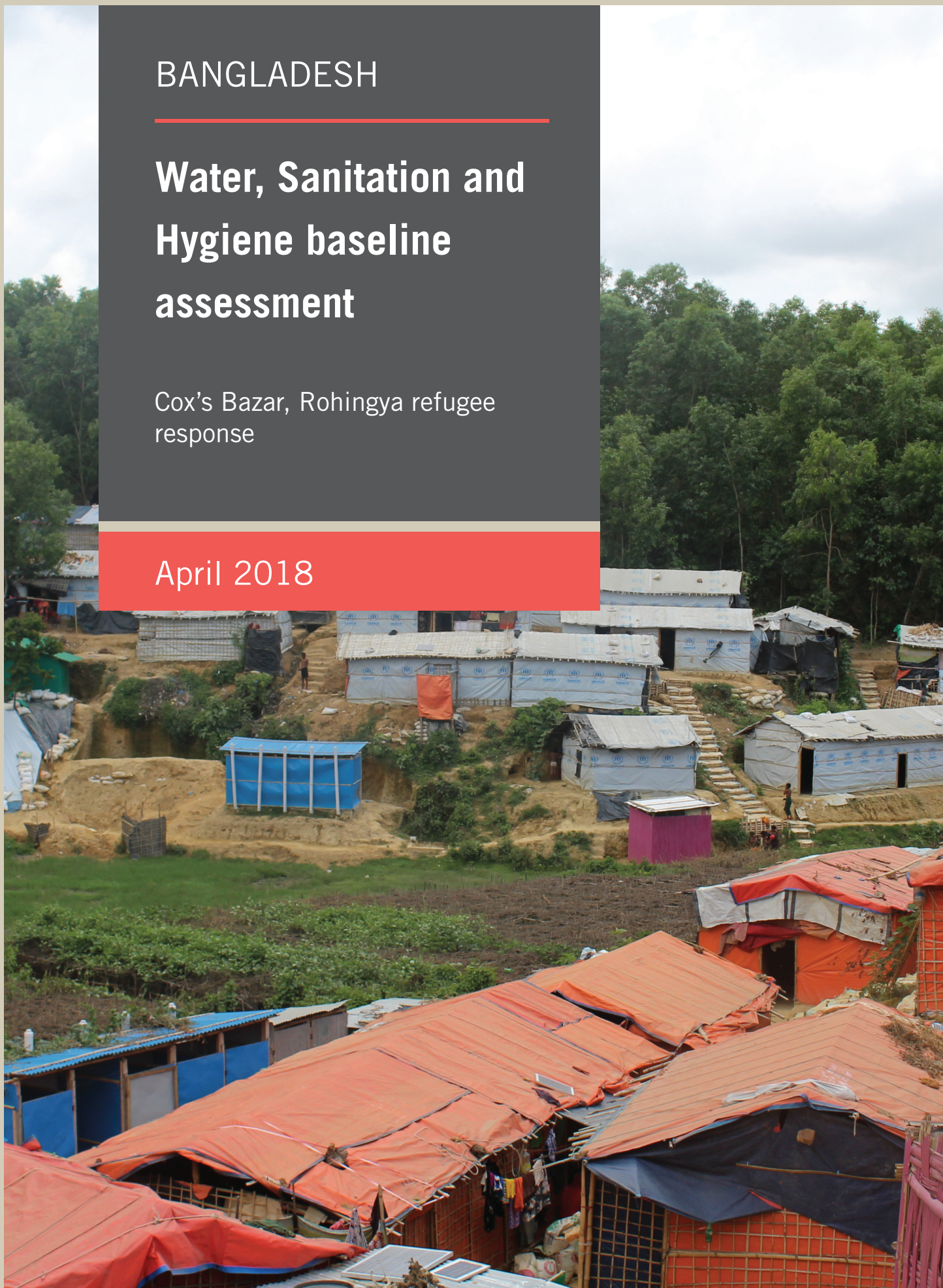


BANGLADESH

Water, Sanitation and Hygiene baseline assessment

Cox's Bazar, Rohingya refugee
response

April 2018



FUNDED BY:



ASSESSMENT CONDUCTED IN THE FRAMEWORK OF:



Cover image: Kutupalong-Balukhali Extension site, May 2018. © IMPACT Initiatives, 2018

About REACH

REACH is a joint initiative of two international non-governmental organizations - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH's mission is to strengthen evidence-based decision making by aid actors through efficient data collection, management and analysis before, during and after an emergency. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. For more information please visit our website: www.reach-initiative.org. You can contact us directly at: geneva@reach-initiative.org and follow us on Twitter @REACH_info.

SUMMARY

Since August 2017, an estimated 702,160 Rohingya refugees have arrived in Bangladesh's Cox's Bazar District from Myanmar,¹ bringing the total number of Rohingya refugees residing in Bangladesh to approximately 915,000. The unplanned and spontaneous nature of the post-August Rohingya refugee camps have combined with high population densities and challenging environmental conditions to produce a crisis with especially acute water, sanitation and hygiene (WASH) needs. In particular, acute watery diarrhoea and other water-borne diseases represent a serious threat to an extremely vulnerable population already affected by high endemic rates of malnutrition.² Under the leadership of the Bangladeshi government's Department of Public Health Engineering (DPHE) and co-chaired by UNICEF and Action Against Hunger, the Cox's Bazar WASH Sector is tasked with the coordination, oversight, monitoring and strategic planning for all WASH aspects of the humanitarian response.

The early stages of this crisis were characterised by a rush by humanitarian actors to provide basic water, sanitation and hygiene (WASH) infrastructure—much of it poor quality and temporary in nature. As the situation stabilises, the WASH sector has begun to transition toward a medium-term WASH strategy emphasising quality over quantity of infrastructure, complemented with stronger operational management and community engagement. In order to inform monitoring and strategic planning for WASH sector partners following this shift in strategy, REACH worked with support from UNICEF to provide a baseline on WASH conditions in all recognised Rohingya assessment. This took the form of a household survey covering 3,576 refugee households across all 35 recognised Rohingya refugee camps. Conducted during the driest point of the year in April 2018, the assessment provides data that is statistically representative at the camp level and for the response as a whole. Its key findings are as follows:

ACCESS TO DRINKING WATER

- Over 99% of all households rely on improved water sources³ for both their primary and secondary source of drinking water, mainly in the form of tubewells (87% of all households).
- Use of unprotected drinking water sources was concentrated in two camps: 27% of respondents in Camp 20 reported using unprotected dug wells, while, most concerningly, 14% of respondents in Jadimura reported using surface water.
- Women and girls are primarily responsible for water collection, with 79% of households reporting women and 28% reporting girls involved, compared to 23% of men and 16% of boys respectively.
- Waiting times at water points of longer than 30 minutes were reported by 13% of households, while travel times to and from water points of longer than 30 minutes were reported by 8%.
- However, despite relatively few households reporting long distances and wait-times, problems with access to water were reported by 56% of households, and largely related to long distances (43% of all households) and long wait-times (41% of all households). Further research is required to better understand this discrepancy.
- Use of coping strategies to deal with a shortage of water was reported by 40% of all households, mainly in the form of household-wide reduction in water consumption (23%).
- Use of water treatment in any form was reported by 18% of all households, with only 13% of all households reporting use of aquatabs. The main reasons reported for not using aquatabs were not receiving them (67%), and not knowing enough about them (40%). Importantly, households who had received training on aquatabs were somewhat more likely to report using them: of the 24% of households who reported receiving aquatab training, around one-quarter reported using aquatabs. By contrast, only 1% of families who had not received aquatab training reported aquatab use.
- Ninety-seven percent of households had at least one covered container for storing drinking water, but with only 41% using two or more covered containers. The most commonly used type of drinking water storage vessels were aluminium pitchers, which were used in 85% of all households.
- According to survey data, *reported* volumes of available drinking water storage and amounts of drinking water collected per person per day were both low: only 3% of households reported having 10 litres or more of drinking

¹ Inter Sector Coordination Group (ISCG). Situation Report: Rohingya Refugee Crisis, Cox's Bazar, 7 June 2018.

² Action Against Hunger. "Preliminary Report: SMART Nutrition Survey, Maungdaw and Buthidaung Townships, Maungdaw District, Rakhine State." http://themimu.info/sites/themimu.info/files/documents/Preliminary_Report_SMART_Survey_Rakhine_ACF_2015.pdf (accessed 7 July 2018).

³ Improved water sources include: Tubewells, piped water, tanker truck, cart with small tank, bottled water, protected spring and protected dug well. Unimproved water sources include: Rain water collection, surface water, unprotected spring and unprotected dug well.

water storage per person, while 21% of households reported collecting less than the 2.5 litre/person/day survival level of drinking water outlined by the SPHERE standards. However, these figures should be treated with caution as the volume of household drinking water containers was based on respondent estimates rather than measured volume.

- In general, problems with drinking water access were heavily concentrated among camps in the southern Teknaf area and Camp 20 in the Kutupalong-Balukhali extension site.

SANITATION

- The main sanitation facility used by Rohingya refugees is communal latrines—blocks of multiple latrines available to all users (reported by 55% of households), followed by shared household latrine—latrines used exclusively by a small group of surrounding households (44%) and single-household latrines (4%).
- Ninety-eight percent of households reported that adult household residents “usually” defecate in a latrine, with 6% “sometimes” resorting to open defecation. However, 65% of households reported that children under 5 “usually” defecate in the open, with 95% reporting that this “sometimes” happened.
- Problems with latrine access were reported by 53% of households. Households reported a wide variety of problems, the most common of which were overcrowding (35% of all households), distance to latrines (22% of all households) and latrines being clogged (21% of all households).
- A majority of households (57%) reported that adult women would feel unsafe using latrines at night—significantly more than did so for either men or children of either gender.
- Reported problems with latrine access were less geographically concentrated compared to water access. Problems were reported by especially large numbers of households in Camp 1W and Camp 7 in the Kutupalong-Balukhali Extension site, and in Leda B and Jadimura in southern Teknaf.
- Thirty-one percent of households reported dumping household waste in undesignated open areas.

HYGIENE

- Only 48% of households report using communal bathing facilities, with 38% reporting using bathing areas set up within their households, and a further 10% reporting having no designated facility.
- Fifty-six percent of households reported problems with bathing facilities, with 24% reporting overcrowding, 21% reporting safety issues, and 18% reporting a lack of water.
- As with latrines, communal bathing facilities were felt to be unsafe for adult women at night, with 56% reporting that adult women in their households would be unsafe using bathing facilities at night compared to 6% of men.
- Thirty-five percent of households reported having no soap inside their homes. Outside of the home, 41% of households reported that the latrine they most frequently used “never” had soap nearby.
- Fifty-seven percent of households reported challenges to accessing soap, including 40% reporting that it was too expensive, and 38% reporting that it was not available.
- Indicative figures from a small sample size of women who consented to respond to menstrual hygiene questions suggest that cloth is the most commonly-used material for menstrual hygiene management, followed by reusable pads, disposable pads, and underwear.

Overall, these findings indicate that while coverage of basic WASH services is extensive, accessibility, quality, and practices relating to these services are often falling short. While almost all households are using improved water sources, almost one-quarter are having to reduce water intake due to lack of available water. Further, very few are employing adequate treatment practices in a context with substantial observed levels of contamination in household drinking water.⁴ Similarly, while adults in a large majority of households are usually using latrines of some kind, these are felt to pose safety threats to women after dark, and open defecation among children under 5 is almost universal. Safety problems are felt to be similarly acute at bathing facilities, with many families relying instead on self-built bathing infrastructure at home rather than public facilities. As the situation stabilises, addressing these issues will be critical to ensuring that WASH services are able to minimise public health risks and ensure dignity for Rohingya populations in the medium term.

⁴ According to an ongoing contamination testing exercise run by the International Centre for Diarrhoeal Disease and Research, Bangladesh (icddr,b) and UNICEF, out of 4,060 household drinking water samples tested, 75% were contaminated with faecal coliforms and 34% were contaminated with *e. coli*. See icddr,b and UNICEF. Factsheet 4, “A Bacteriological Water Quality Issue: Rohingya ‘Forcefully Displaced Myanmar Citizen’ Camp in Cox’s Bazar, Bangladesh”, 6 June 2018.

TABLE OF CONTENTS

INTRODUCTION	6
METHODOLOGY	7
Data analysis	7
Limitations.....	7
FINDINGS	8
Demographics.....	8
Water	8
Water sources	8
Water collection.....	10
Water treatment.....	14
Household drinking water: storage and collection	15
Sanitation.....	16
Access to latrines and defecation practices	16
Solid waste management.....	21
Hygiene.....	21
Bathing facilities	21
Hand washing and presence of soap	24
Menstrual hygiene.....	26
Hygiene promotion and Demonstrations.....	26
CONCLUSION	28
ANNEXES	29
Annex 1: List of Assessed Camps	29
Annex 2: Household Questionnaire	30

List of Acronyms

DPHE	Department of Public Health Engineering
FGD	Focus group discussion
icddr,b	International Centre for Diarrhoeal Disease Research, Bangladesh
IM	Infrastructure mapping
NPM	Needs and Population Monitoring
PSEA	Prevention of sexual exploitation and abuse
WASH	Water, sanitation and hygiene

Geographical Classifications

District	Third tier of administration in Bangladesh, forming sub-units of divisions
Upazila	Fourth tier of administration in Bangladesh, forming sub-units of districts

List of Figures, Tables and Maps

Figure 1: Proportion of households reporting primary water sources for drinking and non-drinking water	9
Figure 2: Percentage breakdown of water sources available in refugee camps as recorded in the REACH Infrastructure Mapping (Round V)	10
Figure 3: Proportion of households reporting travel time to/from and waiting time at water source (in minutes)...	10
Figure 4: Proportion of households reporting problems when collecting water	12
Figure 5: Proportion of different households employing different coping strategies in the absence of enough safe drinking water	13
Figure 6: Proportion of households reporting different levels of satisfaction with water access	14
Figure 7: Proportion of households reporting different reasons for not using aquatabs	15
Figure 8: Proportion of households reporting members of different ages “usually” defecating in different spaces	17
Figure 9: Proportion of households reporting different practices for disposing of feces for children under 5	18
Figure 10: Proportion of households reporting different problems with latrine access	18
Figure 11: Proportion of households reporting that different family members would feel unsafe when using latrines at night.....	20
Figure 12: Proportion of households reporting different levels of satisfaction with latrine access	20
Figure 13: Proportion of households reporting different methods of disposal of household waste.....	21
Figure 14: Proportion of households reporting use of different types of bathing facility	22
Figure 15: Proportion of households reporting different problems with bathing.....	22
Figure 16: Proportion of households reporting different levels of satisfaction with washroom access	24
Figure 17: Proportion of households owning soap for hand-washing.....	25
Figure 18: Proportion of eligible female respondents reporting use of different types of menstrual hygiene materials.....	26
Figure 19: Proportion of households reporting participating in different types of hygiene promotion session over the past 30 days	27
Map 1: Proportion of households reporting problems when collecting water.....	12
Map 2: Proportion of households reporting problems with latrine access, by camp	19
Map 3: Proportion of households reporting problems with bathing, by camp	23
Map 4: Proportion of households reporting problems accessing soap, by camp.....	25

INTRODUCTION

Since August 2017, an estimated 702,160 Rohingya refugees have arrived in Bangladesh's Cox's Bazar District from Myanmar,⁵ fleeing a military crackdown in Myanmar's Rakhine state that has been characterised by widespread reports of violence against civilians and crimes against humanity.⁶ The most recent influx of refugees follows earlier waves of displacement of Rohingya refugees from Myanmar in October 2016, 1991-1992, and 1978, and brings the total number of Rohingya refugees in Bangladesh to approximately 915,000. Most of the newly-arrived refugees rely on humanitarian assistance, having fled with few possessions and exhausted their financial resources during the journey.⁷ As of 24 May 2018, 623,000 are currently residing in the Kutupalong-Balukhali Extension Site in Ukhaia Upazila, as well as 277,000 individuals living in smaller camps in Teknaf Upazila, and 15,000⁸ individuals in host communities.

The unplanned and spontaneous nature of the post-influx Rohingya refugee camps have combined with high population densities and challenging environmental conditions to produce a crisis with especially acute water, sanitation and hygiene (WASH) needs. In particular, acute watery diarrhoea and other water-borne diseases represent a serious threat to a vulnerable population already affected by high endemic rates of malnutrition.⁹ Under the leadership of the Bangladeshi government's Department of Public Health Engineering (DPHE) and co-chaired by UNICEF and Action Against Hunger, the Cox's Bazar WASH Sector is tasked with the coordination, oversight, monitoring and strategic planning for all WASH-related aspects of the humanitarian response.

The early stages of this crisis were characterised by both significant movement of refugee populations within rapidly-expanding camps and spontaneous settlements, and a rush by humanitarian actors to provide basic WASH infrastructure—much of it poor quality and temporary in nature. As of March 2018, the situation had stabilised somewhat, with few new arrivals and are more settled existing population. Against this background, the Cox's Bazar WASH sector launched its March-December 2018 strategy. This shifted emphasis away from construction of high volumes of emergency infrastructure, and toward the rationalization and improved construction of water points and semipermanent toilets, operation and maintenance of these facilities including sludge treatment, a greater emphasis on hygiene and community engagement, and the initiation of solid waste disposal. As this strategies is rolled out, there remains a critical information gap regarding the WASH-related needs and vulnerabilities of Rohingya refugees at the household level, limiting the ability of the WASH sector to monitor, plan, and adapt its activities in response to developments on the ground.

In order to close this gap, REACH has worked with support from UNICEF to implement a household survey to provide baseline data on the current WASH situation among Rohingya refugee households living in the 35 formally identified refugee camp in Cox's Bazar (see Annex 1 for a full list of camps assessed).¹⁰ Conducted in April 2018, the assessment aims to provide data on WASH needs that is statistically representative at camp level, as well as providing headline figures for the response as a whole. Research questions and relevant indicators were selected in close collaboration with UNICEF technical staff and Cox's Bazar WASH sector partners, with additional input from the Global WASH Cluster in Geneva. The assessment builds on previous REACH assessments of infrastructure functionality, as well as key informant-based needs assessment carried out by the International Organisation for Migration's Needs and Population Monitoring (NPM) unit. It will be followed up by a second round of data collection in July to assess changes over time and the impact of the oncoming rainy season.

The remainder of this report is structured as follows. First, the assessment methodology and limitations are explained. Second, the assessment's findings are presented. These begin with household demographics before moving on to cover water, sanitation, and hygiene related indicators, and finishing with data on household exposure to WASH-related trainings and demonstrations. Finally, the conclusion synthesises key issues and outlines suggestions for further data collection initiatives.

⁵ Inter Sector Coordination Group (ISCG). Situation Report: Rohingya Refugee Crisis, Cox's Bazar, 7 June 2018.

⁶ [United Nation Human Rights Office of the High Commissioner: Mission report of OHCHR rapid response mission to Cox's Bazar, Bangladesh, Cox's Bazar, 24 September 2017](#)

⁷ World Food Programme. Rohingya Emergency Vulnerability Assessment (REVA) – Summary Report, Cox's Bazar, December 2017, p. 5.

⁸ ISCG situation report, 7 June 2018.

⁹ Action Against Hunger. "Preliminary Report: SMART Nutrition Survey, Maungdaw and Buthidaung Townships, Maungdaw District, Rakhine State." http://themimu.info/sites/themimu.info/files/documents/Preliminary_Report_SMART_Survey_Rakhine_ACF_2015.pdf (accessed 7 July 2018).

¹⁰ Sampling and data collection took place before camp boundaries were re-drawn in southern Teknaf and the number of camps was reduced.

METHODOLOGY

During April 2018, REACH collected data for the household assessment across all 35 camps existing at the time of assessment. The aim of the assessment was to profile WASH needs and vulnerabilities at the household level. In order to attain a representative sample, the sample frame was developed using population data collected by the Round 9 of the IOM NPM data to yield representative results at camp/location level, providing generalisable findings with a confidence level of 95% and a 10% margin of error and yielding a total sample size of 3,576 households (see sample frame in Annex 1). Using a shelter footprint developed by REACH in partnership with UNOSAT, random sample points were generated to assist enumerators in selecting households to interview.

Indicators informing the survey questionnaire were developed in close collaboration with UNICEF partners in Cox's Bazar as well as the Global WASH Cluster and the WASH Sector Cox's Bazar. The tool was translated from English to Bangla, and then reverse translated to make sure the questions had been translated properly. Data collection was conducted using Kobo software on smartphones. Data checking and cleaning took place daily to improve the accuracy of findings. Enumerator training took place prior to the start of data collection and included training on testing for residual chlorine as well as Prevention of Sexual Exploitation and Abuse (PSEA), which was delivered by a PSEA advisor.

Heads of household were identified as the primary respondents for the survey, with households self-selecting respondents in the event that heads of household were unavailable. However, the data used to calculate volume of drinking water was collected by enumerator observation of the number of containers used and the capacity of each container. As well as this, for access to handwashing and soap, enumerators were asked to verify the presence of soap in the home by asking household members to show them the soap.

DATA ANALYSIS

Using SPSS software, findings have been aggregated to whole of camp for Rohingya refugees and at camp level for both Rohingya refugee and the four areas that were assessed for host community. Due to the volume of data generated per camp/host community, key findings will be presented in separate factsheets synthesising statistically representative data.

As REACH is conducting regular census data collection on WASH infrastructure in all camps, this secondary data was also used to triangulate findings on access to water points, and problems identified with access to latrines and bathing facilities.

Limitations

- **Limited representation of women's perspectives:** The survey methodology identified heads of household as primary respondents for data collection. This approach yielded a sample in which 37% of respondents were female, meaning that women's knowledge and attitudes is significantly represented in this survey. Further, no protocol was put in place for ensuring that only female enumerators interviewed women, meaning that the presence of male enumerators may have constrained some women's responses. However, it is important to note alongside this fact that relatively few significant differences were noticed in the responses of women and men to perception-based questions.
- **Menstrual hygiene** questions were included in the survey form under that condition that questions would only be asked if the enumerator was female and the respondent was female. As such findings for menstrual hygiene are not statistically representative of the population and should be considered indicative only.
- **Residual chlorine testing** was included into the assessment if respondents reported that they had treated water available to test in the house. The analysis indicated that a very low proportion of households used water purification tablets, this means that the findings for residual chlorine testing are too low to be statistically representative and should also be considered indicative.

FINDINGS

This section of the report presents the main findings from the household survey. It begins by including basic demographics of respondent households, before outlining findings for the key domains of water, sanitation, and hygiene. It concludes by presenting findings on levels of household access to WASH-related trainings and demonstrations. Wherever possible, findings are triangulated with secondary data sources, specifically REACH's March/April infrastructure monitoring (IM) data and NPM's Round 9 (March) key informant dataset.¹¹

Demographics

Overall, 3,576 households were interviewed for this assessment. Of these, 73% were male-headed (including 15% elderly male-headed) and 27% were female-headed (including 7% elderly female-headed). The average household size was 5.3 members. Sixty-three percent of households reported the presence of children under the age of five, while 7% of households reported the presence of people with disabilities.¹² Overall, 37% of respondents were female.

Water

The first part of this section details findings related to the main household sources of drinking and non-drinking water publicly available; water collection (including gender of individuals collecting water and distances/wait-times involved); reported challenges to water access; coping strategies used to mitigate these challenges; levels of satisfaction with water access; and perceived changes in levels of water access over time. The second part looks at water treatment practices, including types of water treatment practiced and attitudes regarding aquatabs. The third part examines household drinking water storage practices and collection frequency.

Water sources

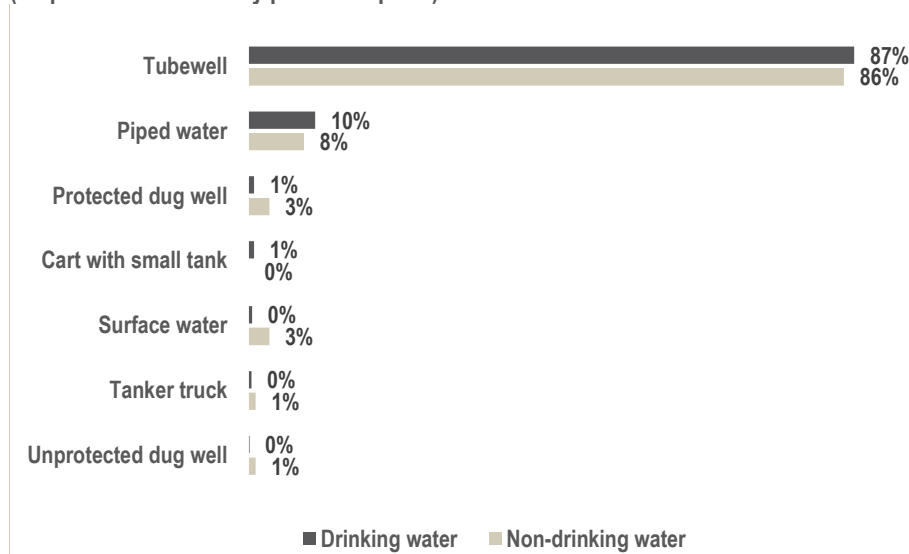
Over 99% of households rely on improved water sources for both their primary and secondary source of drinking water (see Figure 1).¹³ In terms of primary sources of drinking water, the most commonly reported improved water sources were tubewells (87%) and piped water (10%) followed by protected dug wells (1%) and carts with small tanks. Only 8% of households reported using a secondary drinking water source. At camp level, substantial minorities of households reported using unprotected drinking water sources in Camp 20 (27%) and Jadimura (17%). For non-drinking water, a similar 97% reported reliance on protected sources. A slightly higher 3% of respondents reported using unprotected sources, namely surface water (2.6%) and unprotected dug wells (0.6%).

¹¹ Available at <https://iom.maps.arcgis.com/home/item.html?id=7928d4a870d14fbd98a0722cc9f5776> (accessed 20 June 2018)

¹² Disability was self-reported as time constraints prevented the full use of Washington Group short questions.

¹³ The questionnaire provided respondents with 11 options (not including "other" and "do not know") which can be categorised as improved water sources and unimproved water sources. Improved water sources include: Tubewells, piped water, tanker truck, cart with small tank, bottled water, protected spring and protected dug well. Unimproved water sources include: Rain water collection, surface water, unprotected spring and unprotected dug well.

Figure 1: Proportion of households reporting primary water sources for drinking and non-drinking water (respondents could only pick one option)

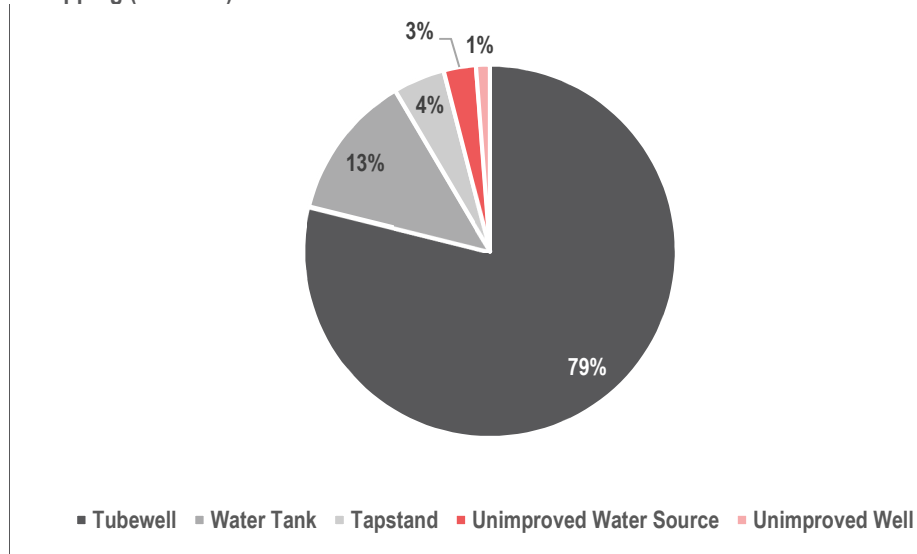


At the camp level, the use of tubewells was reported most frequently in the Kutupalong-Balukhali Extension Site, where they accounted for 90% or more of main drinking water sources. The one exception was Camp 20—sparsely populated and relatively newly-developed at the time of assessment. In this site, 32% reported using protected wells and a further 27% reported using unprotected wells. Tubewell use was generally lower in the southern Teknaf area, especially in Leda MS (22%) and Nayapara RC (5%). Across these sites, households not using tubewells were predominantly reliant on piped water, although 14% of households in Jadimura also reported relying on surface water. Tubewell use was also notably low in Unchirang at 22%, with families relying on piped water (54%) or protected dug wells (15%) instead.

These findings match closely with the results of REACH infrastructure assessments (see Figure 2), which indicate that the majority of water sources in the camps are tubewells (79%), followed by water tanks (13%). Taken together, these findings strongly suggest that a large majority of households are using the same water sources for drinking and non-drinking purposes. Similarly, NPM data indicate that tubewells are the most commonly accessed water source in 81% of Mahjee blocks.¹⁴

¹⁴ A Mahjee block is an arbitrary unit of approximately 100 households overseen by a government-appointed block leader of Mahjee. Mahjees form the NPM's key informant network and the Mahjee block is the NPM's main unit of analysis.

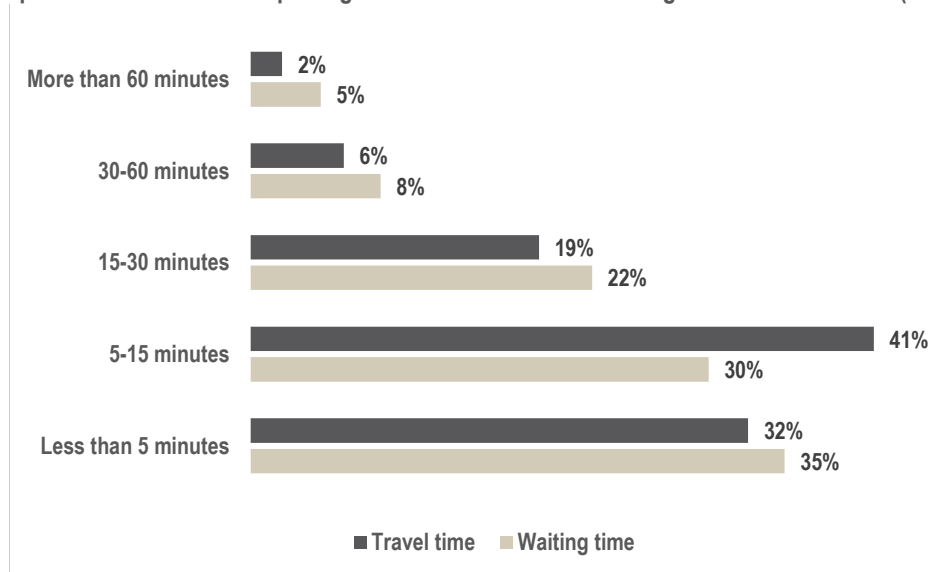
Figure 2: Percentage breakdown of water sources available in refugee camps as recorded in the REACH Infrastructure Mapping (Round V)



Water collection

On issues related to water collection, respondents were first asked which people in their household were responsible for collecting water, with the possibility to select multiple answers. Adult women were most commonly responsible, reported by 79% of households. By contrast, only 23% of households reported adult men. This gendered division of labour is also reflected to a lesser extent in children's involvement. While only 16% of households reported that boys were responsible, almost double (28%) reported so for girls.

Figure 3: Proportion of households reporting travel time to/from and waiting time at water source (in minutes)



Households were then asked to estimate the length of time taken to travel to and from drinking water sources (see Figure 3).¹⁵ Around 27% of households reported a return trip of over 15 minutes to the drinking water source, 8% reported this took more than 30 minutes, and only 2% reported longer than 60 minutes. However, there were significant variations across camps. Journeys of longer than 30 minutes in the Kutupalong-Balukhali Extension Site were in almost all cases reported by less than 10% of households. In the Teknaf area these figures were higher, most notably in Jadimura (44%) and Leda C (40%). By contrast, in Shamlapur 97% of people reported a journey of 15 minutes or less.

¹⁵ Households were also asked about travel times and waiting times for non-drinking water sources. In all cases, the difference in walking/waiting times was less than 5%. When taken together with the fact that over 80% of households report tubewells as their primary source for both drinking and non-drinking water, this suggests that most households are using the same water source for both purposes.

It is important to note that these reported travel times are not coherent with the available data on the distances between households and functional water sources. In particular, REACH Infrastructure Mapping (IM) data for March/April shows that 98% of households have a functioning tubewell less than 200m from their shelters, with little variation across camps. While there are limitations to this data,¹⁶ this would imply lower travel times than those reported by many of the households assessed in this survey. Further research is necessary to account for this discrepancy—for example, field-level observations and focus group discussions with household members tasked with fetching water. Any such research should focus specifically on the comparative water access situation prior to displacement, to better understand how far the perceived difference between pre and post-displacement experiences may be affecting refugee perceptions on this issue.

Following this, households were asked about waiting times at drinking water sources (see Figure 4). Waiting times of over 15 minutes were reported by 35% of households, with 13% of households exceeding the 30-minute waiting time threshold established by the Cox's Bazar WASH sector as a minimum standard for the post-6 month phase of the crisis. As above, waiting times were worse in the southern Teknaf area, with wait times over 30 mins reported in Jadimura (47%), Leda C (57%), Leda D (48%), and Leda MS (64%). Shamlapur again reported among the lowest wait times, with 77% of households reporting a wait under 5 minutes. By contrast, while households in Unchiprang reported generally low travel times to water points, they reported among the highest waiting times for all camps, with 64% reporting waiting times of 30 minutes or more.

Here, responses align much more closely with REACH IM data. At the camp level, there is a strong positive correlation ($r=0.72$) between the proportion of households reporting long waiting times in the survey data, and the number of individuals per functional improved water point in the REACH IM data. According to the REACH IM dataset for March/April,¹⁷ the average number of individuals per functional piece of water supply infrastructure (including both improved and non-improved sources) across all camps was 89—significantly within the maximum threshold of 500/1,000 individuals per shallow/deep tubewell set by the Cox's Bazar WASH Sector. However, there are significant differences across camps: while the average number individuals per functional water source across the Kutupalong-Balukhali Extension site is 62, this jumps to 177 in the southern Teknaf camps. This number is also well above average in Unchiprang (171), and well below average in Shamlapur (27).

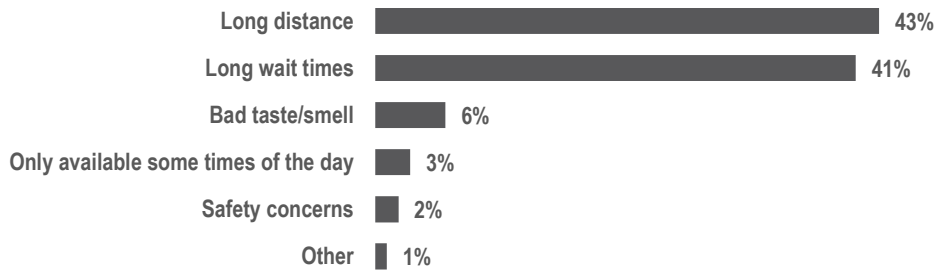
Problems and coping strategies

Across all assessed camps, 56% of all households reported facing some type of problem when accessing water (including drinking and non-drinking water sources), with 52% of all households reporting that distance to or queuing at water points constituted an access problem. Of the households reporting challenges, the top 3 most commonly reported problems include long distance (reported by 43% of households), long wait times (41%) and bad taste/smell (6%). These responses did not differ significantly between male and female respondents. It is also important to note that out of the households who reported long travel times as a problem, only 16% reported a return travel time of 30 minutes or more. Similarly, out of those households who reported long wait times as a problem, only 27% reported waiting times exceeding 30 minutes.

¹⁶ First, 200m is measured as straight-line distance and does not take into account real access pathways, quality of routes or slope gradient. Second, REACH infrastructure mapping attempts to be as comprehensive as possible but the practical challenge of finding infrastructure in a large and congested camp means that infrastructure units are inevitably missed out. For example, REACH believes it captures around 75-80% of actually existing tubewells based on triangulation with other data sources.

¹⁷ Infrastructure data source: [REACH Rohingya refugee settlement infrastructure dataset for March/April 2018](#); Population data source UNHCR population data as of 30 April 2018.

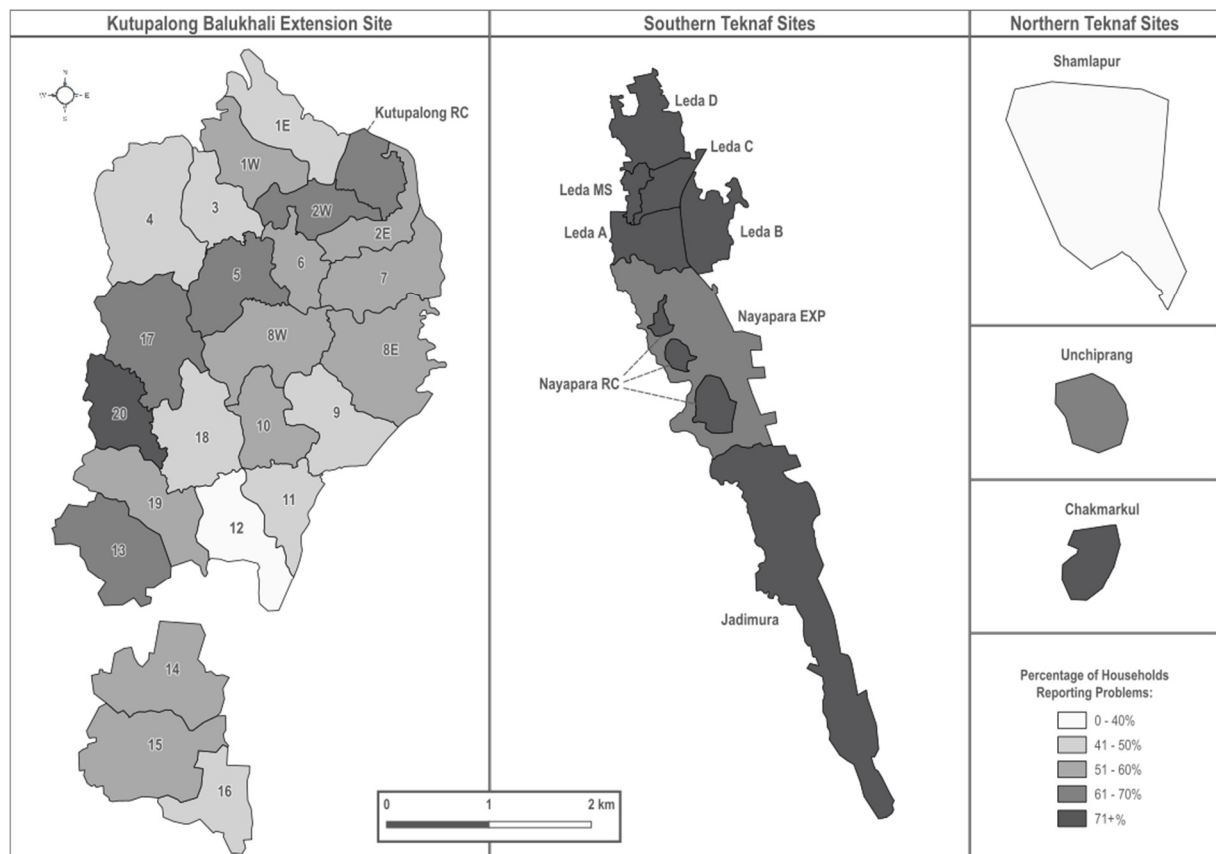
Figure 4: Proportion of households reporting problems when collecting water (respondents could pick more than one option)



In general, sites in southern Teknaf reported problems at a higher rate compared to other areas, with over 90% of households reporting in Jadimura, Leda C, and Leda D. In line with reported distances and travel times in these areas, waiting times and distance were the primary reported concerns (with distance less of an issue in Leda MS and Nayapara RC, where households are significantly more reliant on piped water compared to other areas). Chakmarkul (79%) and Camp 20 (79%) also reported problems at a significantly higher rate compared to other camps. In Chakmarkul these problems were again related to distance and wait times. However, in Camp 20, 42% of respondents reported bad taste/smell—far above any other camp, and significant in a site where so many are reliant on unprotected water sources. Finally, only 16% of households in Shamlapur reported problems with water access, in line with the low reported travel and wait times at this site.

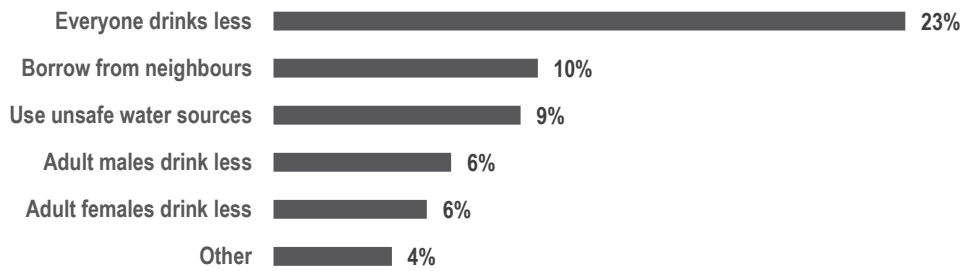
By comparison, long distances and wait times are also reported as significant problems in the NPM dataset. Specifically, long distances are reported in 62% of Mahjee blocks, distance to water points are reported in 48% of blocks. Bad quality water is also reported in 25% of blocks compared to the lower level of 6% reporting bad taste/smell in the survey. Both REACH and NPM data rely on subjective perceptions of household and Mahjee respondents, meaning that without triangulation through water quality testing results, it is not possible to account for the difference between the two sets of findings.

Map 1: Proportion of households reporting problems when collecting water



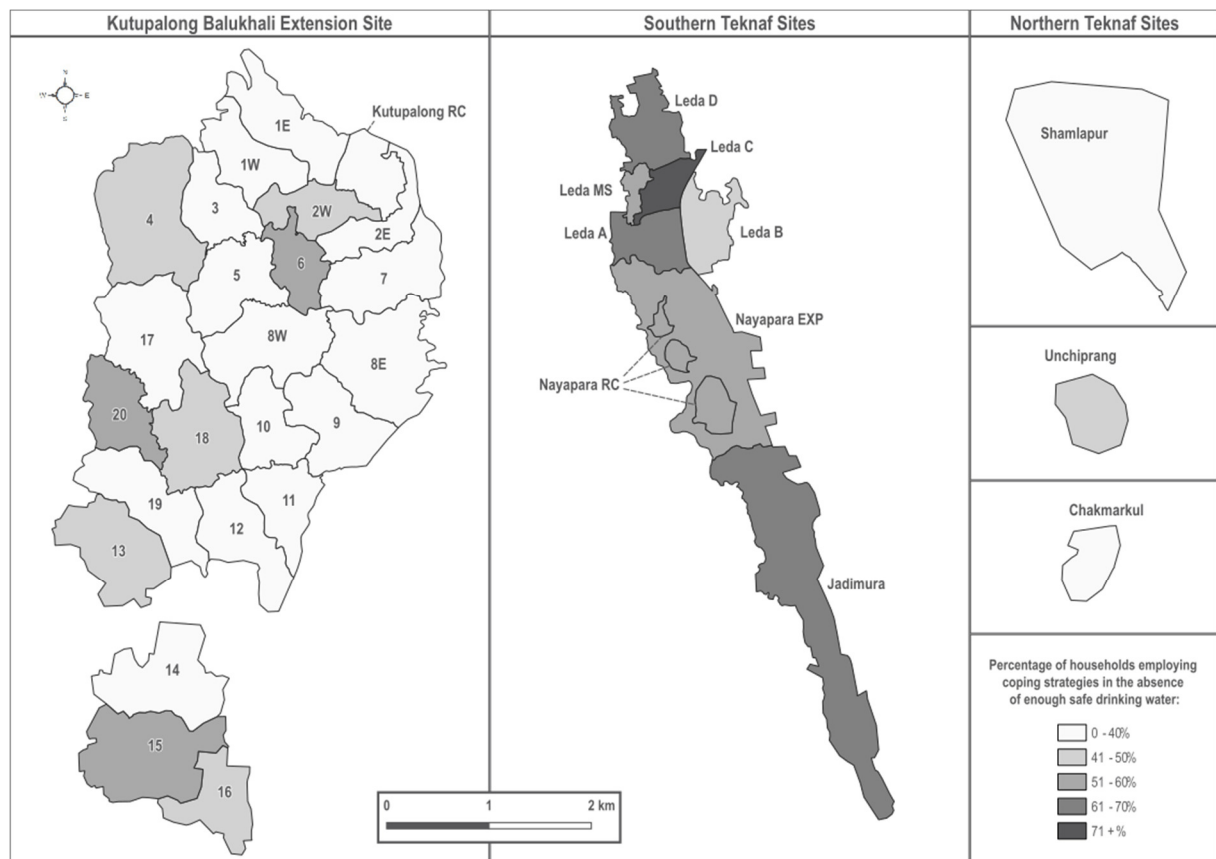
Households were then asked whether they employed coping strategies if they did not have access to adequate safe drinking water. Forty percent of households reported employing some form of coping strategy to cope with a lack of safe drinking water. Twenty-three percent reported that the main coping strategy was that all household members drank less, signifying that households were less likely to deprive a specific member of the family of water to satisfy the needs of the rest of the household. This was followed by 10% reporting borrowing from neighbours and 9% reporting borrowing from neighbours and 9% knowingly drank or used water that was deemed to be unsafe. Across these responses, no significant differences between male and female-headed households were observed, or between male and female respondents.

Figure 5: Proportion of different households employing different coping strategies in the absence of enough safe drinking water (respondents could pick more than one option)



In general, the use of some form of coping strategy was reported at higher rates in the southern Teknaf camps—especially in Leda C (72%), Jadimura (70%), and Leda A (69%)—and at lower rates in Camp 9 (16%) and Shamlapur (21%). Minimal significant differences by camp were reported in terms of the types of coping strategy used.

Map 2: Proportion of households employing coping strategies in the absence of enough safe drinking water

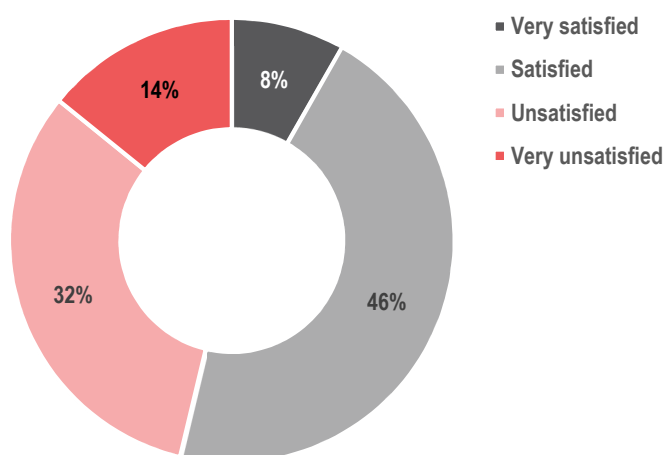


Again, these data are similar to NPM key informant reports, where drinking less water is reported as a coping strategy in 29% of blocks, and using less desirable water sources is reported in 12% of blocks.

Satisfaction and perceived change over time

Households were also asked about the levels of satisfaction they felt about access to water. As indicated in Figure 6, 8% reported very satisfied, 45% satisfied, 32% unsatisfied and 14% very unsatisfied; again, no significant variations by gender of household head or gender of respondent were observed. At the camp level, trends in satisfaction generally followed other trends in water access: satisfaction was generally lower in southern Teknaf camps, especially in Leda D (88% of households reporting unsatisfied or very unsatisfied), Leda C (83%) and Jadimura (77%). Higher levels of dissatisfaction were also reported in Unchiprang (77%) and Camp 20 (72%), likely reflecting the latter camp's relatively high reliance on unprotected water sources. By contrast, only 19% of households in Shamlapur reported being unsatisfied.

Figure 6: Proportion of households reporting different levels of satisfaction with water access



The majority of households (68%) reported that they felt their water access situation was the same compared to 30 days ago, with roughly equal numbers reporting that it had improved (14%) and got worse (18%). Kutupalong RC (49%) and Camp 20 (45%) reported worsening water access at significantly higher rates. For Camp 20, this may be related to households being relocated to this area from other camps with better WASH services. By contrast, significant improvements were reported in Camp 12 (33%), Camp 4 (36%), and Camp 17 (28%).

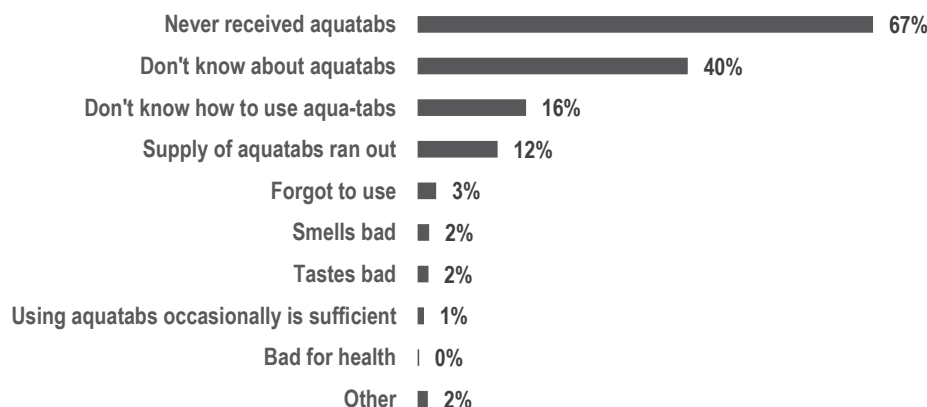
Water treatment

Overall, 17% of households reported using some form of water treatment process. This included 13% of households using aquatabs, 2% of households boiling water, and 2% of households filtering it through cloth. In general, aquatab use was significantly higher in Nayapara RC (38%), Chakmarkul (40%), Camp 7 (37%) and Camp 1E (37%). No variations between male and female-headed households were observed. Significantly, households who had received training on aquatabs were somewhat more likely to report using them: of the 24% of households who reported receiving aquatab training, around one-quarter reported using aquatabs. By contrast, only 1% of families who had not received aquatab training reported aquatab use.

In order to cross-check reported aquatab use, households were also asked whether they had used aquatabs to treat water on the day of data collection. Only 8% of households reported doing so, with only Nayapara RC (39%) reporting significantly higher levels of use. Households were then asked why they did not use aquatabs (see Figure 7). Not receiving aquatabs (67%) and lack of knowledge of aquatabs (40%) were the main reported reasons. Respondents in Kutupalong RC (71%) were significantly more likely to report not knowing about aquatabs, while respondents in Leda A (95%), Leda B (90%), and Leda C (95%) were significantly more likely to report never receiving aquatabs. Overall, these results are of significant concern given the results of an ongoing microbial testing assessment conducted by the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) and

UNICEF, which indicate that 75% of an indicative (i.e. not statistically representative) sample of 3,574 household point-of-use water samples were found to be contaminated with faecal coliforms and a further 33% contaminated with *E. coli*.¹⁸

Figure 7: Proportion of households reporting different reasons for not using aquatabs (respondents could pick more than one option)



If respondents reported that they had used aquatabs to purify water on the day of the assessment, enumerators asked permission to conduct residual chlorine tests on water in their house. 182 tests were conducted,¹⁹ with the following results: 71% had no traces of residual chlorine, 19% were found to have a concentration level of 1.5 or higher while 10% had a concentration level of 0.1 to 1.5. While the tested samples returning no traces of residual chlorine do not mean that aquatabs were not used, these samples may possibly indicate improper use. Similarly, levels of 1.5 are comparatively high compared to a SPHERE guideline of 0.2-0.5, and again suggest that further follow-up training may be required to ensure that uptake of aquatabs is accompanied by proper use.

These results contrast with NPM data, where key informants may appear to estimate higher rates of water treatment. Specifically, Mahjees in 37% of blocks reported that either “half” or “most” of the households in their blocks were treating water. However, reflecting trends in the survey data, Mahjees also report that where households are treating water, they are most commonly using aquatabs to do so (reported as the main treatment mechanism in 43% of blocks compared to cloth filters at 13% and boiling at 9%).

Household drinking water: storage and collection

To check household water availability and household water storage practices, respondents were asked to show enumerators the containers used for drinking water collection the day prior to the assessment. For each container, enumerators then: i) recorded the type of container; ii) recorded whether it was covered or not; iii) asked household members about its volume; and iv) asked household members about the number of times it was refilled each day at water sources.

Overall, 97% of households had at least one covered container for storing drinking water. However, this finding contradicts field observations by WASH sector partners and should be carefully triangulated by further assessment. Only 41% of households were using the 2 or more containers to store drinking water set as a minimum standard by the Cox's Bazar WASH sector. This was especially low in camps 18 and 19, where only 14% and 18% of households respectively had 2 or more storage containers. In terms of the type of containers used, 85% of households were storing water in aluminium pitchers, followed by 19% in buckets, 14% in bottles, and 5% in jerry cans.

Regarding the interpretation of figures for both the volume of drinking water storage and the volume of water collected per day, it is important to note the following important caveats: first, volumes of storage containers were based on the reported estimates of household members and not on measurement or categorisation. This is

¹⁸ icddr,b and UNICEF. Factsheet 4, “A Bacteriological Water Quality Issue: Rohingya ‘Forcibly Displaced Myanmar Citizen’ Camp in Cox's Bazar, Bangladesh”, 6 June 2018.

¹⁹ These sub-set findings are not statistically representative of the populations assessed and should be considered indicative.

especially important for the aluminium pitchers forming the bulk of household water storage capacity, where no standardised volumes exist. According to Cox's Bazar WASH sector minimum standards, the volume of the two aluminium pitchers distributed as part of household hygiene kits and intended explicitly for drinking water storage is 15 and 18 litres per pitcher. However, the average volume per pitcher used for water storage according to estimates from household members was only 10 litres. Given the widespread coverage of hygiene kit distributions, the possibility therefore exists that household members were systematically under-estimating the volume of their aluminium pitchers. However, since the survey did not ask about whether containers were sourced via distributions or not, it is impossible to ascertain without extensive further field verification whether or not under-estimation has taken place. The figures presented below should therefore be interpreted with caution; based on lessons learned in this assessment, REACH will work to refine data collection methodologies for household water storage in subsequent assessment rounds.

The average volume of drinking water storage per person was 2.99 litres, with only 3% of households having 10 or more litres per person of drinking water storage capacity. The average amount of drinking water collected per person, per day was then calculated by multiplying the reported volume of each container by the number of times it was reportedly re-filled per day, and then dividing the total amount by the number of members in each household. Overall, the average available volume of drinking water available per person per day was 4.28 litres. 42% of households had less than 3 litres/person/day, while 21% of households had less than 2.5 litres/person/day.²⁰ Camps with significantly below average drinking water availability included Camp 19, Shamlapur, Nayapara EXP and Nayapara RC—all of which had below 3 litres/person/day.

Strikingly, there is only a weak positive correlation ($r=0.24$) between volume of household water collected and the proportion of households employing coping strategies to deal with a lack of water. For example, while Shamlapur is a positive outlier in terms of travel times, wait times, and satisfaction, it reports well below-average levels of drinking water collection (3.19 litres/person/day). This trend stands in contrast to the much stronger correlations in terms of wait times/individuals per infrastructure point or access problems/levels of satisfaction reported above. As such, it may indicate weaknesses in the data for this indicator, or possibly suggest that the amount of drinking water collected per day is not a reflection of actual access to drinking water. Ultimately, more research is needed to both verify volumes collected, and understand how they relate to access issues. Again, qualitative research drawing comparisons between water consumption habits pre- and post-displacement may help to contextualise the quantitative findings presented in this section.

Sanitation

This section presents data on the assessment's sanitation-related indicators. It begins by looking at household access to latrines and defecation practices among adults and children under 5. It then moves on to address reported problems with latrines, perceived safety concerns around their use, and levels of satisfaction with latrines and perceived changes over time. It concludes by examining issues around solid waste management.

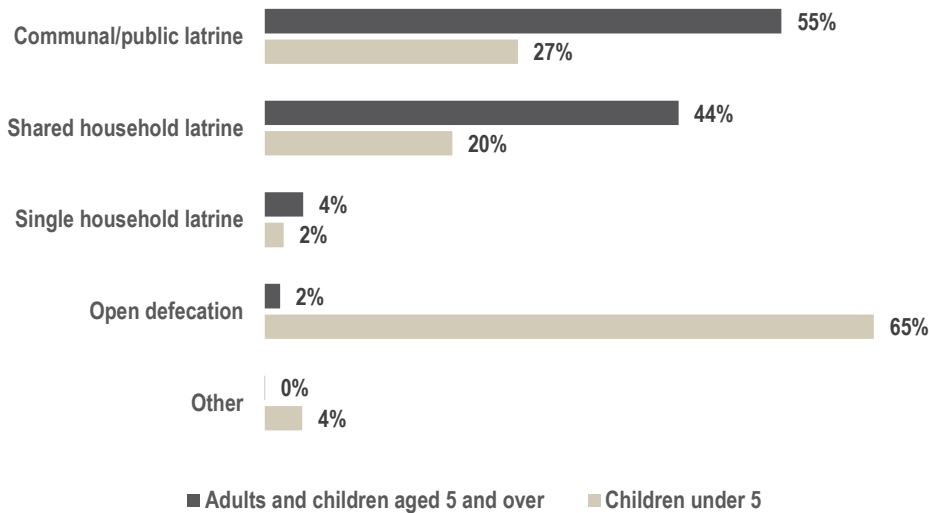
Access to latrines and defecation practices

Households were asked where adults and children aged 5 and over usually went to defecate, and then asked where children under 5 usually went to defecate, with multiple answers possible in both cases (see Figure 8). Over half of households reported using communal latrines—usually blocks of multiple latrines available to all users—as the main facility used for defecation (55%). This is followed by shared household latrines—latrines used exclusively by a small group of surrounding households (44%). In contrast, single household latrines were infrequently reported (4%), and only 2% of households reported engaging in open defecation. Higher rates of communal latrine use were reported in Camp 10 (77%), Camp 1W (77%), and Leda MS (78%). By contrast, higher rates of shared latrine use were reported in Camp 20 (68%), Camp 5 (68%), and Leda B (66%).

²⁰ The SPHERE handbook identifies 2.5-3 litres per person per day as the envelope for drinking water "survival needs".

For children under 5, latrine use was reported by 49% of households, with 65% reporting that children under 5 usually defecated in the open.²¹ Camp 16, Camp 20, Camp 2E, Camp 6, Kutupalong RC and Jadimura all reported rates of under 5 open defecation higher than 80%.

Figure 8: Proportion of households reporting members of different ages “usually” defecating in different spaces (respondents could pick more than one option)

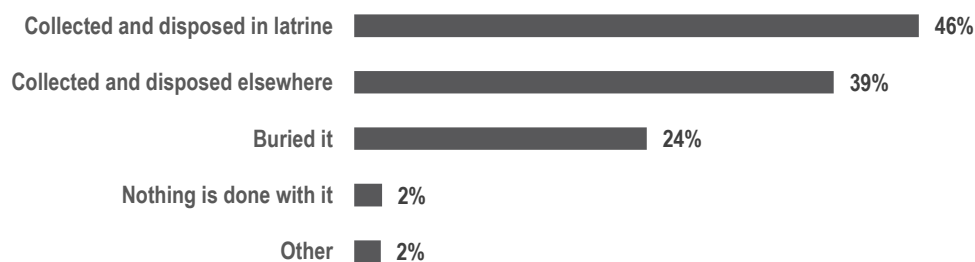


In order to further cross-check the extent of open defecation, respondents were asked if adults in their households “sometimes” defecated in the open. This recorded a similar but slightly higher rate of 5% compared to the 2% reporting “usually” defecating in the open above. The proportion of households reporting occasional adult open defecation was significantly higher in Camp 17 (24%) and Jadimura (23%). For children under 5, the proportion of households reporting occasional open defecation was substantially higher at 83%, compared to the “usual” rate of 65%. In Camp 2E, Camp 6, and Kutupalong RC, over 95% of households reported occasional open defecation for children of this age. Overall, these results suggest that while only a small proportion of adults practice open defecation, the practice is much more common among young children, who are also less likely to consistently use latrines—even if they “usually” do so. These figures align closely with the NPM dataset, where key informants report that open defecation is considered “normal practice for children” in 76% of blocks.

Households were then asked about how they disposed of the faeces of children under 5 (see Figure 9). A plurality (46%) reported disposing of it in latrines. However, a substantial minority reported disposing of it elsewhere (39%), with a further 24% reporting burying it. Information on where else households disposed of faeces apart from latrines or burial was not collected, and further research is required to understand to what extent these practices constitute safe or unsafe disposal. However, given that only one-quarter of the households who reported burying feces also reported receiving training on safe burial of feces, it is likely that the majority those using burial as a disposal method are not doing so safely.

²¹ These results are presented for the 2,261 surveyed households with children under 5. As households with children under 5 were not specifically sampled for, these results are indicative and not statistically representative.

Figure 9: Proportion of households reporting different practices for disposing of feces for children under 5 (respondents could pick more than one option)

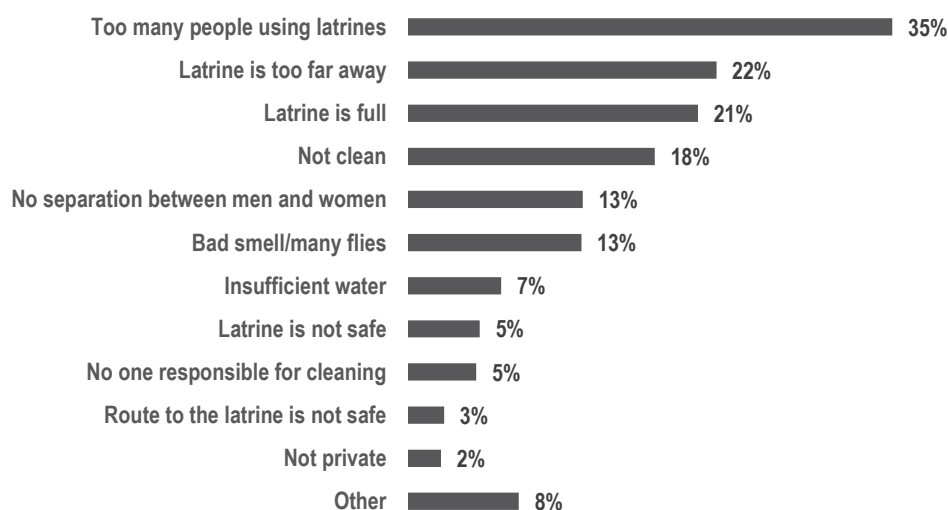


Problems and safety

Overall, 53% of households reported problems with access to latrines, with no significant differences according to the gender of the respondent (see Figure 10). The most frequently cited problem was overcrowding (35%), followed by distance (22%), mirroring the main problems raised by households regarding water access. In terms of cleanliness, 21% reported that the latrines were full, 18% reported that latrines were not clean, while 13% reported bad smells and the presence of flies. In terms of safety and dignity, the main concern was the lack of separation between men and women (13%), followed by concerns that latrines were not safe (5%), and that the route to latrines was not safe (3%). No significant differences were observed by gender of respondent on safety and dignity issues, with men and women reporting these problems at similar rates.

These figures contrast with NPM data, where more emphasis is placed on a lack of sex separation (reported in 63% of blocks), followed by full latrines (reported in 46% of blocks)—although overcrowding is reported at a similar level (45% of blocks reporting “not enough” latrines). Again, without further information it is not possible to account for the difference between responses. It is important to note that NPM data represents interviews with exclusively male block leaders, whose experiences and position may lead them to give differing weight to issues compared to ordinary heads of household.

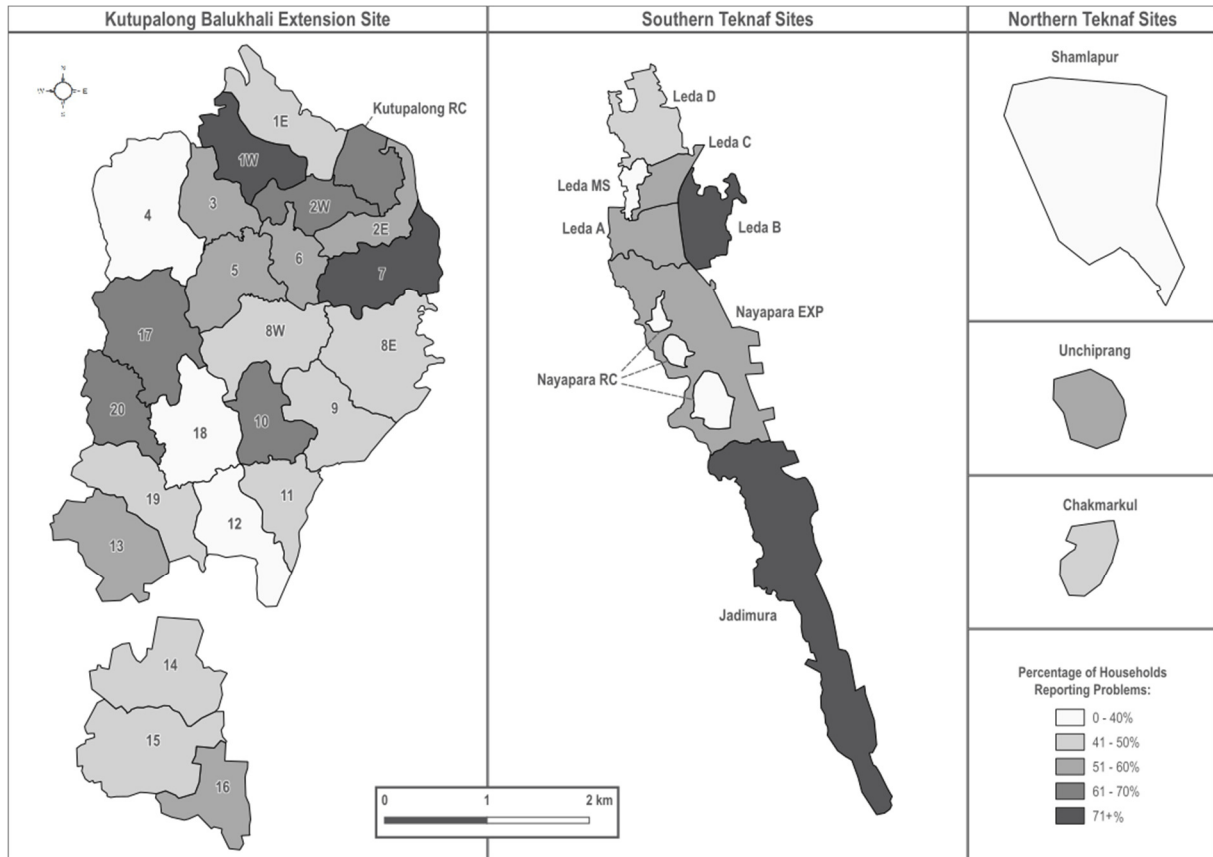
Figure 10: Proportion of households reporting different problems with latrine access (respondents could pick more than one option)



Overall, reported problems with latrine access were less geographically concentrated compared with water access. Camp 1W (72%), Camp 7 (72%), Jadimura (73%) and Leda B (74%) supported significantly above average levels of problems with latrines, while Camp 12 (36%), Camp 4 (32%), Shamlapur (37%), and Nayapara RC (32%) reported significantly below-average levels of problems (see Map 2). In general, distance problems were reported at slightly higher rates in the Kutupalong-Balukhali extension site compared to southern Teknaf. Overcrowding was reported at broadly similar levels across camps with only Kutupalong RC (58%) reporting significantly above-average. Cleanliness issues were reported at significantly above-average rates in Camp 1W (38% reporting full

latrines and 22% reporting bad smell) and Camp 7 (35% reporting full latrines and 24% reporting bad smell). Issues around safety/dignity—specifically lack of separation for men and women—were reported in Camp 17 (27%), Camp 2W (33%), Kutupalong RC (28%), and Leda B (38%).

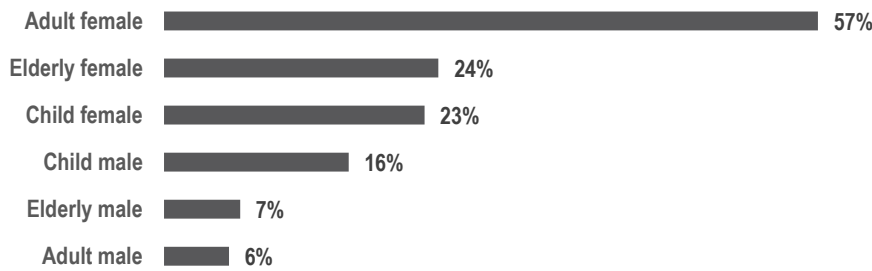
Map 3: Proportion of households reporting problems with latrine access, by camp



In general, reported problems with latrines correlated less strongly with REACH IM data compared to water access issues. At the camp level, there was a weak positive correlation ($r=0.33$) between the number of individuals per functional latrine as reported in REACH IM data, and the proportion of households reporting too many people using latrines. Similarly, there was a weak positive correlation ($r=0.33$) between % of shelters within 50m of a functional latrine and the proportion of households reporting distance to latrines as a problem. Again, there was a weak positive correlation ($r=0.33$) between the proportion of functional latrines in each camp and proportion of households reporting latrines were full. There was no correlation observed between proportion of latrines in each camp that were designated for women and the proportion of households reporting a lack of separation between men and women. One possible explanation for the relative weakness of these correlations is that self-built latrines in particular are not fully covered by the REACH IM dataset, especially in areas where refugees live alongside host communities (for example, Shamlapur reported among the lowest levels of latrine distance as a problem, but also has the largest proportion of shelters further than 50m from a latrine in the IM dataset). However, further qualitative research is needed to better understand the dynamics of how people use latrines in this setting.

Based on widespread reported safety concerns regarding access latrines at night, respondents were asked which members of their household would feel unsafe using latrines at night. Overall, a clear majority of households reported adult women would feel unsafe (57%), with around one-quarter reporting that elderly women and children of both genders would feel unsafe (see Figure 11).

Figure 11: Proportion of households reporting that different family members would feel unsafe when using latrines at night (respondents could select more than one option)

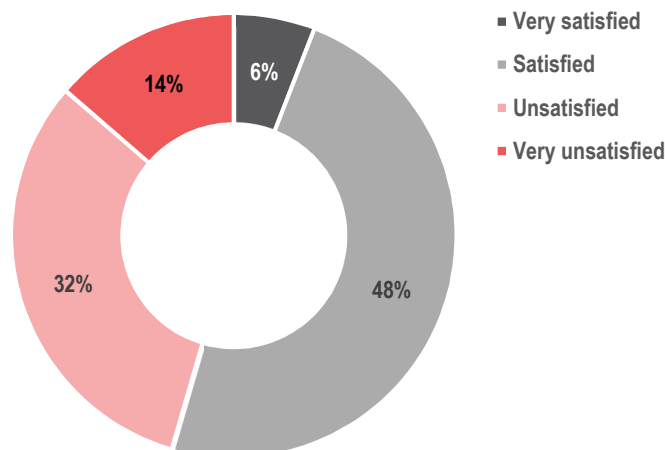


On this question, there were significant differences according to the gender of respondent. Female respondents (63%) were more likely than male respondents (54%) to report that adult women would feel unsafe at night. By contrast, almost twice as many male respondents (28%) reported that elderly women would feel unsafe compared to female respondents (16%). Camps with especially acute safety concerns for adult women included Camp 20 (72%), Camp 8W (73%), and Leda MS (72%). There was no correlation observed ($r=-0.08$) between the proportion of households reporting that adult women would feel unsafe in each camp, and the proportion of latrines that were safe²² and functional in each camp in the REACH IM data.

Satisfaction and perceived change over time

Households were also asked about the levels of satisfaction they felt about access to latrines. As indicated in Figure 12, 6% reported very satisfied, 48% satisfied, 32% Unsatisfied and 14% very unsatisfied, with no significant variations by gender of household head or gender of respondent observed. Camps reporting high levels of dissatisfaction with latrines were generally the same as those reporting higher levels of problems with latrines, specifically Camp 1W (66% reporting unsatisfied or very unsatisfied), Camp 7 (68%), Jadimura (63%) and Leda B (71%).

Figure 12: Proportion of households reporting different levels of satisfaction with latrine access



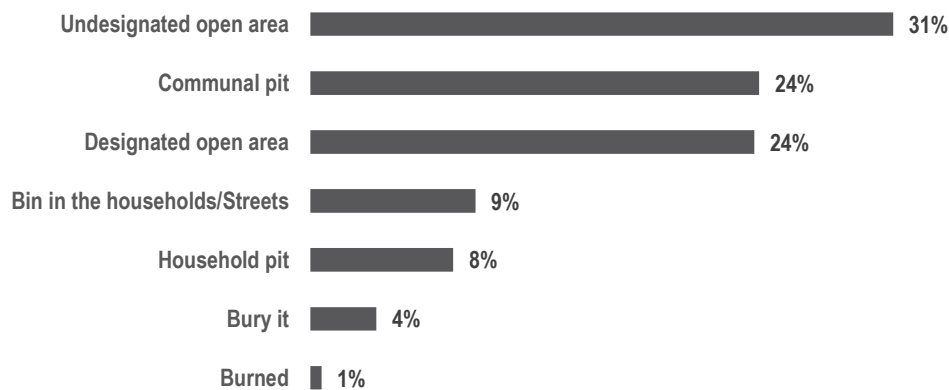
As with water access, the majority (65%) of households felt there had been no change in their levels of access to latrines compared to 30 days ago, with 13% reporting improving conditions and 22% reporting worsening conditions. Residents of Camp 4 (35%), Leda D (28%), Chakmarkul (27%) and Camp 8W (27%) reported significantly above-average levels of improvements, with no significant differences between camps observed for worsening conditions.

²² "Safe" latrines are defined in the REACH IM questionnaire as those with four walls, a roof, and a lockable door.

Solid waste management

Inadequate solid waste management presents risks to public health in the camp setting and is further compounded by the densely populated nature of the camps. At present, almost half of households are using either communal pits (24%) or designated open areas (24%) to dispose of solid waste (see Figure 16). However, 31% report leaving waste in undesignated open areas, raising a concern as to how this waste is subsequently managed. Use of undesignated areas for solid waste disposal was significantly above average in Camp 7 (48%) and Camp 8E (48%). To further qualify these findings, additional investigation should be done to understand whether households are using the facility in closest proximity to their shelter or whether there are other reasons that inform what method they use.

Figure 13: Proportion of households reporting different methods of disposal of household waste (respondents could only pick one option)



To assess the perceived accumulation of solid waste around people's living spaces, respondents were asked to estimate how frequently they saw feces in the vicinity (30 metres or nearer) of their households. Overall, 61% reported "sometimes" seeing feces, while 9% reported "often" and 6% reported "always" seeing it. These figures should be read in the context of the 65% of households who reported infants under 5 "usually" practicing open defecation (see above). Significantly above-average rates of "often" or "always" seeing feces were reported in Camp 10 (34%) and Camp 6 (36%). Due to an error with the survey tool, a similar question on garbage was not asked.

On the whole, the majority of households report being satisfied (63%) or very satisfied (3%) with the existing system for waste management, however this still leaves around a third of households being dissatisfied (31%) or very dissatisfied (4%) with the status quo. Female respondents were significantly more likely to report being dissatisfied/very dissatisfied (36%) with solid waste management compared to male respondents (27%). A substantial number of areas of the Kutupalong-Balukhali Extension site reported being either dissatisfied or very dissatisfied at significantly higher than average rates, including Camp 1W (61%), Camp 17 (60%), Camp 2W (58%), Camp 7 (56%), Camp 20 (54%), and Camp 5 (53%). This was also true for residents of Leda B (61%).

Hygiene

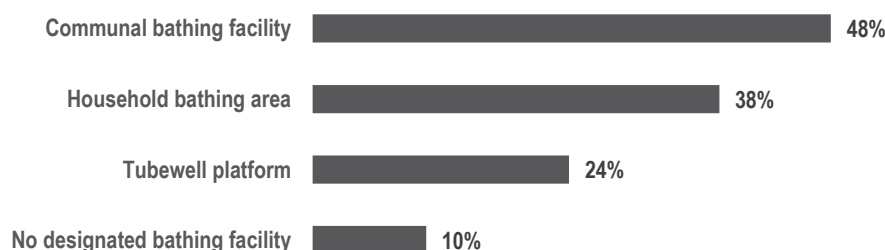
This section covers household use of bathing facilities (including type of facilities used, problems and safety, satisfaction, and perceived change over time), before examining issues around access to soap, and menstrual hygiene materials.

Bathing facilities

The most commonly reported facility for where the adult members of each household usually go to bathe was communal bathing chambers or "wash rooms," reported by 48% of households (see Figure 14). These were followed by self-built household bathing areas (38%), and tubewell platforms (24%). 10% of households reported having no designated bathing area, while 16% reported access to neither communal nor household bathing facilities. Camps with the highest reported rates of no designated bathing facility were Jadimura (35%), Leda C (30%), and Leda B (27%) in southern Teknaf, together with Camp 20 (39%), Camp 8W (29%), and Camp 17 (27%) in the Kutupalong-Balukhali Extension site. The questionnaire did not ask about bathing practices of individuals or

different ages and genders within the household, and no significant differences in the reported type of bathing area used were observed by gender of respondent. However, it is reported anecdotally by WASH sector partners that women and girls are more likely to use facilities within their own households due to safety and dignity concerns regarding public facilities.²³

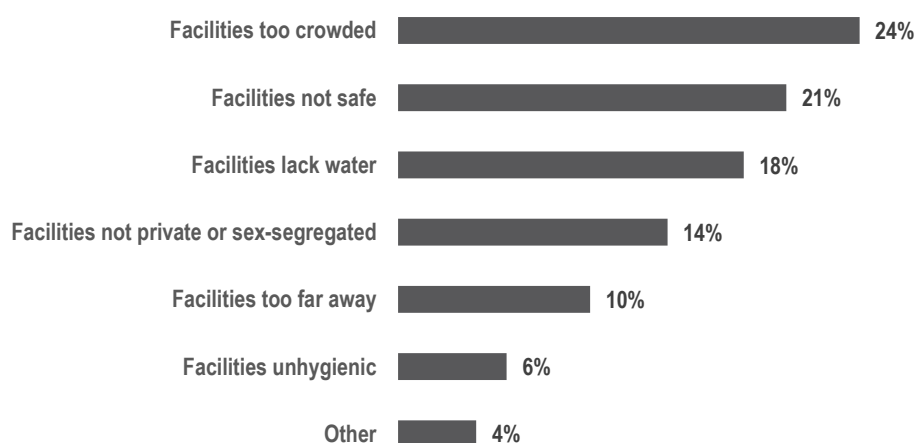
Figure 14: Proportion of households reporting use of different types of bathing facility (respondents could pick more than one option)



Problems and safety

Overall, 56% of households reported problems bathing, with no significant difference according to gender of respondent (see Figure 15 below). Camps with above average levels of reported problems included Jadimura (80%), Leda A (78%), Leda B (71%), and Leda C (82%) in southern Teknaf, along with Camp 8W (79%) and Camp 20 (73%) in the Kutupalong-Balukhali Extension site. Overcrowding was the most commonly reported problem (24%), most notably in Kutupalong RC (38%) and Camp 4 (38%). This was followed by safety concerns (21%), which were especially intense in Leda C (57%), Jadimura (46%) and Leda B (42%). Reflecting lower rates of reported water availability in southern Teknaf, Jadimura (42%) and Leda C (40%) reported lack of water as a problem for bathing at over double the average rate for other camps (18%). Interestingly, reported levels of overcrowding at the camp level do not match well with the REACH IM data – the number of individuals per washroom displays a weak negative correlation ($r=-0.37$) with the proportion of households reporting overcrowding as an issue. This finding may be related to undercounting of washrooms in REACH IM data in certain sites, or it may be linked with the fact that relatively high numbers of households report using household bathing areas, which are not included in the REACH IM dataset.

Figure 15: Proportion of households reporting different problems with bathing (respondents could pick more than one option)



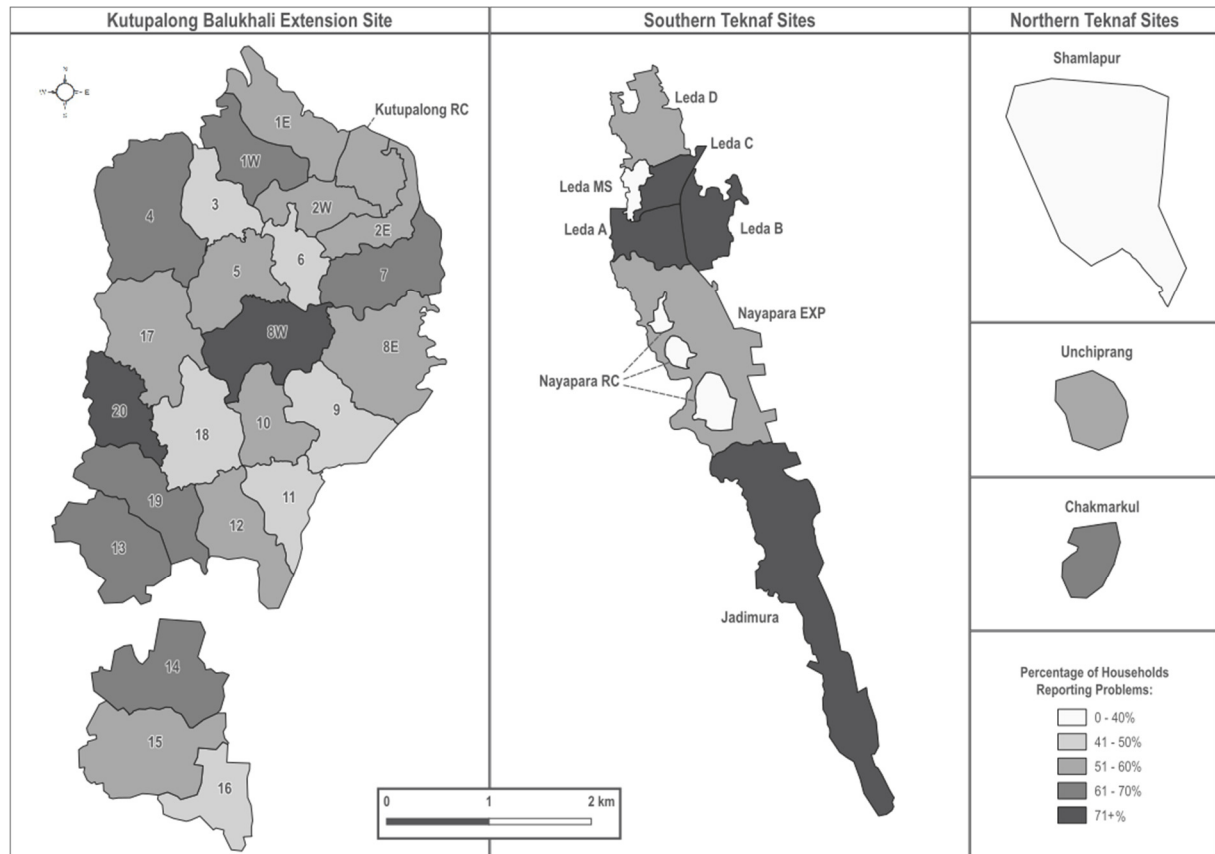
NPM data partially align with these findings. While overcrowding is reported as one of the most common problems (in 54% of blocks), a lack of sex separation is much more commonly-reported compared to the survey data (in 68% of blocks). This disparity may be linked to the fact that large numbers of household survey respondents report using household bathing facilities and are therefore less likely to focus on lack of sex segregation, which is more of an

²³ "WASH Sector Strategy for Rohingyas Influx March to December 2018," Cox's Bazar, March 2018, p. 4.

issue at public cubicles. Lack of water (28% of blocks) and distance (29%) are also reported at relatively high rates in the NPM data compared to the survey data. Ultimately, further qualitative research is needed to better contextualise the findings of both datasets.

Safety concerns regarding bathing cubicle access closely mirrored those regarding latrine access. 54% of households reported that adult women would be at risk compared to only 6% for adult men. As with latrines, female respondents (61%) were more likely than male respondents (52%) to report risks for adult women. Similarly, Camp 20 (80%) and Camp 8W (75%) reported safety concerns for adult women at significantly higher rates compared to other camps.

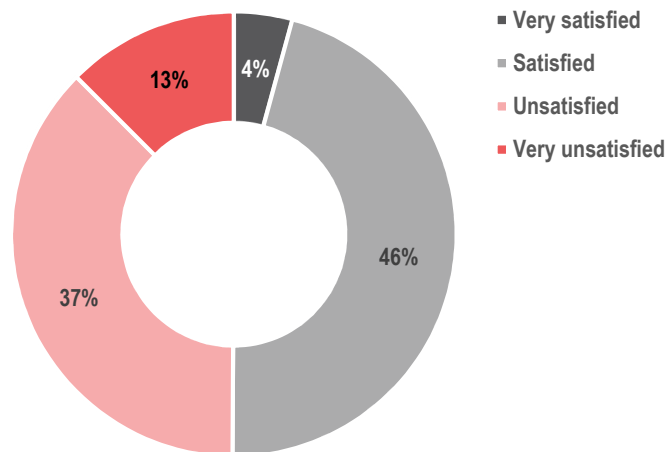
Map 4: Proportion of households reporting problems with bathing, by camp



Satisfaction and perceived change over time

Levels of satisfaction with washrooms largely mirrored reporting of problems, with camps reporting higher levels of satisfaction also reporting lower numbers of problems. Overall, 4% were very satisfied with their washrooms, 46% were satisfied, 37% were dissatisfied, and 13% were very dissatisfied (see Figure 15). Highest levels of dissatisfaction (dissatisfied or very dissatisfied) were reported in Leda C (78%) and Camp 8W (79%). No significant differences were observed according to the gender of respondent or head of household.

Figure 16: Proportion of households reporting different levels of satisfaction with washroom access



As with water access and latrine access, the majority (74%) of households felt there had been no change in their levels of access to bathing facilities compared to 30 days ago, with 9% reporting improving conditions and 17% reporting worsening conditions. No significant differences between camps were observed for improving or worsening conditions.

Hand washing and presence of soap

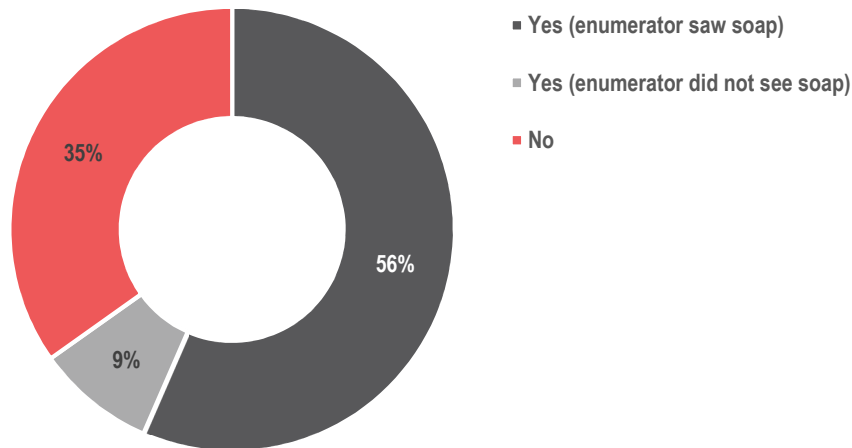
Handwashing is an important and effective barrier to the spreading of diseases. To assess levels of access to soap, households were asked about the presence of soap at the latrines they most frequently used, the presence of soap in their households, and whether or not they faced challenges in accessing soap.

Overall, only 27% of households reported that the latrines they most frequently used had soap, while 11% reported that they “sometimes” had soap, and 41% said they “never” had soap. A further 21% reported bringing their own soap with them when they used latrines, although this was not confirmed by observations at latrines. Camps reporting never seeing soap at latrines at significantly higher than average rates included Camp 4 (60%) and Camp 17 (58%) in the Kutupalong-Balukhali Extension site, along with Nayapara EXP (60%) in southern Teknaf.

At the household level, 65% of households reported owning soap (with enumerators able to physically verify the presence of soap in 56% of households). Around one-third (35%) of households reported having soap (see Figure 17). Significantly below average levels of soap ownership were reported in Nayapara EXP (59% with no soap) and Camp 5 (50% with no soap). These findings are coherent with a recent WASH field monitoring survey carried out by UNICEF in selected camps in the Kutupalong-Balukhali, in which a similar 65% of households reported owning soap.²⁴

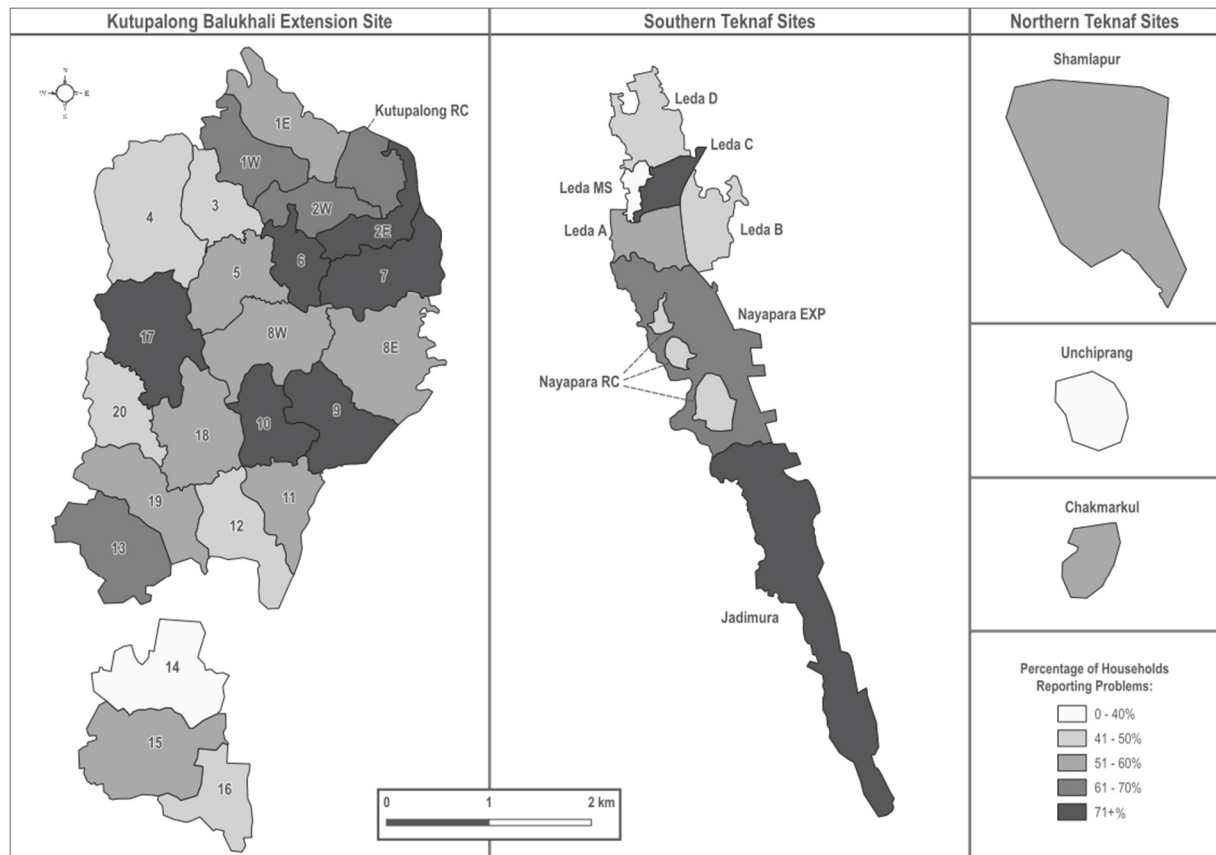
²⁴ UNICEF WASH Section report (May 2018).

Figure 17: Proportion of households owning soap for hand-washing



Fifty-seven percent of households reported challenges to accessing soap. The most frequently reported barriers to soap ownership was affordability (40% mentioned soap was too expensive), and availability (38% reported that soap was not available). Only 4% of households reported that while they could access soap, using the resources they had other needs were prioritised over soap. Problems accessing soap were reported at significantly above-average levels in Camp 2E (76%), Camp 7 (76%), Camp 10 (79%), and Camp 17 (77%) in the Kutupalong-Balukhali Extension site, along with Jadimura (74%) and Leda C (77%) in southern Teknaf. Overall, perceptions on changes in soap access over time mirrored trends for other indicators, with 14% reporting improvement, 66% reporting no change, and 20% reporting that things had got worse.

Map 5: Proportion of households reporting problems accessing soap, by camp

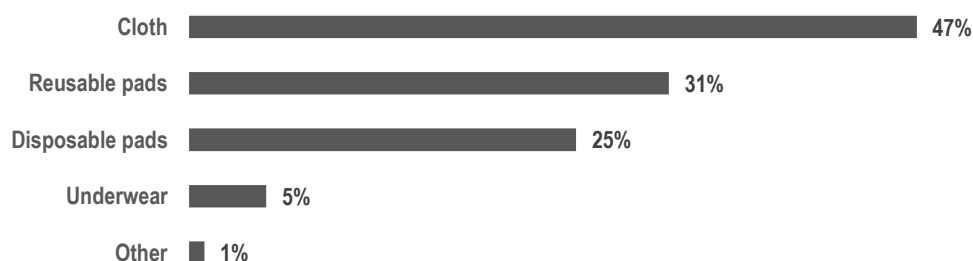


NPM data on handwashing practices provide a contrast to the high observed rates of soap ownership in households, with key informants only reporting that households regularly wash their hands with soap by habit in 30% of Mahjee blocks. Further, key informants placed greater emphasis on the fact that soap was not available (reported in 35% of blocks) than the fact that it was too expensive (15%). The contrast between these sets of data indicate that more research may be needed to understand how far relatively high rates of household soap possession translates into good handwashing behaviours.

Menstrual hygiene

As indicated in the methodology section of this report, questions on menstrual hygiene were only asked by female enumerators, of female respondents (all of whom were over 18). Out of the 3,576 interviews carried out, only 224 met these criteria, of which 196 (5%) provided consent to be asked these questions. The results presented in this section are therefore not statistically representative, cannot be broken down by camp, and should instead be taken as indicative of broad trends. The first question asked was in relation to the materials used for menstrual hygiene. Overall, 47% reported using cloth material, followed by 31% reusable pads, 25% reporting disposable pads, and 5% reporting underwear (see Figure 18).

Figure 18: Proportion of eligible female respondents reporting use of different types of menstrual hygiene materials (respondents could pick more than one option)

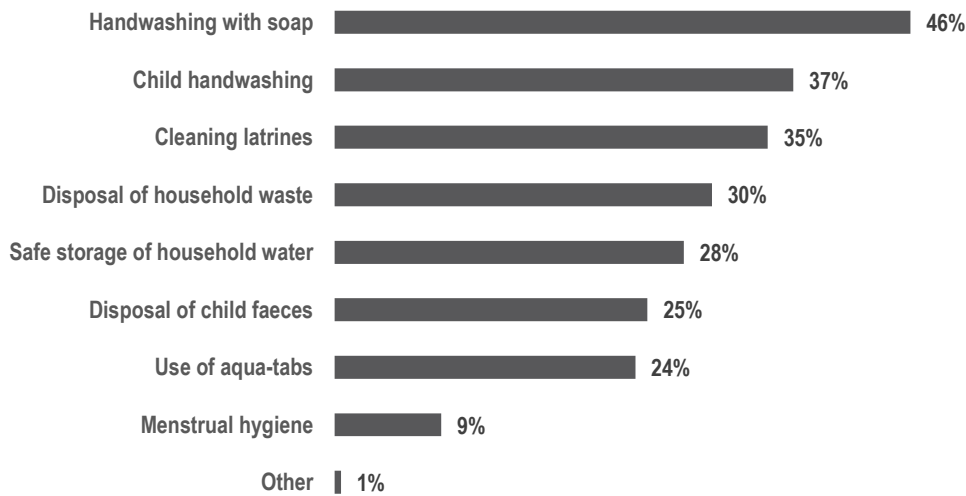


In terms of methods of disposal, predefined options were not provided in the survey (see Annex 1) to allow respondents to answer freely. The data shows that the most frequently reported method was identified as “burying”, and with use of cloth or reusable pads “washing”. Recommendation in the follow-up round to supplement findings with Focus Group Discussions (FGDs) to get more detailed information about the ways in which women and girls cope without adequate materials and disposal methods.

Hygiene promotion and Demonstrations

The survey's final component examined what types of hygiene promotion (HP) activities households had participated in over the previous 30 days. Overall, 63% of households reported participating in hygiene promotion activities; with households in Camp 1W (21%), Leda A (46%) and Leda B (47%) significantly less likely to report participation in hygiene promotion activities compared to other camps.

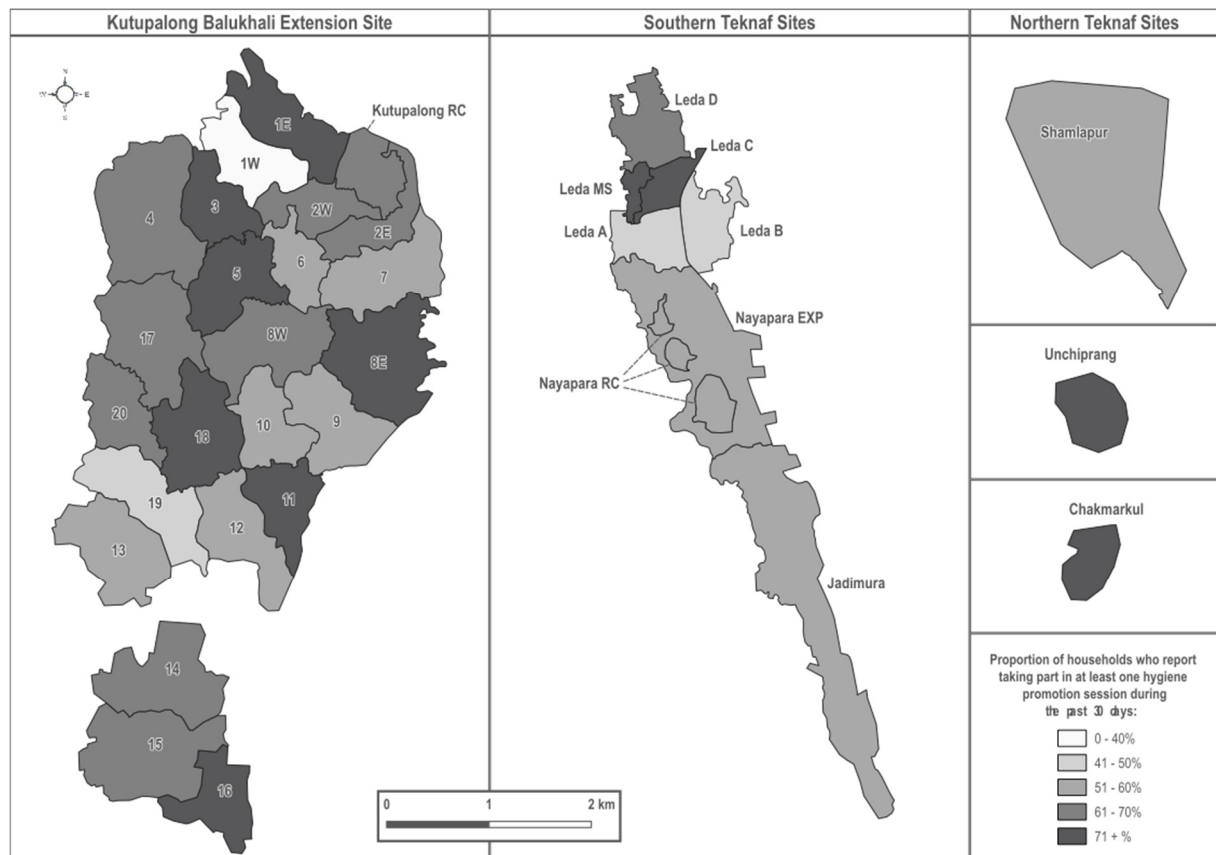
Figure 19: Proportion of households reporting participating in different types of hygiene promotion session over the past 30 days (respondents could pick more than one option)



Overall, sessions on handwashing (46%) or child handwashing (37%) were most common while sessions on use of aquatabs (24%) and menstrual hygiene (9%) in particular were less frequently reported.

Examining the numbers of hygiene promotion sessions attended per household suggests that households who do participate tend to do so frequently. Forty-one percent of households reported participating in sessions on three or more topics in the previous 30 days, in contrast to the 37% of households who reported they had never participated in HP activities. This substantial contrast suggests that further research is needed to understand what barriers and facilitating factors are to the exposure of households to hygiene promotion activities.

Map 6: Proportion of households attending at least one hygiene promotion session in the previous 30 days



CONCLUSION

At the end of the first quarter of 2018, the Rohingya refugee crisis in Cox's Bazar began to transition from the acute emergency phase to a more stable and potentially protracted status. Against this background, this assessment has attempted to provide previously unavailable data on household-level WASH needs, in order to inform WASH actors as they seek to move away from high-volume construction of emergency infrastructure and toward a more consolidated, better-managed, higher-quality approach.

For both water and sanitation, it was found that the basic coverage of WASH infrastructure is high, with over 99% of refugee households reporting use of improved water sources and latrines. However, almost half of all households also report problems with the accessibility and quality of this infrastructure.

For water, distance and long wait times remain a significant problem for many households (especially in southern Teknaf) with around a quarter of families in all camps reportedly reducing their drinking water intake due to access issues. The number of families treating their water is extremely low, especially concerning given the reportedly high background levels of drinking water contamination at household level. For sanitation, widespread reported latrine use among adult household members is qualified by the fact that latrines are felt to pose safety threats to women after dark, and open defecation among children under 5 is almost universal. In terms of hygiene, safety problems are felt to be similarly acute at bathing facilities, with many families relying instead on self-built bathing infrastructure at home rather than public facilities. And while soap is present in the majority of households, many still report problems accessing soap and the lack of adequate handwashing facilities at latrines.

While this assessment has been able to provide significant amounts of information at the household level, there remain gaps and challenges to better contextualising the information it presents. To address these, the following improvements are recommended for the next round of assessments:

- Incorporate a qualitative element with an emphasis on the participation of women and girls. With access and quality highlighted as major issues for WASH infrastructure, it is critical to better understand the complex dynamics of why and how key behaviours exist. Household survey tools are not the most appropriate for capturing this complexity and often elide or minimise intra-household differences—for example, comparison of the results of this survey with NPM data and other secondary sources suggests that they systematically under-represent the safety and dignity concerns of women and girls regarding public WASH infrastructure.
- Re-design the approach to measuring household-level water availability to include both drinking and non-drinking water storage, and approximate measurement of storage container size in order to better estimate volume.

It is intended that this assessment will be repeated in July/August, at the height of monsoon season. This will build on this initial base of data, allowing WASH partners to both monitor and adapt to changes observed in the intervening months, and to assess the impact of heavy monsoon rains on WASH needs.

ANNEXES

Annex 1: List of Assessed Camps

Area	Camp	Population as of April 30 (individuals)	Sample
Kutupalong-Balukhali Extension	Camp 1E	39,724	101
	Camp 1W	40,658	104
	Camp 2E	28,037	101
	Camp 2W	24,547	106
	Camp 3	39,299	127
	Camp 4	30,141	100
	Camp 5	25,844	112
	Camp 6	24,690	100
	Camp 7	40,249	101
	Camp 8E	33,486	100
	Camp 8W	32,948	105
	Camp 9	36,716	101
	Camp 10	34,674	101
	Camp 11	32,952	100
	Camp 12	22,069	102
	Camp 13	40,919	102
	Camp 14	31,344	98
	Camp 15	46,354	101
	Camp 16	21,614	102
	Camp 17	10,092	88
Camp 18	27,847	99	
Camp 19	18,982	100	
Camp 20	925	71	
	Kutupalong RC	18,743	98
Northern Teknaf	Chakmarkul	12,194	99
	Shamlapur	11,102	108
	Unchiprang	22,412	110
Southern Teknaf	Jadimura	23,895	103
	Leda A	14,305	118
	Leda B	2,998	96
	Leda C	6,665	98
	Leda D	10,100	114
	Leda MS	13,783	100
	Nayapara Exp	25,718	108
	Nayapara RC	26,783	102
	Total	872,809	3,576

Annex 2: Household Questionnaire

No.	Question	Choices
Informed consent		
1.	Camp Name	<ul style="list-style-type: none"> • Camp 14 • Camp 15 • Camp 16 • Chakmarkul • Leda MS • Leda A • Leda B • Leda C • Leda D • Nayapara RC • Nayapara • Nayapara EXP • Nayapara Teknaf • Shamlapur • Unchiprang • Kutupalong Refugee Camp • Camp 1E • Camp 1W • Camp 2E • Camp 2W • Camp 3 • Camp 4 • Camp 5 • Camp 6 • Camp 7 • Camp 8E • Camp 8W • Camp 9 • Camp 10 • Camp 11 • Camp 12 • Camp 13 • Camp 17 • Camp 18 • Camp 19 • Camp 20
2.	Block Name	<i>Text entry</i>
3.	Gender of enumerator	<ul style="list-style-type: none"> • Male • Female
<p>This questionnaire should be completed at the household level. Politely introduce yourself and ask permission before entering. Briefing explain the purpose of the questionnaire and ask permission. DO NOT PROCEED if permission is not given or if household members appear uncomfortable with the process. Instead, choose another household.</p>		
4.	Household has freely given informed consent	<ul style="list-style-type: none"> • Yes • No
5.	Who is the head of this household?	<ul style="list-style-type: none"> • Adult male • Adult female • Elderly male

No.	Question	Choices
		<ul style="list-style-type: none"> • Elderly female • Child male • Child female • Unsure/other
6.	Are you interviewing the head of this household?	<ul style="list-style-type: none"> • Yes • No
7.	[If no] Who are you interviewing	<ul style="list-style-type: none"> • Adult male • Adult female • Elderly male • Elderly female • Child male • Child female • Unsure/other
8.	How many people are there in this household?	<i>Integer entry</i>
9.	Are there any children under 5 in this household?	<ul style="list-style-type: none"> • Yes • No
Disability group		
10.	Are there any household members that are considered disabled? If so, how many persons?	<ul style="list-style-type: none"> • Yes • No • Select number
<i>Questions repeated for each person with disabilities identifies</i>		
11.	Do you have difficulty seeing, even if wearing glasses?	<ul style="list-style-type: none"> • Yes – some • Yes – a lot • No • Cannot do at all
12.	Do you have difficulty hearing, even if using a hearing aid?	<ul style="list-style-type: none"> • Yes – some • Yes – a lot • No • Cannot do at all
13.	Do you have difficulty walking or climbing steps?	<ul style="list-style-type: none"> • Yes – some • Yes – a lot • No • Cannot do at all
14.	Do you have difficulty remembering or concentrating?	<ul style="list-style-type: none"> • Yes – some • Yes – a lot • No • Cannot do at all
15.	Do you have difficulty with self-care such as washing all over and dressing?	<ul style="list-style-type: none"> • Yes – some • Yes – a lot • No • Cannot do at all
16.	Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?	<ul style="list-style-type: none"> • Yes – some • Yes – a lot • No • Cannot do at all
<i>End of repeats</i>		

Household water		
17.	<p>What is the primary source of drinking water for your household?</p> <p><i>Select only one option</i></p>	<ul style="list-style-type: none"> • Piped water tap/ tapstand into settlement site • Tubewells/borehole/handpump • Protected dugwell • Protected spring • Rainwater collection • Bottled water • Cart with small tank or drum • Tanker truck • Unprotected dug well • Unprotected spring • Surface water (river, dam, lake, pond, stream canal, irrigation canals) • Do not know • Other
18.	<p>Do you use a secondary or other sources for drinking water?</p>	<ul style="list-style-type: none"> • Yes • No
19.	<p>If yes, what are the secondary/other sources of drinking water?</p> <p><i>Select only one option</i></p>	<ul style="list-style-type: none"> • Piped water tap/ tapstand into settlement site • Tubewells/borehole/handpump • Protected dugwell • Protected spring • Rainwater collection • Bottled water • Cart with small tank or drum • Tanker truck • Unprotected dug well • Unprotected spring • Surface water (river, dam, lake, pond, stream canal, irrigation canals) • Do not know • Other
20.	<p>What water sources do you use for washing?</p> <p><i>Select as many as apply</i></p>	<ul style="list-style-type: none"> • Piped water tap/ tapstand into settlement site • Tubewells/borehole/handpump • Protected dugwell • Protected spring • Rainwater collection • Bottled water • Cart with small tank or drum • Tanker truck • Unprotected dug well • Unprotected spring • Surface water (river, dam, lake, pond, stream canal, irrigation canals) • Do not know • Other
21.	<p>Who collects water for the household (you can select multiple)</p>	<ul style="list-style-type: none"> • Adult male • Adult female • Child male • Child female • A neighbour helps • Other

22.	Do you have any problems with collecting water?	<ul style="list-style-type: none"> • Yes • No
23.	If yes, what are the problems <i>Select as many as apply</i>	<ul style="list-style-type: none"> • Long wait times • Only available some times of the day (trucking, water rationing, poor aquifer) • Safety concerns • Bad taste/smell • Other
24.	How long does it take to walk to the drinking water source and back again?	<ul style="list-style-type: none"> • Less than 5 mins • 5 to 15 minutes • 15 to 30 minutes • 30 to 60 minutes • more than 60 minutes • Unsure/Other
25.	How long did you have to wait at the drinking water source today	<ul style="list-style-type: none"> • Less than 5 mins • 5 to 15 minutes • 15 to 30 minutes • 30 to 60 minutes • more than 60 minutes • Unsure/Other
26.	How long does it take to walk to the other water source and back again (washing water)? <i>Only asked if respondent has selected "yes" for q. 18</i>	<ul style="list-style-type: none"> • Less than 5 mins • 5 to 15 minutes • 15 to 30 minutes • 30 to 60 minutes • more than 60 minutes • Unsure/Other
27.	How long did you have to wait at the other water source today (washing water)? <i>Only asked if respondent has selected "yes" for q. 18</i>	<ul style="list-style-type: none"> • Less than 5 mins • 5 to 15 minutes • 15 to 30 minutes • 30 to 60 minutes • more than 60 minutes • Unsure/Other
28.	How is your access to water now compared to last month? Prompt for enumerator: <i>Record any additional comments on water sources and collection (poor flow, steep hills)</i>	<ul style="list-style-type: none"> • Better • Same • Worse • Unsure
29.	How satisfied are you with your access to water? <i>Record any additional comments on water sources and collection (poor flow, steep hills)</i>	<ul style="list-style-type: none"> • Very satisfied • Satisfied • Unsatisfied • Very unsatisfied
30.	What are your coping strategies if there is not enough safe drinking water?	<ul style="list-style-type: none"> • Always able to get enough safe drinking water • Everyone drinks less • Adult males drink less • Adult females drink less • Child males drink less • Child females drink less • Use unsafe water sources • Borrow from neighbours • Other

Water treatment		
31.	Do you treat water before drinking?	<ul style="list-style-type: none"> • Yes • No
32.	If yes, how do you usually treat your drinking water?	<ul style="list-style-type: none"> • Boiling • Disinfection (Aquatabs, PUR, Tab 10s etc) • Cloth filters • Household filters • Leave bottled water in the sun (solar disinfection) • Other
33.	Did you use water purification tablets (aqua-tabs) to treat drinking water today?	<ul style="list-style-type: none"> • Yes, for all drinking water • Yes, for some drinking water • No • Unsure/other
34.	Why were water purification tablets (aqua-tabs) NOT used?	<ul style="list-style-type: none"> • Don't know about aqua-tabs • Never received aqua-tabs • Don't know how to use aqua-tabs • Supply of aqua-tabs ran out • Tastes bad • Smells bad • Bad for health • Using aqua-tabs occasionally is sufficient • Forgot to use • Other
35.	<p>Do you have treated drinking water in the household now (that can be tested for residual chlorine)?</p> <p>Prompt for enumerator: Ask for the packet of aqua-tabs and when it was received. A household of 5 people should use two tablets per day. Roughly calculate if enough aqua-tabs have been used.</p>	<ul style="list-style-type: none"> • Yes • No <p><i>If yes, residual chlorine test performed</i></p>
Containers/water collection		
Ask the household to show you all the containers used to collect and store drinking water yesterday. Ask the following set of questions for each container		
36.	What is the type of container?	<ul style="list-style-type: none"> • Jerrycan • Bucket • Basin • Bottle • Saucepan • Drums • Other
37.	What is the volume of container? (litres)	<i>Integer entry</i>
38.	Is the container protected?	<ul style="list-style-type: none"> • Yes • No
39.	How many times was this container filled yesterday?	<i>Integer entry</i>

Household sanitation, hygiene and training		
40.	Where do you and other adult household members (excluding children under 5) usually go to defecate? <i>Select as many as apply</i>	<ul style="list-style-type: none"> • Single household latrine • Shared household latrine • Communal/public latrine • Open defecation • Plastic bag • Bucket toilet • At facilities (eg. school, health clinic) • Other
41.	Do adults from your household sometimes defecate in the open?	<ul style="list-style-type: none"> • Yes • No
42.	Where do children under 5 from this household usually go to defecate? <i>Select as many as apply</i>	<ul style="list-style-type: none"> • Single household latrine • Shared household latrine • Communal/public latrine • Open defecation • Plastic bag • Bucket toilet • At facilities (eg. school, health clinic) • Other
43.	If there are children under 5 who don't use the latrine what is done with their faeces? <i>Select as many as apply</i>	<ul style="list-style-type: none"> • Collected and disposed in latrine • Collected and disposed elsewhere • Nothing is done with it • Buried it • Other
44.	Do children under 5 from your household sometimes defecate in the open?	<ul style="list-style-type: none"> • Yes • No
45.	Do you have any problems with latrines?	<ul style="list-style-type: none"> • Yes • No
46.	What are the problems related to the latrines?	<ul style="list-style-type: none"> • Latrine is too far away • Too many people using latrines • Not clean • No one responsible for cleaning • Insufficient water • Latrine is full • Bad smell/many flies • Open defecation around latrines • Not private • No separation between men and women • Route to the latrine is not safe • Latrine is not safe • Only use at night (not private during day) • Only use during day (not safe at night)
47.	How satisfied are you with your access to latrines?	<ul style="list-style-type: none"> • Very satisfied • Satisfied • Unsatisfied • Very unsatisfied
48.	Which family members would feel unsafe using the latrine at night? <i>Select as many as apply</i>	<ul style="list-style-type: none"> • Adult male • Adult female • Elderly male • Elderly female • Child male

		<ul style="list-style-type: none"> • Child female • Unsure/other
49.	<p>How is your access to latrines now compared to last month?</p> <p>Prompt for enumerator: Record any additional comments on latrines</p>	<ul style="list-style-type: none"> • Better • Same • Worse • Unsure/other
50.	<p>Where do you and other adult household members usually go to bathe?</p> <p><i>Select as many as apply</i></p>	<ul style="list-style-type: none"> • Communal bathing facility/chamber (WASH room) • Tubewell platform • Household bathing designated area • No designated bathing facility • Do not want to show designated bathing facility • Don't know • Other
51.	<p>Do you have any problems bathing?</p>	<ul style="list-style-type: none"> • Yes • No
52.	<p>If yes, what are the problems related to the bathing cubicles (if any)?</p> <p><i>Select as many as apply</i></p>	<ul style="list-style-type: none"> • There is not enough facilities/too crowded • Absence/insufficiency of water • Facilities are unclean/unhygienic • Lack of privacy/no separation between men and women • It is not safe (no door, no lock, etc) • Facilities are clogged • Facilities are too far away • Don't know • Other
53.	<p>How satisfied are you with your access to bathing cubicles?</p>	<ul style="list-style-type: none"> • Very satisfied • Satisfied • Unsatisfied • Very unsatisfied
54.	<p>Which family members would feel unsafe using the bathing cubicle at night?</p> <p><i>Select as many as apply</i></p>	<ul style="list-style-type: none"> • Adult male • Adult female • Elderly male • Elderly female • Child male • Child female • Unsure/other
55.	<p>How is your access to bathing cubicles now compared to last month?</p> <p>Prompt for enumerator: Record any additional comments on bathing cubicles</p>	<ul style="list-style-type: none"> • Better • Same • Worse • Unsure/other
56.	<p>How frequently do you find visible faeces in the vicinity of your household (30 meters or less)?</p> <p>If other please describe</p>	<ul style="list-style-type: none"> • Never • Sometimes • Often • Always • Do not know • Other
57.	<p>Where does your household dispose of domestic waste?</p> <p><i>Select only one option</i></p>	<ul style="list-style-type: none"> • Household pit • Communal pit • Bin in the households/Streets • Designated open area

		<ul style="list-style-type: none"> • Undesignated open area • Bury it • Burned • Other
58.	Are you satisfied with the solid waste management system in your area/block?	<ul style="list-style-type: none"> • Very satisfied • Satisfied • Unsatisfied • Very unsatisfied
59.	Does the latrine most often used have hand-washing facilities with soap? <i>Select only one option</i>	<ul style="list-style-type: none"> • Yes, with soap and water • Sometimes • Take own soap and water • No • Other
60.	Does the household have soap for hand-washing? <i>Prompt for enumerator: Ask to see the soap</i>	<ul style="list-style-type: none"> • Yes (saw soap) • Yes (didn't see soap) • No
61.	Do you face any challenges in accessing soap?	<ul style="list-style-type: none"> • Yes • No
62.	If yes, what challenges do you face?	<ul style="list-style-type: none"> • Soap is not available • Other needs are prioritised • Soap is too expensive • Use an alternative/other • No challenges, soap is easy to get
63.	How is your access to hand-washing with soap now compared to last month? Describe unsure/other handwashing access	<ul style="list-style-type: none"> • Better • Same • Worse • Unsure/other
Menstrual hygiene		
64.	[If respondent and enumerator are both female] Are you willing to answer some questions on menstrual hygiene?	<ul style="list-style-type: none"> • Yes • No
65.	What the main menstrual hygiene materials used? <i>Select multiple options</i>	<ul style="list-style-type: none"> • Disposable pads • Reuseable pads • Cloth • Underwear/panties • Other
66.	What are the main ways you dispose of menstrual hygiene materials?	<i>Text entry</i>
67.	What are the problems related to obtaining and disposing of menstrual hygiene materials?	<i>Text entry</i>
68.	How satisfied are you with your access to menstrual hygiene materials and disposal?	<ul style="list-style-type: none"> • Very satisfied • Satisfied • Unsatisfied • Very unsatisfied
69.	How is your access to menstrual hygiene materials and disposal now compared to last month? Prompt for enumerator:	<ul style="list-style-type: none"> • Better • Same • Worse • Unsure/other

	Record any additional comments on menstrual hygiene	
Additional information		
70.	Information or demonstrations received in the past month <i>Select as many as apply</i>	<ul style="list-style-type: none"> • Use of aqua-tabs • Safe storage of household water • Hand washing with soap (how and when) • Child handwashing • Disposal of household waste • Cleaning latrines • Disposal of child faeces • Menstrual hygiene • Other • None
71.	Would you like to receive more information or demonstrations?	<ul style="list-style-type: none"> • Yes • No
72.	Describe other information requested	<i>Text entry</i>
73.	What other WASH related concerns and issues does the household have?	<i>Text entry</i>
74.	Take GPS reading	
End of questionnaire		