



Comprehensive emergency response to communities affected by displacement, health, and environmental shocks in Yemen

BHA

Endline report

Dhamar, Al Hudaydah, Saada, Raymah, Marib, and Al Dhalee governorates

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LOCATIONS	Dhamar, Al Hudaydah, Saada, Raymah, Marib, and Al Dhalee governorates
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2. Background

The Yemen crisis is one of the world’s largest humanitarian emergencies and aid operations. According to estimates, approximately 21.6 million people are in need of assistance¹. The conflict has displaced more than 4 million people, generated intermittent fuel crises², damaged and closed schools and hospitals, as well as disrupted access to water, sanitation and health services.

The overall objective of this BHA-funded 15 month³ intervention is to address the critical needs of vulnerable conflict-affected populations in Yemen through a multi-sectoral and integrated approach. ACTED aims to address the immediate emergency needs of conflict-affected men, women, boys and girls, while also supporting locally driven self-reliance and resilience efforts at household and community levels.

ACTED’s “Comprehensive emergency response to communities affected by displacement, health, and environmental shocks in Yemen” project was aimed at contributing to ensuring vulnerable populations have continuous access to WASH services (Purpose 1) and ensuring safe and dignified shelter conditions for conflict-affected populations (Purpose 2), as illustrated below:

Purpose 1: To ensure continued access to safe water, sanitation, and hygiene services for vulnerable displaced women, men, girls, and boys in and off camps in DFA-controlled areas and IRG-controlled areas in Yemen.

- Purpose level Theory of Change (TOC): (If) vulnerable women, men, girls, and boys living in and off-sites have access to safe water, sanitation, and hygiene services, (then) their immediate living conditions are improved and health risks decreased.

Purpose 2: To ensure safe and dignified living conditions for conflict-affected men, women, boys, and girls in last resort site settings in IRG-controlled areas of Yemen.

- Purpose level TOC 2.1: (If) communities affected by displacements have access to ‘CCCM’ services, (then) the quality and efficiency of emergency programming will be improved, (as) crisis-level coordination/advocacy is improved, (and) community-participation is reinforced, (and) accountability towards affected communities and two-way communication channels are reinforced, (and) community-based protection and displacement management are fostered.
- Purpose level TOC 2.2: (If) vulnerable men, women, boys and girls have access to improved shelter solutions, (then) their immediate living conditions and feeling of safety and dignity are improved.

This endline assessment will be focusing solely on WASH activities and indicators linked to Purpose 1. Under this sector, ACTED is implementing the following project activities:

Sub-sectors	Activities	Endline indicator
Water Supply	<p>Activity 1: Rehabilitation of community water points/water networks – DFA- and IRG-controlled areas</p> <p>Activity 2: Emergency water supply/trucking at rehabilitation sites – IRG and DFA-controlled areas only</p>	N/A

¹ HNO 2023

² HNO 2023

³ The original project timeframe was of 12 months. Following an NCE, the project duration was extended to 15 months.

	Activity 3: Follow-up visits to new or rehabilitated WASH systems under previous BHA award	
Sanitation	Activity 4: Desludging in IDP sites in Al Dhalee and Marib governorate – IRG-controlled areas only Activity 5: Latrine construction in IDP sites in Al Dhalee, Marib governorate – IRG-controlled areas only	<ul style="list-style-type: none"> • Percent of households in target areas practicing open defecation • Percentage of households targeted by latrine construction/promotion activities whose latrines are completed and clean • Average number of users per functioning toilet
Hygiene Promotion	Activity 6: Hygiene promotion Activity 7: Hygiene kits distribution	<ul style="list-style-type: none"> • Percent of households targeted by the hygiene promotion activity with no evidence of feces in the living area • Percent of individuals targeted by the hygiene promotion activity who know at least three (3) of the five (5) critical times to wash hands • Percent of households targeted by the hygiene promotion activity who store their drinking water safely in clean containers • Percent of individuals targeted by the hygiene promotion activity who report using a latrine the last time they defecated

To present information on the above indicators, this report was divided into sub-sections under the overarching Sanitation and Hygiene promotion sectors. As such, the findings are divided under safe water consumption, defecation practices, and hand-washing practices.

The Endline report reflects data collected from governorates in the IRG-controlled areas, specifically Marib and Al Dhalee, and in the DFA-controlled areas, specifically Al Hudaydah, Dhamar, Raymah and Saada. The households targeted with this assessment received hygiene promotion sessions and water assistance through the rehabilitation of water points in their areas. In addition, beneficiaries in Al Hudaydah, Raymah, Al Dhalee, and Marib also received hygiene kits assistance.

3. Endline methodology

The endline assessment applied a standardized quantitative methodology to collect the necessary data amongst the targeted population through a survey. Beneficiaries were informed about the process and the objectives of the survey and provided their verbal consent before starting the survey. Household-level interviews with a total of 1,595 randomly selected HHs were conducted for this assessment, including beneficiaries of hygiene promotion and latrine construction. The table below summarizes distribution of the sample:

Activity	Sample						
	Total	Al Dhalee	Al Hudaydah	Dhamar	Marib	Raymah	Saada
Hygiene promotion only	1174	202	268	329	73	185	117
Hygiene promotion and latrine construction	321	83	0	0	238	0	0
Latrine construction only	100	100	0	0	0	0	0
TOTAL	1595	385	268	329	311	185	117

It is worth mentioning that all beneficiaries surveyed in the DFA-controlled areas are located in the catchment area of water supply rehabilitations conducted by Acted as part of this award. Therefore, the endline also contributes to assessing the effects of water supply activities, despite not measuring any contractual indicator under this sub-sector.

The selected sample is representative of the total number of beneficiaries chosen with a confidence level of 95% and a 5% margin of error, stratified at governorate level. The Acted MEAL Unit utilized male and female enumerators and conducted a training to ensure enumerators were familiar with the overall assessment objective and the assessment survey tool. The enumerators conducted each survey in person using the KoboCollect application on their smartphones in IRG-controlled areas while using papers in the DFA controlled areas, then quantitative data were analyzed using Microsoft Excel

3.1. Limitations

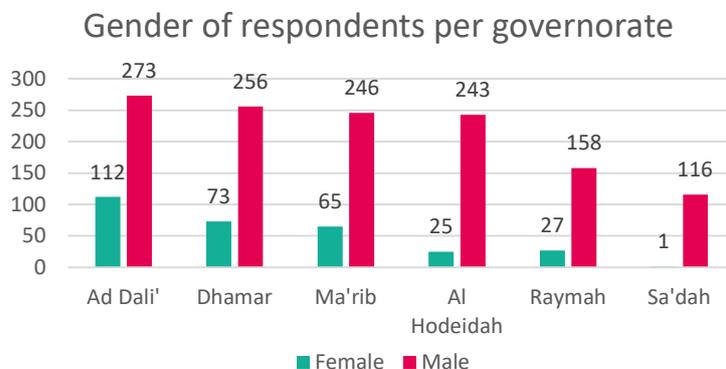
The cultural and political context in Yemen has led to a restricted number of female respondents as opposed to male respondents, particularly in DFA-controlled areas. The under-representation of female-specific perspectives could potentially lead to skewed findings in favor of male voices. While Acted has sought to include female respondents in its survey through the involvement of female (as well as male) enumerators conducting data collection, this has not always been possible.

In the DFA-controlled areas, some questions had to be removed from endline tools to gain approval from authorities on data collection. These questions included demographic, protection, safety-related questions, and gender related questions as well as the questions needed to measure indicator W12 “Percent of individuals targeted by the hygiene promotion activity who report using a latrine the last time they defecated”, which could be therefore measured only for IRG-controlled areas.

4. Endline assessment findings

4.1. Demographics

Out of the total 1,595 interviews conducted for this endline assessment, there were 303 female respondents and 1,292 male respondents, accounting for 19% and 81% of the sample, respectively. The data collection process encompassed six governorates: Al Dhalee (385 respondents), Dhamar (329 respondents), Marib (311 respondents), Al Hudaydah (268 respondents), Raymah (185 respondents), and Saada (117 respondents).



When analyzing the data based on the gender of the household head, it was found that 14% of the surveyed households were headed by females, while 86% were male-headed. Notably, governorates under the control of the IRG (International Recognized Government) exhibited a considerably higher proportion of households identifying as female-headed. Among these governorates, Al Dhalee, Marib, and Raymah recorded the highest percentages, with 24%, 19%, and 15% of households headed by females, respectively.

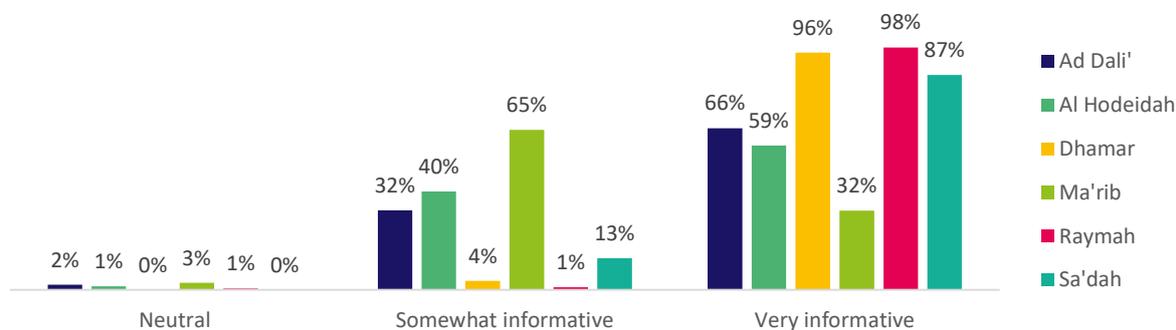
The average age of respondents was 40 years old, with no significant variation between governorates. The average age of female respondents was 41 (years of age), slightly higher than male respondents (40 years of age). An average household was of 7 members, with larger households recorded in the DFA-controlled areas (8 members) than in the IRG-controlled areas (6.5 members).

4.2. Hygiene promotion

The survey results indicate that the average duration of the hygiene awareness sessions was approximately 43 minutes and the majority of respondents (84%) found the length of the sessions to be suitable, indicating that it was neither too long nor too short. However, a small percentage of respondents (8%) felt that the training was too long, while another 8% considered it too short.

The survey respondents reported that the hygiene promotion sessions covered various important topics, including safe disposal of human waste, the transmission of diseases through human feces, cholera and its prevention, water purification, food safety, handwashing techniques, prevention of the coronavirus, and women's health. The responses indicate that the hygiene promotion topics were highly informative for the majority of respondents. Around 70% found the topics to be very informative, while 29% considered them somewhat informative. Only 1% of respondents had a neutral opinion. Most positive feedback received on this was collected in Dhamar and Raymah, as well as Saada, where a very high majority of people found the sessions very informative. On the contrary, Marib was the governorate where people found the sessions least informative, albeit still a majority said that they are somewhat informative.

Extent to which participants found hygiene promotion sessions informative, by governorate



A large majority of respondents (96%) confirmed that the trainer gave practical examples on how to apply the content into practice. Furthermore, the survey revealed that 84% of respondents were able to share their own experiences or participate in the trainer's examples, indicating an active level of engagement.

An overwhelming majority of respondents (98%) found the hygiene training to be useful. Only 2% reported that they did not.

The survey findings indicate that the hygiene promotion training had a positive impact on the practices of respondents. Approximately 91% reported making changes in their practices since the training, indicating a successful behavioral change outcome. No respondents expressed a desire for additional topics to be included in the training, as 100% answered negatively to this question.

4.3. Safe water consumption

Indicator		Baseline value	Target	Endline Value
W11	Percentage of households targeted by the hygiene promotion activity who store their drinking water safely in clean containers	45.7%	70%	86%

The responses regarding the safety and cleanliness of water storage containers are as follows: 7% of respondents reported storing water in containers that are clean but not safe, 2% of respondents stored water in containers that are neither safe nor clean, 4% of respondents stored water in containers that are safe but not clean, and the majority of respondents (86%) stored water in containers that are both safe and clean. When enumerators directly observed the water storage containers, the findings were as follows: 3% of observed containers were neither safe nor clean, 6% of observed containers were clean but not safe, 86% of observed containers were both safe and clean, 4% of observed containers were safe but not clean with no significant variation between governorates. A total 88% and 82% household observed to be storing their water in safe and clean containers respectively in the in the DFA- and IRG-controlled areas. This is a stark improvement compared to the baseline situation, when 45.7% of households were observed to be storing water in clean and safe containers. The improvement is even more significant in DFA-controlled areas, where only 8% were meeting the indicator at baseline.

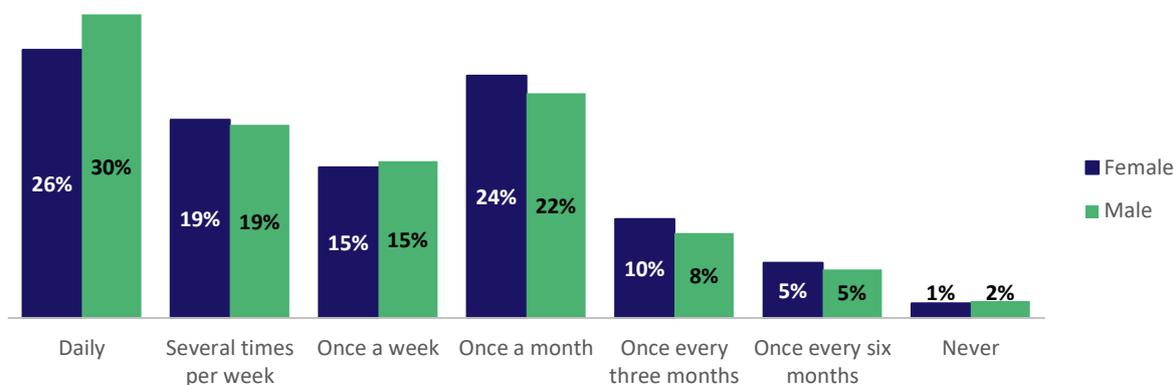
Households	Percentage
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Households where containers were safe and clean	1278	86%
Households where containers were clean but not safe	97	6%
Households where containers were safe but not clean	70	5%
Households where containers were not safe nor clean	46	3%
Total	1491	100%

97% of the storage items mentioned by respondents are covered. This suggests that the majority of households have taken measures to keep their stored water protected from external contaminants.

Respondents were asked about how often they clean their water storage containers. The following percentages indicate the frequency of cleaning reported by the respondents: 29% of respondents clean their containers on a daily basis, 22% of respondents clean their containers once a month, 19% of respondents clean their containers multiple times per week, 15% of respondents clean their containers on a weekly basis, 9% of respondents clean their containers every three months, 5% of respondents clean their containers every six months, and only 2% of respondents reported never cleaning their water storage containers.

Frequency of cleaning the water containers, by gender

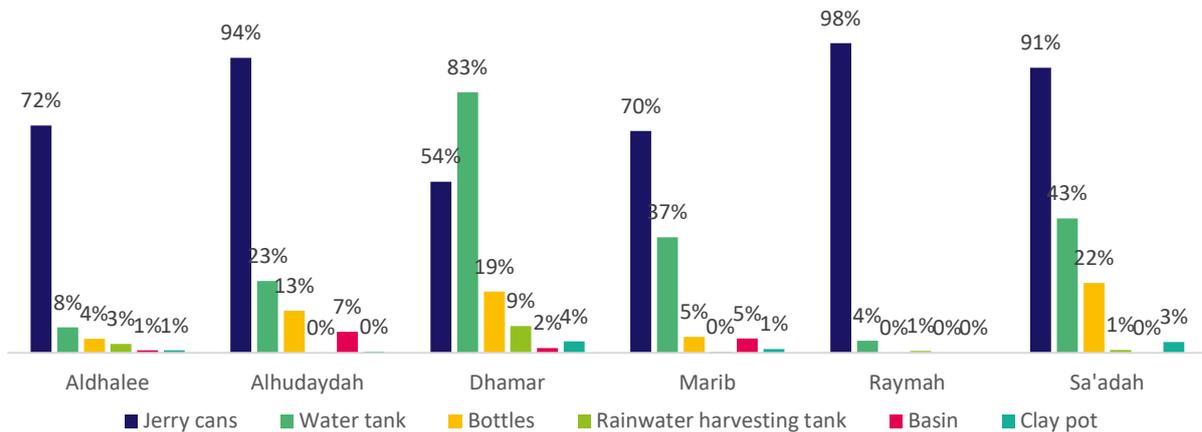


Overall, the results indicate that a majority of respondents (84%) clean their water storage containers regularly, either daily, weekly, or monthly. This reflects a positive practice in maintaining the cleanliness of containers and minimizing the risk of water contamination. However, there is still a notable percentage (16%) of respondents who reported infrequent or inconsistent cleaning practices, such as cleaning every three to six months, or never cleaning at all. This highlights the need for further awareness and training on the importance of regular cleaning to ensure safe and clean water storage.

All respondents (100%) reported storing drinking water in their households, and the surveyed beneficiaries mentioned different types of containers used for water storage as 535 households reported using water tanks, including those installed on roofs, 1,215 households used jerry cans, which are portable containers typically used for water storage, 40 households used basins, 42 households had rainwater harvesting tanks, 24 households used clay

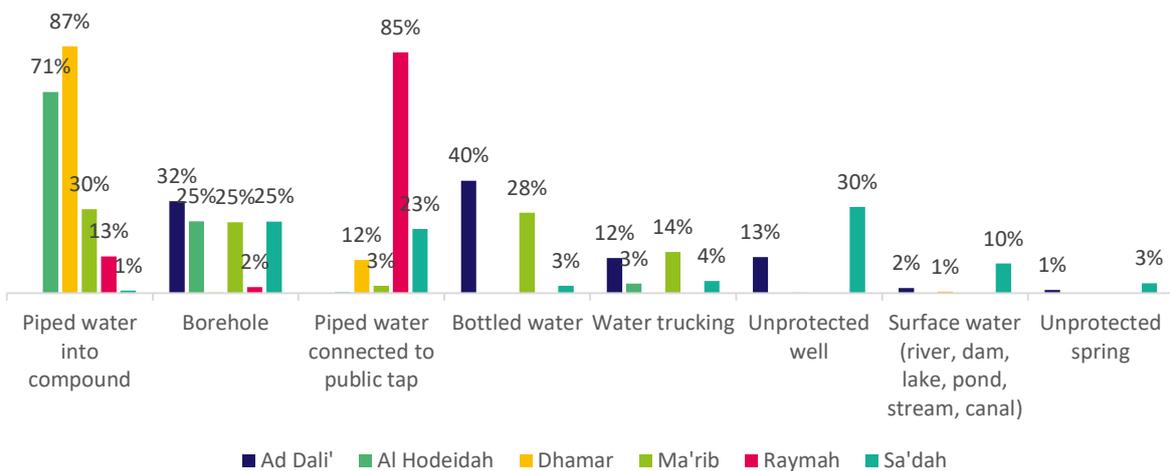
pots, and 159 households stored water in bottles. The graph below shows governorate-level disaggregation on water containers. It can be observed that jerry cans are widely utilized across governorates of intervention, while water tanks are the second most utilized water storage item, being more common in DFA-controlled areas as compared to IRG-controlled areas – as expected, considering that most people in Al Dhalee live in temporary shelter solutions and do not have access to private tanks. Other storage options are presented in the below graph.

Type of water containers used at household level - by governorate



The top **drinking water sources** used by survey respondents were piped water into compound (39%), boreholes (18%) and piped water connected to public tap (15%). Such results are driven by a prevalence of piped water into compound as a drinking water source in Dhamar (87%) and Al Hudaydah (71%); boreholes are a common water source throughout the governorates, except Dhamar and Raymah, providing evidence on the positive contribution of Acted’s water supply interventions in these areas.

Main drinking water source, by governorate



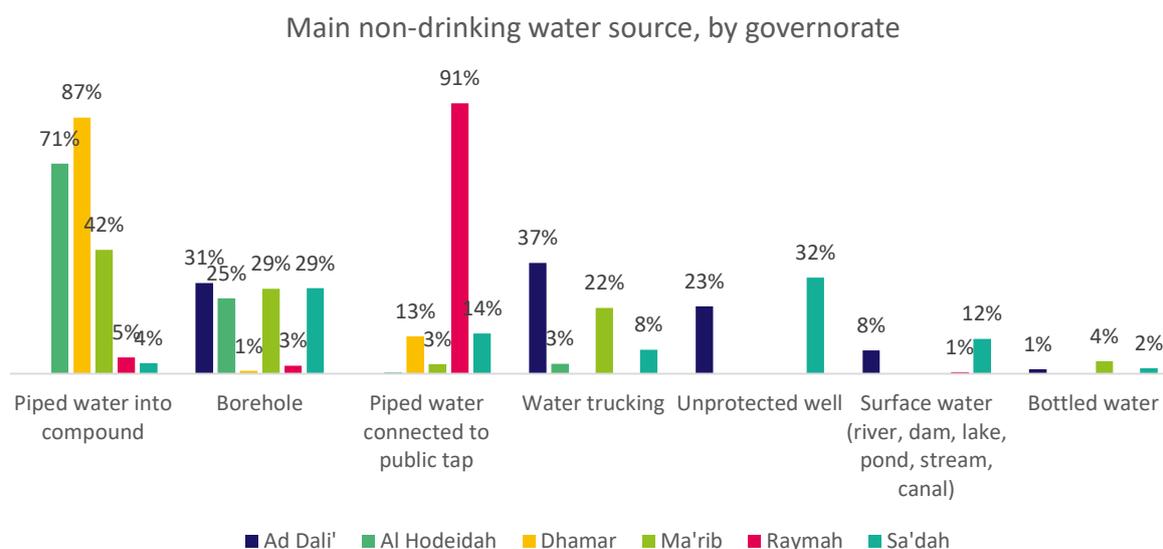
These findings indicate that 93% of beneficiaries at endline rely on improved water sources for drinking purposes, as compared to 71% at baseline. In particular, at baseline high prevalence of unimproved water source usage was observed in DFA-controlled areas (70%) as opposed to IRG-controlled areas (4%). At endline, such trend has been reversed, with 6% and 7% of households respectively resorting to unimproved water in DFA- and IRG-controlled

areas. The main change observed was the increased prevalence of piped water as a main drinking water source, used by 55% at endline as opposed to 14% at baseline. Use of this water source particularly increased in Al Hudaydah – where no households reported using piped water at baseline – and Dhamar – where only 10% used this water source at baseline.

According to the survey findings, the main **water source utilized for purposes other than drinking**, such as cooking, bathing, and washing, varied across different governorates. The results show that piped water into the compound was the top choice for non-drinking purposes as well, representing 41% of the responses. Boreholes were the second most common source at 19%, followed by piped water connected to public taps at 16%, and water trucking at 13%. The prevalence of piped water into compounds as a non-drinking water source was significantly different across governorates, with high prevalence in Dhamar (86%), Al Hudaydah (71%), and Marib (42%). Boreholes were a common water source across most governorates, except for Dhamar and Raymah, where other sources were more prevalent for non-drinking purposes.

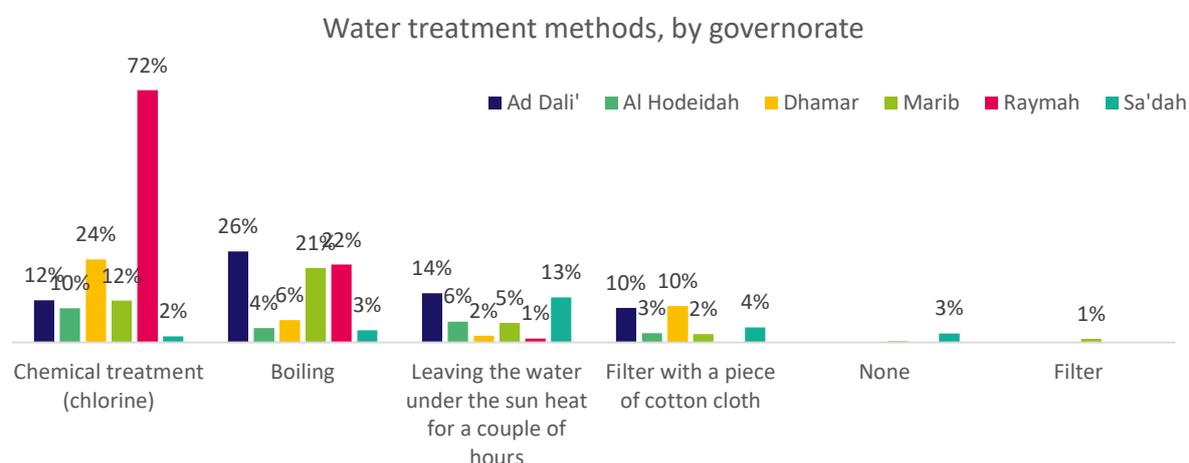
In Raymah, Saada, and Dhamar, piped water connected to public taps was a commonly used source for purposes other than drinking accounting respectively for 91%, 13% and 12% of responses. Water trucking emerged as a significant source for non-drinking purposes in Al Dhalee (37%) and Marib (22%).

These findings indicate that 91% of beneficiaries at endline rely on improved water sources for non-drinking purposes, as compared to 72% at baseline. Similarly, as for drinking water, compared to baseline, a higher proportion of beneficiaries rely on piped water (57% at endline as opposed to 22% at baseline), particularly in Al Hudaydah and Dhamar.



39% of households reported treating their drinking water, while the majority of households (61%) do not treat their water. This indicates a considerable proportion of households that may be consuming untreated water, which can potentially pose health risks. For the 39% of households that reported treating their drinking water, the following methods were identified: 243 households use boiling as a method of water treatment, 110 households rely on solar disinfection, 329 households use chlorine or other chemical disinfectants to treat their water, 91 households use a cotton cloth filter to remove impurities from their drinking water, three households reported using a filter, although the details of the filter type are not specified, and only one household reported using sand as a method of water treatment.

The below graph shows water treatment methods by governorate (percentages reported are extrapolated from the total population of each governorate). Overall, Raymah and Al Dhalee are the governorates where water treatment is most prevalent, respectively with 95% and 62% reporting treating water. On the opposite end of the spectrum lie Al Hudaydah and Saada, with 22% and 25% respectively treating water.



When asked about the reasons for those who reported not treating the drinking water, 628 households believe that their water is already clean and, therefore, do not see the need to treat it. This perception may be based on the quality of their water source or lack of awareness regarding potential contaminants. 229 households cited the high cost of water treatment chemicals as a reason for not treating their water, 39 households reported a lack of knowledge on how to treat water, 29 households expressed concerns about the time-consuming nature of water treatment, and 23 households do not consider water treatment as important.

4.4. Defecation practices

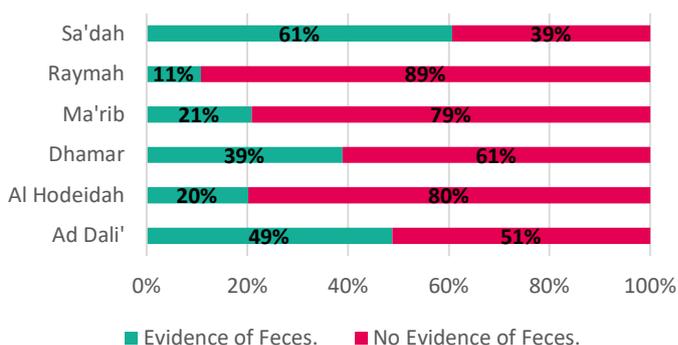
Indicator		Baseline value	Target	Endline Value
W9	Percentage of households targeted by the hygiene promotion activity with no evidence of faeces in the living area	58.6%	90%	68%

Based on the provided data, the presence or absence of evidence of feces (including both human and animal feces) is observed in 32% of the household living areas. Most affected areas include Saada (61%) Al Dhalee (49%), and Dhamar (39%). While this represents an improvement compared to baseline, when 59% of households had no evidence of feces in the living areas, in no governorates has the 90% target been met at endline.

These findings provide insights into the sanitation conditions and hygiene practices within the living areas of the surveyed households in different governorates of Yemen. As open defecation is not as prevalent as the presence of feces in households' living areas, as reported below, the presence of feces can be indicative of animals roaming around shelters.

According to the data collected, it is evident that the majority of respondents (84%) have access to a latrine in their shelters or houses, while 16% do not possess one.

Evidence of feces in household's living area



Indicator		Baseline value	Target	Endline Value
W15	Percentage of households in target areas practicing open defecation	21.4%	20%	12%
	Households with female and male individuals (F&M) in target areas practicing open defecation	20.9%	N/A	12%
	Households with female but not male individuals (FNM) in target areas practicing open defecation	0.2%	N/A	19%
	Households with male not female individuals (MNF) in target areas practicing open defecation	0.1%	N/A	0%
	Households with children not adults (CNA) in target areas practicing open defecation	0.2%	N/A	2%

Furthermore, an overwhelming percentage of respondents (88%) reported actively using latrines, while 12% said they did not use one. This is an improvement of 11% compared to baseline, when 79% of households used latrines. Among those who utilize latrines, a significant majority (72%) do so within their own households, while a notable proportion use public latrines (7%), latrines belonging to neighbors or friends (2%), or other available latrines (1%). Those who do not have access to private latrines are mainly located in Al Dhalee (141), Dhamar (26) and Al Hudaydah (20).

Out of households having access to private latrines, 57% reported that people with disabilities and/or restricted mobility in their households could use latrines independently. However, 43% of respondents indicated the opposite, indicating a need to further improve access for people with restricted mobility.

Indicator	Baseline value	Target	Endline Value
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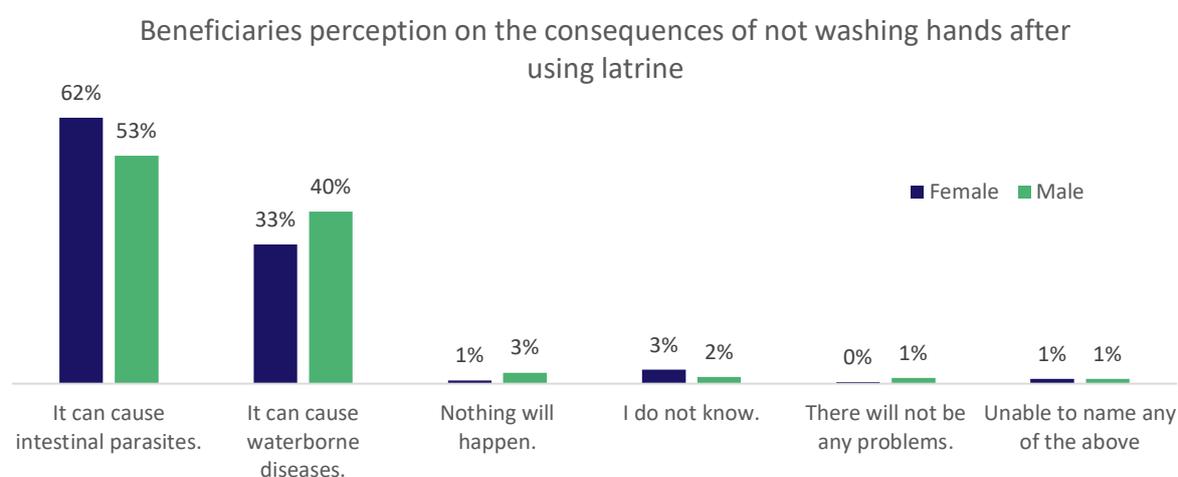
W12	Percentage of individuals targeted by the hygiene promotion activity who report using a latrine the last time they defecated	78.6%	80%	86%
	Male	65%	80%	87%
	Female	13.7%	80%	84%

Considering the utilization of latrines during the last defecation, the data breakdown by gender shows that a significant percentage of both females (84%) and males (87%) reported utilizing the latrine. These percentages align with the overall utilization rate mentioned earlier (86%)⁵

4.5. Hand-washing practices

When asking the surveyed households what would happen if they didn't wash their hands after using latrines, the majority of respondents (55%) correctly identified that not washing their hands after using toilets can lead to the transmission of intestinal parasites. This reflects a good understanding of the potential health risks associated with poor hand hygiene practices. Additionally, a significant proportion of respondents (39%) recognized that not washing hands after using toilets can result in waterborne diseases.

However, it is worth noting that 6% of respondents seem to lack awareness on the consequence of poor handwashing practices, as shown in the graph below: indeed, 3% believed that nothing would happen, or that there would be no problems if handwashing was neglected, another 3% did not know or were unable to mention any consequence.



Indicator	Baseline value	Target	Endline Value	
W10	Percentage of individuals targeted by the hygiene promotion activity who know at least three (3) of the five (5) critical times to wash hands	55.3%	80%	73%

⁵ As mentioned in the limitations, due to restrictions from the authorities in the north on the endline tool, this data has been collected only in Al Dhalee and Marib.

Male		80%	69%
Female		80%	92%

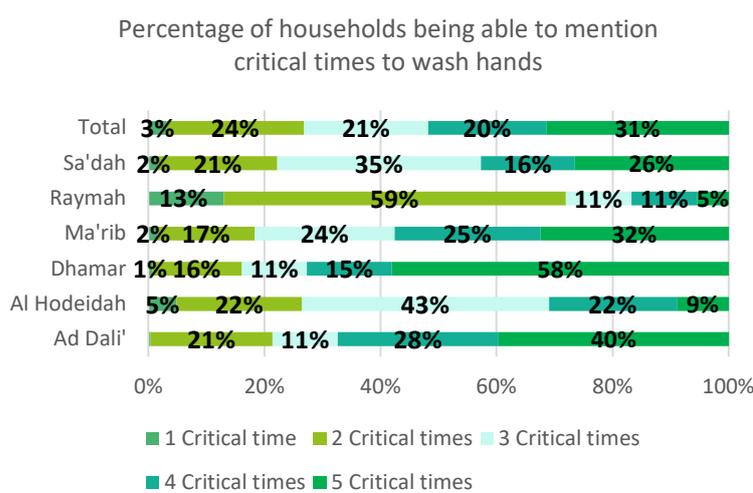
Around two third of the respondents were aware of at least three of the five critical moments to wash hands⁶. Slight differences were recorded between DFA-controlled areas and IRG-controlled areas, which scored 69% and 80% respectively. This still represents an improvement compared to the baseline, when DFA- and IRG-controlled areas scored 66% and 68% respectively, although improvements are significantly greater in IRG areas. Raymah records the highest vulnerability with only 27% of respondents who knew at least three of the five critical times. Nevertheless, all respondents knew at least one critical time when it is necessary to wash hands, and a notable percentage of respondents were able to mention all five moments, while no respondent could mention more than four critical times at baseline. Female respondents more often than males were able to identify at least three of the five times (92% and 69% respectively).

The majority of respondents (45%) reported not having handwashing facilities in their households, highlighting a concerning lack of access to proper handwashing infrastructure.

Lack of private handwashing facilities is mainly prevalent in Al Dhalee (84% - as expected given that beneficiaries live in IDP sites), Saada (65%), Raymah (54%). Additionally, a quarter of respondents (25%) indicated that their household have handwashing facilities, but enumerators did not see them during the survey. On a positive note, 30% of respondents reported having handwashing facilities and enumerators confirmed their presence during the survey.

Despite the lack of private handwashing infrastructure, an overwhelming majority of respondents (99%) reported washing their hands regularly. This indicates a high level of awareness and adherence to hand hygiene practices among the surveyed population, that utilizes communal handwashing facilities when private ones are not available. Among the very few respondents (1%) who reported not washing their hands regularly, the reasons provided include a belief that handwashing is unnecessary (3 respondents) and the absence of handwashing facilities at home (8 respondents). Furthermore, the majority of respondents (67%) reported washing their hands with water and soap, which represents a notable improvement from baseline, when only 27% did so. However, it is worth noting that a significant proportion (33%) mentioned washing their hands only with water, indicating a potential lack of access to soap (corroborated by findings below), or gap in knowledge or adherence to optimal handwashing practices. Again, this is still a stark improvement compared to baseline, when 73% only utilized water. The data shows a fairly balanced distribution of handwashing frequency among respondents. The largest proportion (40%) reported washing their hands from 4 to 6 times a day, followed closely by those who wash their hands more than 7 times a day (30%). Some (30%) reported washing their hands from 1 to 3 times a day.

Concerningly, a majority of respondents (51%) reported facing difficulties in accessing soap within the last 30 days. This indicates a significant challenge in obtaining this essential hygiene product for a considerable portion of the



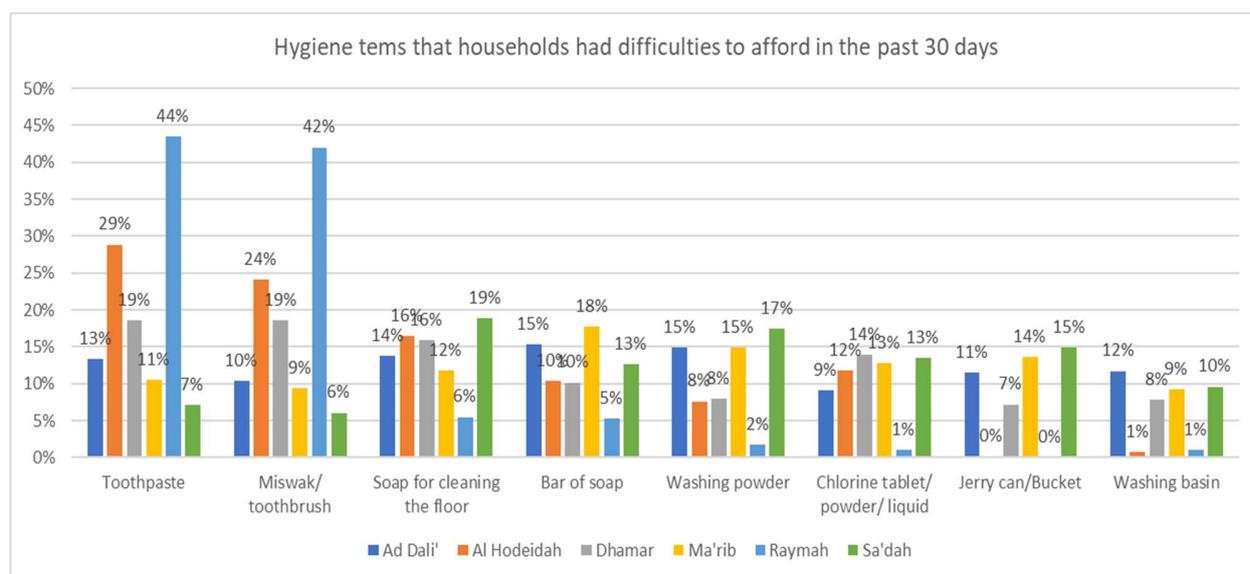
⁶ The five critical times to wash hands are defined in BHA guidance as 'after defecation/ using the toilet', 'before eating', 'after changing diapers or cleaning a child's bottom', 'before preparing food', and 'before feeding an infant'.

surveyed households. In contrast, 46% of respondents stated that they did not encounter any problems in accessing soap, suggesting relatively easier access to this essential item for these households.

Among the respondents who faced challenges in accessing soap, the most commonly reported problem (86%) was the high cost of soap. A smaller percentage of respondents (7%) mentioned that the market where soap is available is difficult to reach or too far away. A very small percentage of respondents (1% each) reported that soap was not available at the market or that the soap sold in the market was of bad or inadequate quality.

It is worth noting that a small proportion of respondents (2%) selected "None of the above," indicating that they faced problems accessing soap but it did not fall into the provided options. Additionally, 2% of respondents were unable to specify any of the listed problems, suggesting a potential lack of recall or difficulty in identifying the specific issues faced.

Lack of accessibility to hygiene items remained a challenge at endline. Items that respondents found most difficult to access include toothpaste (17%), toothbrush/miswak (15%), soap for cleaning the floor (14%), bar of soap (13%), washing powder (12%), chlorine (11%), jerry can/bucket (9%), and washing basin (8%). The below graph presents governorate-level disaggregation, with DFA-controlled areas representing the most vulnerable, particularly Raymah, Al Hudaydah and Dhamar.



Overall, hygiene items remain difficult to afford, showing distributions of hygiene kits in Al Dhalee, Marib, Al Hudaydah, and Raymah were relevant. These findings emphasize the extreme vulnerability of targeted populations and the need for continued interventions to address availability, affordability, and access to hygiene products in order to alleviate these challenges for households in different governorates.

4.6. Sanitation

4.6.1. Latrine constructions – cleaning and completeness

Indicator		Target	Endline Value
W18	Percentage of households targeted by latrine construction/promotion activities whose latrines are completed and clean	80%	98%

The findings regarding the latrines constructed or repaired by Acted reveal both positive aspects and areas that require attention. Out of the latrines, an overwhelming majority of 98% are reported as completed and operational, indicating successful construction and repair efforts. 2% of the latrines are reported as not completed or operational – however, follow up questions revealed that such 2% misinterpreted the question, and reported latrines not being completed because they did not receive a private household latrine – on the contrary, they did benefit from communal latrines.

In terms of the type of latrines, it is observed that 52% of the latrines are designated as household private latrines, constructed or repaired specifically for household use. The remaining 48% are communal latrines intended for public use.

Regarding the proximity of the communal latrines to dwellings, an encouraging 94% of them are located within a distance of less than 25 meters. However, a small portion, approximately 6%, have communal latrines located between 25 and 50 meters away, and only 1% have latrines situated more than 50 meters away.

The data also sheds light on the condition and functionality of the latrines. The majority, with a percentage of 92%, are reported to have covers or lids to maintain hygiene. However, 8% of the latrines are lacking this essential feature, which may require attention to ensure that all latrines are properly covered. Concerning lighting within the latrines, 87% are reported to be well-lit with functional lights, while 13% lack adequate lighting. Proper lighting is crucial for ensuring safe and convenient use, especially during nighttime.

Internal locks are another important aspect of latrines, as they provide privacy and security. At endline, 95% of the latrines have functioning internal locks, indicating a positive feature that promotes a sense of privacy and safety. However, 5% of the latrines lack functional internal locks.

Accessibility is a significant consideration, particularly for elderly individuals and people with disabilities. The data shows that 82% of the latrines are easily accessible, featuring elements such as access ramps and support bars. However, 18% of the latrines are reported as not easily accessible. This highlights the need to improve accessibility features and ensure that all latrines are inclusive and accommodating for individuals with diverse needs.

The findings also reflect the perception of safety among latrine users, with an overwhelming 97% feeling that the latrines are safe to use at all times. This indicates a positive perception of the latrines' overall safety and security. However, the small percentage of respondents (3% - 4% of the females and 3% of the males) who do not feel safe while using the latrines pointed out concerns such as distance, lack of lighting, and absence of private bathrooms for their families. Addressing these concerns can contribute to enhancing the overall safety and user experience of the latrines.

Regarding cleanliness, an encouraging 99% of the latrines are reported to be clean, indicating proper maintenance and hygiene practices. However, there is a small percentage (1%) of latrines that are reported as not clean. The descriptions provided for unclean latrines include dirty floors, the absence of a private latrine, and the presence of feces. These areas need immediate attention to ensure that all latrines maintain a high level of cleanliness and hygiene.

Lastly, around 36% of the latrines have evidence of feces (including both human and animal feces) within a five-meter radius around the exterior, while the majority, 64%, do not.

4.6.2. Average number of users per functioning toilet

Indicator		Baseline value	Target	Endline Value
W20	Average number of users per functioning toilet	13.9	20	14

	Average number of users per functioning toilet in Marib	12.8	20	6.45
	Average number of users per functioning toilet in Al Dhalee	48.48	20	20.9

Acted is the main CCCM actor across the IDP in Marib and Al Dhalee. In Marib, Acted implemented construction of household latrines for 245 households with an average of 6.45 members per household, whereas in Al Dhalee Acted has implemented the construction of 100 communal latrines targeting sites with 2,030 individuals with an average of 20.9 individual per latrine. The total average number of users per functioning toilet is 14. This represents a significant improvement compared to baseline, when respectively an average of 13 and 48 users per toilet were reported in Marib and Al Dhalee.

4.7. Accountability

The findings regarding the level of respect demonstrated by Acted staff while working in the community indicate a positive perception overall. The majority of respondents, 76%, reported that Acted staff were very respectful, while an additional 23% considered them respectful. Only a small percentage, 1%, had a neutral view on this matter.

Regarding whether Acted's interventions met the expectations of the community, a significant portion of respondents, 75%, stated that the interventions met or exceeded their expectations. However, a smaller percentage, 23%, considered that the interventions only somehow met their expectations, suggesting room for improvement. Only 3% of the respondents expressed that Acted's interventions did not meet their expectations.

Those who felt that Acted's interventions did not meet their expectations provided reasons including limited or infrequent support, insufficient quantity of aid provided (such as a small amount of assistance lasting only for a short period), lack of interventions in certain areas (such as water, tanks, bathrooms, or shelter), absence of support or services received from Acted.

Regarding Acted's CRM (Complaints and Response Mechanism), the majority of respondents, 81%, indicated that they knew how to give feedback or lodge complaints with Acted. However, 19% stated that they did not know how to do so. Among the mechanisms mentioned by those who were aware, the most commonly known were contacting Acted through phone (hotline number of the CRM), using suggestion boxes, talking directly with Acted staff, and communicating with the community committee.

When asked about the most comfortable way of contacting Acted, the majority of respondents, 860, preferred using the phone (hotline number of the CRM). This indicates a preference for direct communication and the convenience of contacting Acted through a phone line. Other options mentioned were using suggestion boxes, talking directly with Acted staff, and communicating with the community committee.

5. Conclusions and recommendations

The data collected from the endline survey conducted by Acted in Yemen indicates a positive trend towards achieving the project objectives of improving water, sanitation, and hygiene (WASH) practices in targeted governorates. The compounded effect of hygiene promotion sessions, rehabilitation of water points, distribution of hygiene kits demonstrates Acted's comprehensive approach to addressing WASH needs in these communities.

Access to improved water sources was a significant challenge at baseline, with unprotected wells being a main source of drinking and non-drinking water for almost a quarter of respondents. At endline, stark improvements can be observed, **as only a minority of households (6%) rely on unimproved water sources for drinking (6%) and non-drinking (9%) purposes**. In particular, in DFA-controlled areas where baseline recorded very limited access to improved water sources (30% for drinking and 36% for non-drinking purposes), a significant proportion of population have now gained access to improved water (94% for drinking and 85% for non-drinking purposes). This proves the relevance of interventions aimed at guaranteeing access to safe water to affected populations including through water point rehabilitations and awareness raising sessions, and calls for **replication and extension of similar programmes in the future**.

The survey findings also prove the effectiveness of the hygiene promotion sessions, which had a positive impact on the practices of respondents, which improved significantly compared to baseline. Indeed, the data collected on water storage, cleanliness, and treatment practices in Yemen indicates positive trends towards achieving the project objectives. The majority of households now store their drinking water in containers that are both safe and clean (86%), as compared to 46% at baseline, demonstrating a good **understanding of the importance of safe water storage as well as access to storage containers**. Indeed, while 58% of households reported difficulty accessing buckets and jerrycans at baseline, only 9% report so at endline.

In terms of water treatment, the survey findings indicate that a significant proportion of households (61%) do not treat their drinking water at endline, believing that water is already clean or mentioning unaffordability of chemical treatment methods. However, those who treat water use appropriate treatment methods, including boiling and chemical disinfection. It is essential to address the reasons behind the lack of water treatment among a large portion of households. To this aim, follow up on hygiene awareness needs should be performed to **strengthen awareness campaigns so that they are aligned to population's needs**. In addition, **sustainable access to water treatment items should be guaranteed**. These will be crucial measures to emphasize the importance of water treatment and provide information on **affordable and accessible treatment methods**.

The data collected on defecation practices across governorates of intervention reveals several positive trends, indicating progress towards achieving the project objectives.

Overall, the combined data highlights the majority's access to latrines (84%) and their utilization (88%), leading to a **decreased prevalence of open defecation (12%)**, likely linked to an increased access to latrines, to maintain hygiene and reduce health hazards compared to baseline, when 79% of individuals used latrines and 21% resorted to open defecation. The construction of latrines in Al Dhalee and Marib certainly contributed to such results, with the majority of the household and communal latrines constructed or repaired being observed as completed and operational, as well as close to household shelters, ensuring easy access for the majority of users.

The condition and functionality of the latrines were generally satisfactory, with most latrines having covers or lids, proper lighting, and functioning internal locks. Users perceived the latrines as safe and clean, emphasizing the positive impact of these interventions on hygiene and well-being. However, there remains a minority of people (mainly women) who feel unsafe utilizing the latrines, pointing to the lack of lighting, the distance, and the absence of private facilities. Additionally, observations around more than a third of the latrines, that had fecal matter around them, show a concerning sanitation environment that may lead to health concerns for populations. Efforts should be made to address both issues by **ensuring the latrines are safe for both male and female users**, through

installation of lighting for example, and **implementing regular cleaning and maintenance protocols to prevent the accumulation of fecal matter around communities' living areas.**

On the other hand, participants also highlighted the **challenges faced by people with disabilities and/or restricted mobility in independently using latrines**, 43% of which cannot use a latrine independently. This underscores the importance of taking inclusive measures to ensure that latrine facilities are accessible and accommodating for individuals with disabilities or restricted mobility, promoting their independence and dignity in sanitation practices.

Lastly, the program paved the way **for improved hygiene practices amongst the targeted population.** In particular, high levels of awareness on the importance of good hygiene practices, crucially handwashing, are observed at endline, with 73% of people knowing at least three out of the five critical time to wash hands, as compared to 55% at baseline. Hygiene awareness seems to be tied with the geographical location of the respondents, with those in Raymah and Al Hudaydah and Saada showing the lowest awareness in this respect. The endline survey also reveals **both positive trends and areas for improvement in handwashing practices among the surveyed population.** While the majority of respondents reported washing hands with both water and soap (as compared to the majority reporting washing hands with water only at baseline), a remaining 33% of surveyed individuals still report washing hands with water only. Indeed, **lack of access to soap, amongst other hygiene items, remains a barrier for more than half of the households due to economic constraints.** It is recommended that sustainable access to essential hygiene items is guarantee amongst population in Yemen, to prevent occurrence of health issues. However, concerning findings highlight the lack of handwashing facilities in households, with 45% of respondents reporting their absence. This signifies a significant gap in access to proper handwashing infrastructure, which is crucial for maintaining good hygiene and preventing the spread of diseases. Efforts should be made to address this gap and ensure access to handwashing facilities for all households.

Lastly, ACTED's respectful behavior towards the community and their efforts to meet expectations were well-received by the respondents. The majority of the community felt that the interventions met or exceeded their expectations, demonstrating the effectiveness of ACTED's approach. The presence of an established feedback and complaint mechanisms further enhanced community engagement and accountability. However, there remains almost a quarter of beneficiaries who report not being aware of Acted's feedback mechanism. Increased **CRM awareness campaigns targeted to all Acted beneficiaries should be ensured across interventions**, to ensure beneficiaries are able to lodge feedback if they wish to do so.