

INTERNATIONAL RESCUE COMMITTEE

Environmental Health Program

May-Aini- Refugee Camp, Tigray Region



Water Supply, Sanitation and Hygiene

Knowledge, Practice and Coverage (KPC)

Survey Report

May-Ayni Refugee Camp
December, 2017

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List of Abbreviations

ARRA	Administration of Refugee and Returnees Affaires
BCC	Behavior Change and Communication
CI	Confidence Interval
ECHO	European Commission Humanitarian Aid and Civil Protection

EH	Environmental Health
EHAs	Environmental Health Agents
HH	Household
IEC	Information Education Communication
IRC	International rescue committee
SHP	Sanitation and Hygiene Promotion
TS	Tap stand
UNHCR	United Nations Higher Commissioner for Refugee

I would like to express my sincere thanks to all who are involved directly and assist us to do the survey

IRC would like to express gratitude to the data collectors as they collect the data in a way that our organization needs. And also for the respondents that gave their time for the interview.

Last but not least I would like to thank all data collectors for their hard work and ARRA for their coordination in smooth functioning of the survey.

Background: Mai-Aini Refugee Camp is located in the North West of Tigray regional state of Ethiopia, at about 1,170 km north from the Ethiopian capital, Addis Ababa. The camp population is 13,074 (M=7867 and F=5207) UNHCR December 2017 population data report). The camp hosts Eritrean refugees.

The Mai-Aini refugee camp Environmental Health program is opened in May 2008 with core mandate for provision of safe water, sanitation and Hygiene promotion services so as to meet the objective of preventing mortality and morbidity due to diarrhea and other WASH-related diseases.

Objective: The main objective of this survey is to assess the knowledge practices and coverage of water, sanitation and hygiene related interventions of IRC in the camp. to evaluate performance of UNHCR and ECHO grants that were implemented in Mai-Aini Refugee camp in 2017 and to have base line data for the year 2018 interventions.

Method:

In this survey a cross sectional study was used. Using systematic random sampling method; the survey was carried out in all Zones of the camp. The total sample size was 174 households. The method of data collection was interview and observation using pre-structured questionnaires. One supervisor and eight data collectors were employed to collect the data and to supervise the data collectors respectively. The data collectors and the supervisor were host community members and unemployed university and college graduates who were diploma and degree holders.

The study was conducted from December 25-27, 2017. In addition to temporarily hired supervisor, sanitation and hygiene promotion officer was responsible in monitoring and follow up of the overall survey data collection and report drafting activities.

Result: According to the survey result, Average per capita consumption of water is 10.7 L/p/d, 76.5% of HHs have at least 10 L/p potable water storage capacity, Average distance of HHs to the water point is 80m, about 99.5% of HHs collect drinking water from protected/treated sources (tap stand), regarding sanitation facility 2% of HHs use shared-family latrine/toilet, 85% HHs use household /family latrine/toile and 87% HHs use household or shared-family latrine/toilet, 86.2 % of the HHs defecating in a toilet/latrine but still 21.4% of the households defecating in open field, about 99% of HHs have access to soap, 98.5% of the HHs dispose their solid waste disposal safely to the communal pit, 19.4% of the HHs have specific hand-washing device, about 85.7 % of HHs know at least 3 of critical moments when to wash hands and 11.2% HHs have access to a bathing facility.

Only 2.5% of the HHs complain diarrheal diseases in the last one week of the study period and 68% of HHs received a hygiene message within the last month of study period.

Conclusion: Based on the results of this survey still there are some gaps that must be bridged both in hard ware (water supply, family latrine construction) and software (hygiene promotion

through different ways) so as to access the whole refugee community members to sanitary facilities and awareness raising in the importance of keeping them clean/free from any practices and condition which are actually causing, and potentially cause public health problems.

Recommendations: Base on the result of the survey, amount of water distributed has to be improved, as the amount of water collected is much less than the standard. Hence distribution of enough amount of water as per the standard should be prioritizing and also the time for distribution should be convenient to beneficiaries to be considered. Awareness rising on bad consequences defecating on the open field plus introducing separate hand washing facility is highly recommended. Capacity building for EHAs should be strengthens for good hygiene practice. Allocation of enough amount of budget for House hold latrine and shower construction and maintenance need to be focused .IEC/BCC materials for hygiene promotion should be produced and distributed to hygiene promoters (EHAs) in a variety type in order to attract the attention and increase the knowledge of the community on proper utilization of latrines; keeping water containers clean, using two cap system of water drawing and construction and use of tippy tap. And also capacity building trainings should be prepared for EHAs on topics related with methods and facilitation skills of hygiene promotion. Construction of household latrines and supply of water should have to be given attention.

1.1 Background

May-Ayni Refugee Camp is located in the North West of Tigray regional state of Ethiopia, at about 1,170 km north of the capital, Addis Ababa, 330 km from the Tigray regional state capital Mekelle and 80 km from Shire-Endaslassie. The asylums of this camp are all Eritreans. According to the UNHCR population of concern statics as of the current population of May-Ayni camp is 13,074 (M=7867 and F=5207) UNHCR December 2017 population data report). In terms of the ethnic composition, the majorities are Tigrigna and Saho and some minorities of Tigre and Bilen.

May-Ayni Eritrean refugee camp was established in March 2008 and the IRC Ethiopia program has been providing multi-sectorial community based interventions since then. The Environmental Health program (EH) is one of those IRC programs which is in charge of responding to the WASH services demand for refugees, Implementing partners and local host community. The Environmental Health (EH) program is intended to reduce the mortality and morbidity due to diarrheal and other WASH-related diseases.

The current service delivery areas of EH program are; Supplying an average of 21 liter per person per day of clean water to 13074 refugees while the standard is 20 liter per person per day. In addition to that, 19200 & 4400 liters of water has been supplying to May-Ayni camp Institutions & local host community respectively from May-Ayni camp water system. From Emabamadre spring water source which is separate system from the camp water system, 58, 000 liters of water has been supplying for the local communities of Emamadre & IPs on daily basis. With respect to the physical access coverage, 100% of the refugee population accesses water within a radius of less that 150M from user accommodation¹.

The overall water system is consisting of four (4) BHs, two (2) BS, two (2) pioneer water tankers of 92m³ & 62m³ capacities, 9 km pressure line & 4 km gravity water distribution pipe line and 24 tap stands (currently only 23 of them are functional). With regard to hygiene and sanitation facilities, there are 1818 HH latrines, 130 communal showers, 60 cloth washing basins, two solid waste disposal pits (240m³ capacity), one liquid waste disposal pit (640 m³ capacity) and separate abattoir for Muslim and Christian followers. Since the supply of physical WASH services alone can't bring the desired improvement in the hygiene and sanitation situation of the camp population, hygiene and sanitation promotion activities have been implemented as the integral part of the physical components of WASH services through different hygiene and sanitation promotion tools. Home to home visit, hygiene education, small group discussion, focus group discussion, coffee ceremony and preparation of different events are the most widely used

hygiene and sanitation promotion tools in May-Ayni camp. All these activities in synergy are believed to form a new desired habit within the community.

The EH program is staffed with 26 national staff (23 water system caretakers, 1 EH Officer, 1 water technician officer and 1 SHP Officer) and 58 refugee incentive workers (14 Tap stand attendants, 5 incentive water system caretakers, 5 solid waste collectors, 14 sanitation facility cleaners and 20 EHAs).

This survey proposal is intended to measure the values added to the knowledge, practice and coverage of hygiene and sanitation situation of May-Ayni refugee camp from implementing WASH activities by the UNHCR fund during the implementation period of Jan 1, 2017 through December 31, 2017 in reference to the base line data which was conducted at the outset of the grant. This KPC survey in turn will also serve as the base line data for the upcoming grants.

1.2 Significant of the Survey

As the study is to check the level of knowledge, practice and coverage of the residents of May-Ayni refugee Camp and as this survey conducted at the end of the year, it has a great importance to evaluate the performance of program implementation and collect relevant information on the target group so that the finding will help to improve and address the issues that reviled on the study. It also helps decision makers and planners for a better planning and quality implementation of projects as base line information for further implementation of upcoming grant

CHAPTER TWO

2. Objectives

2.1 General objective

The main objective of this survey is to assess the knowledge practices and coverage of water, sanitation and hygiene related interventions of IRC in the camp, to evaluate performance of UNHCR and ECHO grants that were implemented in Mai-Aini Refugee camp in 2017 and to have base line data for the year 2018 interventions.

2.2 Specific Objectives

- To identify what people think, know and do with respect to IRC water, hygiene and sanitation interventions.
- To assess the current status in knowledge, practice and coverage of water, sanitation and hygiene.
- To measure achievements of water, sanitation and hygiene promotion interventions of UNHCR grants during the FY 2017.
- To draw lessons on modalities of WASH services/what works best & what not/ so that alternative options will be considered for the next time.
- To have base line data for future projects to be conducted on water, sanitation and hygiene

CHAPTER THREE

3 Sampling and data collection

3.1 Survey design

A cross sectional study design was conducted from Jan 25-27, 2017. This survey comprises 2,563 households with in the sample frame of the camp and Systematic sampling techniques were applied.

3.2. Survey area and population

This survey was conducted in the population of Mai-Ayni refugee camp which is one of the four Eritrean refugee camps located at distance of 80 km from zonal town Shire, and 1,170 km from Addis Ababa. The population accounted 13,074 (M=7,867 and F=5,207) according to UNHCR update of December 2017. the majorities are Tigrigna and Saho and some minorities of Tigre and Bilen.

3.3. Sampling procedure

The population of the sampling unit were 2,563 households within the sample frame of the camp, and systematic random sampling technique was applied.

3.4 Sampling units and respondents

The basic sampling unit were households and the survey was conducted in all Zones of the camp. To get relatively realistic information we primarily targeted household mothers, since they are more responsible for water, sanitation and hygiene activities in the household; if not present, men house head were interviewed, if not present, girls or boys greater than 14 years were interviewed. In case of failure to get either of the above interviewee, the interviewer proceeded to the next house which has occupants available for the interview.

3.5 Sampling method

A systematic random sampling method was used. The total number of household in each zones of the camp was identified before conducting the survey.

Sample size determination

From the total sampling frame, the number of households to be included in the survey to represent the population of interest will be calculated using the following epidemiological formula:

$$n = \frac{z^2 p (1-p)}{d^2}$$

Where;

n = sample size

z = 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%)

Substituting the values in the place of variables;

$$\text{Therefore, } n = \frac{t^2 p(1-p)}{d^2} = \frac{1.96^2 * 0.5 * (1-0.5)}{0.05^2} = 196$$

Sample size=196

Total household = 2563

Since the sample size is less than 10% of total households (2,563) no correction were applied **3.6**

Sampling techniques and data collection

The survey were conducted by systematic random sampling method in which all of the households in the refugee camp have equal chance of being selected. The targeted area of the camp were divided into zones and blocks in which household numbers in each zone were collected from UNHCR and used to prepare the sampling frame. The number of households surveyed per zone or block were determined using proportion to population size (PPS) technique. The sampling interval of a zone or block were determined by dividing the total number of households in the zone/block by number of households surveyed in that zone/block. For example, zone A- has a household population of 340. Then, number of sample households to be surveyed from this zone will be (340/2563) multiplied by total number of samples (n) to be collected from the entire camp, in this case $n = (340/2563) * 196 = 26$, where 2,563 and 196 are total house hold and sample size respectively. Then the number of sampling interval will be $2563/196 = 13$

Rough sketch map of the camp divided by 5 zones were prepared by the survey team at the end of the training which will be prepared in the way that all data collectors and supervisors can easily understand, then the number of samples to be collected were divided to each zones based on population proportional to size (PPS) method. Referring each zones sketch map, the first house will be randomly selected from households in between 1st to Xth houses, so that all data collectors expected to collect data by following every Xth house hold and the second HH to be sampled (second HH unit) will be xth HH starting from sampling unit one, third sampling unit is also the xth HH starting from sampling unit two; and the same applied throughout the sampling frame steps.

Each survey team had a pre fixed starting route and pick a prefixed sampling by zone. Once they initiated, the teams will count every household in their area and conducted interview every xth

household counted similar to the method described above. This systematic random method will continue until all houses in the study area covered by the sampling technique.

Zone	Household size per zone		Sample Size	
	Number of HHs	%	Number	%
A	340	13.3	26	13.3
B	830	32.4	64	32.4
C	342	13.3	26	13.3
D	730	28.5	56	28.5
E	321	12.5	24	12.5
Total	2563	100%	196	100%

Table 1: Sample size per zones

3.7 Questionnaire and Training of Data collectors

3.7.1 Personnel

There were three group personnel in the survey; interviewers who had direct contact with interviewee, supervisors who supported and monitor interviewers, and S&HP officer for overall follow up. A total of 9 personnel were take part in the survey; 8 interviewers, 1 supervisor and 1 IRC national staff (SHP officer).Participants of the survey were selected from local community who were relatively better level of education and speak the local language in order to minimize respondent and interviewer bias and avoid inaccurate posing of questions and recording of responses. One supervisor was assigned to check proper data collection and no household was jumped without reason.

3.7.2 Training for data collectors and supervisors

To collect the data correctly it was important to give training for interviewers and supervisor to make them familiar with the aims of the survey and how to conduct the interview. So; two day training was given on December 23-24/2017 and the training was given by SHP officer. The theoretical part were covered on the first day and field practice and pilot testing were conducted on the second of the training.

3.7.3 Ethical considerations

As a requirement, the IRC was seeking permission from Administrative of Refugee and Return Affairs (ARRA) to conduct the survey. Upon securing permission, the IRC were informing the lower level of the refugee camp representative to make them aware of the data collection exercise and enroll their involvement in informing the community about the survey.

3.7.4 Data analysis and presentation

The survey data were extracted from ODK software and entered in to excel sheet to analyze data from the survey. The SHP Officer was responsible for data cleaning, analysis and reporting. The SHP team was responsible for report writing. Data was analyzed in terms of percentage prevalence for indicators corresponding to knowledge, practices and coverage on water, sanitation and hygiene. The information was generalized for the whole population at the 95% confidence limit. Data was presented in descriptive statistics using frequency tables, graphs, bar and pie char

4.1 Water Related Results

99% of respondents use tap stands as main source of drinking water and there is 1 % hand pump alternative water source for beneficiaries in the camp, Average water consumption of the interviewed households were 10.7 liter per person per day, 58% of the respondents collect greater or equal to 20l/p/d; besides 42% of respondents reported that the water supply is not sufficient. The reasons that those who said not sufficient were; no enough container 19%, water queuing times more than 30 minutes 28% and Average distance of HHs to the water point is 80mete.

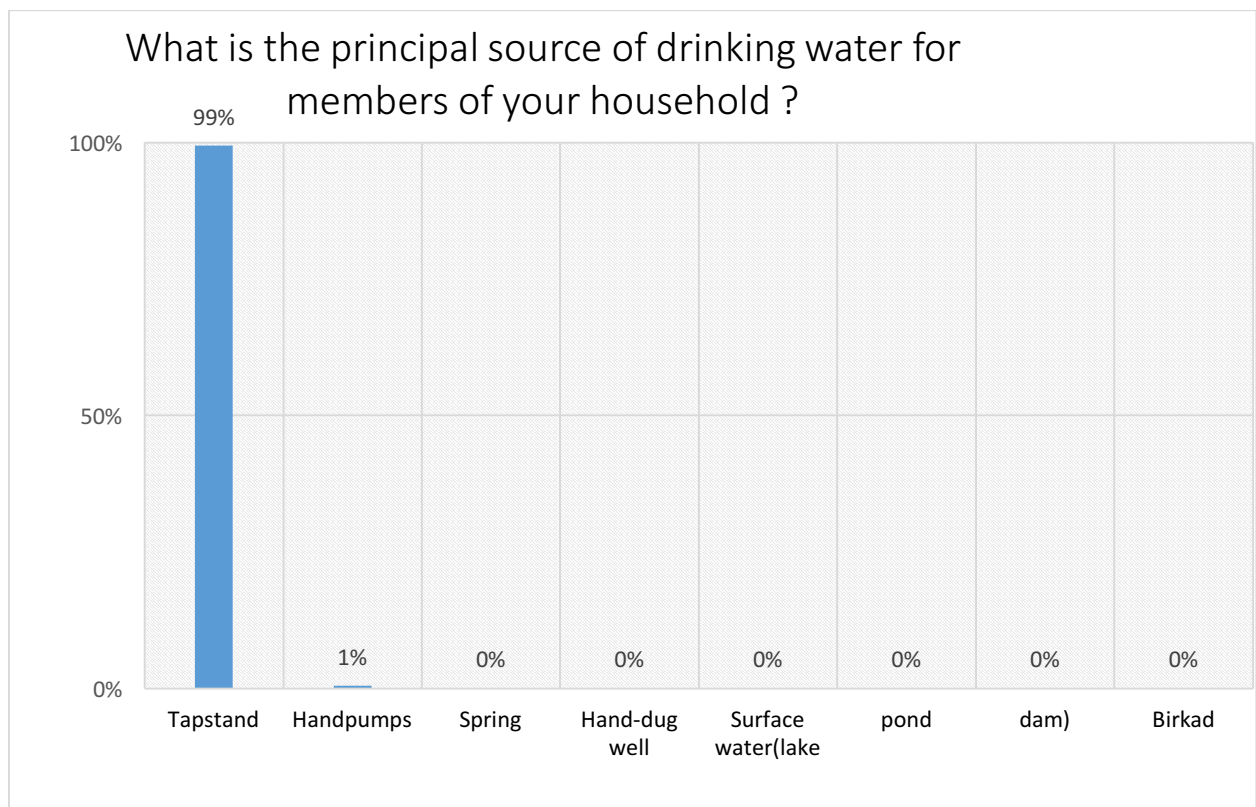


Figure 1: The principal source of drinking water for households

100% of the respondent poured in to a cup to draw water from container. 67% of households clean drinking water containers at least once a week and 28% of the households clean drinking water containers before every drawing of water/every time when use them and 5% of them respond clean their containers at least once a month,

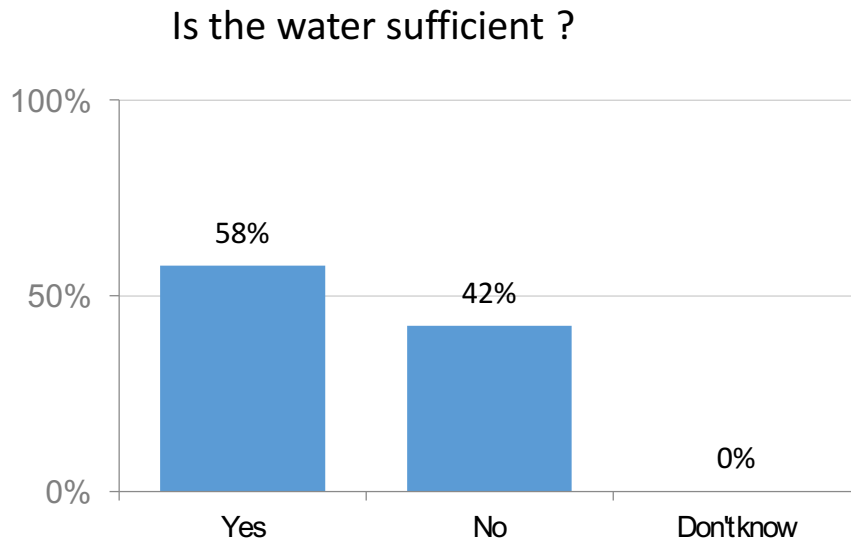


Figure 2: shows whether water is sufficient for HHs or not.

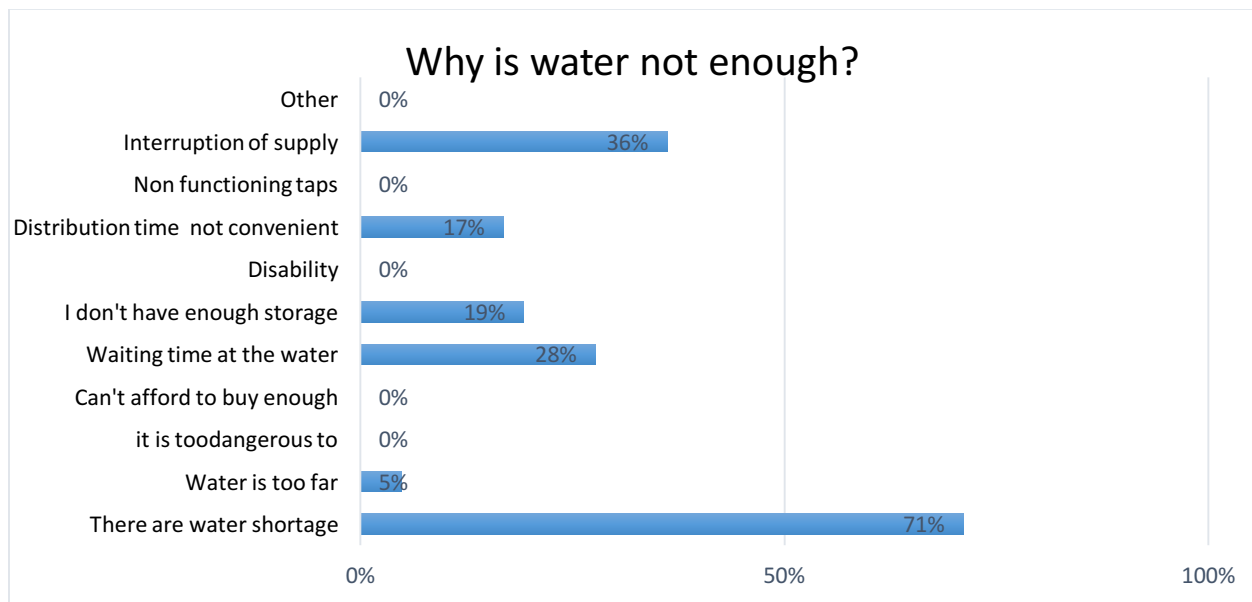


Figure 3: Shows why water is not enough in the HHs

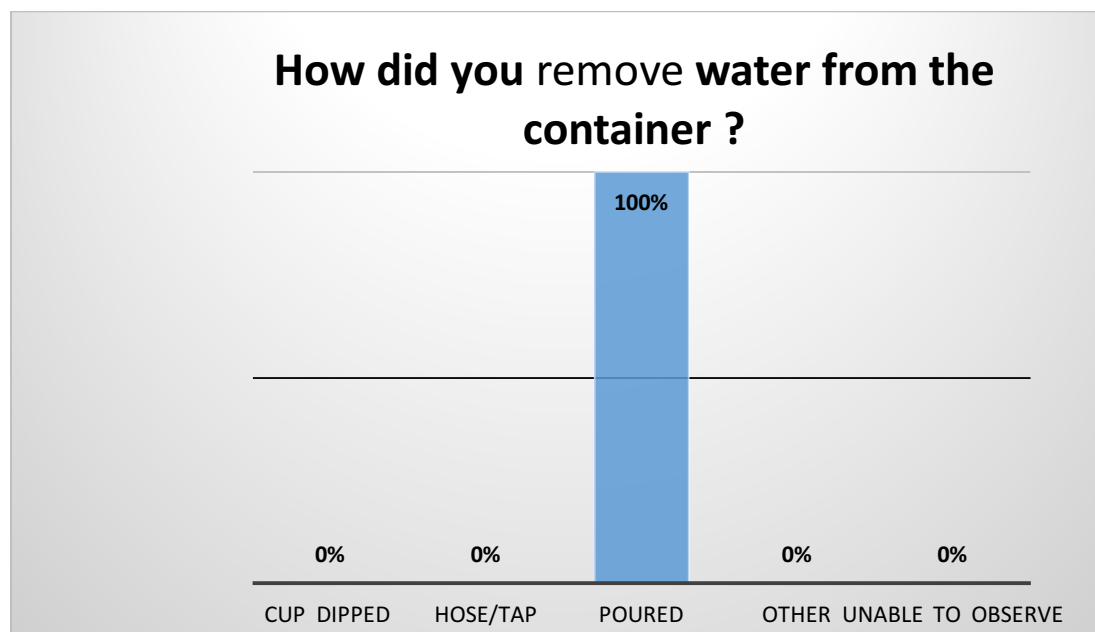


Figure 4: Way of removal water from the container at HH level

4.2 Latrine use and Solid Waste management Related Results

85% of the respondent households use family latrine/HH latrine, 2% use communal or shared latrines and 6% defecate in an open field and 72% of children under five are defecate in potty.

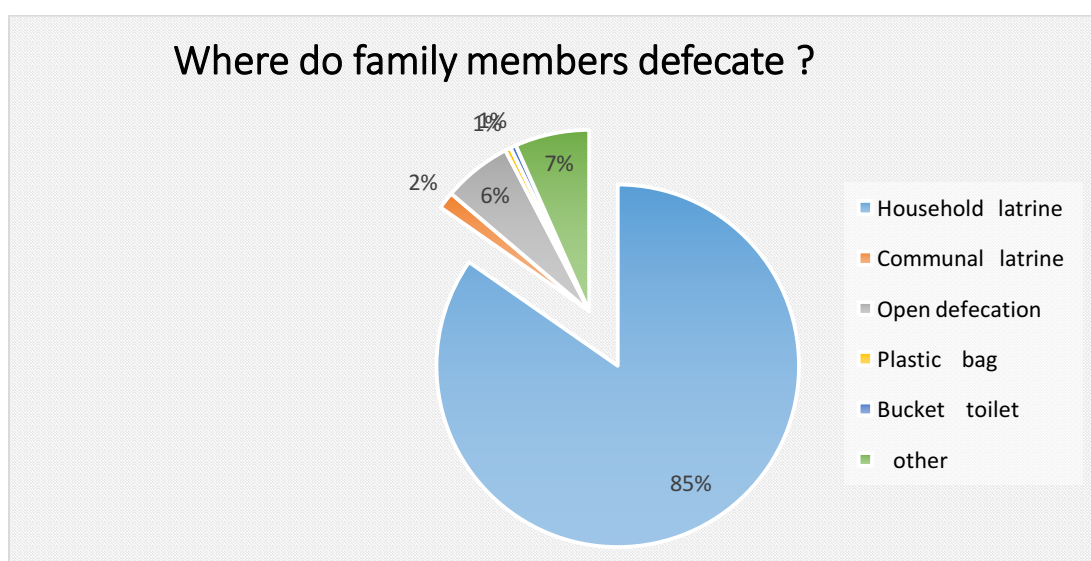


Figure 5: where do your families defecate?

Majority of respondents, 98%, dispose solid wastes in communal waste pit, 1% burning, and 1% have waste pits in the compound/designated open area

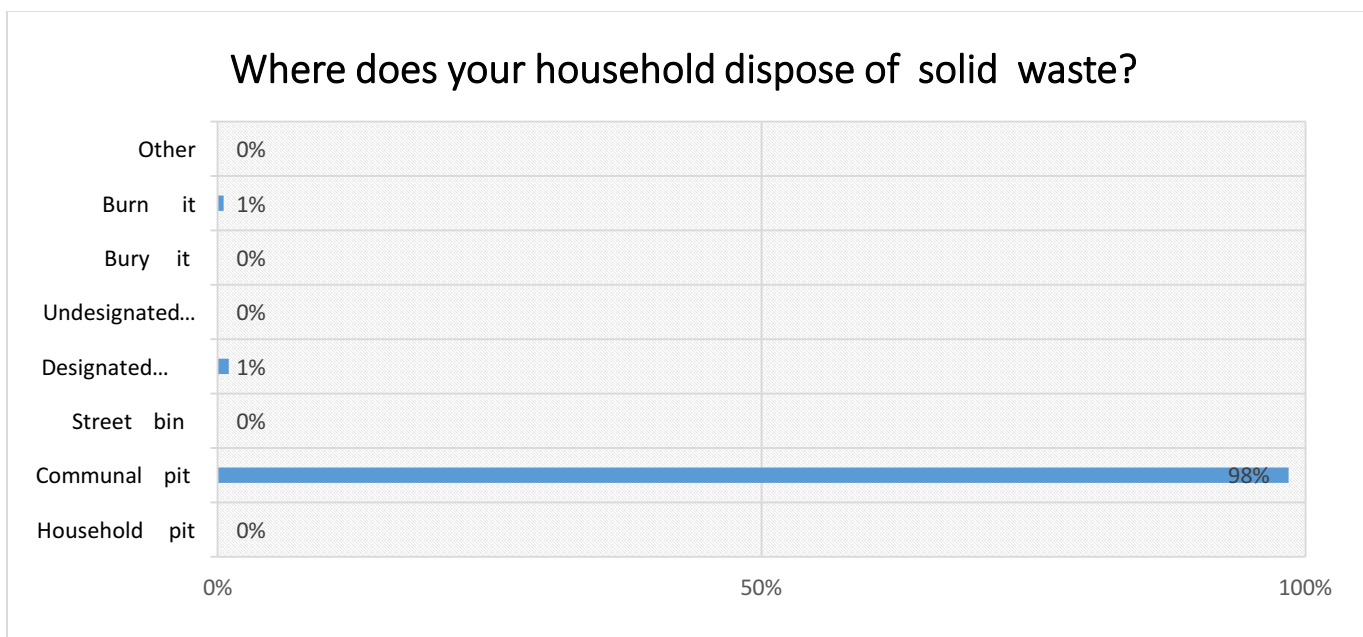


Figure 6: How do you dispose solid wastes?

4.3 Knowledge of hand washing results

85.7% of respondents knowing at least three the most moments/critical time when wash their hands. Similarly related with knowledge of the respondents That mentioned at least 3 of the most important critical time when wash their hands were :97% of the HHs mentioned before eating ,88 % of HHs mentioned before cooking and 88% of the HHs also mentioned after defecation respectively.

		#	%
a.	Before eating	190	97%
b.	Before cooking/meal preparation	172	88%
c.	After defecation	172	88%
d.	Before breast feeding a child	13	37%
e	Before feeding children's	8	4%
f.	After handling a child's stool	10	5%

Table 2: knowledge of critical times of hand washing

The practice of hand washing using soap or other substitute varies in each of the critical hand washing time. For example 172(88 %) mentioned they practice they wash their hands after visiting of latrine, 190 (97%) of HHs wash their hands before eating From the total respondents 97%,88%, 88%,13%, 4% and 5% of the HHs wash their hands before eating , before cooking /meal preparation ,after defecation, before breast feeding a child, before feeding children's and after handling a child 's stool respectively.15% of the respondent did not know more than one to two critical times of hand washing .In 19% of households from the total have specific hand washing place /station and 81% of them had not .on only 13% of respondents who have specific hand washing station have soap /rubbing agents in the area of hand washing stations and .37% of the respondents who have specific hand washing station were tippy taps and 55% and 8% of the type of hand washing device were basins/bucket and pouring devices respectively The below figures show which of the critical hand washing time are practiced by the HHs

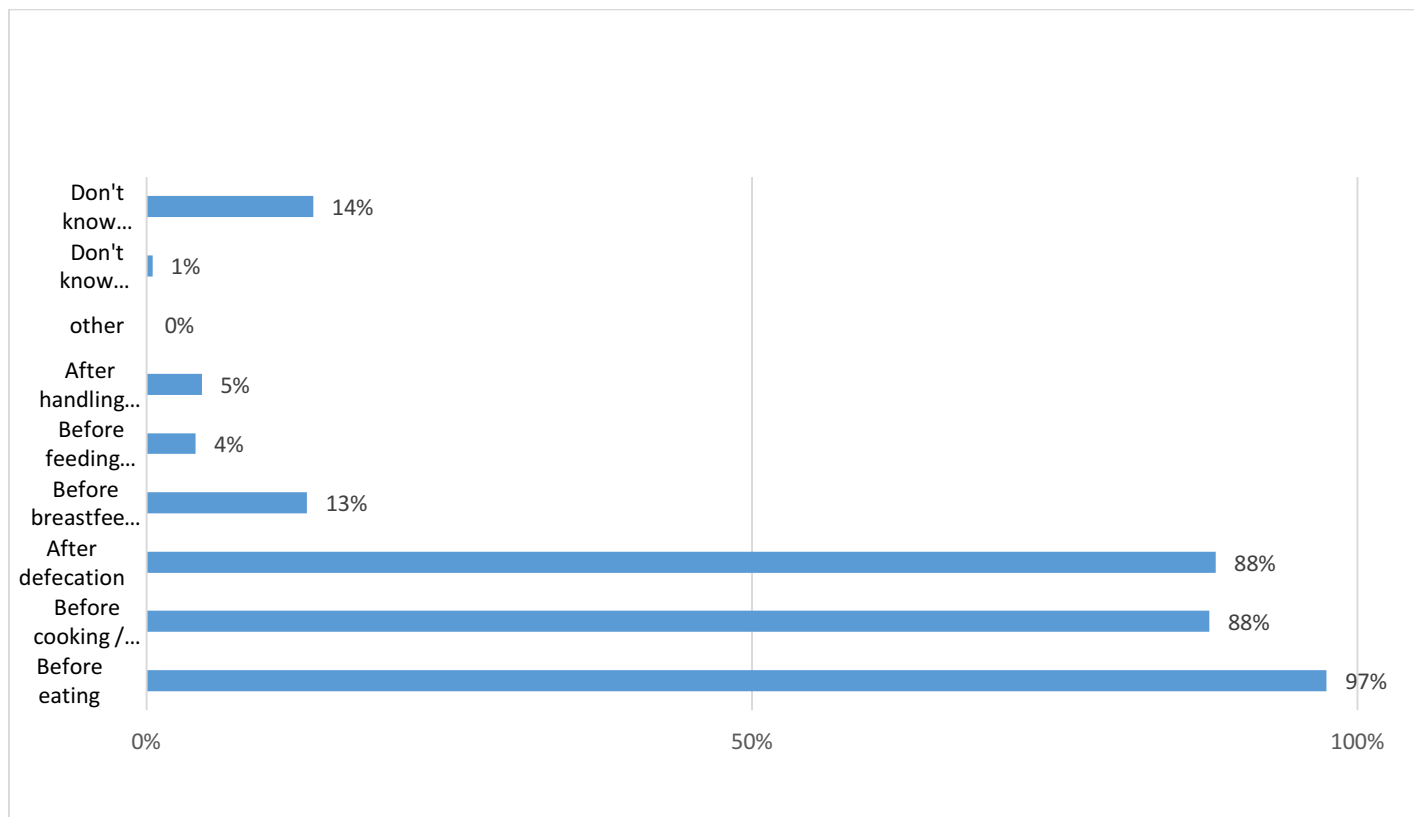


Figure 7. The critical hand washing time were practiced by the HHs

4.4 Practice of and Soap use for hand washing

Out of the total households interviewed, 19% of them have specific place for hand washing. 13 % of households use soap and water for hand washing, 44% of the households use water only for hand washing and 8% uses water and ash.

S.No	With what do you wash your hands	No	%
1	With water only	86	44
2	Do not use anything	92	47
3	With water and ash	16	8

Table-3 use of other instead of soap/substitute during hand washing

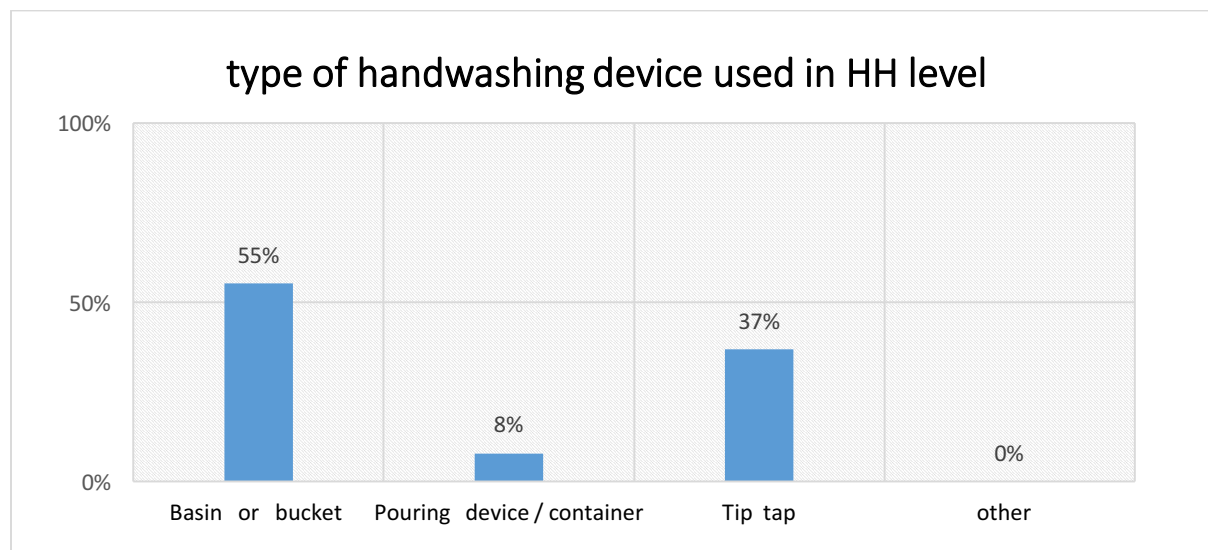


Figure.8; Type of hand washing device in the HH level

4.5 Diarrheal disease related results

The survey result shows that 0.5% of respondent households complain diarrheal diseases in the last 14 days of the survey and 2.5 % of people suffered from diarrhea is 5 years of age or older had diarrhea. Relatively the result is good but it still indicates there is still the need strong hygiene promotion to bring the behavioral change

s/n	Indicator	2014	2015	2016	2017
1	% of HHs complain diarrhea	4%	8%	8%	2.5%

Table 4; Households complain diarrheal diseases in the last 14 days of the survey

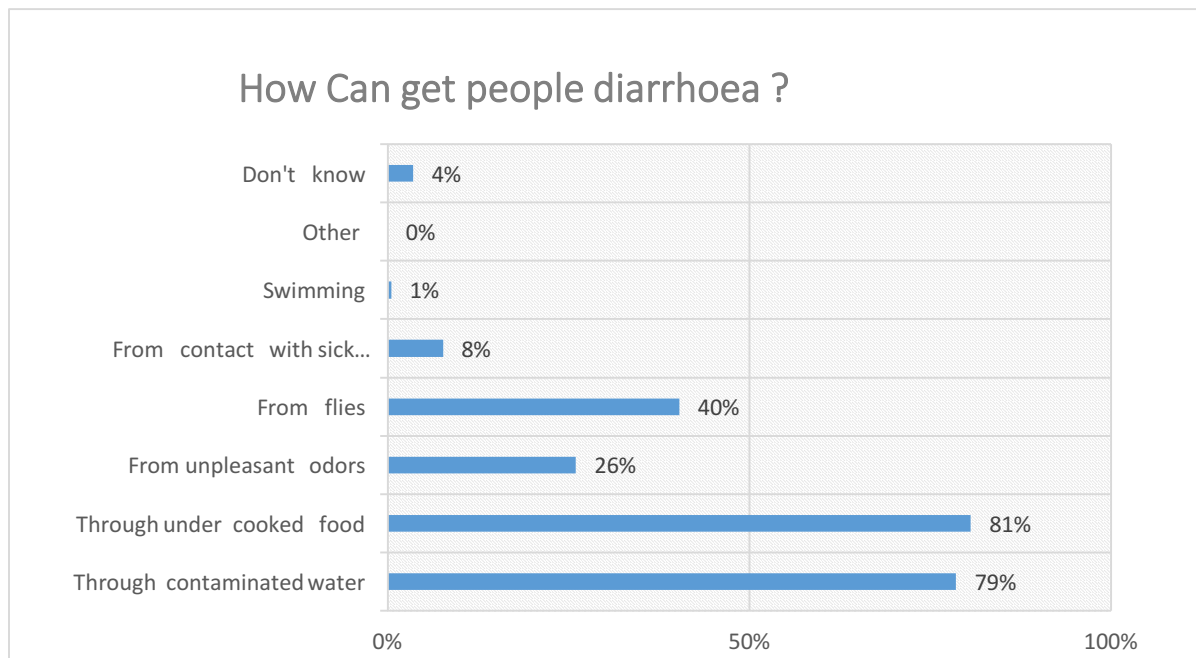


Figure.9; shows how can get people diarrhea

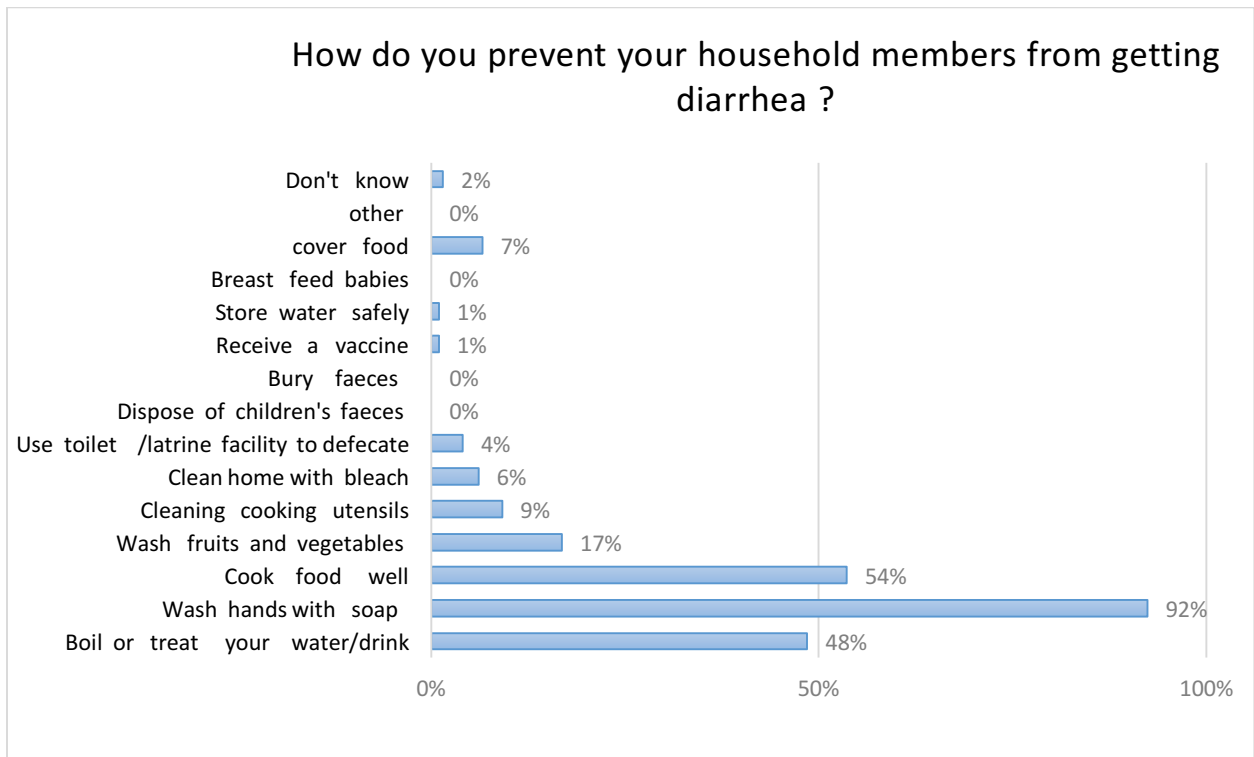


Figure.10; way of prevent household members from getting diarrhea

4.6 House to house visit by EHAs

Out of the total study households, 68% of them are visited by environmental health agents in the last month of the survey while 32 %of them were not visited in the past one month period of time and 77% of the household's members receive hygiene and health message through home visits. Comparing the last year KPC the %age of population reached through hygiene promotion increased by 3%.

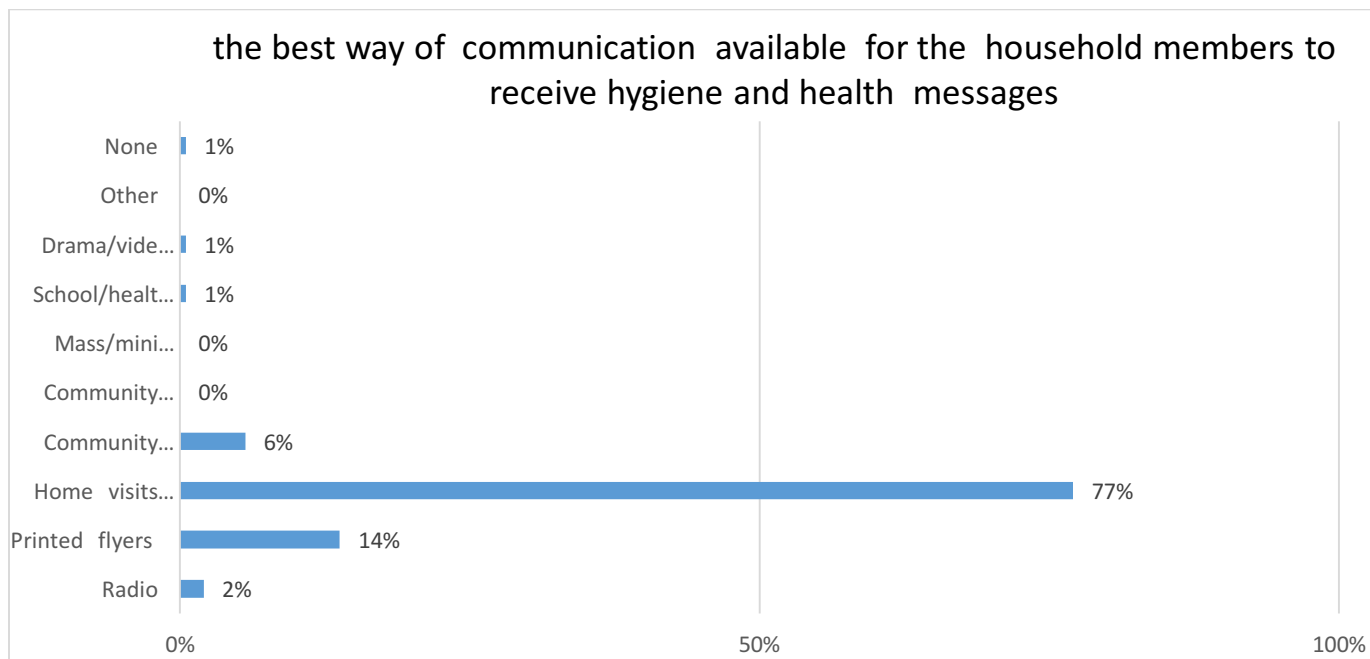


Figure 11: the best way of communication for household members to receive hygiene message

4.7 Food storage

196(100%) of the HHs keep their food in covered bucket. none of the HHs stored their food open in the house and all of them 196(100%) covered their food during observation.

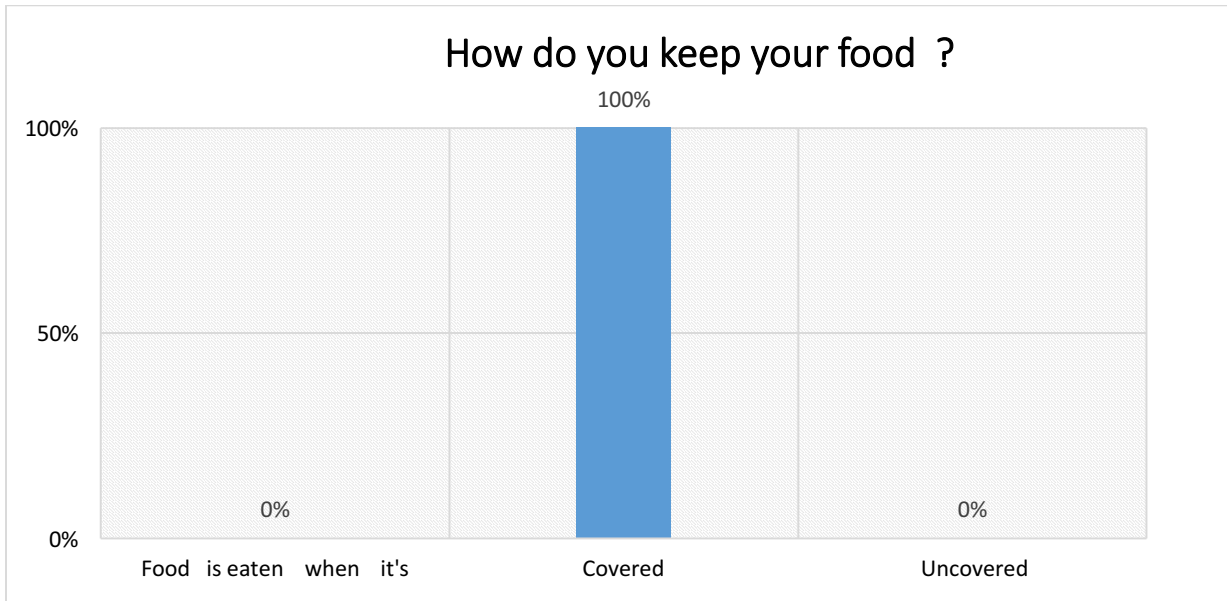


Figure -12 the way of keeping the food in household level.

CHAPTER FIVE

Discussion

The result of this KPC survey shows the majority of the population gets less than 20 liters per person per day water consumption is below the minimum UNHCR standard of 20 liters as the average per capita per person is 10.7l/p/d. This result shows there's slightly less consumption (10.7l/p/d) compared with water meter reading of the study period (11 l/p/d). Regarding to the source of water supply, tap stand is the main source of water for 99 % of the refugee community and 57% of the respondents use hand pump as second source of drinking water, 99% of the interviewer responded the water is available in their area, the time spent for going from home to the nearest tap stand 53 % of the respondents responded that it will take below 2 minutes, 22 % of the interviewer responded it take from 2-4 minutes, 100 % HHs responded that it will take below 2 minutes to fetch/queue water at the tap stand, 58 % of the HHs responded that water is enough to meet their household needs, but the remaining 42 % of the HHs responded that water is not enough, the reason for water not enough were 71 % of the HHs responded that due to lack of water shortage, 36 % interruption of supply, 28 % waiting time at the tap stand, 19 % lack of enough storage, 17% distribution time not convenient, 5 % water is too far, 43 % of the HHs responded adult females collect water and 39 % adult males collect water, 100 % of the interviewer responded they will not pay for collecting drinking water, 67 % of the HHs responded that clean water containers at least once a week, 28 % of HHs clean water containers every time we use them and 5 % at least once a month, 100 % of the respondent poured in to a cup to draw water from container. The water handling practices of the camp residents is good as the survey showed 76 % of the refugees use narrow necked Jerri cans for collecting and storage water.

Concerning to sanitation, 167 of HHs use household latrine for defecation and 11 (6%) of HHs practice open defecation, when comparing with last year KPC, there is a great improvement on HH latrine use from 81% to 85 % which was (4%) and also there is slightly decreasing in open defecation practice comparing from the last year KPC survey which was 1% or from 7% to 6%, 2% of the respondents use communal latrine, 1% of the HHs use plastic bag and 1% of the respondents defecate in bucket toilet, 67(72 %) of the respondents defecate their under five children in potty, 16% of HHs use plastic bag, 9% of the HHs responded that their under five children defecate in open defecation and 3 % the use household latrine, 86% of the respondents not defecate in the bush and 14% of the respondents defecate in the bush at night time, they responded the reason for defecate in the bush 39% of the HHs responded latrine is not safe, 39% of the respondents the latrine is smell and 21% of the respondents responded other. 33%) of the respondent households use public /communal latrine, 17% use shared household facility, 50% use other, 100% of the HHs used 2-4 HHs for shared household facility.

Majority of respondents 98% dispose their solid waste in final communal waste disposal pit through donkey cart, 1% of respondent's burn solid wastes in designated open area and 1% respondent households burn waste pit in their compound.

The result of the study also shows 85.7 % of respondents able to state at least three of the critical times of hand washing and 2.5% of respondents complain diarrheal diseases in the 14 days/ last week, This result shows there's great improvement When comparing from the last that decreasing from 8% to 2.5 % which was 5.5%.Hence more should be done on promotion of hand washing practice and construction and proper use of family latrines. And last year survey result indicated that 8% households complain diarrhea cases in the last week.

The result of this KPC survey shows 68% HHs received hygiene messages in the last one month, 32% Of the respondents responded that not received hygiene messages in the last one month, 77% of the HHs respondents responded that home visit from CHWs is the best way of their communication, 6% community meeting is the best their communication and 14 printed flyers.

Conclusion and Recommendation

6.1 Conclusion

- Most of the HHs is collecting less than the UNHCR standard, while some HHs collect more than the standard. Which shows that there is inequity in water distribution in the camp, shortage of storage and additional distribution site Latrine coverage: the study showed that still significant percentage of the HHs sometimes defecating in the open field this indicates that those who have latrine are at risk of cross contamination due to those who are using open field for defecation. Besides this, most of the house holds' latrines are using for bathing service even if it has remarkable increments than previous year.
- Hand washing at three or more of the critical times: the number of the respondents reported the knowledge washing their hands at the critical times is remarkable; the message on critical times of proper hand washing has to be increased as the result is low in comparing with the previous year. Majority of the respondents need to visit by the CHW to gain hygiene messages.
- There are some gaps to access the whole refugee community members like sanitary facilities of some HHs no latrine, HHs use shared latrine/communal latrine b/n two or more than two HHs and use open defecation, bath their body in the latrine, filled the latrine and lack of hand washing facility .

6.2 Recommendations:

Based on the result the study has recommended the following solution for the conclusion:

- Construction of sanitation facility (HHs latrine construction and maintenance timely , dislodging filled latrine bathing , hand washing facility ,communal latrine, and additional communal shower rooms) need to be focused.
- Hygiene promotion should be strengthening specifically washing hand with soap at critical hand washing time, all households to defecate in latrine rather than open defecation and to use properly , not to bath in the latrine and cover on the drop hole , IEC/BCC materials on good hygiene practice need to be produced distributed at HH level
- Queuing time at distribution point, as some of the refugee community are collecting a lots of water where as others are collecting less than the standard while they are waiting for turn. So to increase their consumption and make the water distribution fair to the beneficiaries, provide them 10-20l/HH water storage and to solve water shortage find potential water area and construct additional tap stands in all zones.

Annex 1

I. Comparision of 2014, 2015,2016 and 2017 KPC survey by some results

s/n	Indicators	2014	2015	2016	2017	Remark
1	% of households use tapstands as a main source for drinking water	100 %	100%	100 %	99 %	
2	Average water consumption l/p/d	18.74	15..19	15.45	10.7 %	
3	% of households use pouring in to cup and short handled for drawing water from containers respectively	79%; 21%	61%; 45%	78%; 21%	100 %	
4	% of respondents use family latrine for defecation	70%	89%	81%	85 %	
5	% of HHs defecate on open field	28%	11%	16%	6%	
6	% of HHs dispose solid wastes in communal pit	93%	97%	93%	98 %	
7	% of HHs having sepecific place for hand washing	64%	30%	16%	81%	
8	% of HHs complain diarrhea	4%	8%	8%	2.5%	
9	% of HHs visited by EHAs in last month of survey	57%	68%	65%	68%	

Table 5; Comparision of 2014, 2015,2016 and 2017 KPC survey by some results