

## KNOWLEDGE, ATTITUTDES, PRACTICE ON WASH REPORT

An Endline Survey within Palorinya Refugee settlement in Zone 3 for the UGFM 1808 Project.



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## LIST OF ACRONYMS

WASH- WATER SANIATION AND HYGIENE

BL- BASELINE

EL- ENDLINE

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# 1 Background

Palorinya refugee settlement is located in Moyo district, Itula sub-county – 40 km away from Moyo Township. According to UNHCR situation updates, Palorinya refugee settlement hosts 165,587 South Sudanese refugees since opening in October 2016<sup>1</sup>. The settlement is divided into Zone 1, Zone 2, Zone 3 and the base camp.

Despite interventions in WASH service provision by implementing partners such as LWF, World Vision and ADRA in Palorinya settlement, WASH indicators within the settlements still remain below the required UNHCR standards for stable refugee conditions. Safe water coverage and access to sanitation facilities are still at an average of 15 lpd and 1:30 persons, below the minimum standard of 20 lpd and 1 latrine per household respectively. This has been attribute to the unsuccessful drilling of boreholes in some parts of the settlements due to limited ground water potential and water quality issues. Water trucking continues to provide almost up to 40% of the water needs in Palorinya Zone 3 which is neither cost effective nor sustainable<sup>2</sup>. The distribution networks created from the motorised water systems experience intermittent flow of water resulting into most tap stands receiving very little water flow during peak hours. Consequently, the few tap stands serving the settlement are so constrained with significant congestion and queuing during water collection times. It is hence critical to increase the elevation and storage capacity of the systems, distribution network grids as well as number of tap stands.

In regards to sanitation and hygiene; latrine coverage faces a very big challenge of improper soil type which is water logged with loose formation and therefore susceptible to collapse. This has led to high collapse of household latrines greatly reducing the sanitation facility coverage. In addition, the few communal latrines constructed at the beginning of the response are still being used by the community. There is need to increase support to household latrine construction in addition to the extra support specifically for PSNs who have limited capacity to engage in shelter/latrine construction. NRC has been selected as an implementing partner for UNHCR for the year 2018 and has been allocated to zone 3 which has an estimated 69,000 people. Against this background NRC would like to conduct a KAP (knowledge, Attitudes and Practices Survey) in zone 3 to provide a benchmark for the WASH program to be implemented

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<sup>1</sup> [Uganda Refugee Response; South Sudan Situation Updates, UNHCR January 2018](#)

<sup>2</sup> [WASH sector coordination meeting, 2017](#)

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## 2 OBJECTIVES OF THE WASH PROJECT

### 2.1 Supply of potable water increased.

- To ensure that Refugee populations in Zone 3 of Palorinya and host community will have adequate and equitable access to safe potable water for drinking and other domestic uses at Sphere standards by the end of the project.
- Reduction in the distance that women and girls have to walk to fetch water.
- Reduction in the time spent in the queuing for water
- Reduction of conflicts at water points.

### 2.2 Population lives in satisfactory conditions of sanitation and hygiene

- Refugee populations in Palorinya Zone 3 have adequate access to appropriate latrines in their homes.
- Improved knowledge and adoption of good hygiene practices.
- Reduced incidences of WASH related diseases due to improved hygiene practices.
- Enabling healthy household environment.
- Increased % of POC practicing hand washing at critical moments.

### 2.3 Overall objective of the KAP survey.

*The overall objective of the KAP study is to assess the existing knowledge, attitudes and practices of the communities, lessons learnt and provide clear recommendations focused at improving the quality and effectiveness of WASH services delivery in palorinya refugee settlement in zone 3.*

#### Specific Objectives

- ❖ To find out the prevalence of diarrhoea in the general population among the target refugees.
- ❖ To determine the community's knowledge about water, sanitation and hygiene related issues that influence the prevalence sanitation related diseases
- ❖ To understand the community's attitudes that influence their actions about water, sanitation and hygiene related issues eventually influencing the prevalence of diarrhoea.
- ❖ To understand the community's practices related to water, sanitation and hygiene
- ❖ To understand how communities, manage their water facilities
- ❖ To identify key factors leading to success of local operations and management committees (e.g. wssc's).

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## 3 Methodology

### 3.1 Survey Design

A cross sectional study design was used for this KAP study. It was non-experimental design involved comparing the before and after intervention situation. The before situation was based on baseline KAP survey that was conducted at the beginning of the project. The survey employed quantitative methods by using structured questionnaire to quantify the problem by way of generating numerical data.

### 3.2 Sampling Strategy:

The zone was clustered in to two locations Zone West and Zone East. Then Simple Random Sampling technique was then used to select 4 villages from each cluster. Systematic Random Sampling was applied to select the respondents within each of villages selected.

### 3.3 Sample size

Based on the total population within Zone 3 Palorinya of 27,000 (Source: OPM). A sample size of 402 respondents with 203 from Zone 3 east and 199 from zone 3 West was randomly selected with 95% confidence level and 5% margin of error. This was computed using the taro Yamane formulae (1965).

Villages	Clusters		
	Zone 3 East	Zone 3 West	Grand Total
Abio	50		50
Longa	51		51
Lukuri	51		51
Luwakoke	51		51
Village A		50	50
Village C		50	50
Village K		50	50
Idiwa I		49	49
Grand Total	203	199	402

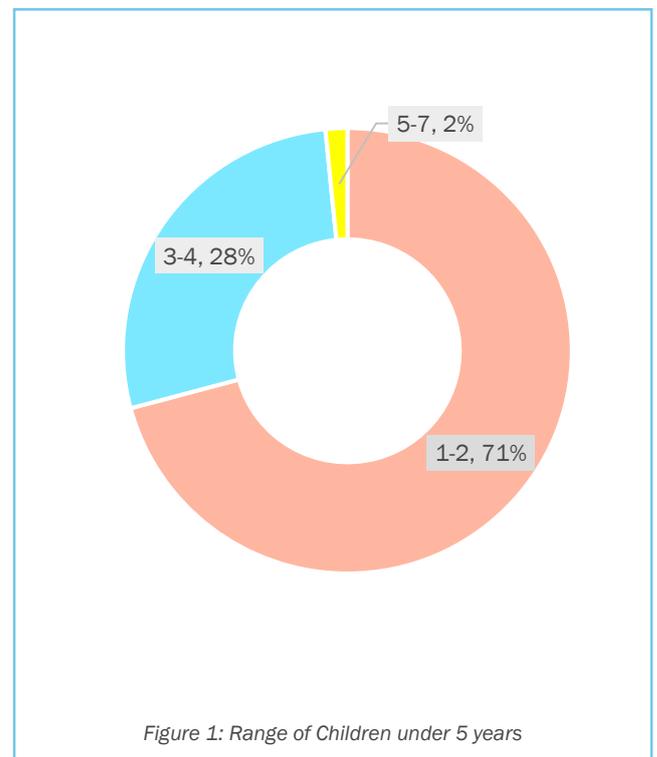
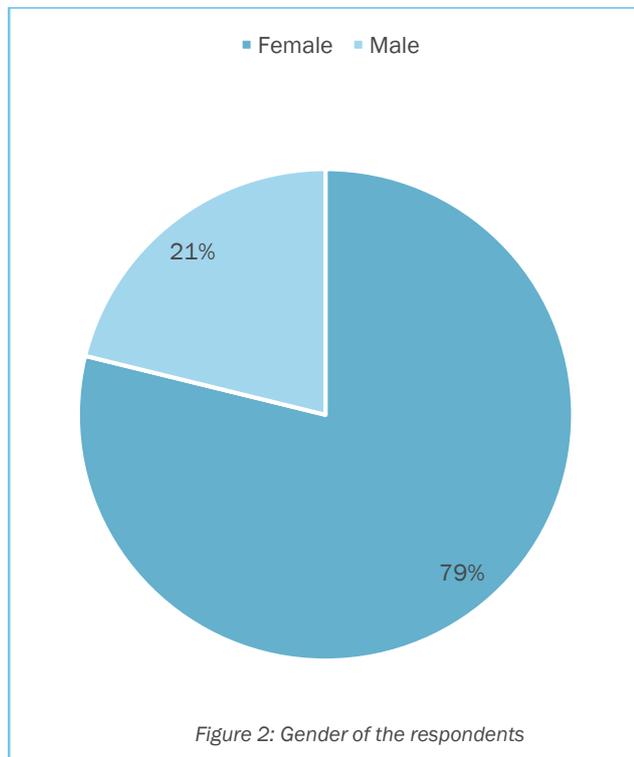
Table 1: Total number of samples drawn from a village within a cluster.

### 3.4 Data collection and analysis

The Data was captured using **Kobo** on Android-based smartphones. The detailed analysis of the data was conducted using Ms Excel to provide analytical depth to the findings as well as significant statistics to help orient future actions and provide recommendations.

## 4 General Findings/Comparative Analysis

### 4.1 Demographics



**4.1.1 Gender – Nationality Composition:** 79% of the respondents were females and 21% males and all them were South Sudanese.

**4.1.2 Household size:** This assessed the total number of people in a household.

42%(169) of the households were characterised by small family households of (1-5 members) 53%(212) had (6-10 members). Large family households of (11-16) were represented by 5%(21). On average, a household is composed of 6 members.

**4.1.3 Children under 5:**

Majority of the households 71% have (1 to 2) children in their households that are below the age of 5.



## 5 ACCESS TO SAFE WATER SUPPLY

This section presents findings on the Domestic & Drinking water sources, Water sufficiency, Time spent to walk to water sources, Safe water chain practices.

### 5.1 Domestic & Drinking water sources

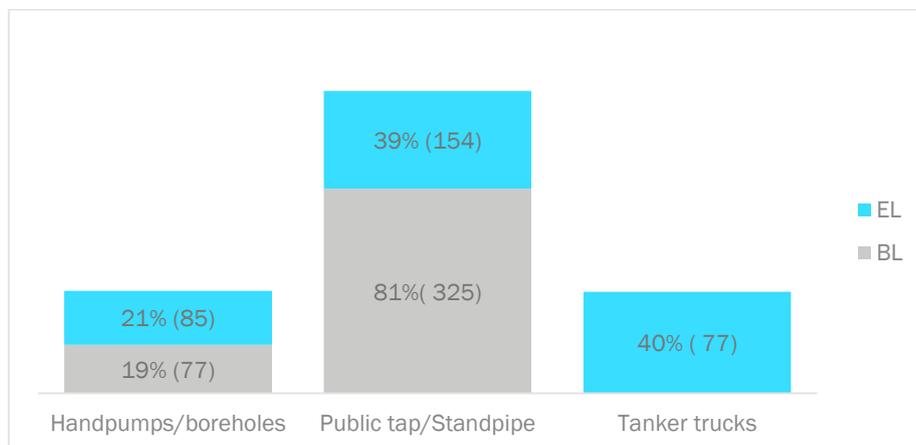


Figure 2: Main source of water used for drinking

During the baseline survey, the major source for drinking water as reported by the beneficiaries was mainly public tap/ standpipes. But as the year progressed during project implementation, many beneficiaries changed their main sources. The number of beneficiaries that used hand pumps increased by 3% to 21%; tanker trucks increased to 40% and public tap stands reduced to 39%. the beneficiaries reported that the displayed water sources were the second most used sources of drinking water for

members of their household. Despite the changes, the majority of the households fetch their water from sources that by whose nature, design and construction have the potential to deliver safe water

Water source for domestic activities	Number		Percentage	
	BL	EL	BL	EL
Public tap/Standpipe	285	155	71%	39%
Hand pumps/boreholes	110	119	27%	30%
Unprotected hand-dug well	1	92	0%	23%
Surface water (river, pond, dam,)	16	1	4%	0%
Rain water collection	64	17	16%	4%
Tanker trucks	0	143	0%	36%
Other	38	1	9%	0%

Table 2: Water source for domestic activities

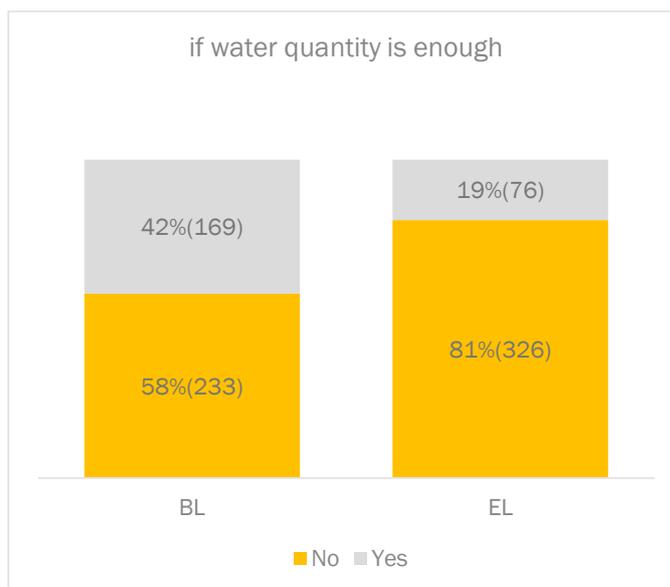
## 5.2 Water Availability

No of litres per person per day	Percent	Number
0-15	21%	83
15-30	45%	179
30-45	23%	94
> 45	11%	46
Grand Total	100%	402

Table 3: Number of litres per person per day

The average number of litres of potable water available per person per day according to the findings was 27Litres. The proportion of households collecting more than 15 litres of water per person per day was 79%

### 5.3 Water sufficiency.



The vast majority at the end line and Over half of the households at the baseline reported that The availability of sufficient quantities of water for household use and consumption was so low. 81% (326) reported that that the quantity of water they received was not enough for household consumption mainly because they do not have enough storage containers, long queuing hours at water points and water shortages that arose from inconsistent deliveries.

Reasons for insufficient water Quantities.	Number	Percentage
There are water shortages	224	69%
Water is too far	27	8%
It is too dangerous to get water	5	2%
Can't afford to buy enough	13	4%
Waiting time at the water point is too long	188	58%
Don't have enough storage containers	291	89%

Table 4: Reasons for insufficient water quantities

#### 5.4 Time spent to walk to water sources:

73% of the respondents across the zones said they walked for about 14 minutes to reach the nearest water point, followed by 22% who said they spent 15 to 29 minutes to the water points. However, 4% of the respondents reported to spending 30 to 45 minutes to the water source, the percentage of those that reported to walk for more than 30 minutes was higher in zone 3 East.

: Table : Time spent walking time to water source (Minutes)

Location.	(0-14)	(15-29)	(30-44)	(45-60)	Grand Total
Zone 3 East	35%	11%	3%	1%	50%
Zone 3 West	38%	10%	1%	0%	50%
Grand Total	73%	22%	4%	1%	100%

#### 5.5 Responsibility of collecting water:

The findings showed that the responsibility for collecting water in most households is for adult females and for children between 10 to 18 years. This was partly because this role is socially assigned to women in the community.

The figure below shows who bears the greatest burden of collecting drinking water.

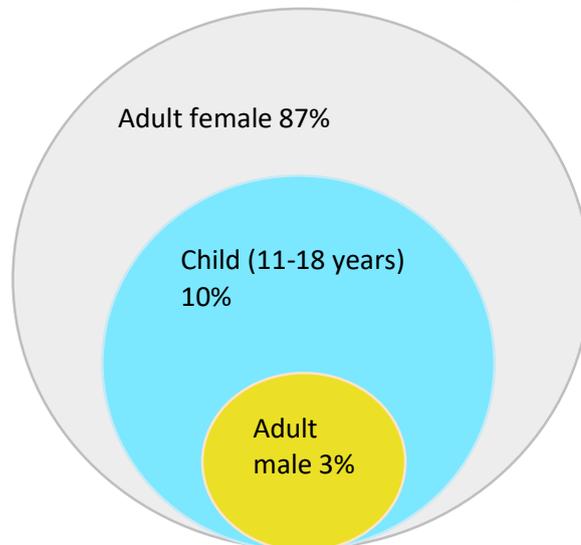
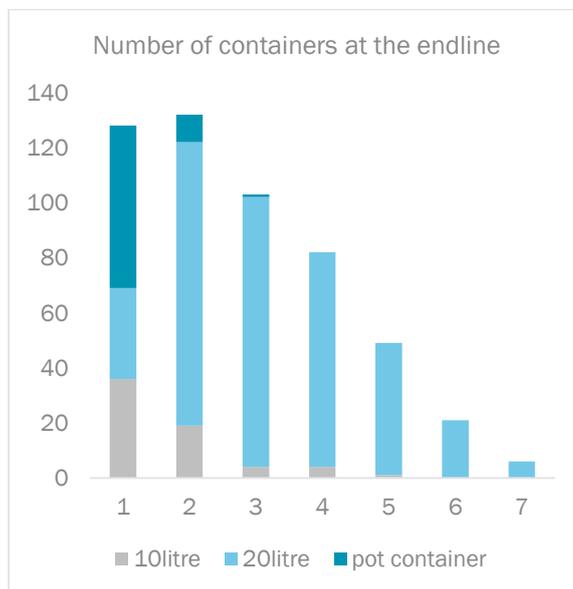
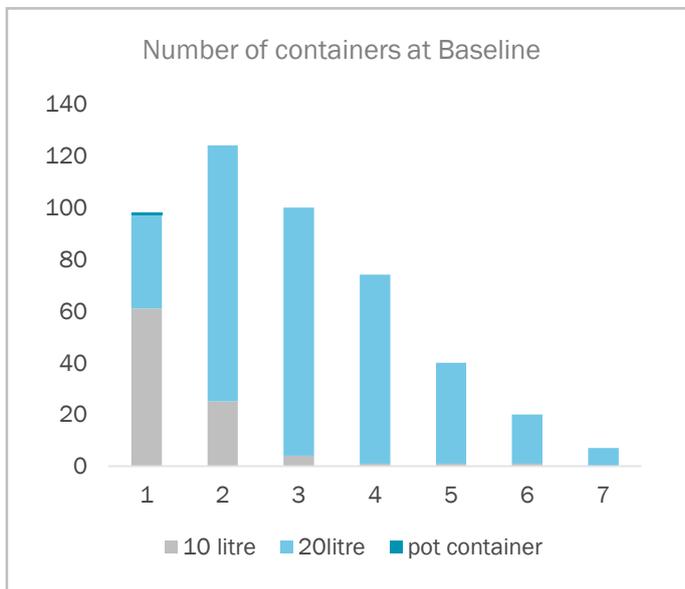


Chart 1: water collector in a household.

## 5.6 Safe water chain practices:

This section presents metrics/findings on Water Storage containers and the frequency of cleaning water collection containers:

### Water Storage containers



Each household on average has at three 20 Litre Jerri cans for storing water. 88% of these containers have a narrow neck. Key to note is that 99% of the households do not have separate containers for storing water for drinking water and for domestic use.

### Frequency of cleaning water collection containers:

47% of the respondents reported that they clean their water containers every time they use them, 50% clean them at least once a week and 3% clean them at least once a month. These Containers are mainly washed using rocks and shaking

Ways of cleaning Containers	Number	Percent
wash with ash and water	31	8%
Rinse them with water	27	7%
Wash them by using rocks and shaking	256	64%
Wash them with a piece of tissue	28	7%
Wash them with a soap and tissue	60	15%
Grand Total	402	100%

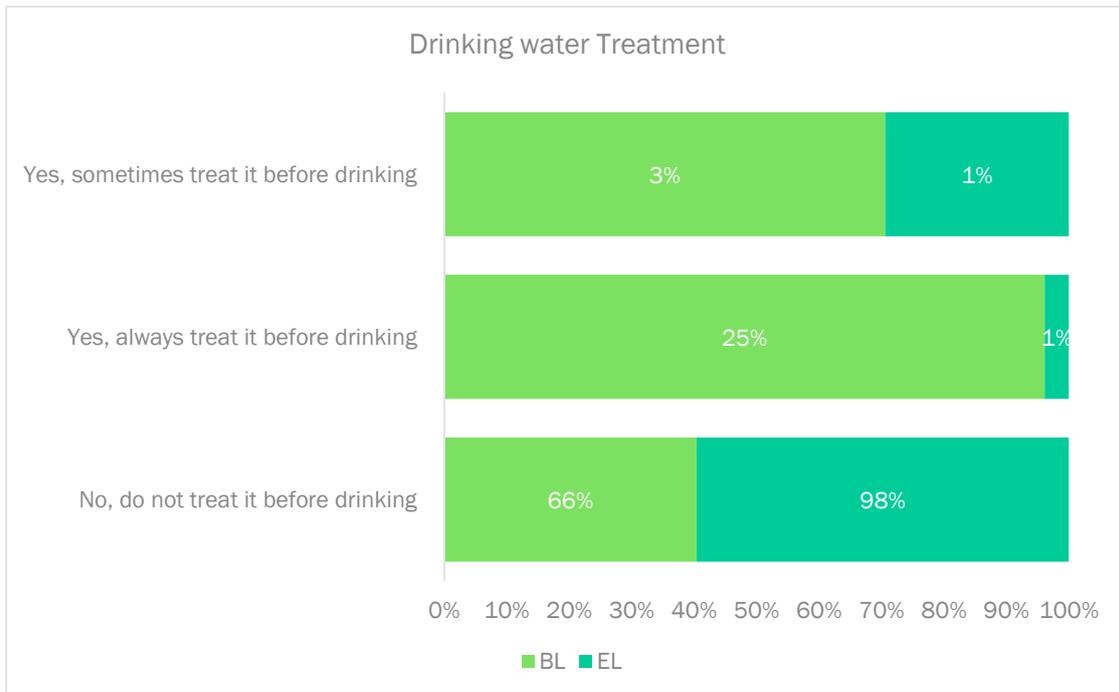
## Protection of water storage Container

Covers/lids on Jerri cans/containers used for water storage were designed to protect it against contamination. When they are dirty, they are a source of contamination. The findings showed that 46% of the containers used for water storage had covers/lids and 54% did not have. This presented a high risk of contamination of drinking water in containers which were not covered was high for more than half of the respondents.

### 5.7 Drinking water hygiene.

**Scooping containers:** 22% dipped their scooping containers into their water storage containers and used the same cup for drinking water. 70% of the beneficiaries poured their drinking water straight into their cups, 8% had containers with horse taps. This showed that majority limited direct contact with their drinking water hence reducing the risk of contamination at that stage.

**Drinking Water treatment:** this involves process that improve the quality of water to make it more acceptable for a drinking. According to the findings, at baseline, 66% used to treat their drinking water daily using several products and methods like Aqua tabs/water purification tablets, let it stand and settle, boil it, Use Powder or granular chlorine d. At the endline, findings showed that the vast majority (98%) of the beneficiaries did not treat their drinking water. These mentioned that they drink water directly at the source, which shows that they do nothing to make it safe but probably because of the perception that water supplied is treated or that water at borehole is safe for drinking if not contaminated with the dirty during collection and transportation.



### 5.8 Operations and maintenance:

This section shows the commitment of households to paying water user fees and how much households are willing to spend on maintenance of their water points in collaboration with the water user committees.

47% of the respondents reported that they pay water user fees. 80% of these pay a minimum of 500Ugx. Monthly.

53% reported that they do not pay water user fees. Majority of these were found in zone 3 east. When asked if they would be willing to pay water user fees, 22% agreed and they suggested that they would be willing to pay an amount below that is not greater than 500Ugx.



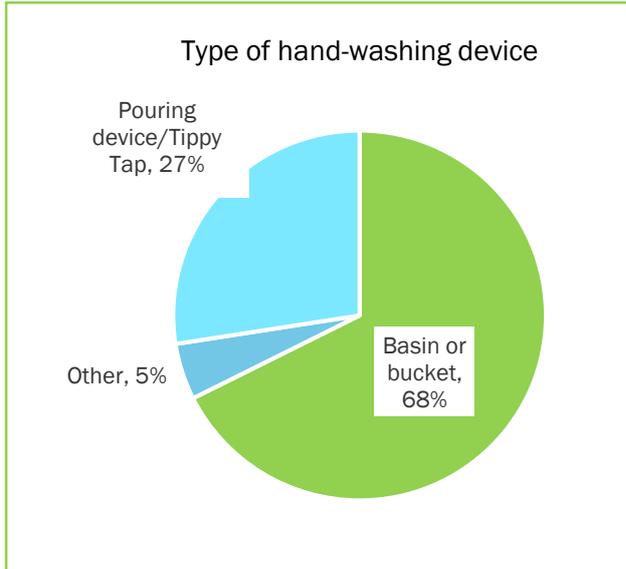
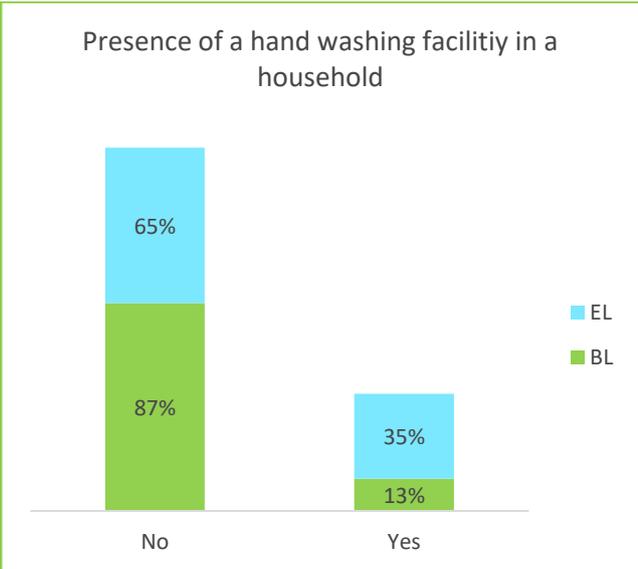
# HYGIENE KNOWLEDGE PRACTICES

This section presents a set of personal practices practise within zone 3 that contribute to good health. It consists of Hand washing facilities, Hand washing times and Menstrual Hygiene Practices.

### 5.9 Hand washing facilities:

Hand washing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and basins designated for handwashing.

Findings showed that the major types of hand washing devices/facilities found in the households were basins or buckets 68% (96) followed by tippy taps that carried 27%.



At the time of the baseline survey, only 13% (54) of the households were observed to have a hand washing facility. At the time of the endline survey, the percentage of these households with hand washing facilities had increased to 35%(142). 65% (260) of these households lacked a hand washing facility in their household.

At the time of the endline, only 28%(40) of the households with hand washing facilities had handwashing stations with soap and water available at the time of the survey. These were therefore classified as having a basic hygiene service. 17% (24) had handwashing facilities with only water and 11% (15) with had only soap so were counted as providing a partial service. 44% (63) had completely no soap and water.

The proportion of households with handwashing facilities is significantly higher than the proportion with facilities with water and soap available on the day of the survey. This highlights a challenge of maintaining handwashing facilities so that water and soap are available for handwashing at critical times.

In this community, ash is used as substitute for hand washing in cases where soap is unavailable

### Hand washing times

Respondents were asked the different times when they washed their hands. The majority of the respondents mentioned before eating, Before cooking/meal preparation and after defecation. Very few respondents mentioned washing hands after cleaning child’s stool, before preparing meals. More details are shown below.

Hand Washing Times	Number	Percent
Before eating	371	92%
Before cooking/meal preparation	304	76%
After defecation	357	89%
Before breastfeeding	72	18%
Before feeding children	44	11%
After handling a child’s stool/changing a nappy/cleaning a child’s bottom	80	20%
other	30	7%

92% of the households mentioned at least three critical hand washing times which were majorly before eating, before meal preparation and after defecation.

### 5.10 Menstrual hygiene Practices.

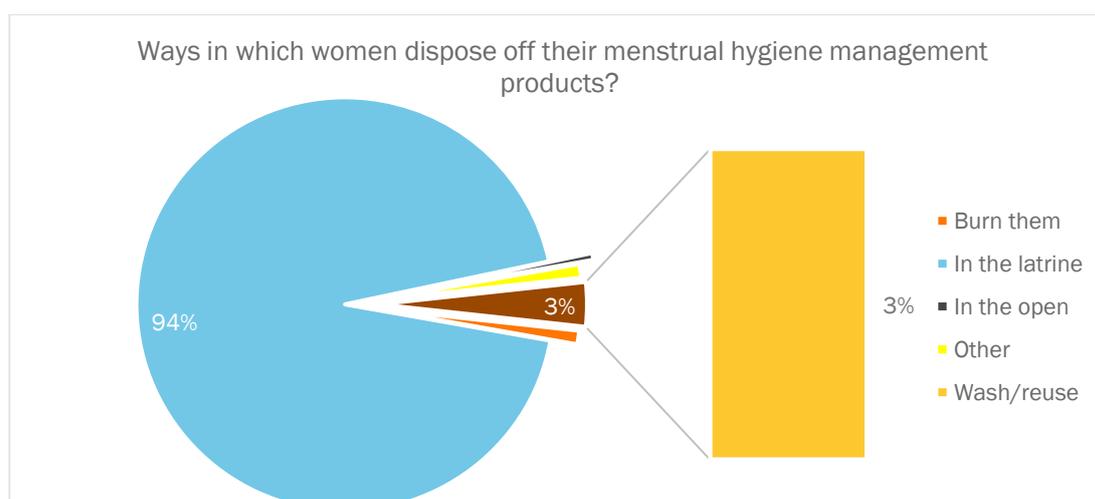
Majority of the women in this community (83%) manage their periods in an effective, comfortable, hygienic and safe way through use of disposable sanitary pads. 90% were observed to have sufficient access to safe and private places like private latrines and in their houses where they visit to change their menstrual pads from with clean water and soap for personal hygiene.

Though majority use disposable sanitary pads, in times of scarcity without money to purchase them, they resort to using reusable cloths, reusable sanitary pads, cotton and others bleed into clothes to manage their menstrual flow. During such times it may increase the chances of getting diseases. The table below illustrates the metrics

Materials used during menstruation	Number	Percentage
Disposable pad	329	88%
Reusable pad	25	7%
Reusable cloth	42	11%
Cotton	7	2%
Layers of underwear	24	6%
Nothing/bleed into clothes	16	4%

### Menstrual Hygiene product disposal

Women within these household dispose of their menstrual hygiene management products mainly in the latrine





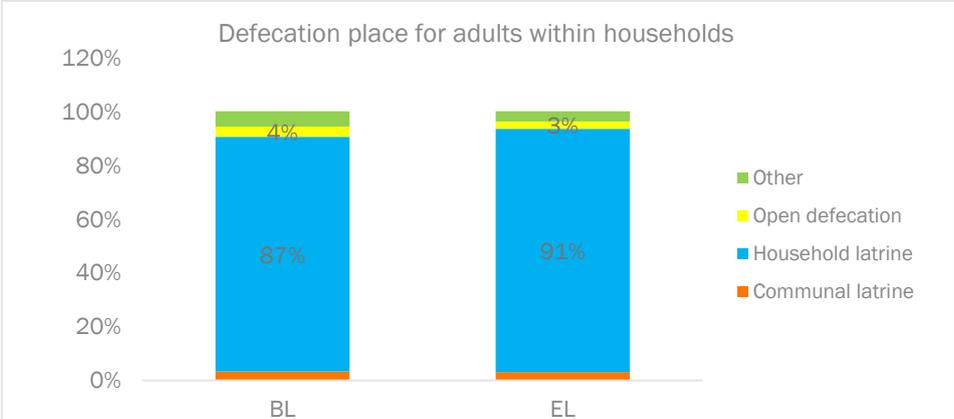
**ACCESS TO SANITATION FACILITIES**

## 6 ACCESS TO SANITATION FACILITIES

The following section provides an overview of household sanitation facilities and services as well as specific actions practiced to keep the environment healthy. These include latrines or toilets to manage waste, Safe excreta disposal

### 6.1 Access to latrines

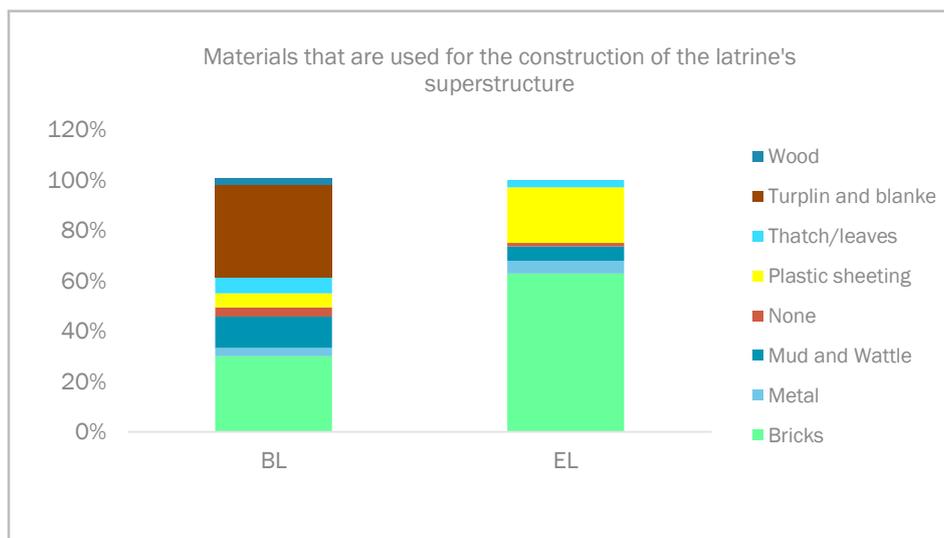
At the time of the endline survey, the majority of the households had a sanitation service like household pit latrines that took a percentage of 91 (364). 3%(11) had no latrines and were defecating in the open and 3% (12) of the households were using communal latrines. They reported to having access to these latrines.



### Physical conditions of the latrines.

8% of these latrines were observed to be full at the time of the survey. 41%(153) of these latrines did not have any squat hole covers. When asked if they feel like these sanitary facilities provided them with enough privacy, 73% (273) of the households with latrines reported that the latrines that they had provided them with privacy while 27% (103) reported that their latrines did not provide them with enough privacy mainly because of the nature of the physical structure which was damaged, lacked roofs and locks and also too close to the house.

### Materials used for construction of latrine’s super structure.



At the time of the endline survey, majority of the households had changed from using flimsy materials to using more durable materials for construction of the latrine’s super structure. Among these were thatch and plastic sheeting/ tarpaulin for the roof; mud/wattle, bricks for the walls.

### Nature of slabs in the latrines

Types of slabs	Percentage	Number
Plastic	67%	253
Concrete	3%	11
Logs	13%	50
None	10%	36
Wood	7%	26
<b>Grand total</b>	<b>100%</b>	<b>376</b>

The nature of slabs used by most of the households were plastic in nature.

## 6.2 Latrine use practices

**Sharing sanitary facilities/Latrines** No clear the difference with previous variable measuring access.

There was an increase in the number of households that use a single/private household latrine by 10% from 72% from the baseline and also a reduction in the percentage of households that share a household latrine by 6% from 24% at the time of the baseline. When asked about the number of households that share these latrines, 65% reported that they are shared by 2 households and 21% were shared by 3 households.

Nature of facilities where households defecate	BL	EL
Other	1%	0%
Public/communal latrine	3%	0%
Shared household facility used by a number of households	24%	18%
Single household facility (used only by this household)	72%	82%
<b>Grand Total</b>	<b>100%</b>	<b>100%</b>

## 6.3 Disposal of children's Excreta

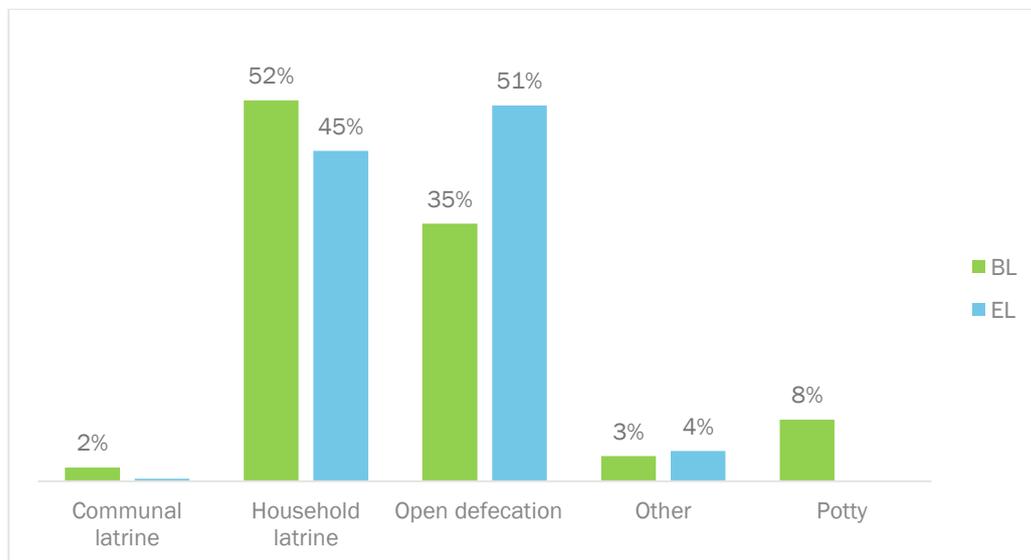


Figure 3: Defecation place for children.

47% (149) of the Children under the age of 5 defecate in the open. 41% (131) defecate in the household latrine, 8%(26) defecate in the potty.

After defecation for the ones that defecate in the open and potty, 81% (151) of the respondents reported that they collect the faeces and dispose them into the household latrine; 18% (33) bury it and 1% (2) of the respondents reported that they do not do anything /leave it to stay in the open.

#### 6.4 Bathing Facilities

Bathing facilities	Percent	Number
Do not have a designated bathing facility	7%	30
Don't know / can't observe	3%	11
Have designated shower/bathing facility	90%	361
Grand Total	100%	402

90% of the households interviewed had designated showers/ bathing facilities.

#### 6.5 Disposal of household solid waste

The common waste types in the households include food, paper, and plastic. When asked where it is disposed off, 53% of the households reported that they dispose off it in household waste/rubbish pits. 14% dispose it off in a designated open area. 25% do not have a designated place for dumping.

Places for household waste disposal	Percent	Number
Burn it	1%	6
Bury it	6%	25
Designated open area	14%	56
Household pit	53%	213
Undesignated open area	25%	102
Grand Total	100%	402

#### Vectors

84% (338) of the respondents reported to having vectors in their households

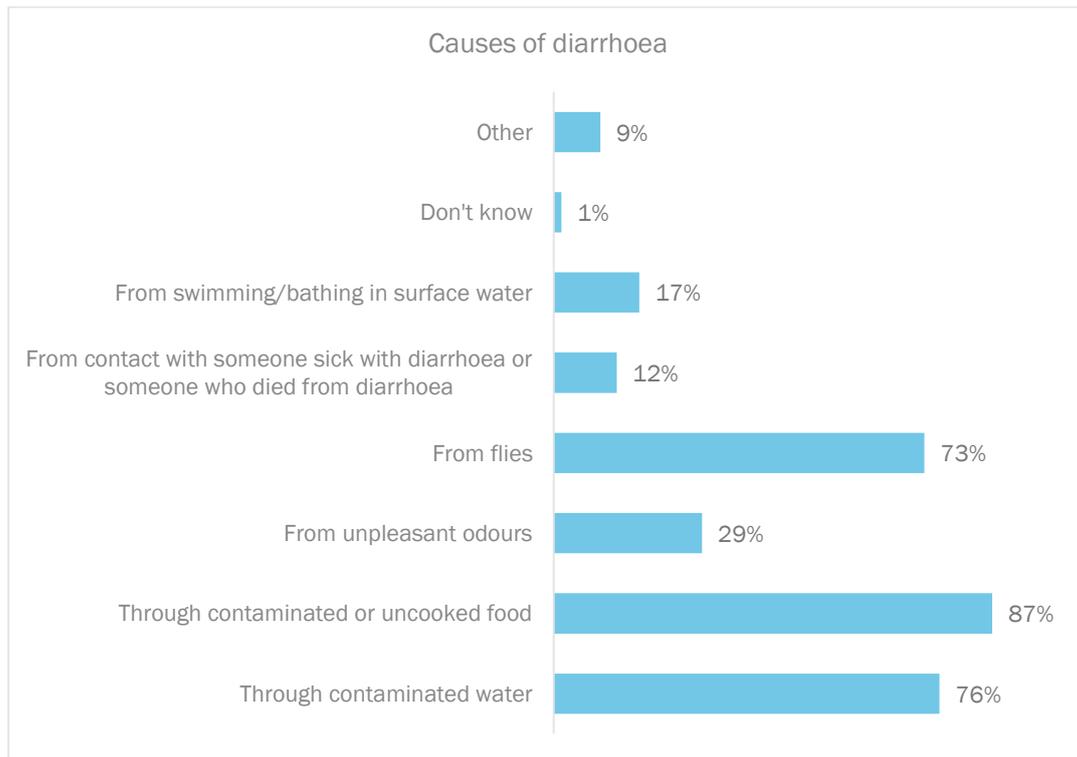
Abnormal vectors observed in the compound	Number	Percentage
Rodents	323	96%
Mosquitoes	228	67%
Flies	89	26%
Cockroaches	16	5%

## Analysis and discussion of findings.

Though there is a reduction in the number of households that share a latrine, more sensitisation should be done to reduce the risks of contracting diseases by the households that still share them

# 7 Diarrhoea Prevalence, Knowledge and Health Seeking Behaviour

## 7.1 Knowledge on causes of diarrhoea



The majority of the respondents mentioned eating contaminated food, from flies and drinking contaminated water as the main causes of diarrhoea. Other causes mentioned were dirty hands, open defecation, swimming and bathing in dirty water, from contact with someone who died from diarrhoea and from unpleasant odours.

## 7.2 Prevention of diarrhoea:

Overall, respondents were able to recognise the critical ways that prevent diarrhoea. The most commonly reported measures to prevent themselves and their children from getting diarrhoea was Washing hands with soap and water followed by covering food, cooking food well and treating drinking water. This represents an increase from the baseline in the proportion of respondents identifying more preventative practices that prevent diarrhoea at the time of the endline.

Other methods mentioned were; Using toilet/latrine facility to defecate, Cleaning cooking utensils, Dispose of children's faeces in toilet/latrine. Details are shown in Table below.

<b>Ways of preventing Diarrhoea</b>	BL		EL	
	Percentage	Number	Number	Percentage
Wash hands with soap and water	297	75%	318	79%
Cover food	270	68%	314	78%
Cook food well	253	64%	299	74%
Boil or treat your water/drink clean water	253	64%	268	67%
Wash fruits and vegetables	151	38%	183	46%
Use toilet/latrine facility to defecate	191	48%	179	45%
Cleaning cooking utensils	182	46%	155	39%
Dispose of children's faeces in toilet/latrine	129	32%	130	32%
Bury faeces	53	13%	111	28%
Store water safely			81	20%
Receive a vaccine	32	8%	55	14%
Breastfeeding babies	8		8	2%



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