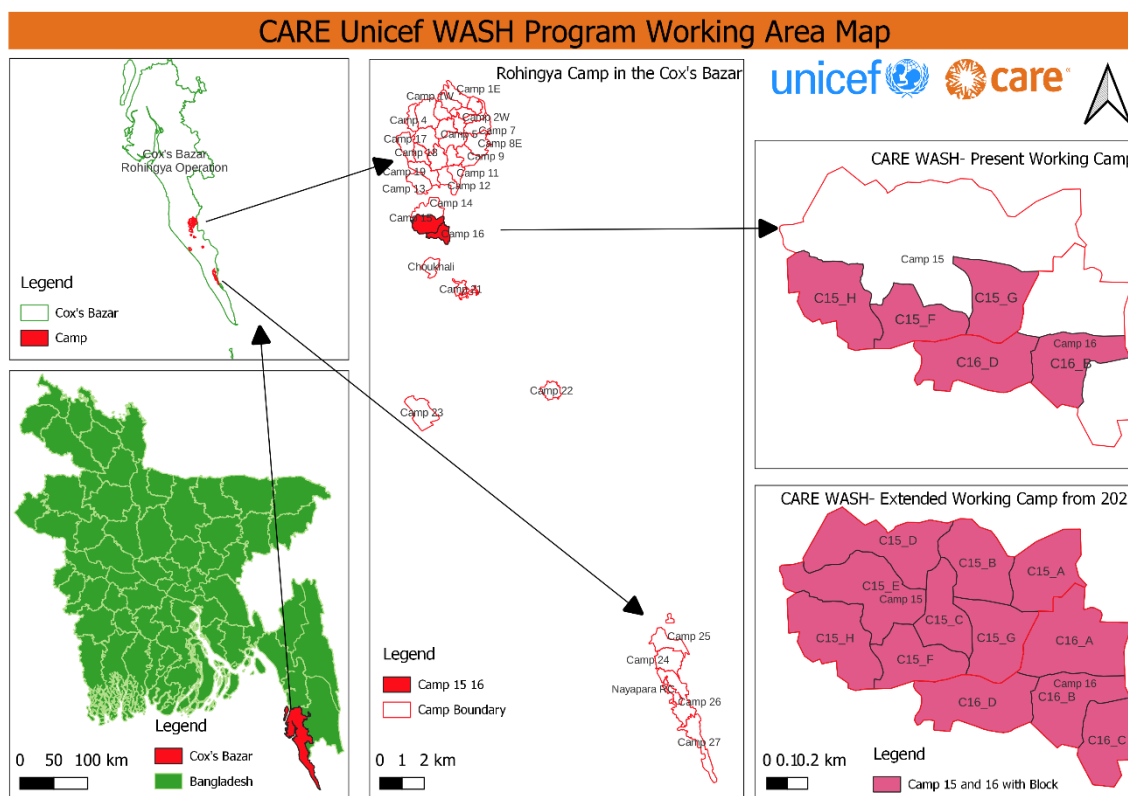
Access to WASH services for Rohingya refugees has improved since the influx in 2017, with 88% of households reported having enough water for their domestic needs. Despite this high coverage, there are major challenges in quality and functionality. For safe water supply, 46 percent of the HH do not have access to piped water network supply (JRP, 2021). By the WASH Sector standard Unified Latrine Design<sup>3</sup>, the proportion of functional latrines dropped 87 percent to 57 percent across all camps. Latrines also need to be improved to ensure access for and meet the needs of women, children, the elderly and people with disabilities. Only 62% of households have bathing facilities in their home. Women also reported difficulties accessing MHM materials, and only 39 percent of women are able to take up proper menstrual hygiene practices. While handwashing rates were reported high due to COVID 19, 60% of respondents mentioned three critical times to wash hands.

With technical and financial support and partnership with UNICEF, CARE showed satisfactory results against program targets and maintained critical WASH services despite COVID 19 restrictions. Access to the refugee camps was limited; movement within the camps was restricted, and all groups and community-based activities were suspended. As part of the COVID-19 response, UNICEF and CARE scaled up hygiene promotion, including handwashing facilities.

This project aims to improve WASH Services to the Myanmar Refugees Population in camps 15 (Jamtoli) and 16 (Potibonia), Ukhiya Upazila, Cox's Bazar

### Geographical coverage:

Camp# 15 (block-F, G, H), Camp#16(Block-B, D) of Ukhiya Cox's Bazar



## 2. Methodology and approach

### **Evaluation Design and Sampling**

The study was participatory, descriptive, and cross-sectional, utilizing heavily quantitative approaches. Qualitative data was collected through in-depth interviews with refugees, camps, and official settings.

The standard sample size for data collection has been capitalized. Therefore, 415 Households (HH) (243 from Camp 15 and 172 from Camp 16) out of 6,464 HHs have been considered. That is calculated according to 95% confidence level and confidence interval 5.

$$S = Z^2 * p * (1-p) / M^2$$

S = Sample size of infinite population

Z = 1.96 (z score as we consider 95% confidence level)

P = population proportion (assumed to be 50% = 0.5)

M = Margin of error

### **Data collection management, analysis and presentation**

Triangulation of data collection methods was used: Focus Group discussions (FGD), in-depth interviews (IDI) with households at the community level, key informant interviews (KII) with service providers, and review of relevant literature on implementation of activities by refugees (progress, midterm, and annual reports). Quantitative data were collected through KoBo Toolbox, analyzed using SPSS, and presented descriptive tables. Qualitative data were analyzed thematically. Study objectives and research questions guided thematic analyses.

### **Ethical considerations**

All the respondents of this study have given their consent to take an interview. So, they synonymously participate in the discussion. The survey interview was taken through mobile using KoBo. All information collected was kept confidential, and the principle of voluntary participation was ensured. The respondent had a right to refuse to answer any question during the data collection. All the quantitative and qualitative interviews were recorded for consistency in data collection unless a participant declined to be recorded.

### 3. Findings and discussion

This section presents the main findings of the WASH household follow-up assessment. It outlines key findings across the domains of WASH (water, sanitation and hygiene), including a comparative analysis of findings with the baseline assessment. Wherever possible, findings are triangulated with secondary data sources.

#### 3.1 Water

This water section begins by presenting findings in relation to water infrastructure, including water sources, water collection, problems and coping strategies and water treatment practices.

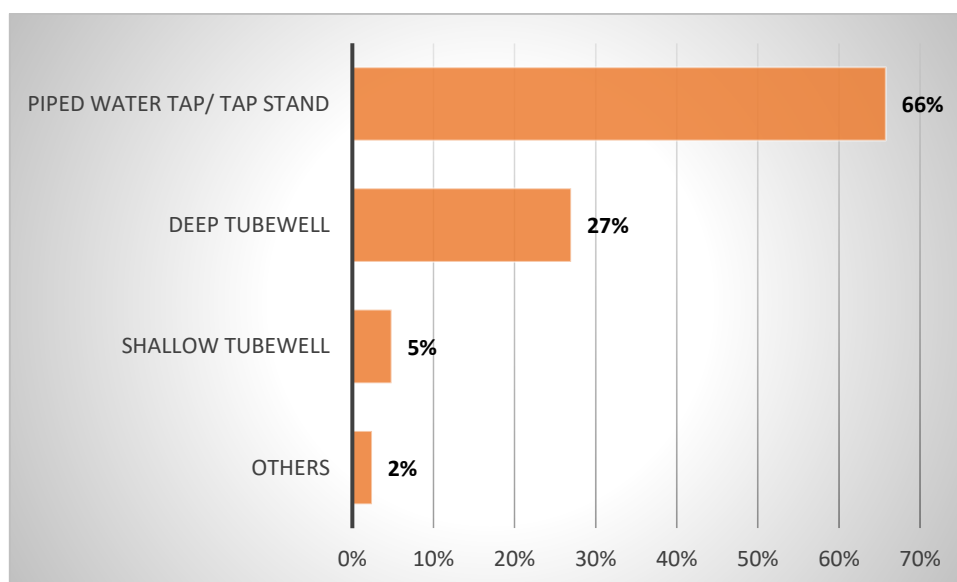
Data from this assessment shows that almost the entire population uses improved water sources as their primary drinking water source.

##### Water sources

Rohingya refugees' reliance on unimproved water sources is critical to daily household operations. All the households reported that they use improved water sources.

Cox's Bazar WASH Sector considers "improved" sources as follows: piped water into settlement site, public tap/tap-stand, and deep tube-well/borehole/hand-pump. 'Unimproved' water sources include unprotected dug-wells, unprotected springs, and surface water.

**FIGURE 1: PROPORTION OF HOUSEHOLDS REPORTING USING PRIMARY SOURCES FOR DRINKING WATER**



The most commonly reported primary sources for drinking water were Piped water tap/Tap Stand, reported by 66% of households. This was followed by Deep Tubewell, reported by 27% of households. Shallow tube-well reported by 5%. Only 2% of households reported using Pipe Connection to House. On the contrary, during FGD with female beneficiaries, they preferred the "Pipe Connection to House" facility as they have to travel less for water collection. In addition, they described it as a less laborious job. Those who could not access piped water expressed great demand to have standpipes at their doorsteps.



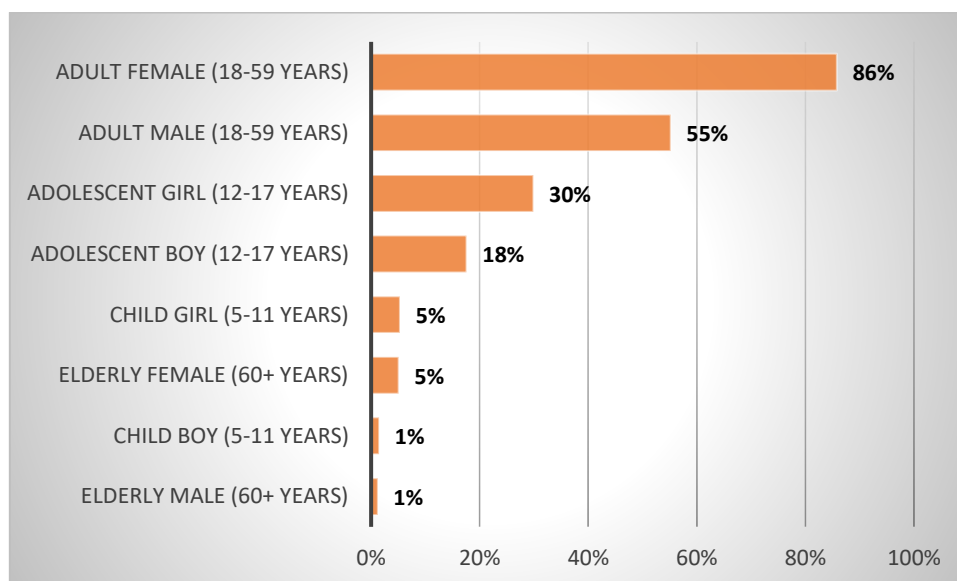
## Water collection

Water access is one of the intervention areas that CARE is working to improve. The households were asked about daily water collection; time is taken to and from the water source, storage and treatment methods at the household level. The survey found that households generally spend more time waiting at water sources than the distance they cover walking to reach the water points.

On issues related to water collection, households were first asked who typically collects water for the household. Overall, 86% of households reported women (Adult Female and Wife of Household Head) as the most common family member to collect water, followed by adult males (55%). Child Girl 5-11 years (5%) and Child Boy 5-11 years (1%).

During the FGD, women said that most adult males are busy with relief collection. However, the male also helps them when they cook and cloth wash.

**FIGURE 2: HOUSEHOLD MEMBERS WHO USUALLY COLLECT WATER FOR THEIR HOUSEHOLD (MULTIPLE)**



Questions on travel time to/from water points and waiting time while collecting water from the source were asked, yielding results reportable against the key Global WASH Cluster and Strategic Development Goals Joint Monitoring Program threshold of <30 minutes combined travel/trip.

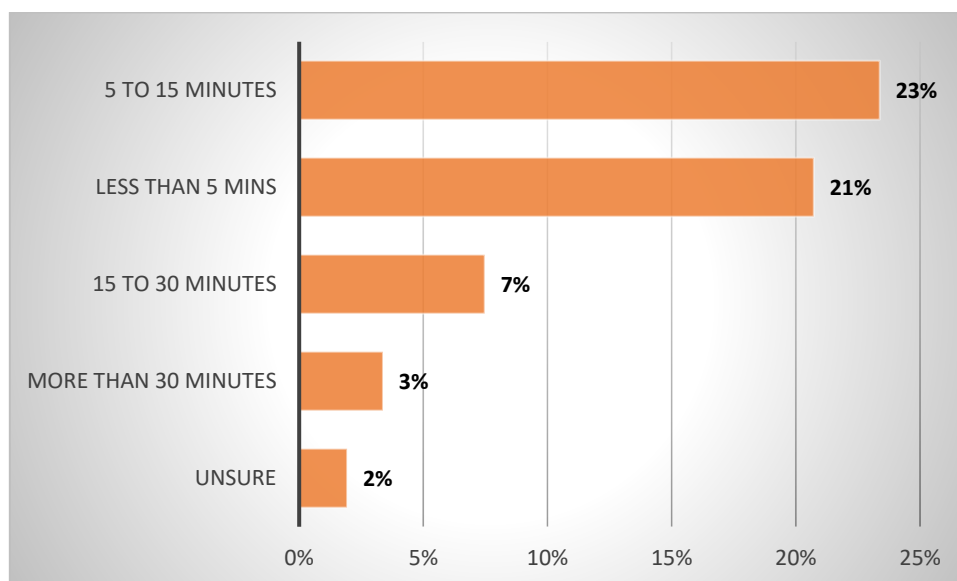
As per the last year's survey, households were asked to estimate the length of time usually spent traveling to and from a water point, including waiting time at the water source. Overall, only 2% of households reported a combined travel and waiting time of more than 30 minutes. However, this figure has been increased 2% to 3%.

From the FGD, it has been found that-

- The 4/5 families control the water tap; others can't get the required water as they quarrel;
- Tap water is not available when the sky is cloudy. Water is raised through the solar panel;
- The operator gives water once a day is like 20 minutes. So many people do not get water;
- Before the operator started the water pump three times a day, now one time a day but for a limited period;
- Deep Tubewell is not repaired in time, so it is hard to get water when the need has to wait for tap water.

Overall, in this end-line survey, households reported spending more time waiting at water points compared to the time they take traveling to them. Twenty-One percent (21%) of households reported spending less than five minutes traveling to/from water points.

**FIGURE 3: PROPORTION OF HOUSEHOLDS REPORTING TRAVEL TIME TO/FROM AND WAITING TIME AT THE WATER SOURCE**



### Water containers

Understanding the types of containers and their different use across the camps is a starting point to determine household water consumption and practices related to the safe storage of water.



Enumerators were oriented to observe all containers used for collecting and storing drinking water and for water used for other domestic purposes within the household. Information on the type of container, type of water stored (for drinking, non-drinking or both), approximate water volume, the cleanliness state of the container, whether or not the container was covered and the number of times the household used the container to collect water the day before the survey (if any).

However, the participants of FGD females preferred to get 'Kolsi' (a pitcher) instead of Bucket or Jerrycan for carrying water. On the other hand, male and adolescent children preferred Jerrycan for carrying the water.

The survey found that the most common water storage container types are pitcher 85%, Bucket 69% and Jerrycan 37%.

### Water quantity

Determining the quantity of water a household can access for drinking and other domestic use is critical in understanding their ability to stay safe from diseases such as acute watery diarrhea/ risk of cholera and their ability to maintain hygiene standards.

The enumerators did no direct measurements of the water containers to determine dimensions and volume. However, the ideal container size was decided based on UNHCR, "Emergency Water Standard", and

declaration that more than 10 liters of water storage capacity per person is recommended. Therefore, the respondents were asked key questions followed by the enumerator's direct observation of the containers at the time of the interview.

The survey result showed that 76% of respondents feel safe to collect enough water to meet their households' needs, such as drinking, cooking, laundry, bathing etc.

26% of respondents did not feel safe to collect enough water to meet all of their households' needs, such as drinking, cooking, laundry, bathing, etc. The study findings established that several reasons contributed to this fact, namely;-

- Too far from the house;
- Harassment;
- Men use for bathing;
- No lighting at night;
- Sloping path;
- Men go to collect water where have the chance of body touching;
- Men gathering are nearer to the water point;
- Neighbors do quarrel.

Households were also asked how long they stored water after collecting from the source, since a tendency to store water for long periods would reduce the frequency of collecting water every day and this can also give the false impression of lower household-level water consumption. Overall, large (89%) majority of households reported storing water for less than one day, with the remainder storing water for between one and two days.

### Water treatment

This study revealed a significant proportion of households (88%) do not treat drinking water. Because they believe the drinking water source is safe—12% of households use the aqua tab to treat their water. Fewer (5) respondents stated that they dislike using the aqua tab; they demand a water filter machine.

The study also sought to find out about water source maintenance. From the FGD, respondents confirmed that regular maintenance is done by CARE and the WASH committee, while some of them reported that no maintenance work had been done.

## 3.2 Sanitation

Households were interviewed on the various sanitation options available for their use, privacy about use of sanitation facilities, waste management and observations were also made to determine the actual use and the sanitary state of the latrines.

### Defecation practices and access to latrines

Understanding different types of latrine options available in the camp and how the refugees use them—men, women and children—and associated practices can assist in informing humanitarian programming of access levels and gaps that might still exist, especially after an intervention/implementation phase. In the end-line survey, households were asked where members go to defecate. The study considered all age groups (under five years old and adults).

The most-reported defecation (sanitation options) for household members five and above was communal latrines 86%, followed by shared latrines 14%, and single-household latrines 7%. Others places (2 %), bucket and open defecation was seldom reported 1%.

Regarding sanitation facilities/options for household members below five, 71% reported latrines, while 13% of household members use bucket latrines and 16% practice open defecation in the yard. However, FGD regarding disposing of the feces for, under children 5, the answer are-

- Dispose of it in the latrine
- Dispose of it on the drain
- Dispose of it in the communal bin
- Bury it
- Don't know

Accessible latrine:

In the FGD with persons with disability, the beneficiary of PWD accessible latrines was asked about their feeling on accessing and using on the latrines. The majority acknowledged that the accessible latrine has made their and their family members' lives easy. Except for a few cons of the latrines, the positive sides they explained are as follows:

- The railing on the way
- The handle inside
- The tap
- The commode
- The single-use

There is railing on the way to the latrine, making it easy to reach the latrine without the help of caregivers. Also, there are handles inside, making it comfortable to sit on the commode. The tap inside and getting water is easy for even 2<sup>nd</sup> and 3<sup>rd</sup> time if needed for cleaning. Because of the commode, a caregiver does not have to face much trouble now. The caregiver can easily make the person sit on the latrine. Also, there is no bad smell leaking from the latrine for single-use.

While the beneficiaries think that this is a dream latrine for their own in the camp setting, they mentioned some drawbacks:

- Keeping the commode and latrine clean requires three times more water than the flat commode latrines. Carrying water is a tough job, and of course, access to adequate water is, at times, a problem.
- The floor stays wet all the time, and there are chances to slip. While having a handwashing facility inside but no passing water system seems a design fault, as the FGD participants consider.

- When pee, splash comes back to the body, which is not good for those who pray and want to clean their body/ cloth.

From the non-users point of view, the accessible latrine is a great initiative and helpful for physically challenged and persons with disabilities. They also think that these latrines will be equally helpful for elderly. But numbers of households with elderly people struggling with similar challenges as persons with disabilities to ensure sanitation but are not targeted by the project.

"Being partially disabled, they are getting the particular facility of doorstep toilets. There are many aged people in the community whose need is more than partially disabled persons." WASH Committee Member – not willing to publish the name

Observation of the latrine:

During the latrines observations, 99% were functional and in use. However, still, there is scope to work with the improvement of handwashing and lighting issues.

### Privacy

The study investigated whether the latrines provided privacy for them and their household members, and a significant 79% responded to the affirmative. A significant number of respondents (21%) were not satisfied, and they mentioned the following reasons;-

- Infrastructure/door damaged
- Door Lock missing/not working
- No latrine nearby
- The door is not closing properly
- Walling materials are not good
- Male-Female sharing (no gender marking)
- Men congregate around the latrine
- The latrine is full of sludge

### Bathing facility

The study revealed that 18% of the households' female members use the designated bathing facilities. However, this figure is low because of privacy concerns. The rest of the household said they take a bath at their makeshift.

### 3.3 Hygiene

This section provides an overview of hygiene promotion activities within the camps. The study focused on crucial hygiene promotion activities/practices implemented in households and communal levels within the project areas, such as drinking water container cleaning, hand washing and soap, hygiene training sessions, hygiene kits distribution, and menstrual hygiene management. The findings are detailed below;-

#### Cleaning of Water Containers

Households were asked about the practice of cleaning water containers. All (100%) respondents mentioned that they cleaned every time they filled with fresh/clean water. While at the time of hurriedness, that type of cleaning activity has disrupted. The study also revealed that 5% of households cleaned their water containers at least once a week. On how the water containers are cleaned, 87% reported using a specific product (sponge and soap) and finally rinsing with clean water.

#### Hand Washing and soap

Handwashing with water and soap is a key practice promoted by the project to help prevent/reduce the risks of acute watery diarrhea diseases. The study found out that 100% of households owned soap at the time of the interview. The study further explored other hand washing options/solutions households use when they do not have soap; because of CoVID-19, all respondents, even children, are aware of handwashing.

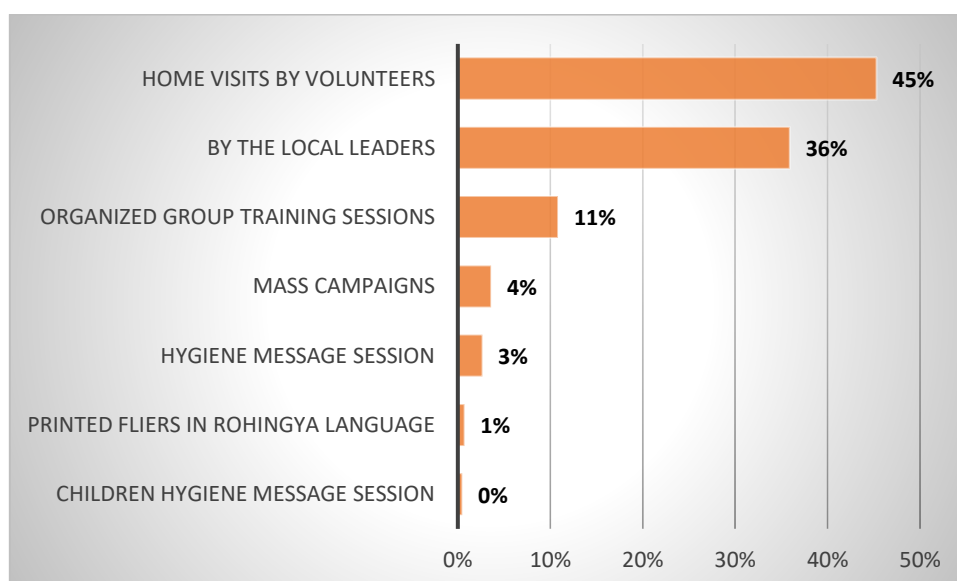
#### When to Wash Hands

The enumerators asked household respondents to mention the most important/critical times when someone should wash their hands. They can recall the critical time of handwashing.

#### Hygiene training

CARE conducts hygiene promotion through different approaches such as house-to-house visits, training sessions, and information education and communication (IEC) materials. When asked to mention the best way to receive health and hygiene messages, 45% stated Home visits by volunteer, and 2<sup>nd</sup> choice is by the local leaders.

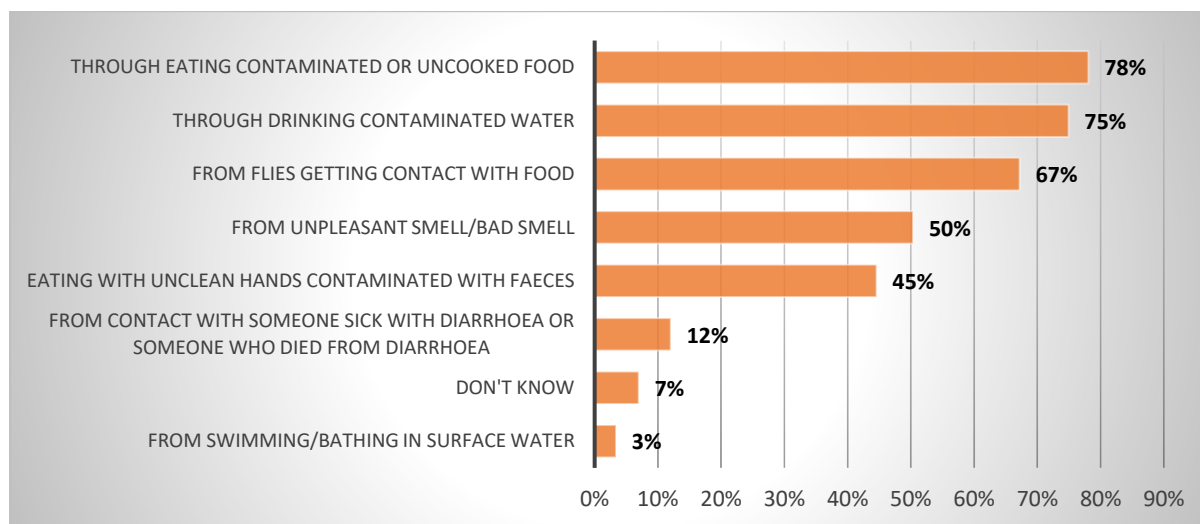
**FIGURE 4: HOUSEHOLDS PREFERRED WAY TO RECEIVE HEALTH AND HYGIENE MESSAGES**



## Diarrhoea Disease

At the time of data collection related to AWD, all the respondents said they did not face Diarrhoea disease last year and now. However, diarrhea and general acute watery diarrhea are vital communicable diseases that are easily transmitted within the camp settings due to crowded living conditions and potential exposure to unsanitary conditions. The respondents were asked to mention the causes of diarrhea disease and the top three causes mentioned, eating contaminated food (78%), contaminated water (75%) and flies getting contact with food (67%). The findings also established that 7% of households did not know the cause of diarrhea, while another 3% mentioned that one could get diarrhea by swimming/bathing in surface water (Fig.5).

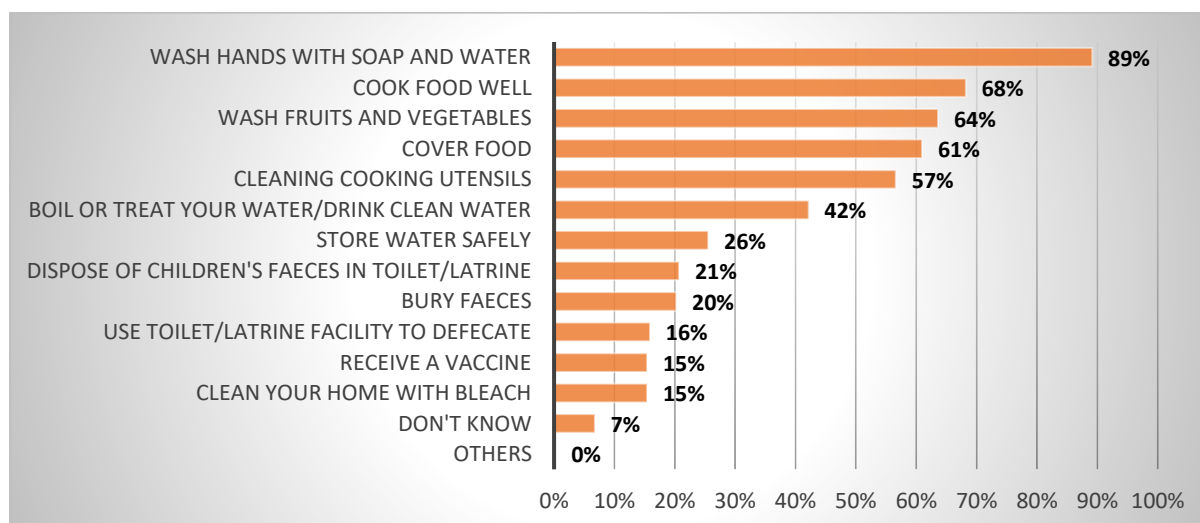
**FIGURE 5: PROPORTION OF HOUSEHOLDS REPORTING CAUSES OF DIARRHOEA DISEASE**



## Diarrhoea Prevention

Aim to understand what households do to prevent diarrhea disease. As shown in Fig. below, the top four methods households practice to prevent diarrhea disease are through washing hands with soap and water (89%), cooking food well (68%), washing fruits and vegetables (64%), and covering food (61%). However, the study findings also revealed that only 7% of households said they do not know how to prevent diarrhea.

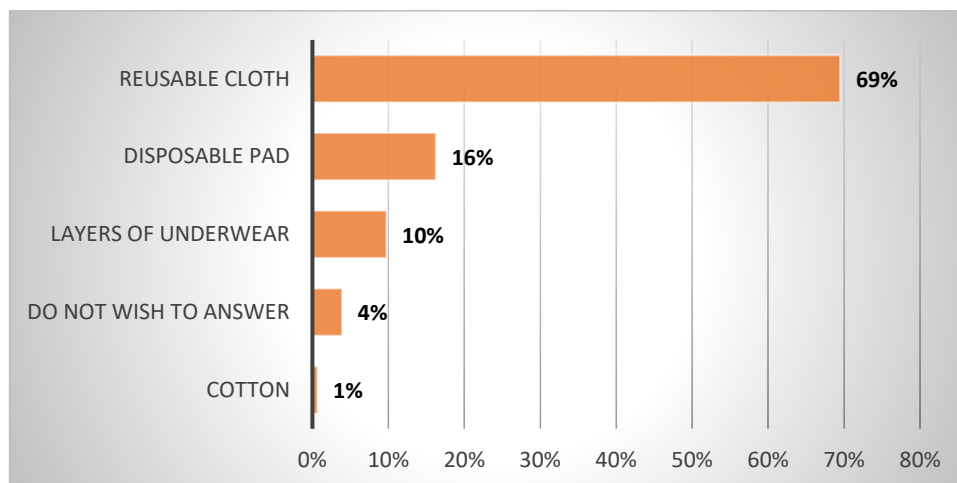
**FIGURE 6: PROPORTION OF HOUSEHOLD REPORTING PEOPLE CAN PREVENT DIARRHEA**



## Menstrual Hygiene Management

During the end-line survey, female household respondents were asked about the menstrual hygiene materials they used during their menses. As shown in fig. below, their responses showed that 69% of females used reusable clothes, 16% used disposable pads. From FGD findings, the reusable cloth is the most preferred for use during the menses.

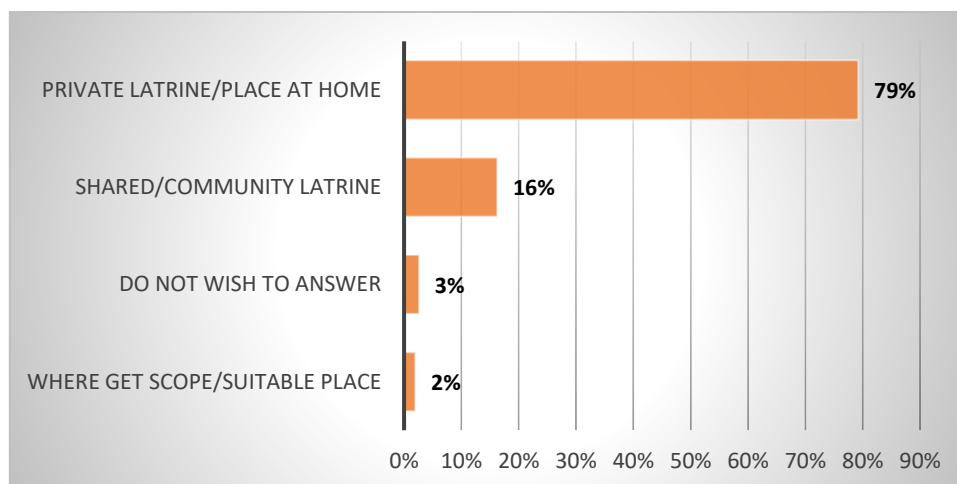
**FIGURE 7: FEMALE RESPONDENTS WHO MENTIONED TYPES OF MHM MATERIALS USED DURING MENSES**



## Change and Disposal of Menstrual Hygiene Materials

The female respondents were asked where women normally go to change their menstrual hygiene materials; 79% mentioned inside the household as the preferred location (without specifying the particular areas within the house). Another 16% of respondents simply said they change at community latrine while 2% said where to get scope/suitable place to change MHM materials.

**FIGURE 8: WOMEN REPORTING CHANGE OF MENSTRUAL HYGIENE MATERIALS IN DIFFERENT SPACES**



For discussion with the female on dispose of the used menstrual hygiene materials. However, most female respondents said they wash and reuse the MHM materials and dispose of way is Household/Trash bin, Throw in the open waste area/communal bins, In the latrine, Bury in the soil, and, Burn them



## CONCLUSION AND RECOMMENDATION

This end-line assessment concludes with the following recommendation for future improvements:

- Consideration of men, women and girls carrying water and provide water container that these particular groups prefer;
- The child-to-child session needs to discuss the importance of Gender Marker because children remove the gender markers frequently, which causes a problem for the women;
- Need to keep attention to the elderly person in terms of WASH facilities along with Persons with Disabilities;
- Increase coverage for accessible latrines as there are greater needs and include elderly persons as beneficiary together with persons with disability;
- Need to redesign to overcome the cons of accessible latrines;
- Continuous distribution of MHM kits for adolescent girls;
- Video documentaries for hygiene promotion may be more effective together; in this connection, CARE can collaborate with "shongjog" which is the open platform of CwC in Rohingya Camp.