

# KPC survey report Gambella refugee camps Terkidi



Dec, 2017

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## Acronyms

ARRA	Agency for Refugee and Returnee Affairs
CHW	Community Health workers
CI	Confidence Interval
ECHO	European commission Humanitarian organization
EHA	Environmental health agent
HH	Household
IRC	International rescue committee
KPC	Knowledge Practice and Coverage
UNHCR	United Nations Higher Commission for Refugees
WASH	Water sanitation and hygiene

## **Excutive summary**

The International Rescue Committee (IRC) is a non-Governmental Organization operating in Ethiopia to provide relief services to refugees, victims of drought, disease outbreak and war affected populations

Gambella region is one of the nine regional state of Ethiopia the region is located in western part of the country and has international boundary with south Sudan, Based on CSA the region total population is approximately 362,806 following south Sudanese conflict the region hosts 365,473 south Sudanese refugees in seven different refugee camps located in Gambella regional state

The surveyed camp Tierkidi is among seven camps of south Sudanese found in Gambella peoples national regional state and hosts 71,093 population according to Dec, 2017 UNHCR update

The Aim of this study is to measure the performance of intervention against the project indicator and there by determine the outcome as a result of project implementation in the community of Tierkidi refugee Camp.

A community based cross sectional quantitative survey was conducted among households of Terkidi refugee camps from 11-15 December 2017. Data was collected by using UNHCR standard questionnaire. The questionnaire contains specific questions that provide answers to measureable indicators under current grants for core IRC performance indicators.

Regarding the HH size 56% of them have more than 6 family members, 32% of them have 4-6 members and the mean family size of Tierkidi refugee camp in Dec, 2017 was 6 person per HH

Water supply for domestic purpose means the water supply that doesn't include animal use and gardening, 73 % of Tierkidi community doesn't satisfied with amount of water collected for domestic purpose with the main reason mentioned as lack of water supply collection and storage container

Regarding defecation behavior of adults only 5 % of them experienced open defecation the remaining 92% used HH latrine, 3% used communal latrine

60% of the community not capable to read 17% of them can read with difficulty and only 2% of the community access to functional radio

- The UNHCR ARRA UNICEF and other IPS who have mandate to work in wash and health to gather with regional health bureau work to improve the sanitation coverage of the refugee prone Kebele specially Terfam market area
- During development of IEC material consideration of Pictures and audio material is vital according to this study following their ability to read
- Even if the knowledge of critical times of hand washing is improved there is low practice is observed so the IRC should work on BCC

## **1 Background:**

The International Rescue Committee (IRC) is a non-Governmental Organization operating in Ethiopia to provide relief services to refugees, victims of drought, disease outbreak and war affected populations

Gambella region is one of the nine regional state of Ethiopia the region is located in western part of the country and has international boundary with south Sudan, Based on CSA the region total population is approximately 362,806 following south Sudanese conflict the region hosts 365,473 south Sudanese refugees in seven different refugee camps located in Gambella regional state

Since 2011, IRC Ethiopia country program, Gambella field office started implementing different emergency rapid response and development projects for both host community and refugee in Gambella region. Currently under its refugee program, the IRC is implementing water supply hygiene promotion and sanitation in Pugnido, Pugnido II and Tierkidi refugee camps and water supply in Kule Refugee camp. Moreover operation of water supply Nguenyiel refugee camp water production is also handled by IRC. These projects are funded by UNHCR UN-OCHA, ECHO& UNICEF on different duration beginning from January 2017 to December 2017. This project focused on water supply expansion, water supply system operation and maintenance including, construction of sanitation facilities and hygiene promotion components that targets refugees in all camps namely Tierkidi,Kule,Pugnido and Pugnido II refugee camps.

Tierkidi camp is among seven camps of south Sudanese found in Gambella peoples national regional state and hosts 71,093 population according to December 2017 UNHCR update.

## 2. Objectives:

### **2.1. General Objective**

To measure the performance of intervention against the project indicator and there by determine the outcome as a result of project implementation in the community of Tierkidi refugee Camp.

### **2.2. Specific Objectives**

To assess the current knowledge, practice, coverage regarding water supply, hand washing practice, latrine coverage, and household refuse disposal.

## **3. Survey Methods Materials**

### **3.1. Survey Design and Period**

A community based cross sectional quantitative survey was conducted among households of Tierkidi, Pugnido, and Pugnido II and Kule refugee camps from 11-15 December 2017. Data was collected by using UNHCR standard questionnaire. The questionnaire contains specific questions that provide answers to measureable indicators under current grants for core IRC performance indicators.

### **3.2. Sample Size Determination**

The sampling frame was based on UNHCR population data which is as per Dec. 2017 update. The sample size was calculated assuming 50% prevalence of general WASH indicators with a precision of +/- 5%, 95% confidence limit for a total of 384 households. The sample size i.e. the number of households to be included in the survey to 'represent' the population of interest was calculated using the following epidemiological formula:

Where;  $n = \text{sample size}$   $n = \frac{t^2 p (1-p)}{d^2}$

$t$  = error risk parameter related to precision (1.96 for an error risk of 5%)

$p$  = estimated prevalence in the population = 50%

$d$  = desired precision =5%

$= \frac{(1.96)^2 * 0.5 * (1-0.5)}{(0.05)^2} = 384 \text{ (for Kule camp)}$

### 3.3. Sampling Technique and Data Collection Procedure

A systematic random sampling method was employed. A household in this survey is defined as a group of people who are sharing the same shelter, cooking area or cooking pot. The data showing the total number of households existing in the camp is obtained from UNHCR and all households in the camp was considered as a sampling frame. A sampling interval was calculated by dividing the number of households in the camp by the sample size.

S.N	Zone	sample size	Interval
1	A	36	17
2	B	182	17
3	C	113	17
4	D	53	17

### 3.4. Respondents

The basic sampling unit was households and respondents were mainly primary household caregivers. A primary caregiver in this survey is defined as a person who handles the daily chores of the household (preparation of meals, feeding and taking care of children, collection of water, household hygiene etc.). Most of the time, the primary household caregivers were females (mothers/housewives). Where the targeted respondents are absent or if they were unavailable, any knowledgeable person (male age more than 15 years old) present during the interview was interviewed.

### 3.5. Survey Team Training and Data Collection

15 individuals who can speak Nuer and Agnuwa were hired from Gambella and Pungido area in order to collect the data from Pungido, Pungido II Tierkidi and Kule refugee camps. Smart phones were used to collect the data. They trained for two days on the survey including the following: becoming familiar with the tablets and survey questionnaire; obtaining consent from beneficiaries; interviewing techniques; data recording; household selection through a systematic random sampling method; and learning the duties of data collectors and supervisors. Participants practiced interviewing techniques and data recording through role plays during the training. The participants organized them in two teams; there were two teams and four supervisors. Each team was led by two supervisor. Refugee leaders and IRC Environmental Health Agents (EHAs) who know the camp and the boundaries of each zone were assigned for each supervisor as a guide to show them the location of the zones and their boundaries



## **4. Findings**

### **4.1Demography**

#### **4.1.1 Respondents**

Among 384 participants under this study only 19 of them were male the rest 365 were women's

#### **4.1.2 Family size**

Regarding the HH size 56% of them have more than 6 family members, 32% of them have 4-6 members and the mean family size of Tierkidi refugee camp in December, 2017 was 6 person per HH

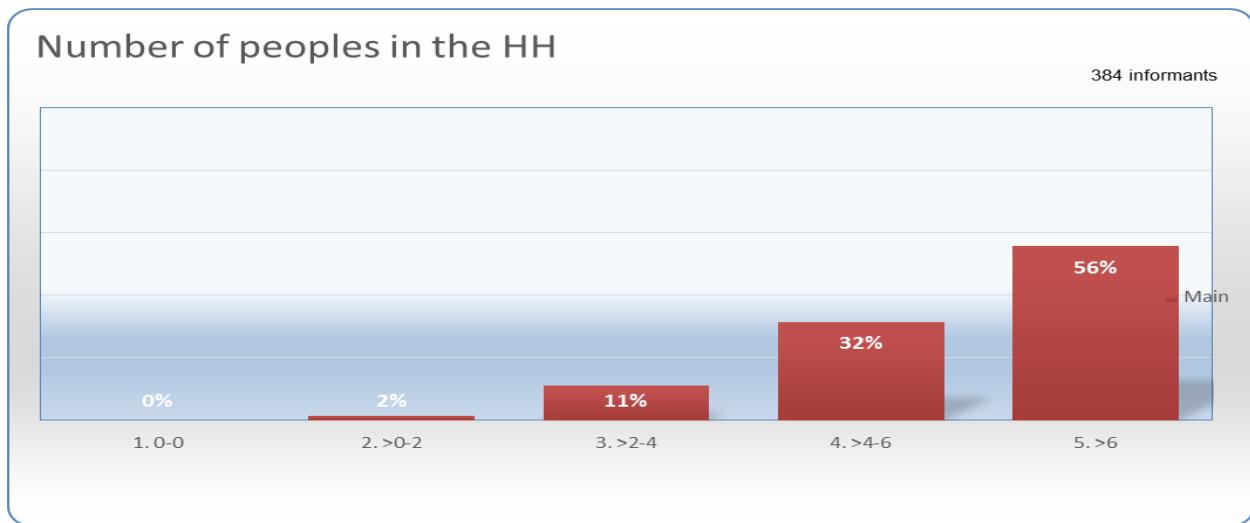


Fig: 1 Family size in Tierkidi refugee camp Dec, 2017

#### **4.1.3 Number of under-five years old children with in HH**

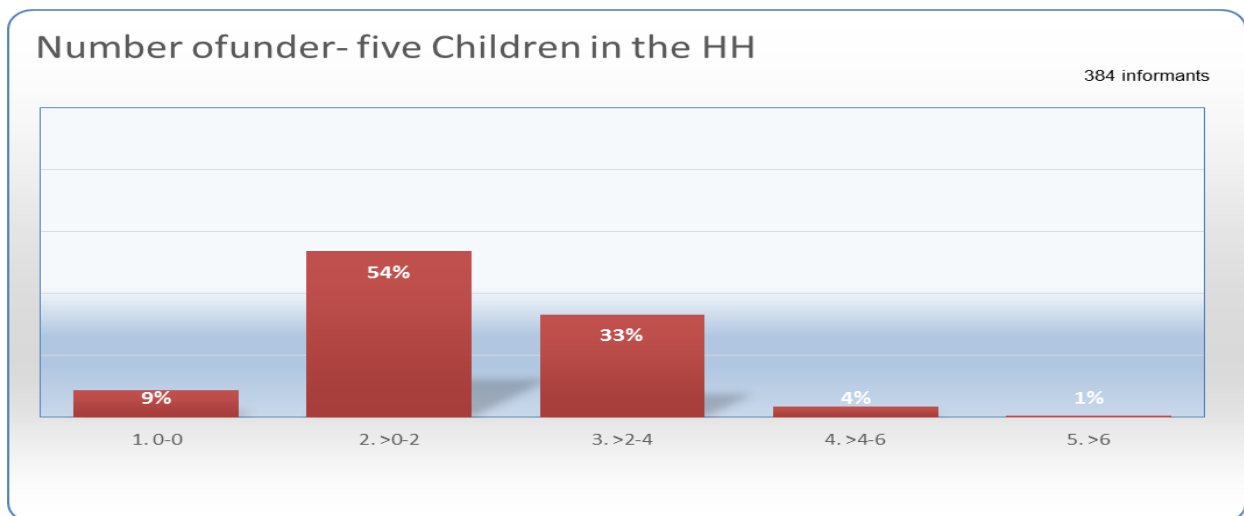


Fig: 2 number of under-five children in Tierkidi refugee camp Dec, 2017

## 4.2 Water supply

The average water supply for domestic consumption per capita per day in Terkidi refugee camp according to this study is 10.8 L/C/D and the principal sources of water supply for same camp is 100% tap stand

### 4.2.1 Accessibility

Regarding the availability of water supply source closer to the HH 69 % were closed to the House

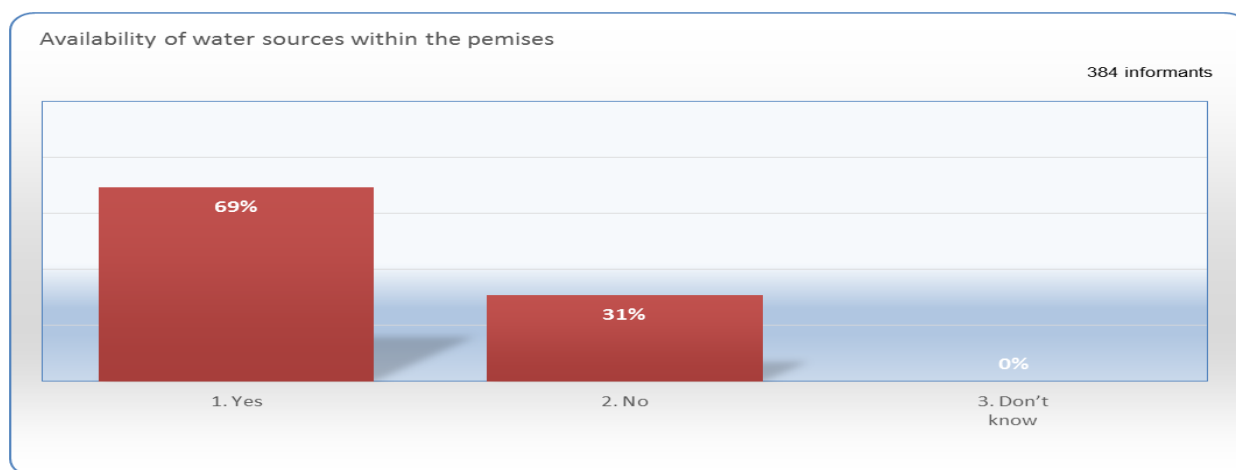


Fig: 3 Water supply source availability with in premises in Tierkidi refugee camp Dec, 2017

### 4.2.2 Distance of water point

Regarding the distance of water point from the resident in minutes 79 % of water points take less than 6 minutes one trip to the water point

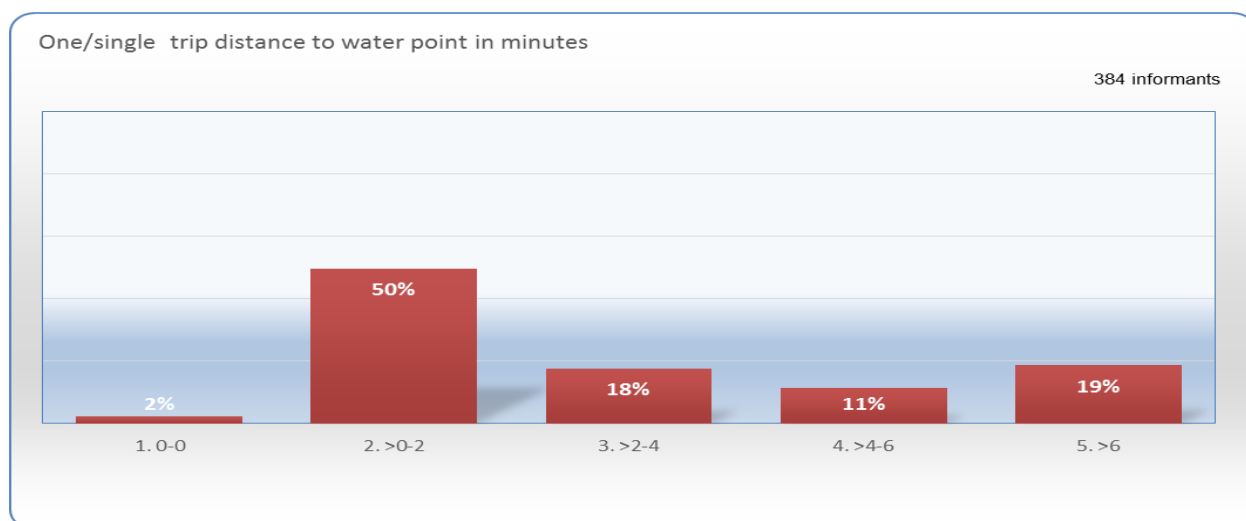


Fig: 4 shows single trip distance to water point in minutes in Tierkidi refugee camp Dec, 2017

4.2.3 Sufficiency of water supply for domestic use

Water supply for domestic purpose means the water supply that doesn't include animal use and gardening, 73 % of Tierkidi community doesn't satisfied with amount of water collected for domestic purpose with the main reason mentioned as lack of water supply collection and storage container

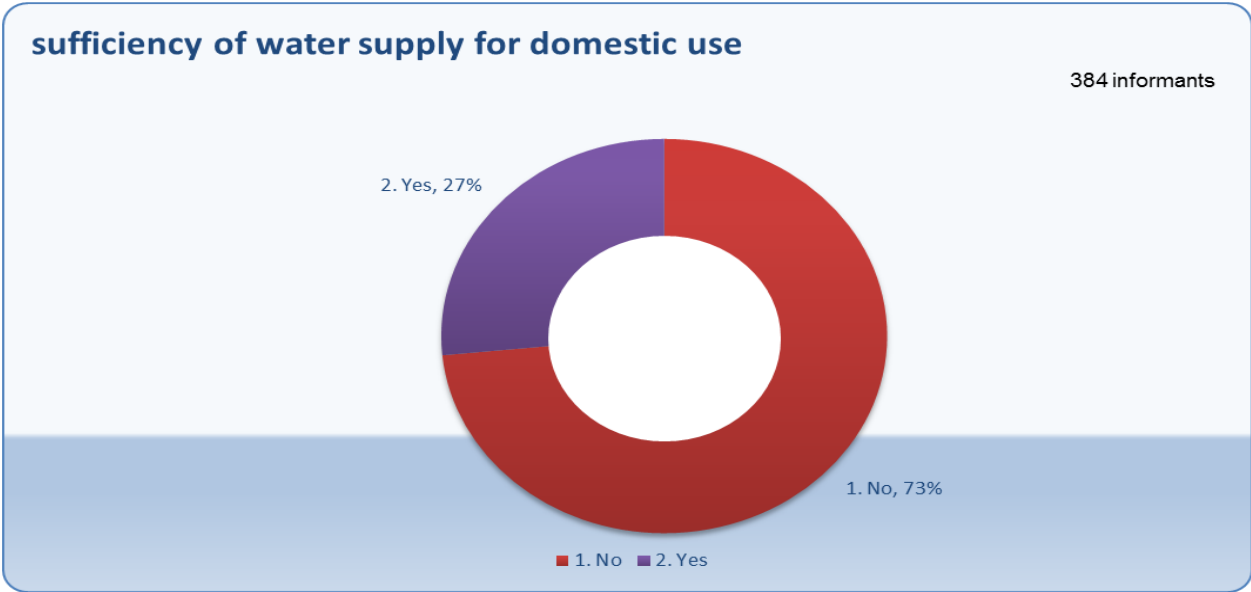


Fig: 5 shows sufficiency of water supply in Tierkidi refugee camp Dec, 2017

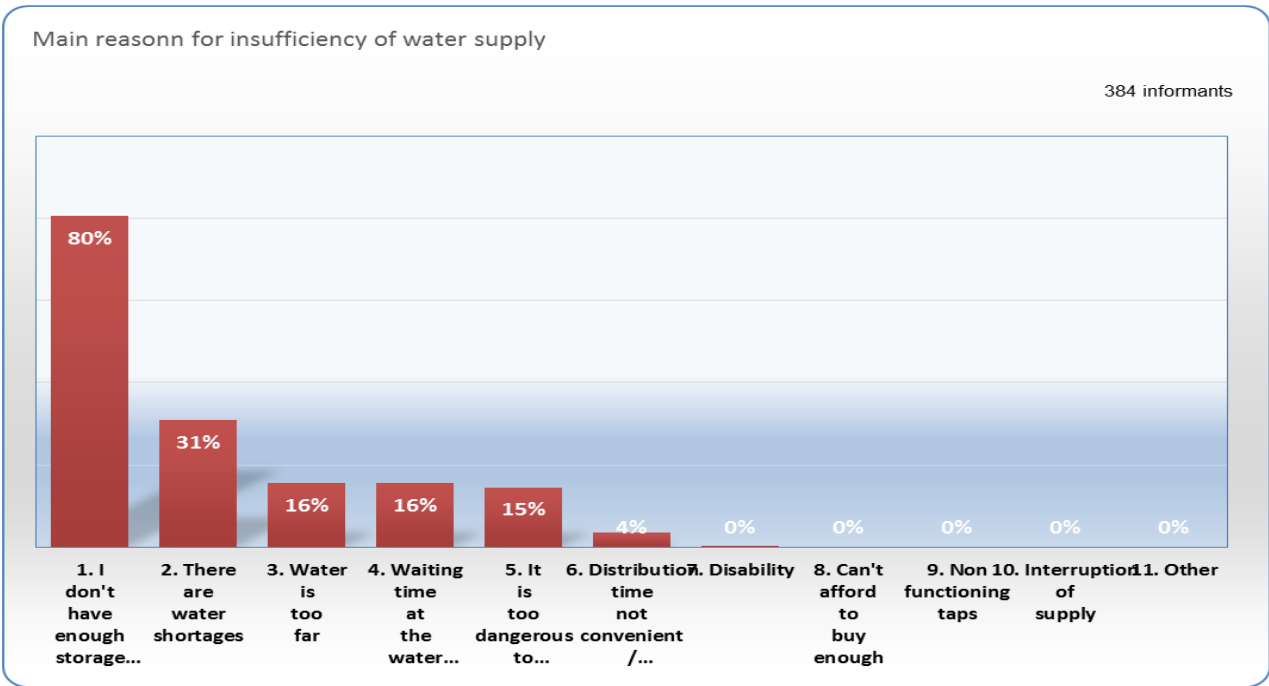


Fig: 6 reasons for insufficiency of water supply in Tierkidi refugee camp Dec, 2017

#### 4.2.5 Safe water collection and management

The role of water supply collection for domestic purpose is 100 the role of women's which is 95 % adult women 5 % child female

Regarding container cleaning frequency 92% of Tierkidi community under study clean water supply containers every time before using

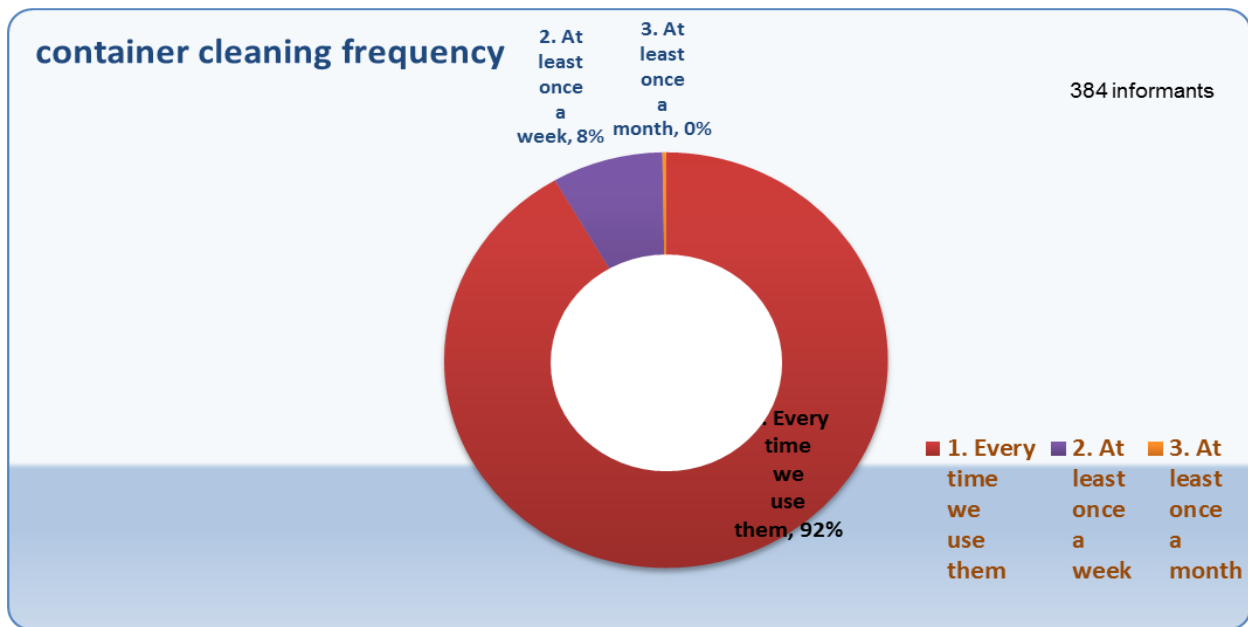


Fig: 7 water supply container cleaning frequency in Tierkidi refugee camp Dec, 2017

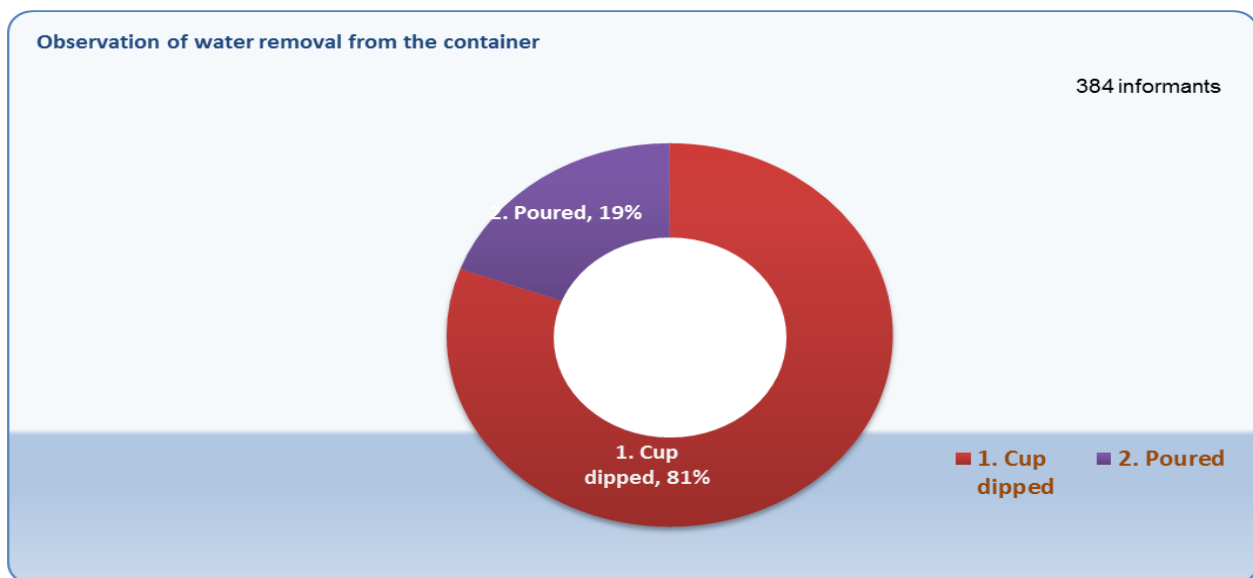


Fig: 8 observation of water removal from container in Tierkidi refugee camp Dec, 2017

### 4.3 Hand washing

#### 4.3.1 Soap/ rubbing agent availability

Regarding observation of availability of soap for hand washing which observed within a minute 57% have specific soap for hand washing

Among those who don't have soap during observation the main reason for not available 78% run out of stock and only 14% of them considered soap is not important

In the absence of soap 52 % of them use ash as detergent for hand washing 4% uses sand and the remaining 43 % uses water only for hand washing

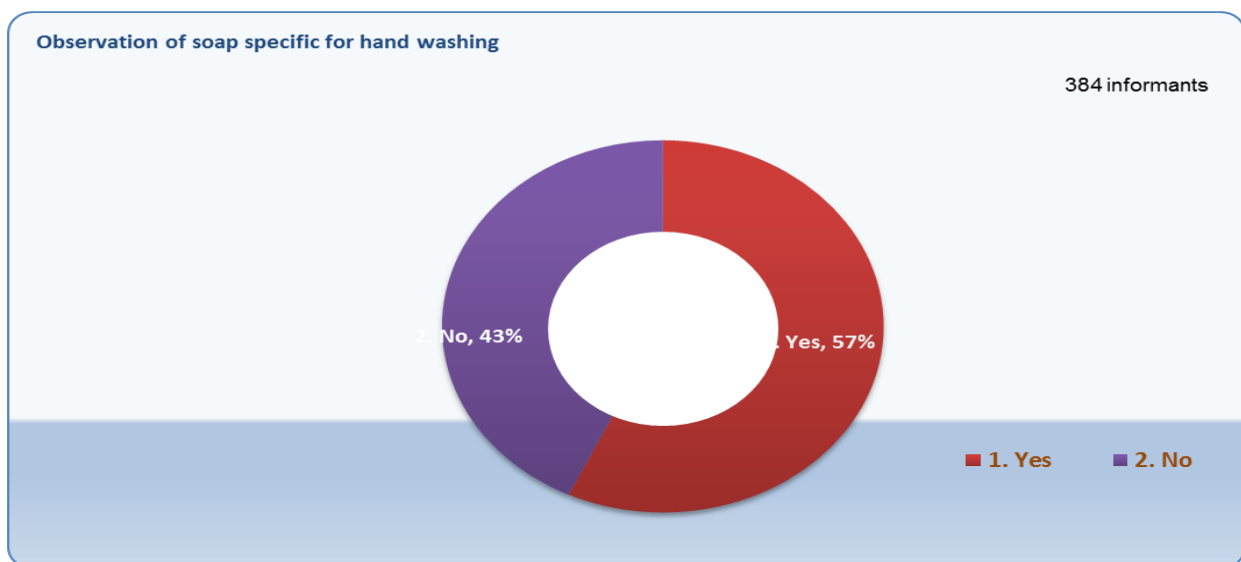


Fig: 9 observation of availability of soap for hand washing in Tierkidi refugee camp Dec, 2017

Only 14 % of households in Tierkidi have specific place for hand washing

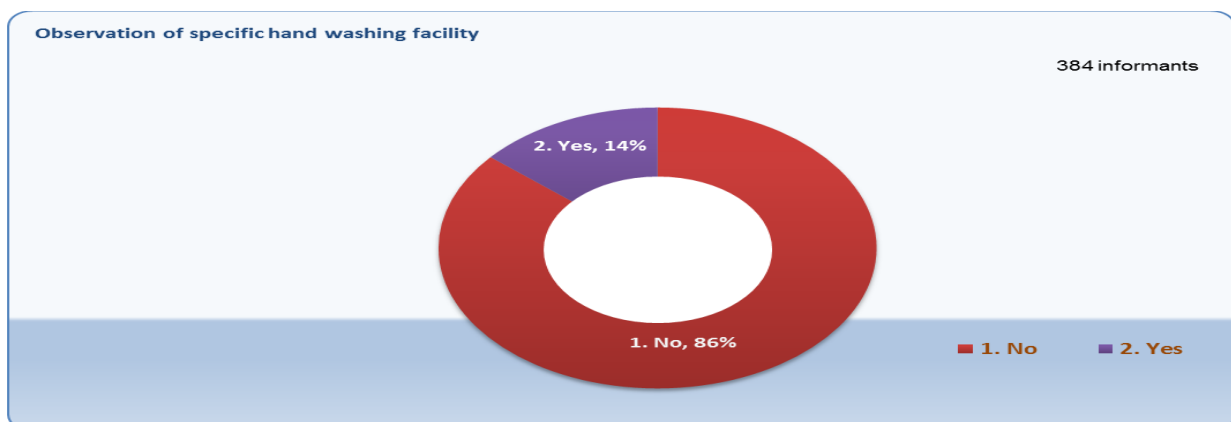


Fig: 10 observation of availability of specific place for hand washing in Tierkidi refugee camp Dec, 2017

### 4.3.2 Knowledge of Critical hand washing times

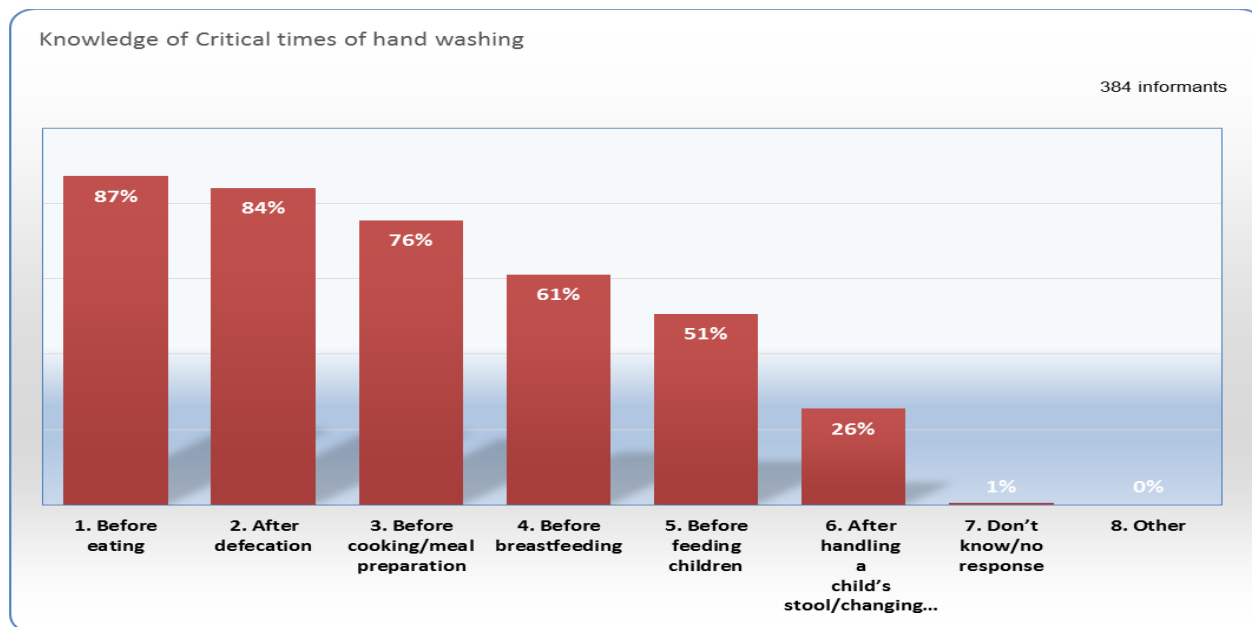


Fig: 11 knowledge of critical times of hand washing in Tierkidi refugee camp Dec, 2017

### 4.4 latrine utilization

#### 4.4.1 Defecation practice of adults and children excluding under 5 years old

Regarding defecation behavior of adults only 5 % of them experienced open defecation the remaining 92% used HH latrine, 3% used communal latrine

Overnight 7% of adults practice open defecation in the bush by considering latrine is not safe

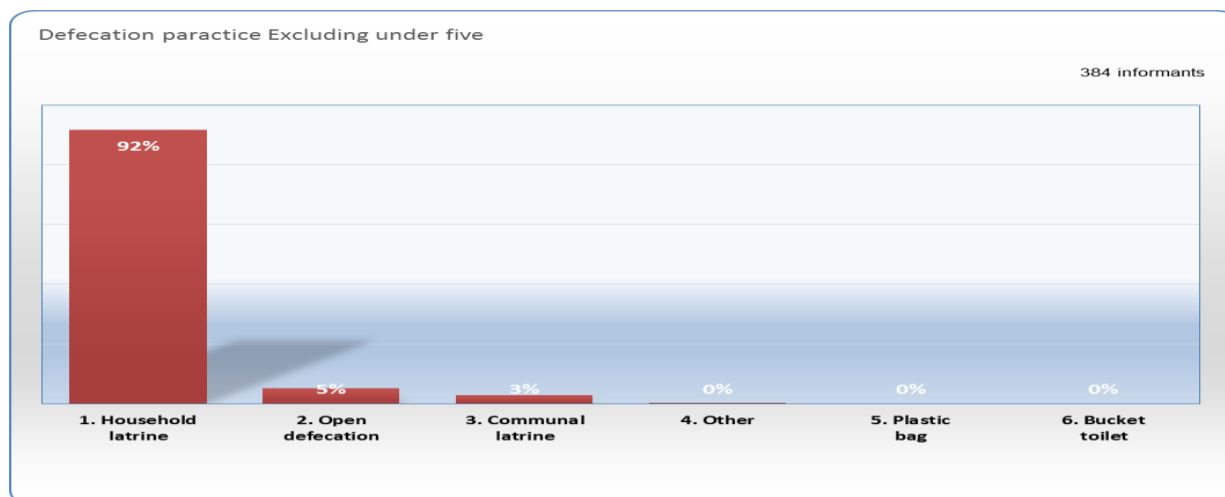


Fig: 12 Defecation practice excluding under five in Tierkidi refugee camp Dec, 2017

#### 4.4.2 Defecation practice of under five children

Regarding defecation practice of under five years old children 40% of them practice open defecation and for the children who can't use latrine 100% of them collect and dispose in toilet

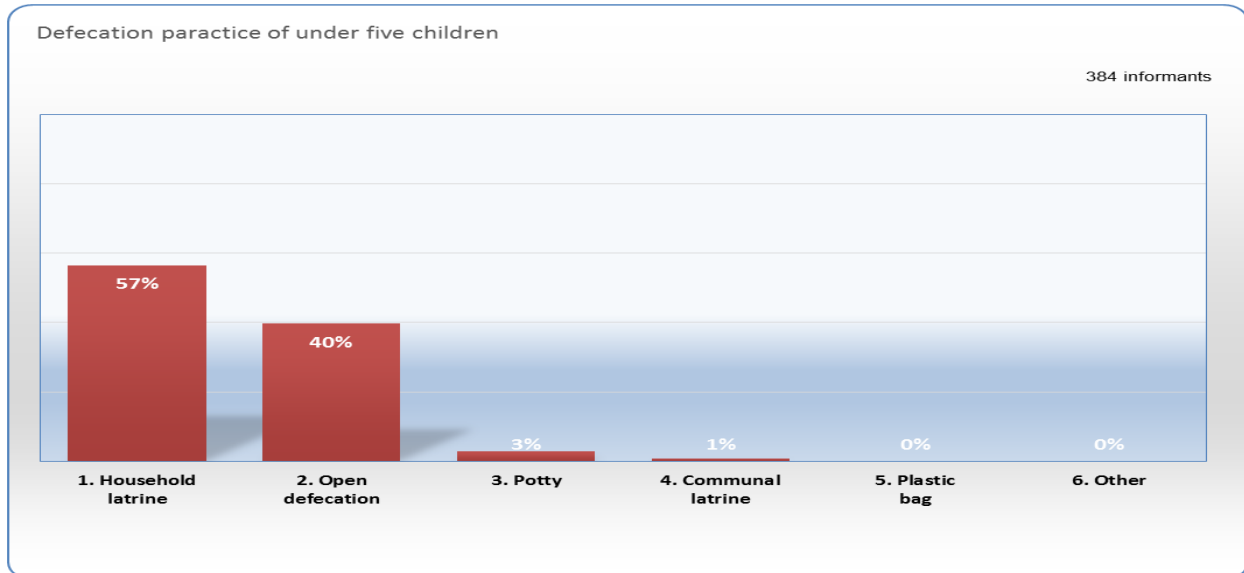


Fig: 13 Defecation practice of under five year children in Tierkidi refugee camp Dec, 2017

#### 4.4.3 Latrine privacy

85% of Population under this study doesn't satisfied with the privacy of latrines with the reasons 25% not sex segregated 25% lock missed and also 50% infrastructure poor

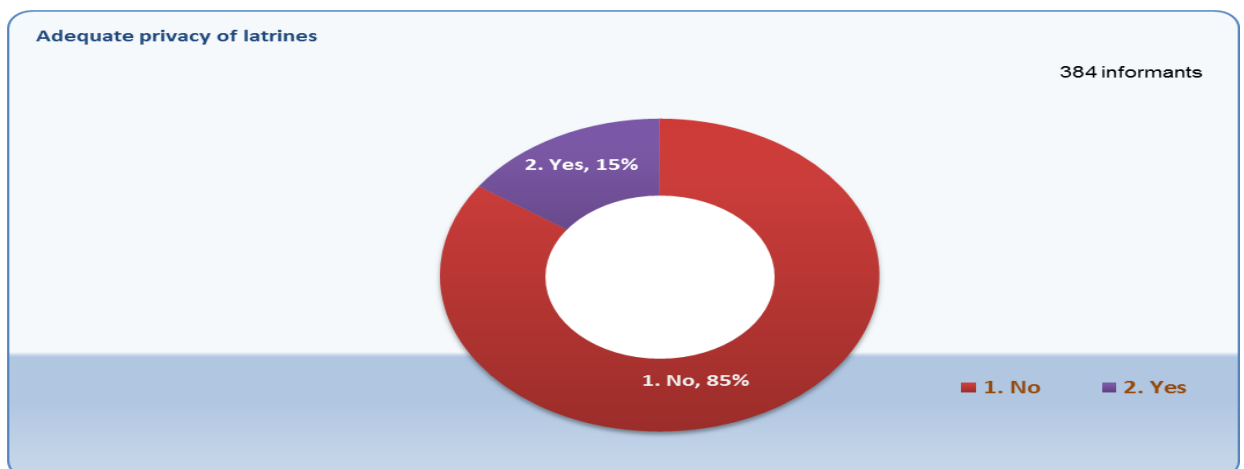


Fig: 14 adequate privacy of latrine in Tierkidi refugee camp Dec, 2017

#### 4.4.4 Observation of latrine status

Table: 1 shows the status of latrine in Tierkidi refugee camp Dec, 2017

During observation 94% of latrines were in use and 41% of latrines have cover on squatting hole

Observation	Types of latrine		Latrine in use		Latrine full		Have cover on hall	
Status	VIP	Pit latrine	Yes	No	Yes	No	Yes	No
Percentage	2%	98%	94%	6%	8%	92%	41%	59%

#### 4.5 Bathing

89% of households have no designed facility for bathing

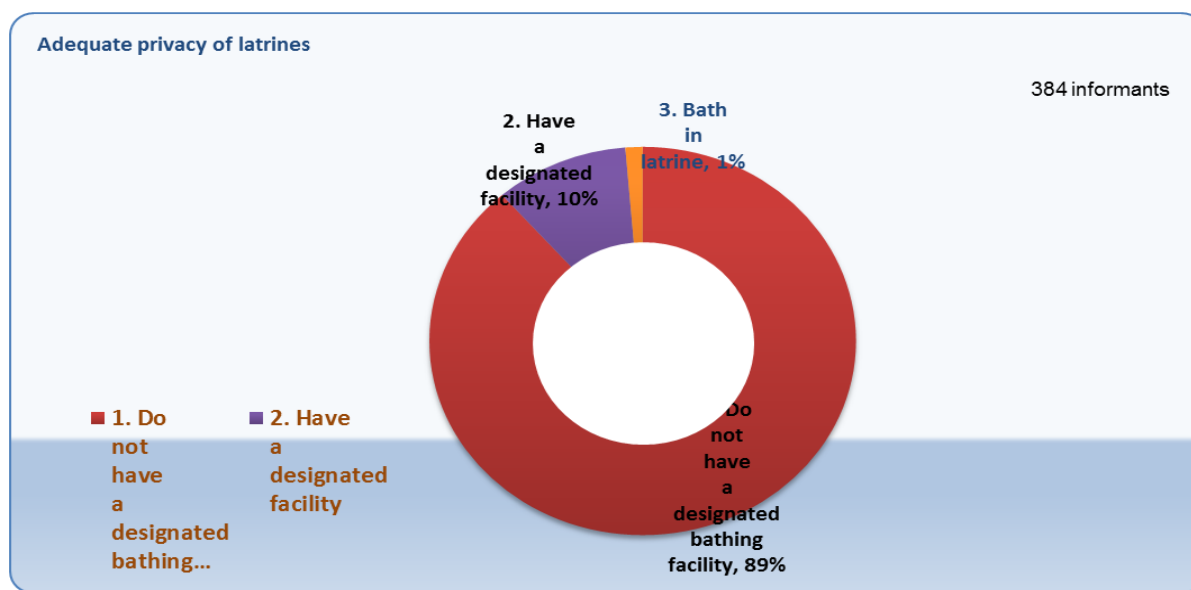


Fig: 15 Availability of bathing facility in Tierkidi refugee camp Dec, 2017



#### **4.6 Solid waste management**

Regarding Solid waste/ HH rubbish disposal method 57% have HH waste pit 6% dispose in communal waste pit and during observation 78% of HH compound was clean

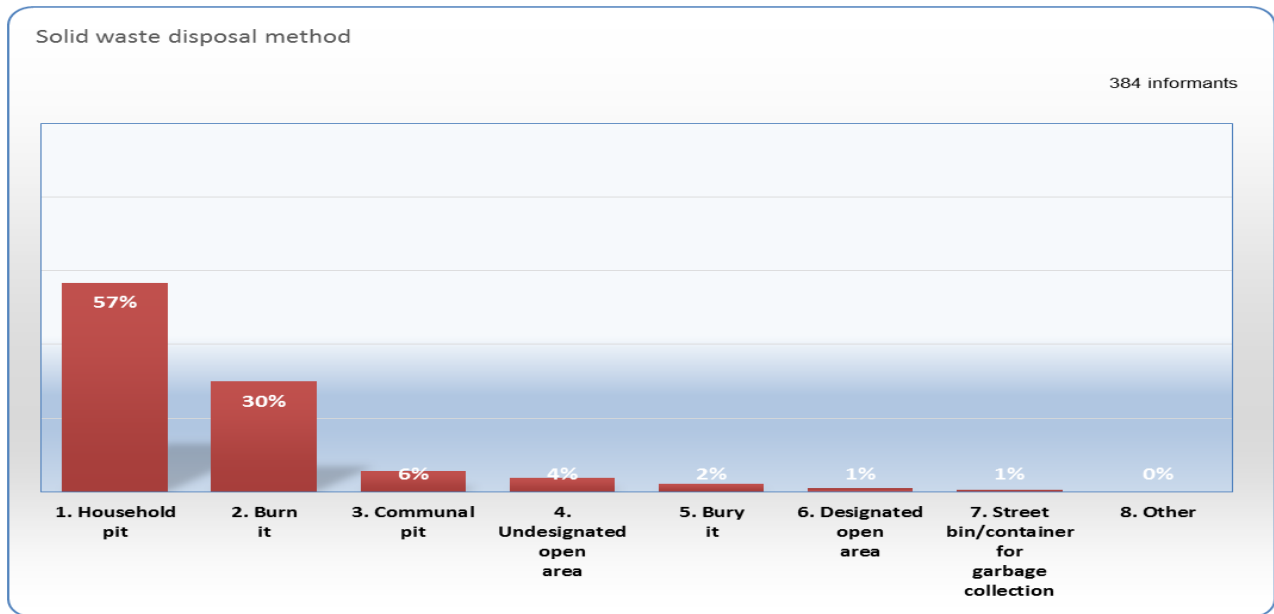


Fig: 16 Solid waste disposal method in Tierkidi refugee camp Dec, 2017

#### **4.7 Communication method/Channel**

The best communication method ranked as 48 % home to home visit, 34% women group discussion and 11% community meeting

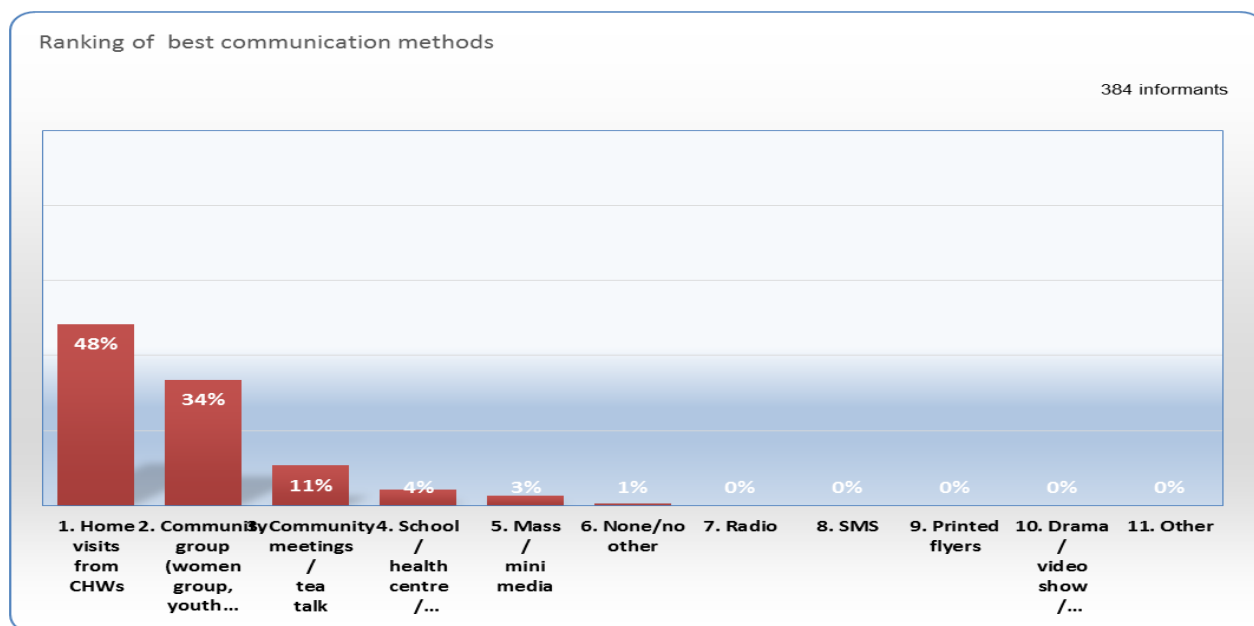


Fig: 17 best communication method in Tierkidi refugee camp Dec, 2017

#### 4.7.1 Household visited by community health workers

59 % of HH in Tierkidi camp households visited by CHW in Dec 2017 and 36 % of HH one of their members participate on community meeting specific to health and health related discussion

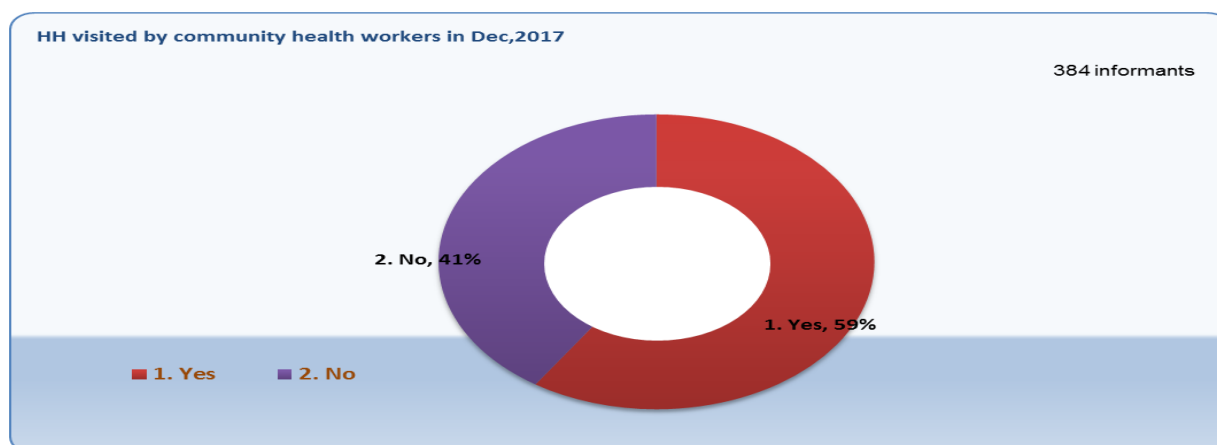


Fig: 18 HH visited by CHW/EHA's in Tierkidi refugee camp Dec, 2017

#### 4.7.3 Reading ability of the study community and access to radio

60% of the community not capable to read 17% of them can read with difficulty and only 2% of the community access to functional radio

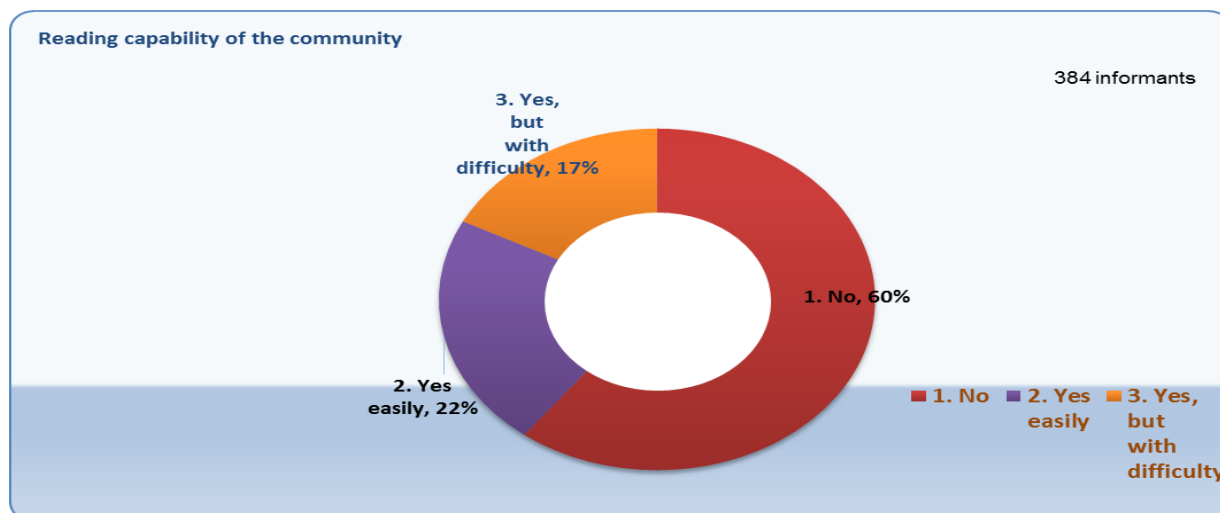


Fig: 19 reading capability of the community in Tierkidi refugee camp Dec, 2017

#### 4.8 hygiene items distribution

79% of the Tierkidi Householders under study received some of hygiene items in December 2017.

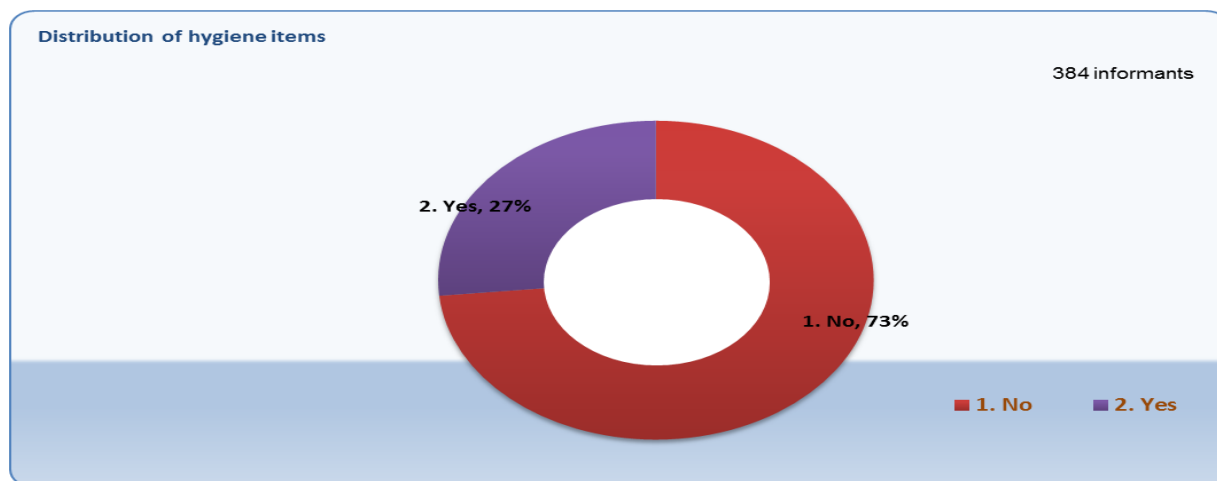


Fig: 20 Distribution of one of hygiene items in Tierkidi refugee camp Dec, 2017

#### Diarrhea

##### 5.1 knowledge of diarrhea transmission

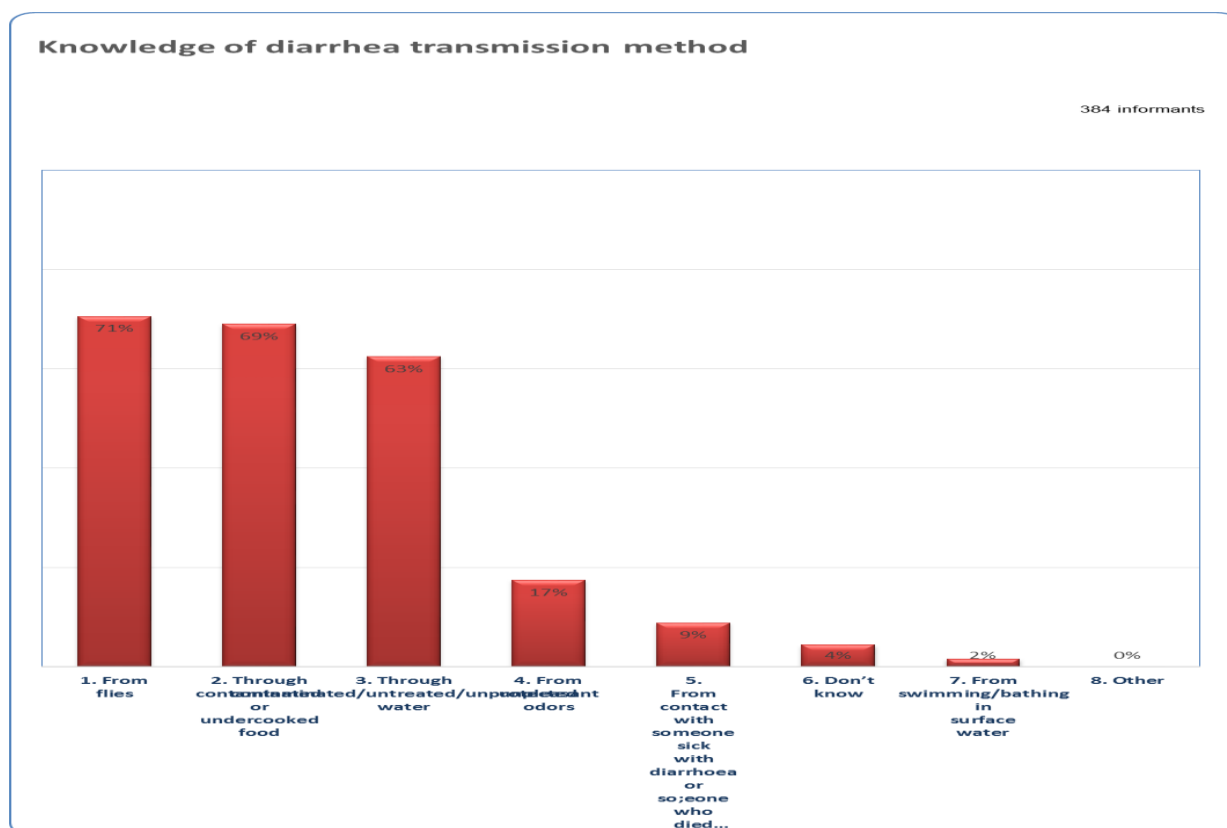


Fig: 20 Knowledge of diarrhea transmission method in Tierkidi refugee camp Dec, 2017

## 5. Discussion and recommendation

Regarding the latrine coverage and utilization it shows improvement from 80.52% in Dec, 2016 to 95% in Dec, 2017 but behavioral change will be affected by sociodemographic characteristics and as refugees specially youths in Tierkidi spend most of their times in Terfam the place where zero latrine coverage and all peoples are experiencing open defecation. So changing the behavior of this refugee community who treated with good latrine coverage in the camp but practice OD during days in Terfam market area needs high attention and threatening, more over the walking road from Tierkidi to Terfam is also full of open defecation by the effect of this prone market areas to the camp

According to secondary data for water production throughout the year the average water supply production per capita per day is 17 liter for Tierkidi but based on this study on sufficiency of water supply collected for domestic purpose which doesn't include animal and gardening 73% of Tierkidi respondents mention as there is shortage of water supply in their HH for the main reason of lack of containers for fetching and storage.

As observation made most of their containers were worn out and exposed to contamination in addition to this the women fetching water and wash their utensils near the water point as a coping for shortage of container as a result the water produced for per capita consumption is

used both outdoor for washing clothes and bathing nearest to water point areas, utensil and bathing to the nearest place to water point.

In this study the amount of water counted was the water collected to HH only so the per capita consumption of Tierkidi refugee camp is 10.8/C/L/D

According to this study the most effective and trusted approach of communication is ranked from home to home visit, FGD/ women's group discussion (CHC) and community meeting and similar in all camps and also most of the refugee community under this study are unable to read, availability of radio also poor only 2%.

Regarding the role of water fetching for HH consumption it is considered as the role of women like all camps.

### **Recommendation**

- The UNHCR, ARRA and The IRC should work hand in hand to solve water supply collection and storage container problems.
- The UNHCR ARRA UNICEF and other IPS who have mandate to work in wash and health to gather with regional health bureau work to improve the sanitation coverage of the refugee prone Kebele specially Terfam market area.
- The IRC and IPs working on Hygiene promotion and health communication in the camp under study should use methods ranked by the community as best like Home visit and CHC.
- During development of IEC material consideration of Pictures and audio material is vital according to this study following their ability to read.
- Even if the knowledge of critical times of hand washing is improved there is low practice is observed so the IRC should work on BCC.