# KNOWLEDGE, ATTITUDE AND PRACTICES OF CARE GIVERS OF CHILDREN UNDER FIVE YEARS ON DIARRHEA PREVENTION AT KIJOMORO HEALTH CENTRE III, OLUFU SUB-COUNTY, MARACHA DISTRICT.

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**NOVEMBER, 2018**

## DECLARATION

I, **Tiko Annet,** do hereby solemnly declare that this research dissertation is the product of my own efforts and to the best of my knowledge and conviction, has never been presented to any institution for any award or qualification whatsoever. Where the works of other people have been included, due acknowledgement to this has been made in accordance with the appropriate referencing and citations.

**Signature …….... Date ……...….**

## APPROVAL

This research dissertation has been produced under my close supervision and guidance and I therefore recommend the student to go ahead and hand in a copy.

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**Signed……Date……**

## DEDICATION

I dedicate this research dissertation to my family that have always been a strong pillar of support throughout all mu undertakings in life.

## ACKNOWLEDGEMENT

I would hereby like to take this opportunity to sincerely acknowledge and appreciate the valuable contribution of my supervisor **Dr. Mirembe Stephen Kizito** through whose guidance and untiring commitment, this proposal has seen fruition. I would also like to thank the entire staff of KIU-western campus for equipping me with the relevant research knowledge & skills that will forever be invaluable.

## LIST OF ACRONYMS AND ABREVIATIONS

| | | |
|---|---|---|
| **AIDS** | **:** | Acquired Immune Deficiency Syndrome |
| **CI** | **:** | Confidence Interval |
| **DALYs** | **:** | Disability Adjusted Life Years |
| **DD** | **:** | Diarrhoeal Disease |
| **HIV** | **:** | Human Immune Virus |
| **KIU** | **:** | Kampala International University |
| **MDG** | **:** | Millennium Development Goal |
| **ORS** | **:** | Oral Rehydration Solution |
| **ORT** | **:** | Oral Rehydration Therapy |
| **SDG** | **:** | Sustainable Development Goal |
| **TB** | **:** | Tuberculosis |
| **UDHS** | **:** | Uganda Demographic and Health Survey |
| **UI** | **:** | Uncertainty Interval |
| **USAID** | **:** | United States Agency for International Development |
| **WHO** | **:** | World Health Organization |

## OPERATIONAL DEFINITIONS

**Diarrhea** : Defined as the passage of loose stool three or more times per day (World Health Organization).

**Prevention** : These are measures used not only to prevent the occurrence of disease such as risk factor reduction, but also to arrest its progress and reduce its consequences once established.

**Caregiver** : Is an individual who could be: a parent, foster parent, head of the household who attends to the needs of a child (Primary caregiver) (Medical dictionary, 2012).

**Flying toilets** : This is the use of plastic bags for defecation, which are then thrown into ditches, on the roadside or subsequently thrown away as far as possible (BBC News, 2007).

**Under-fives** : Children between the ages of 0 and 59 months

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## ABSTRACT

**Introduction:** Diarrhoea, especially among the under-fives is a matter of public health importance globally given the annual morbidity and mortality it causes to this vulnerable age group. Globally, in 2015, it was estimated that diarrhoea was the leading cause of death among all ages (1·31 million deaths, 95% uncertainty interval [95% UI] 1·23 million to 1·39 million), as well as a leading cause of DALYs because of its disproportionate impact on young children (71·59 million DALYs, 66·44 million to 77·21 million). Diarrhoea was a common cause of death among children under 5 years old. When diarrhea becomes persistent in the community, it threatens children's quality of life and strains the capacity of the economy and households (families) in terms of incurred costs in the health sector and medical bills. However, reduction can be achieved by following preventive measures, which are cost effective in the long run. Therefore, the aim of this study is to assess caregivers' knowledge, attitudes and practices regarding the prevention of diarrhea in children under five years at Kijomoro Health Centre III Olufu Sub County, Maracha District in June 2018

**Objective:** was to assess the caregivers' knowledge, attitudes, and practices on prevention of diarrhea in children under five years at Kijomoro Health Centre III Olufu Sub County, Maracha District in June 2018.

**Method:** A cross-sectional study that involved 217 caregivers to children aged below five years in Kijomoro Health Centre III in Olufu Sub-County was used. Data was collected using a specifically tailored questionnaire aimed at meeting the study objectives.

**Results:** A total of two hundred and seventeen (217) caregivers took part in the study. Caregivers had adequate knowledge, poor attitudes and inappropriate practice as far as diarrhoea prevention among the under-fives was concerned.

**Conclusion:** In spite of the impressive knowledge on diarrhoea and diarrhoea prevention of the caregivers of the under-fives of Olufu Sub-county, their attitudes and practice do not reflect this. Their attitude and practice leave a lot to be desired.

# CHAPTER ONE: INTRODUCTION

## 1.0 BACKGROUND

Diarrhoea, especially among the under-fives is a matter of public health importance globally given the annual morbidity and mortality it causes to this vulnerable age group (Troeger et al., 2017). Globally, in 2015, it was estimated that diarrhoea was the leading cause of death among all ages (1·31 million deaths, 95% uncertainty interval [95% UI] 1·23 million to 1·39 million), as well as a leading cause of DALYs because of its disproportionate impact on young children (71·59 million DALYs, 66·44 million to 77·21 million). Diarrhoea is a common cause of death among children under 5 years old (499 000 deaths, 95% UI 447 000–558000 (Troeger et al., 2017).)

Diarrhea is a condition characterized by at least three fluid/loose stools in a period of 24 hours (Kumar & Vollmer, 2013). It involves an increase in the number of stools, a change in the consistency of the stool or both (CDC, 2013). Diarrhea is divided into three main types depending on the duration and the character of the stool: acute watery diarrhea, dysentery and persistent diarrhea (Fernández-Bañares et al., 2016). It is usually transmitted through the oral-faecal route by direct (that is when pathogens are transmitted via hands and fingers) or indirect contact (that is when food or water is contaminated with faeces) (Kelly, 2015).

Due to practices that can be attributed to a lack of knowledge, caregivers can directly or indirectly cause their children to contract diarrhea (Oloruntoba, Folarin, & Ayede, 2014). As the literature suggests, many interventions aimed at combating diarrhea have been centred on treatment and management, while preventive measures have been neglected (Wardlaw, Salama, Brocklehurst, Chopra, & Mason, 2010).

Diarrhea results from the use of contaminated water and unhygienic practices in the preparation of food and disposal of faecal matter and other waste (Prüss-Ustün et al., 2014). Diarrhea is more common among children who live in households with non-improved pit latrine facilities and in places where individuals are overcrowded due to high population density (as in the case of slums) (World Health Organization, 2014). This is all worsened in the rainy season, making the whole area unhygienic due to the poor drainage and unhygienic disposal of faecal matter (Kariuki et al., 2012a).

As children are more vulnerable, they can easily become sick from contamination and end up losing time they could have spent attending school or playing with friends (the right to socialization). Despite the seriousness of diarrhea, up to 66.7% of all cases in children can be

avoided by providing readily available and inexpensive hygiene improvements and access to clean water and sanitation. Unfortunately, young lives continue to be lost to this preventable disease.

As the old adage goes, 'An ounce of prevention is worth a pound of cure', preventive health measures have proven to improve child health outcomes and are critical to decreasing the morbidity and mortality associated with childhood diarrhea (Mokomane, Kasvosve, Melo, Pernica, & Goldfarb, 2018). The question, however, is how to get caregivers to adhere to these practices. In this context, developing child health is important to attaining healthy communities and countries. As Frederick Douglass said, 'It is easier to build strong children than repair broken men'. It is important to note that failure to adhere to proper prevention practices leads to tremendous consequences for both households and health facilities. When diarrhea becomes persistent in the community, it threatens children's quality of life and strains the capacity of the economy and households (families) in terms of incurred costs in the health sector and medical bills. However, reduction can be achieved by following preventive measures, which are cost effective in the long run. Therefore, the aim of this study is to assess caregivers' knowledge, attitudes and practices regarding the prevention of diarrhea in children under five years at Kijomoro Health Centre III Olufu Sub County, Maracha District in June 2018.

### 1.1.PROBLEM STATEMENT

Caregiver practices are significant in preventing diarrhea among children under five. Good basic practices by caregivers, based on proper sanitation, hygienic practices in preparation of food, proper disposal of faecal matter, adequate breastfeeding and washing hands, are essential in attaining healthy communities (Prüss-Ustün et al., 2014). An effective healthcare system should effectively address the socio-economic, environmental, and maternal issues affecting slum dwellers that are characteristic of ignorance and poverty concerning prevention of diarrhea (Merga & Alemayehu, 2015). If caregivers are aware and have the right or positive attitude, then risk factors for diarrhea morbidity and mortality among children under five years will be low with consequential decrease in diarrhea incidences (Merga & Alemayehu, 2015).

It is a well-known fact that diarrhea is a disease burden in Uganda. About 70% of Ugandan children are taken to health care facilities and are diagnosed with diarrhea each year (UBOS, 2011). In 2010 alone, 72.7% of the children admitted at acute care unit in Mulago National Referral Hospital, had diarrhea (Nakawesi, Wobudeya, Ndeezi, Mworozi, & Tumwine, 2010).

Lack of tap water in the villages forces families to resort to underground protected wells that are highly susceptible to contamination (Office of The Auditor general, 2017). Worth noting is that, there is a shortage of latrines in Olufu Sub County, Maracha District because most people prefer building semi-permanent houses without latrines due to lack of knowledge about the consequences. Furthermore, some people do not build latrines because it's costly to build them hence most of them resort to using 'flying toilets'.

In view of all these current discrepancies, there is need to assess caregivers' knowledge and attitude, because they dominantly influence their practices in the prevention of diarrhea; which preventive measures can greatly reduce the incidences of diarrhea episodes. If this is not addressed, more incidences of diarrhea will be seen in vulnerable children thus affecting the country's development inform of diverted resources, lost caregiver working hours, and loss of life of the children. This is a dangerous pattern for the future of the whole country.

## 1.3. OBJECTIVE OF THE STUDY

### 1.3.1. GENERAL OBJECTIVE

To determine the factors influencing the prevalence of diarrhea in children under five at Kijomoro Health Centre III Olufu Sub County, Maracha District.

### 1.3.2. SPECIFIC OBJECTIVES

1) To assess caregivers' knowledge and attitude towards prevention in children under five years at Kijomoro Health Centre III, Olufu Sub County, Maracha District.
2) To determine caregivers' practices towards prevention of diarrhea in children under five years at Kijomoro Health Centre III, Olufu Sub County, Maracha District.
3) To determine caregivers' practices towards prevention of diarrhea in children under five years at Kijomoro Health Centre III, Olufu Sub County, Maracha District.

## 1.4. RESEARCH QUESTIONS

The study sought to answer the following questions:

1) What is the knowledge level of caregivers of the under-fives at Kijomoro Health Centre III Olufu Sub County, Maracha District concerning diarrhoea prevention?
2) How are the attitudes of caregivers of the under-fives at Kijomoro Health Centre III Olufu Sub County, Maracha District concerning diarrhoea prevention?
3) What are the caregivers' practices towards prevention of diarrhea among children under five years at Kijomoro Health Centre III Olufu Sub County, Maracha District?

## 1.5. SIGNIFICANCE OF THE STUDY

This study is conceived on the concept of prevention. Preventive measures practiced properly can in the long run reduce on the incidence of diarrhea in children under five years of age. Diarrhoea reduces the quality of life of the children as well as bringing about complications such as dehydration and malnutrition that ultimately increase morbidity and mortality among under-five's. This sets back the strides made towards the achievement of Millennium Development Goal 4 ($MDG_4$) and Sustainable Development Goal 3 ($SDG_3$).

Information obtained from this study is aimed to aid the local leaders and the community at large to develop interventions aimed at reducing occurrence of diarrhea especially among the most vulnerable of the population-the under-fives. In its own small way, it is also hoped that, it will contribute towards putting Uganda back on track in as far as achievement of Millennium Development Goal 4 (MDG4) and Sustainable Development Goal 3 (SDG3).

Lastly, study findings are aimed to give rise to more research questions, questions that will fuel further research in the community on the same or similar topic.

## 1.6. SCOPE OF THE STUDY

### 1.6.1. GEOGRAPHICAL SCOPE

The study was conducted at Kijomoro Health Centre III, Olufu Sub County, Maracha District.

### 1.6.2. TIME SCOPE

This study was conducted in the month of June, 2018.

### 1.6.3. CONTENT SCOPE

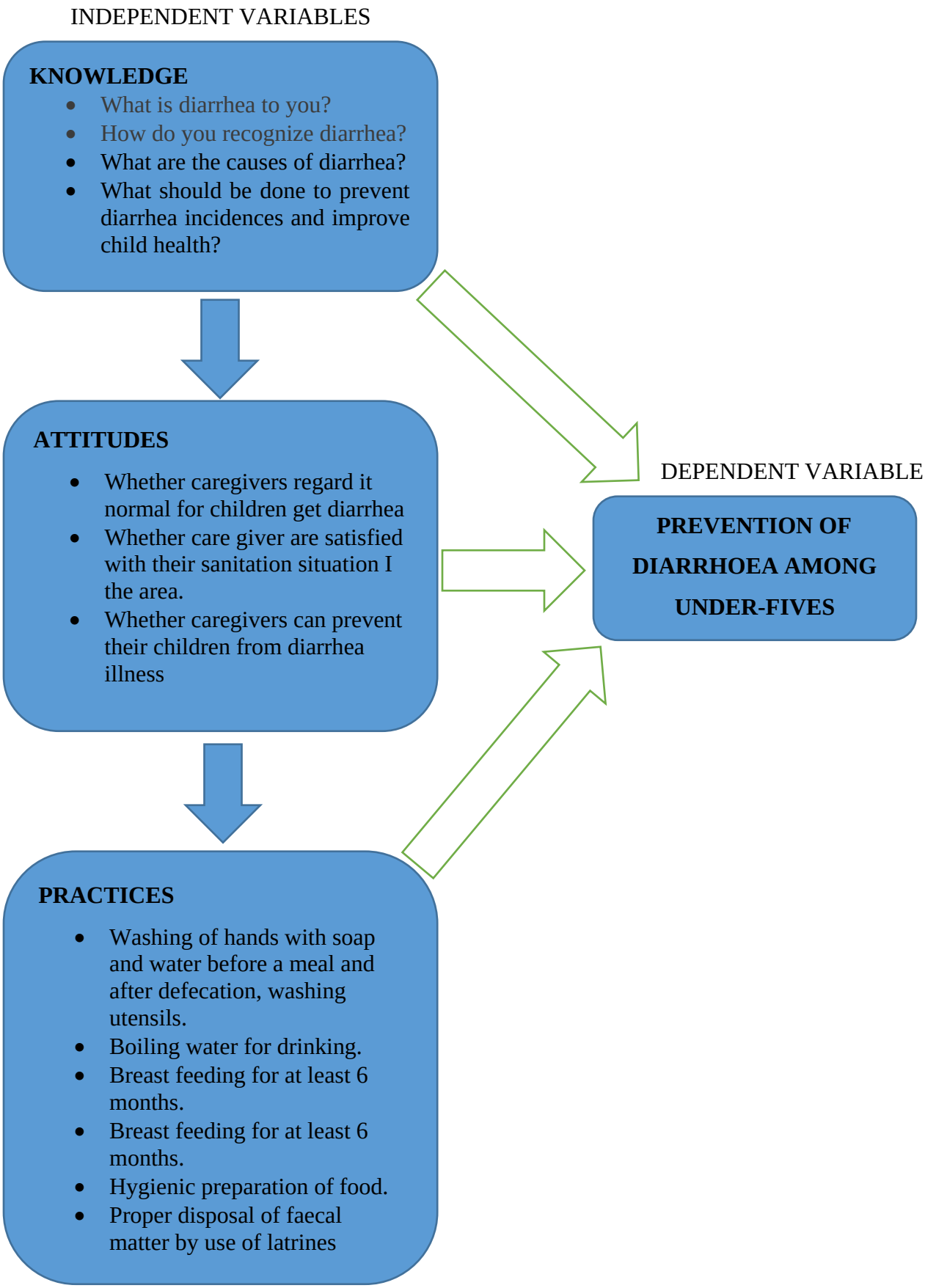
The study dealt with the knowledge, attitude and practices of caregivers on prevention of diarrhea in children under five years.

## 1.7. CONCEPTUAL FRAMEWORK

The conceptual framework adopted for this study treated knowledge, attitude and practices of the caregivers as the independent variables that influenced prevention of diarrhoea among the under-fives (the dependent variable).

The conceptual framework below illustrates the relationship between the knowledge, attitudes and prevention of diarrhea in children under five years through proper practices like: washing of hands before eating and after using the toilet, boiling water for drinking, breast feeding, hygienic preparation of food, proper and hygienic disposal of faecal matter and other waste. The caregivers' knowledge, affects the attitude therefore influencing their practices in preventing diarrhea.

*Figure 1: Knowledge, Attitude & Practices of Caregivers on Diarrhoea Prevention Among Under-fives (Adopted from Kalibbala Joseph, 2012)*



# CHAPTER TWO: LITERATURE REVIEW

## 2.0 INTRODUCTION

This chapter reviews literature on caregivers' knowledge, attitudes and practices on prevention of diarrhea. The researcher explored the existing studies to provide information on the research topic. The literature review was guided by literature related to the objectives of this study. This literature review focused on prevention of diarrhea in children under five years in relation to caregivers' knowledge, attitudes and practices.

## 2.1 CAREGIVERS' KNOWLEDGE ON PREVENTION OF DIARRHEA IN CHILDREN UNDER FIVE YEARS.

Knowledge simply means information and skills acquired through experience or education (Oxford English Dictionary, 2014). In this study, knowledge was defined as the theoretical or physical understanding of prevention of diarrhea. Knowledge is very important in recognition and prevention of diarrhea. General knowledge about diarrhea and its prevention is unsatisfactory in various areas. This fact is consistent with findings of a study conducted among caregivers in Tanzania by (Mwambete & Joseph, 2010), which showed that only one third (1/3) of caregivers were aware of the risk factors and causes of childhood diarrhea. About 33% of the caregivers were not aware of the risk factors of diarrhea, where as 30% described diarrhea as normal in the child's growth stage. This reveals a deficit in the caregivers' knowledge.

Similarly, (Ogunrinde, Raji, Owolabi, & Anigo, 2012) found that less than 1% of Nigerian caregivers was knowledgeable about home management of diarrhoeal disease. These results were mirrored in a tertiary hospital in South-eastern Nigeria by (Okoh & Alex-Hart, 2014). In this particular study, out of the 157 caregivers, only 29.3% had a good level of knowledge concerning diarrhea prevention.

In Sothern Odisha, (Padhy, Sethi, & Behera, 2017) found that diarrhoeal diseases were more common in the lower educated group and low socioeconomic status families with prevalence of overcrowding. Only 47% of the mothers had knowledge about diarrhoea, 52% about the aetiology and 58% about risk factors of diarrhoea. Regarding role of breastfeeding in diarrhoea 48% mothers had good knowledge and regarding adverse effects of bottle feeding 56% mothers were aware. In this study only 34% of mothers were aware of assessment of danger signs and dehydration and 27% about treatment of dehydration. 33% mothers had good knowledge on sanitary latrine and

safe drinking water uses in prevention and treatment of diarrhoea. Regarding preparation of ORS only 19% mothers had good knowledge, 65% mothers had average knowledge (Padhy et al., 2017). Similarly, this fact is echoed more by a study conducted in Gezira state which showed knowledge of mothers about definition of diarrhea, its danger, when to seek medical help and the three rules of home management significantly improved from 35, 28, 13 and 29% to 91, 94, 92 and 93% respectively after training intervention (Haroun *et al*, 2010).

In a study conducted among indigenous and resettlement communities in Assosa District, Western Ethiopia in 2015, the prevalence of diarrhoeal diseases among under-five children was 33.2%, and the knowledge of mothers about the causes, transmission, and prevention of diarrhoea in the study area was 37.5% (Merga & Alemayehu, 2015).

In a survey conducted across Uganda, the knowledge of caregivers concerning diarrhoea was found to be wanting since only 42.4% of caregivers sought advice for treatment for the under-fives with diarrhoea (USAID, 2012).

## 2.2. CAREGIVERS' ATTITUDES TOWARDS PREVENTION OF DIARRHEA IN CHILDREN UNDER FIVE YEARS.

Attitudes of caregivers are important in the fight of prevention of diarrhea as they motivate an individual to do something.

A study conducted in North-Western Nigeria showed that 50% of the mothers had negative attitude towards hand washing as they were dissatisfied with their current water supply situation, because the water was of poor quality, insufficient to meet their needs, and clean water was expensive. Furthermore, 39.3% of caregivers stated that they did not improve the sanitation or hygiene situation around their homes because they were only renting the house. About 49.9 % of the caregivers felt that it was normal for children to get diarrhea regularly (Ogunrinde et al., 2012).

Mothers in Assosa District, Ethiopia had a relatively good attitude compared to their North-Western counterparts. 62.9% of the mothers were categorized as having good attitude on causes, transmission, and prevention of diarrhoeal disease (Merga & Alemayehu, 2015).

The caregivers of Southern Odisha also had a relatively good attitude towards treatment and prevention of diarrhoea. They were well conversant with the role of sanitary disposal of feces and the use of safe drinking water as key in the prevention of diarrhoea in their under-fives (Padhy et al., 2017). The caregivers of Temeke, Tanzania did not have a better attitude either. Only about one-third of the respondents (31%) were aware of risk factors for childhood diarrhoea that cited

poor sanitation and water as the main factors. Diarrhoeal episodes were perceived wrongly as normal growth stage and that were caused by several other "illnesses" (Mwambete & Joseph, 2010).

In the Ugandan Survey, the attitude of caregivers was found to be unfavorable as most attributed childhood diarrhoea to myths such as teething, a co-occurrence with other diseases such as measles and some even blamed evil-eye (USAID, 2012).

## 2.3 CAREGIVERS' PRACTICES TOWARDS PREVENTION OF DIARRHEA IN CHILDREN UNDER FIVE YEARS.

Prevention of diarrhea in children can take place if caregivers practice preventive practices. Among the caregivers of Assosa, clean, protected community water sources, clean water storage containers, and proper disposal of human waste protected the under-fives of those that adequately practiced the above-mentioned preventive measures from diarrhoeal diseases (Merga & Alemayehu, 2015).

The practice of caregivers from North-Western Nigeria was generally unsatisfactory as pertains prevention of diarrhoea among the under-fives. The wrongful use of antibiotics and anti-diarrhoeal agents was common at 36%. Oral Rehydration Solution (ORS) use was abysmally low at 8.6%. Only 32% of caregivers were aware of the use of zinc in the management of Diarrhoeal Disease (DD). Adherence to 10-day zinc supplementation was encouraging though at 75.5% (Ogunrinde et al., 2012).

In Enugu Nigeria, things were quite different. Among 156 subjects under study, access to Oral rehydration therapy (ORT) fluids was high with 73.1% of all children with diarrhoea being offered an ORT fluid at home. However, the method of preparation and administration of fluids was quite unsatisfactory exposing the children to even more danger (Uchendu, Emodi, & Ikefuna, 2011).

Among the Turkana of Kenya, studies showed that sanitation and hygiene promotion led to significant reduction of diarrhoea prevalence in children aged <5 years (Kariuki et al., 2012b).

In Temeke, Tanzania bad practice was influenced by application of herbal remedies to treat diarrhoeal disease in the under-fives. Medicinal plants were the most common traditional remedies employed by majority (71%) of the interviewees, which have been purported to be effective in management of childhood diarrhoea. Guava (leaves and fruits) was the most commonly used remedy in the treatment of diarrhoea (Mwambete & Joseph, 2010).

As per the Ugandan Survey, the caregivers' practice was comparatively better than the others. Overall, 75.3% of all children with diarrhea were taken to a professional health provider (clinic or pharmacy) for treatment (USAID, 2012).

# CHAPTER THREE: METHODOLOGY

## 3.0 INTRODUCTION

This chapter presents the research methodology which is the detailed procedure of the study. The chapter comprises of the following sections: study design, study area, study population, selection criteria, sample size determination, sampling technique, study variables, data collection techniques and instruments, data management, and data analysis. Quality control techniques, and ethical considerations of the study are discussed in this chapter as well.

## 3.1 STUDY DESIGN

This study was conducted through a cross-sectional study design. A cross-sectional design is a present oriented research design used to investigate populations by selecting samples to analyze and discover occurrences. The study will be used to examine caregivers at Kijomoro Health Centre III, Olufu Sub County, Maracha District by assessing the knowledge, attitudes and practices on prevention of diarrhea in children under five years. The study design was selected because it aides in rapid data collection. Cross-sectional research design takes a "snap shot" of a population at a certain time, allowing conclusions about phenomena across a wide population to be drawn.

## 3.2 STUDY AREA

The study was conducted at Kijomoro Health Centre III Olufu Sub County, Maracha District.

## 3.3 STUDY POPULATION

The target population consisted of caregivers who attended Kijomoro Health Centre III Olufu Sub County, Maracha District. The study population consisted 217 caregivers who satisfied the selection criteria and consented to the study.

## 3.4 SELECTION CRITERIA

### 3.4.1 INCLUSION CRITERIA

The study included all caregivers attending Kijomoro Health Centre III Olufu Sub County, Maracha District, 18 years and above with a child under five years and who was willing to participate in the study.

### 3.4.2 EXCLUSION CRITERIA

The study excluded all caregivers who, for one reason or the other, failed to offer their consent to take part.

### 3.5 SAMPLE SIZE DETERMINATION CAREGIVERS SAMPLE

The sample size for caregivers who had children under five years attending at Kijomoro Health Centre III, Olufu Sub County, Maracha District was calculated using Keish and Leislie (1965) formula with precisions of +/- 5% at confidence level of 95% for the caregivers' questionnaires.

$n=Z^2PQ/D^2$ **where:**

n= Desired sample size

Z= Standard normal deviation at the required confidence level 95% (1.96)

P= Proportion of the study population estimated to have diarrhea (17%: UDHS, 2006)

Q= Standard deviation of the population 1-P (0.83)

D= Precision of +/- 5% (Standard Value of 0.05) $n = \frac{(1.96)^2 * 0.17*(1 - 0.17)}{(0.05)^2}$

n = 216.82

Therefore, n =217

### 3.6 SAMPLING TECHNIQUE

Simple random sampling method that employed sequential enrollment of participants was used. Out of the possible four health centers, one was randomly chosen using a fish bowl method.

### 3.7 SOURCE OF DATA

The primary caregivers of the children were the source of the data.

### 3.8 DATA COLLECTION TECHNIQUES AND INSTRUMENTS

A structured questionnaire was used as the main tool for gathering information. The structured questionnaire was preferred in this study because a lot of information could be collected over a short period of time. The structured questionnaire was divided into four sections.

### 3.9 DATA MANAGEMENT

Quantitative data was collected using a structured researcher-administered questionnaire and interview technique. Completed questionnaires were checked for accuracy, missing data and completeness on a daily basis after data collection at the end of the day. This was followed by coding and entry of the data using SPSS version 16.0 computer software required for analysis.

### 3.10 DATA ANALYSIS

Data was analyzed by descriptive statistics using SSPS (Statistical Package for Social Scientists) 16.0 software. Characteristics like caregiver education, caregiver age, religious affiliation, and home ownership were selected and included in the univariate methods.

### 3.11 QUALITY CONTROL TECHNIQUES

The questionnaires were administered by three trained research assistants with minimum qualification of senior six, who worked under close supervision of the principle investigator. The research assistants were trained on skills of community engagement and interviewing techniques, obtaining cooperation to avoid influencing outcomes of the study. Questionnaire pretesting was done in other health centers that had the same characteristics with the area of study. The questionnaire was then revised and content adjustments made accordingly. After data collection, questionnaires were checked daily, for completeness, clarity, consistency and uniformity by the principle investigator.

### 3.12 ETHICAL CONSIDERATIONS

A letter of introduction was obtained from Kampala International University (KIU) to permit the researcher to carry out the research after being accepted by the institutional research committee. Another letter of introduction was obtained from the local council one chairperson in Olufu Sub County. All participating caregivers were selected on the basis of informed consent. The study was voluntary and information was kept private and confidential. Participants' anonymity was kept. The study was conducted while upholding the moral, tradition and customary rules and regulations of the community in a manner that did not compromise the scientific inclinations of the research. The investigator ensured adherence to maintaining scientific standards in the methods which were employed in the collection and analysis of data as well as impartial assessment and study findings.

# CHAPTER FOUR: STUDY FINDINGS

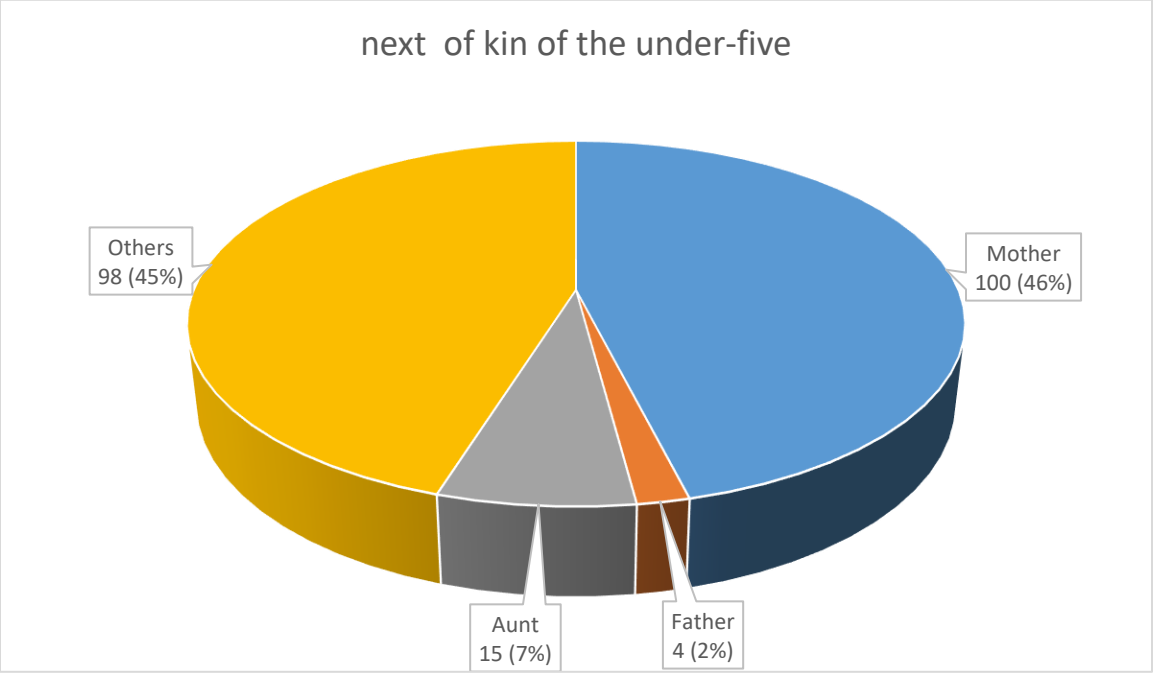
## 4.0. INTRODUCTION

This chapter deals with the findings of the study and will present the caregivers' general information and biodata, their knowledge, attitudes and practices concerning the prevention of diarrhoea among children aged below five years. A total of 217 caregivers were interviewed and 217 questionnaires returned and analyzed thereby giving a response rate of 100%.

## 4.1. CAREGIVERS' GENERAL INFORMATION AND BIODATA

### 4.1.1. RELATION OF THE PRIMARY CAREGIVER TO THE UNDER-FIVE

*Figure 2: Relationship of caregiver to the under-five (N=217)*




Most (54%) of the under-fives were under the care of other people apart from their birth mothers. 98 (45%) had other people such as brothers, sisters, cousins, and grandmothers taking care of them. Fathers were the sole caregivers to 4 (2%) of the under-fives while aunts were in charge of 15 (7%) of the under-fives.

### 4.1.2. AGES OF CAREGIVERS

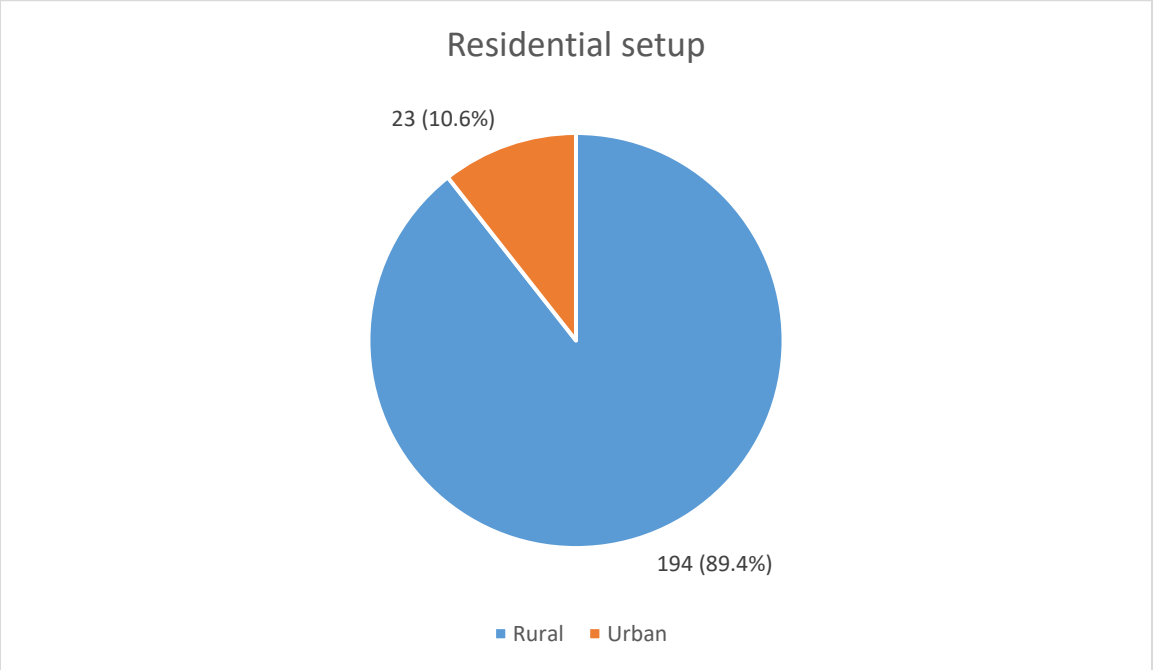
Majority (46%) of the caregivers were in the age cluster between 28 and 37 years followed by those between 38 and 47 years (40%). Those between 18 and 27 years made 11% and only 3% were 48 years and above as shown on table 1 below.

*Table 1: Age clusters of caregivers to the under-fives (N=217)*

| AGE CLUSTER (Yrs.) | FREQUENCY (n) | PERCENTAGE (%) |
|---|---|---|
| 18 – 27 | 24 | 11.06 |
| 28 – 37 | 100 | 46.08 |
| 38 – 47 | 86 | 39.63 |
| 48 and above | 7 | 3.23 |
| **TOTALS** | **217** | **100** |

### 4.1.3. PLACE OF RESIDENCE OF CAREGIVERS

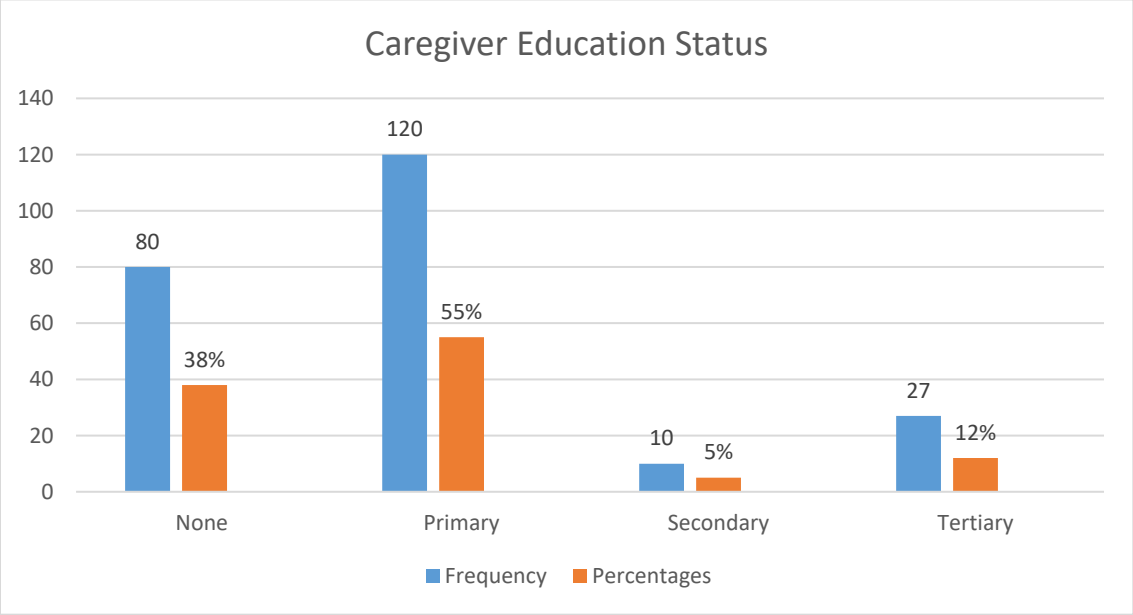
*Figure 3: Place of residence of caregivers (N=217)*




A big proportion of the caregivers resided with their under-fives in a rural setup. 89.4% lived in a rural setup while only 10.6% hailed from an urban setup. This setup predisposes the under-fives to diarrhoeal diseases.

### 4.1.4. LEVEL OF EDUCATION OF CAREGIVERS

*Figure 4: Caregiver level of formal education (N=217)*




Most (62%) of the caregivers had attained some level of formal education. 120 (55%) had a primary level of education, 10 (5%) had a secondary level, and 27 (12%) had a tertiary level. The ones without any type of formal education were 80 (38%) as shown in figure 3 above.

### 4.1.5. CAREGIVER MARITAL STATUS

*Table 2: Marital status of the caregivers (N=217)*

| **MARITAL STATUS** | **FREQUENCY (n)** | **PERCENTAGE (N)** |
|---|---|---|
| Single | 22 | 10.14 |
| Married | 153 | 70.51 |
| Separated/Divorced | 14 | 6.45 |
| Widowed | 28 | 12.90 |
| **TOTALS** | **217** | **100** |

The married made the larger proportion of the caregivers, followed by the widowed and singles that made 12.90% and 10.14% of the total. Those who were separated or divorced were 14 (6.45%).

### 4.1.6. RELIGIOUS AFFILIATIONS OF THE CAREGIVERS

108 (49.77%) of the caregivers were Christians, 80 (36.87%) were Traditional and 29 (13.36%) were Muslims.

### 4.1.7. EMPLOYMENT STATUS OF CAREGIVERS

*Table 3: Employment status of caregivers (N=217)*

| EMPLOYMENT STATUS | FREQUENCY (n) | PERCENTAGE (%) |
|---|---|---|
| Peasant / Stay-at-home / animal husbandry | 140 | 64.52 |
| Formally employed | 30 | 13.83 |
| Self-employed/Business | 47 | 21.66 |
| **TOTALS** | **217** | **100** |

Employment status is an indicator of family's source of income. Only 30 (13.83%) of the caregivers were formally employed. Another 47 (21.66%) were self-employed or were involved in some business venture of some sort. 140 (64.52%) of them, who made the largest proportion, had no form of employment of any sort. They were either peasant farmers or stay-at-home caregivers.

### 4.1.8. NUMBER OF PEOPLE PER HOUSEHOLD

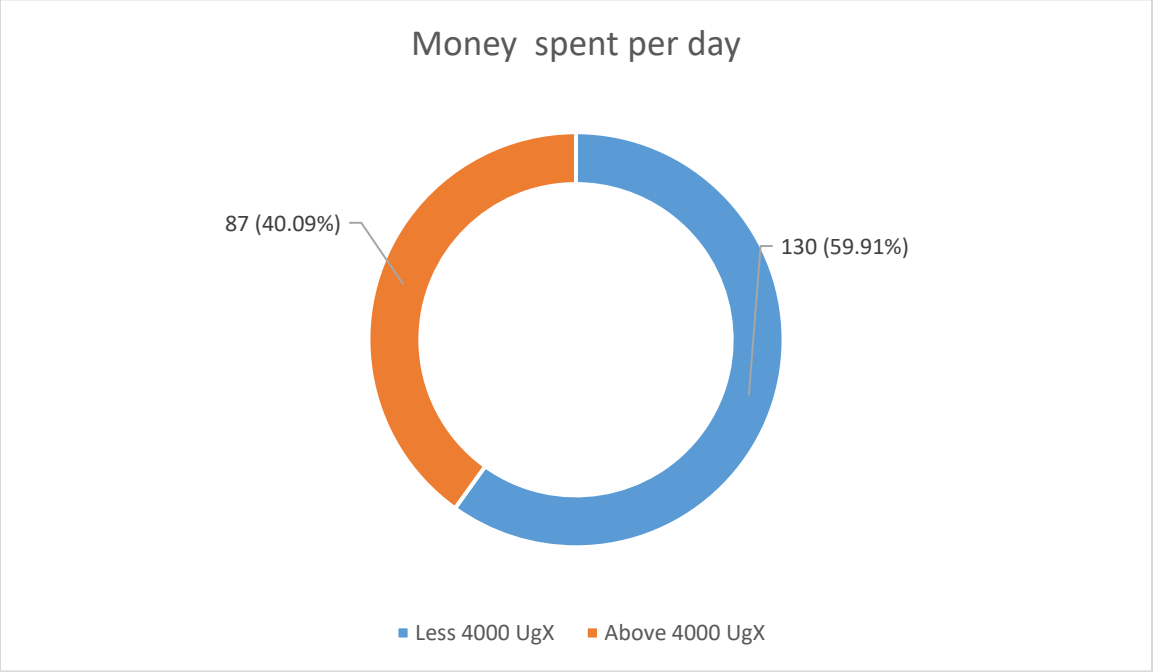
*Table 4: Population density per household (N=217)*

| PEOPLE | FREQUENCY (n) | PERCENTAGE (%) |
|---|---|---|
| 4 and below | 20 | 9.22 |
| 5 - 10 | 160 | 73.73 |
| 10 and above | 37 | 17.05 |
| **TOTALS** | **217** | **100** |

The average number of persons per household is high with most households (73.73%) having between 5 and 10 people, 17.05% having from 10 and above. Only 20 (9.22%) of the households had 4 and below number of persons. Larger numbers of persons per household increase chances and spread of infections particularly to the vulnerable under-fives. All of the households had children under the age of five years living in them.

### 4.1.9. MONEY SPENT DAILY FOR DOMESTIC USE

*Figure 5: Daily household domestic expense in UgX (N=217)*




About three-fifths of the households spend less than 4000 Uganda shillings per day for their domestic needs. This is almost below the poverty line. Disease, especially diarrhoea among the under-fives is common among those of low socio-economic status.

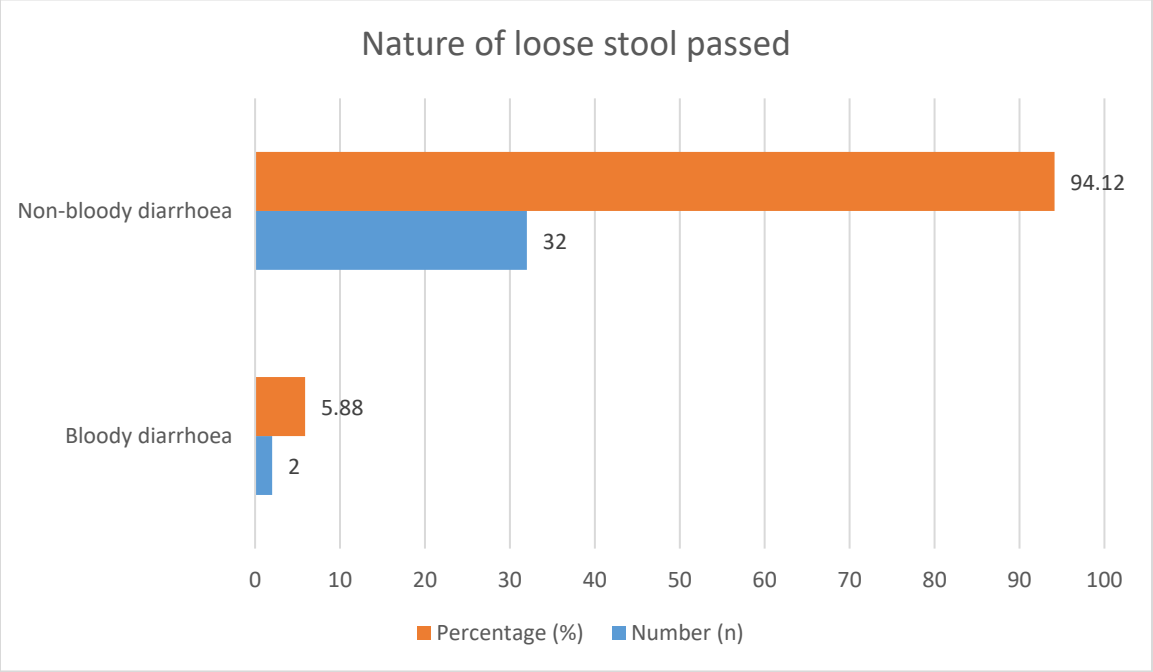
## 4.2. CAREGIVER KNOWLEDGE ON PREVENTION OF DIARRHOEA IN UNDER-FIVES

All of the respondents were aware of the fact that diarrhoea is the passage of loose stool several times a day. The number of times mentioned varied considerably but the constant remained a child passing several loose stools per day has diarrhoea. The causes of diarrhoea mentioned by the caregivers were drinking dirty / unsafe water, eating bad / contaminated food and poor hygienic practices. The common sources of information cited were television, radio, print media and the hospital.

On the question on whether in the past two weeks the child had had diarrhoea, 34 (15.67%) answered yes while the remaining 183 (84.33%) answered no.

### 4.2.1. TYPE OF DIARRHOEA THE CHILD SUFFERED IN THE PAST TWO WEEKS

*Figure 6: Nature of diarrhoea experienced by the under-fives in the past 2 weeks (N=34)*




Only 2 of the caregivers whose under-fives had had diarrhoea a fortnight prior stated that it was bloody. The other 32 said it was not. When the child had diarrhoea, the caregivers reported that they gave more food and fluids at home as they took to the doctor (76.77%), or gave medicine at home (antibiotics) (11.77%), or resorted to traditional herbs (11.77%).

## 4.3. CAREGIVERS' ATTITUDE TOWARDS DIARRHOEA PREVENTION AMONG THE UNDER-FIVES

Though the caregivers were in much agreement that adequate boiling, filtering or chlorinating water were effective water treatment methods that markedly reduce diarrhoea among the under-fives most did not know the likelihood of their under-fives getting diarrhoea in the next coming month.

### 4.3.1. LIKELYHOOD OF THEIR UNDER-FIVES GETTING DIARRHOEA IN THE NEXT MONTH

*Table 5: Under-fives likelihood of getting diarrhoea in the coming month (N=217)*

| LIKELYHOOD | FREQUENCY (n) | PERCENTAGE (%) |
|---|---|---|
| Very likely | 0 | 0 |
| Likely | 10 | 4.61 |
| Unlikely | 32 | 14.75 |
| Very unlikely | 10 | 4.61 |
| Do not know | 165 | 76.04 |
| **TOTALS** | **217** | **100** |

Those that felt it likely was because their under-fives had had diarrhoea in the past two weeks and thought that diarrhoeal diseases were usual phenomena among children and part and parcel of child growth. Those that felt that it was unlikely was because their under-fives had not suffered diarrhoea in the previous fortnight because they could prevent them from getting diarrhoea through use of adequate clean water to eradicate the germs that were the main cause of diarrhoea. Those who said they did not know were of the opinion that, like any other disease or ailment, it was hard to predict when and when a disease might occur.

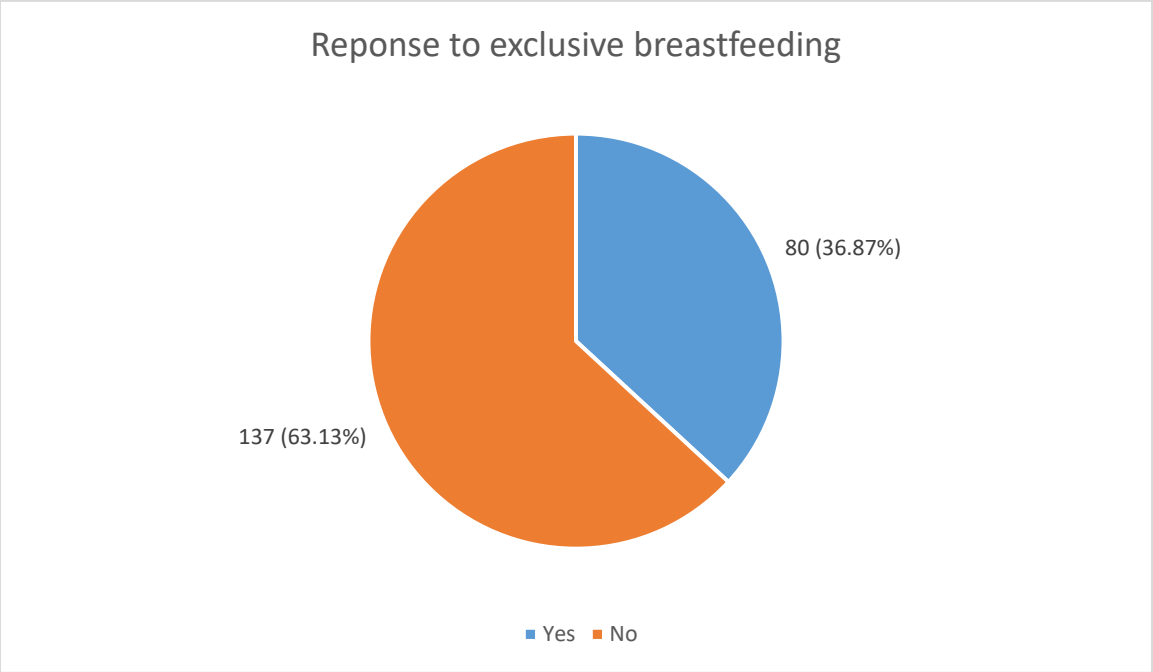
### 4.3.2. SATISFACTION WITH THE CURRENT WATER SUPPLY

The caregivers were generally unsatisfied about the current water supply situation in their areas of residence. Apart from the 10 (4.61%) who felt that they had adequate supply of clean water for domestic use, the rest cited irregularity of flow, grossly unclean tap water the few times it is available, unclean and far sources of communal water holes and clean safe water being too expensive for them.

## 4.4. PRACTICES OF CAREGIVERS CONCERNING PREVENTION OF DIARRHOEA AMONG UNDER-FIVES

### 4..4.1. EXLUSIVE BREASTFEEDING PRACTICES

*Figure 7: Exclusively breastfed under-fives (N=217)*




A majority of the caregivers stated that the child was not exclusively breastfed for the recommended six months. 137 (63.13%) of the children had not been exclusively breastfed while only 80 (36.87%) were. This was despite the knowledge of the fact that exclusive breastfeeding protected the child against diarrhoeal diseases.

### 4.4.2. REGULAR SOURCE OF WATER FOR DOMESTIC USE & METHODS OF TREATMENT.

*Table 6: Regular domestic water source and treatment methods (N=217)*

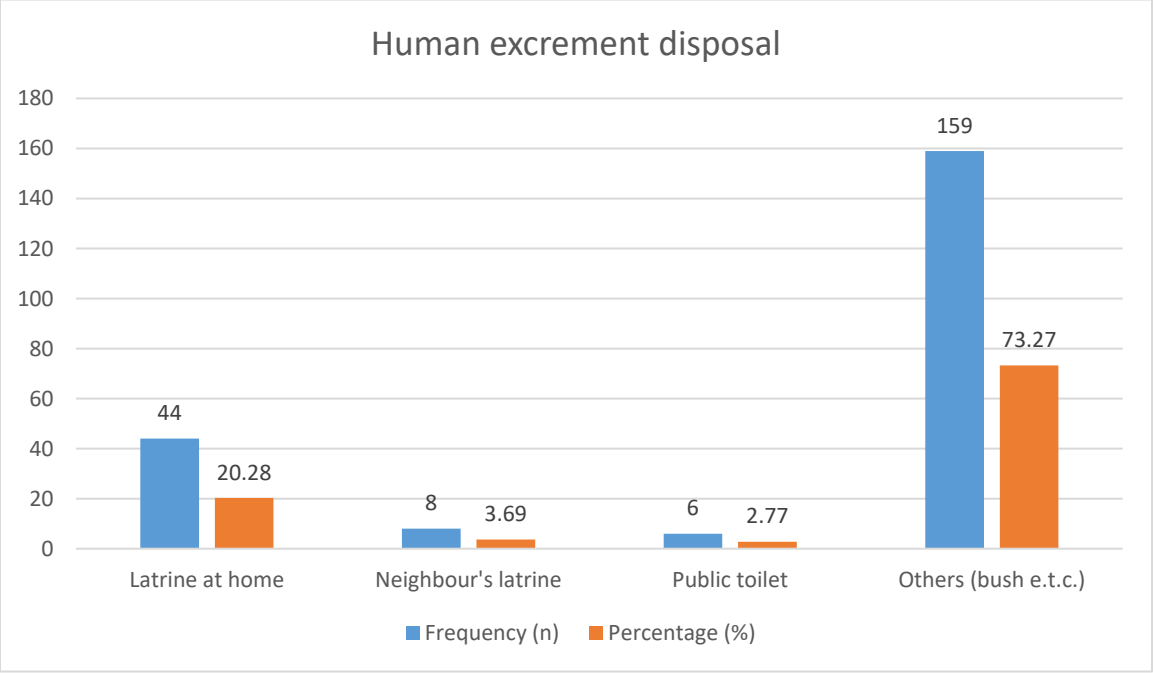
| **WATER SOURCE** | **FREQUENCY (n)** | **PERCENTAGE (%)** |
|---|---|---|
| Private tap | 20 | 9.22 |
| Public tap | 70 | 32.26 |
| Public well / water hole | 105 | 48.39 |
| Rain water | 22 | 10.14 |
| **TOTALS** | **217** | **100** |
| | | |

| TREATMENT METHOD | FREQUENCY (n) | PERCENTAGE (%) |
|---|---|---|
| Boiling | 14 | 6.45 |
| Filtering | 4 | 1.84 |
| Chlorination | 40 | 18.43 |
| None | 159 | 73.27 |
| **TOTALS** | **217** | **100** |

The most common source of water for regular domestic use was public well / water hole (48.39%) followed by public tap (32.26%). Despite the likelihood of the fact that these water sources are highly contaminated, a large proportion (73.27%) did not treat the water before using it.

### 4.4.3. HUMAN WASTE DISPOSAL

*Figure 8: How the caregivers disposed of human waste at home (N=217)*




Majority of the households did not own their own pit latrine and used other means of human waste disposal. 159 (73.27%) either went to the family garden, or the bush to ease themselves. The ones that had access to toilet facilities either used a public one (2.77%), a neighbor's (3.69%) or their own (20.28%). All the ones that had toilet facilities affirmed the presence of doors in the latrines and toilets and the average number of users per day were 7.

### 4.4.4. HANDWASHING PRACTICES

The caregivers average number of handwashing was 8 times the previous day. They washed hands before and after each main meal i.e. breakfast, lunch and supper. All affirmed that they routinely washed hands after each toilet visit even the ones that eased themselves in bushes and gardens. The most common reasons offered for handwashing were to remove dirt, soil, or food debris and kill germs to stay healthy.

# CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

## 5.0. INTRODUCTION

This chapter deals with the discussions of the study findings, the conclusions arrived at and the recommendations derived for the various stakeholders involved.

## 5.1. DISCUSSIONS OF THE STUDY FINDINGS

### 5.1.1. KNOWLEDGE OF RESPONDENTS CONCERNING DIARRHOEA PREVENTION

The prevalence of diarrhoea among the under-fives was 15.67%. The knowledge of the respondents concerning diarrhoeal diseases and their prevention was adequate. All (100%) of them had the knowledge on the fact that diarrhoea is the passage of loose stools and that the main causes of diarrhoea were all mainly related to poor hygienic practices. They also were aware that water treatment, to a large extent, reduced the incidence of diarrhoeal diseases among the under-fives and the general population. Their knowledge on the importance of breastfeeding in the prevention of diarrhoeal diseases among the under-fives was also satisfactory.

The knowledge level of the caregivers in this study was higher than that of the Tanzanian caregivers in (Mwambete & Joseph, 2010) where only a third of the caregivers had adequate knowledge about diarrhoea and its prevention. It was also more impressive than the 7% among Nigerian caregivers in the study by (Ogunrinde et al., 2012), the 29.3% in (Okoh & Alex-Hart, 2014) study, the 47% in the study by Padhy and friends all in Nigeria. Closer home, in Ethiopia, (Merga & Alemayehu, 2015) did not have as impressive results either. In this study, the knowledge level was found to be at 37.5%. it was even better than the 42.4% reported in Uganda by (USAID, 2012).

### 5.1.2. CAREGIVERS' ATTITUDES TOWARDS DIARRHOEA AND DIARRHOEA PREVENTION AMONG UNDER-FIVES

Despite the impressive knowledge they possessed, the caregivers' attitudes towards diarrhoea prevention was poor to say the least. This poor attitude ultimately leads to inappropriate practice in as far as diarrhoea prevention is concerned.

Most of the caregivers did not use the common water treatment methods like boiling and filtering and still most did not know the likelihood of their under-fives getting sick with diarrhoea. They were unsatisfied with their water supply in as far as regularity and quality was concerned but still most of them did not treat it.

This less than favorable attitude seen in the caregivers in our study in as far as diarrhoea and diarrhoea prevention is concerned is not unique, rather it mirrors the results of several other studies conducted elsewhere. For instance, (Ogunrinde et al., 2012) in North-western Nigeria had not so different results. In his study, he found that more than 50% of the caregivers had a poor attitude towards diarrhoea prevention among the caregivers. The Ethiopian women of Assosa District too had similar attitudes (Merga & Alemayehu, 2015). Study findings from Temeke, Tanzania were not different either. In the study, only a third of the caregivers had a favorable attitude towards diarrhoea prevention (Mwambete & Joseph, 2010). In Southern Odisha though, the caregivers had better attitudes compared to those of the caregivers in this study. In that study, about 85% of the caregivers had a good attitude towards diarrhoea prevention, a fact that reflected their excellent knowledge (Padhy et al., 2017). Back home in Uganda, similar results were seen in a study conducted by (USAID, 2012). The caregivers' attitudes in that study was found way below favorable.

### 5.1.3. CAREGIVERS' PRACTICE CONCERNING DIARRHOEA PREVENTION AMONG THE UNDER-FIVES.

Breastfeeding young children protects against diarrhoea and other infections in the breastfed baby in two ways. First, breast milk confers immunity to the baby and enables them to fight infections, diarrhoea included. Secondly, breast milk is tolerable by the still immature gastrointestinal system of the baby as opposed to other foods introduced early. Exclusively breastfeeding the baby till the time that the gastrointestinal mucosa matures protects them against diarrhoea.

The caregivers' practice, in as far as exclusive breastfeeding is concerned, leaves a lot to be desired. More than 63% of the under-fives in this study were not exclusively breastfed. This predisposed those particular children to diarrhoeal disease for the reasons mentioned above.

Ownership and use of pit latrines was also way below recommended levels. The number of people per latrine was also high and thus hygiene, possibly would get compromised. This enables easy and fast spread f diarrhoeal diseases particularly the under-fives who are the most vulnerable in the population. This is even possible in the background of the impressive handwashing practices seen among the caregivers. Regular and proper use of pit latrines every time is a key component of diarrhoeal infections.

We also see that most of the caregivers sought medical advice whenever their under-fives got diarrhoea. This alone is not enough because prevention is better than cure. Their prevention practices are still very wanting.

The unimpressive practice seen in this study, despite the impressive knowledge-base, is not unique to this study in fact, caregivers in the (Ogunrinde et al., 2012) study had equally unimpressive results in as far as diarrhea prevention was concerned.

Our caregivers can do better, caregivers in other studies elsewhere have done better. For instance, caregivers in (Kariuki et al., 2012a), (Mwambete & Joseph, 2010) and (USAID, 2012) all had better diarrhoea prevention practices than those in our study.

## 5.2. CONCLUSIONS

In spite of the impressive knowledge on diarrhoea and diarrhoea prevention of the caregivers of the under-fives of Olufu Sub-county, their attitudes and practice do not reflect this. Their attitude and practice leave a lot to be desired.

## 5.3. RECOMMENDATIONS

### 5.3.1. TO THE CAREGIVERS OF UNDER-FIVES OF OLUFU

Translate their impressive knowledge into attitude change and better practice especially in exclusive breastfeeding and human waste disposal. It is not enough to be unsatisfied by the quality of their water rather they should employ the easy treatment methods available such as boiling and filtering the water. This will go a long way in breaking the path of transmission.

### 5.3.2. TO THE HEALTHCARE SECTOR IN OLUFU SUB-COUNTY

More outreaches and awareness creation is needed on the importance of exclusive breastfeeding in children health. Encouragement of the practice of exclusive breastfeeding is needed and the caregivers motivated to ensure uptake of the practice. A means of evaluation and scoring on exclusive breastfeeding uptake needs to be devised. Lastly, upscaling the practice of discharging all children under-five with ORS or teaching caregivers on how to make safe ORS at home needs to be done.

### 5.3.3. TO THE LOCAL ADMINISTRATION OF OLUFU SUB-COUNTY

More toilets are needed. Policies to create awareness on the importance of owning, regularly and properly using a pit latrine for human waste disposal should developed or improved. Community involvement in ensuring that at least every homestead owns and uses a pit latrine is needed and where funds might be needed, the local administration to be able to source channels of getting the

funds. Also, protection of the water wells and water holes that are a common source of domestic water for the people of Olufu is required. Efforts are needed and ensure that all these water wells / holes are protected against contamination. More wells / holes need to be built strategically so as to avail this important resource. Lastly, the mains water supply coverage network needs to be expended. Plans need to be put in place so that to ensure stepwise and progressive expansion of tap water to the people of Olufu sub-county.

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## APPENDICES

### APPENDIX I: CONSENT FORM FOR THE CAREGIVERS

I, **Tiko Annet,** a student of Bachelor of Medicine and Surgery at KIU-WC, would like to ask you for permission to participate in this study. The purpose of this study is for partial fulfilment of academic requirements for the award of Bachelor of medicine and Surgery.

The study is to investigate the CAREGIVERS' KNOWLEDGE ATTITUDE AND PRACTICES ON PREVENTION OF DIARRHEA IN CHILDREN UNDER FIVE YEARS IN OLUFU SUB COUNTY. The outcome of this study is expected to guide policy and planning regarding child health care practices. It is also envisaged to generate further researchable questions which may help improving the knowledge and better practices to improve health of children under five years. I regret that your participation in this study will not have any direct personal benefits but as stated earlier may guide policy makers towards making better policies towards child health. This exercise might take about 5-10 minutes of your time to complete and all information will be strictly confidential and will only be used for this study purpose.

Do you have any question?

May I proceed with the interview now?

Yes☐ No☐ Thank you!

**Sign**.....

**Date**.....

**Name of Interviewer:** ….....

## APPENDIX II: QUESTIONNAIRE

**Questionnaire No.....**

**SOCIO-DEMOGRAPHIC PROFILE**

1. Primary caregiver in the household

☐ 1. Mother 3. Aunt ☐

☐ 2. Father 4. Other Relative ☐

2. What is your age? ☐

3. What is your religion?

☐ 1. Moslem 3. Traditional ☐

☐ 2. Christian 4. Other ☐

4. What levels of education have you attained?

☐ 1. None 3. Secondary ☐

☐ 2. Primary 4. Tertiary ☐

6. Marital Status

☐ 1. Single 3. Separated / Divorced ☐

☐ 2. Married 4. Widow ☐

7. Currently what do you do for a living? (Occupation)

1. Housewife ☐ 3. Student ☐

2. Business ☐ 4. Employed ☐

5. Other ☐

8. What is your Next of Kin's Occupation?

1. None ☐ 2. Self-employed/ Business ☐

3. Employed ☐ 4. Other ☐

9. How many people live in the household on a regular basis? ☐

10. How many Children live in the household on a regular basis? ☐

☐

11. Age of the child?

12. How much money do you spend in a day?

1. Ug shs. 2500 or less ☐ 2 . More than Ug shs 2500 ☐

**KNOWLEDGE**

13. What do you understand by the term diarrhea or how can you recognize diarrhea?

1. Passing of watery stool one time in a day ☐
2. Passing of watery stool two times in a day ☐
3. Passing of watery stool three times in a day ☐
4. Passing of watery stool four in a day ☐
5. Other ☐ specify……..

15. Has your child suffered from diarrhea in the past 2 weeks?

1. Yes ☐ 2. No ☐

16. What do you think are the causes of diarrhea in children? (Tick below as mentioned by respondent)

| | |
|---|---|
| Insects/Mosquitoes | |
| Changes in weather | |
| Dirty/Unsafe drinking water | |
| Eating bad food | |
| Bad spirits | |
| Poor personal hygiene | |
| Bad smells | |
| Malaria | |

17. What form or type of diarrhea has you child suffered from?

1. With Blood ☐ 3. With no Blood ☐

2. Very watery ☐ 4. Other ☐

18. The last time when your child had diarrhea, what did you do at home to try and help your child recover?

1. Nothing ☐

2. Give less fluid ☐

3. Gave home mixture of oral rehydration salts ☐

4. Give more food ☐

5. Gave the child more fluids ☐

6. Give less food ☐

7 . Other ☐

19. How do you get information about diarrhea?

☐ 1. Television 3. From the Hospital ☐

☐ 2. Radio4. Other ☐

20. What do you do when your children have diarrhea?

1. Nothing, no treatment ☐ 4. Give ORS ☐

2. Take to a clinic/doctors. ☐ Visit a traditional healer ☐

3. Give medicine at home6. ☐ Other ☐

21. In your opinion, what should be done to prevent diarrhea incidences and to improve child health?

1. Promote breastfeeding ☐ 4. Build more and use latrines ☐

2. Eat clean/ safe foods ☐ 5. Complete course of immunization ☐

☐ 3. Hand washing 6 . Keep clean surrounding ☐

7. Other ☐

**ATTITUDES**

| | Always | Some times | Rarely/Never | Don't know |
|---|---|---|---|---|
| Boiling | 1 | 2 | 3 | 4 |
| Filtering with cloth | 1 | 2 | 3 | 4 |
| Chlorine | 1 | 2 | 3 | 4 |

22. **In the next month how likely do you think your child will get diarrhoea.**

☐ 1. Very Likely 3. Not likely ☐

☐ 2. Likely 4. Other ☐

23. **Does your family use any of these methods to clean your water for drinking?**

| | Strongly Agree | Somewhat agree | Disagree | No Response |
|---|---|---|---|---|
| It is normal for children to get diarrhoea regularly | | | | |
| I can prevent my children from getting diarrhoea | | | | |
| We have enough water in our house-hold for everyone to keep themselves clean. | | | | |
| Germs are the cause of getting diarrhoea | | | | |

24. For each the questions answer strongly agree, somewhat agree, disagree, no response.

25. Is the caregiver satisfied with their current water supply situation?

1. Generally ☐ satisfied 3.Very dissatisfied ☐
2. Somewhat ☐ satisfied

26. Why is the caregiver dissatisfied with your current water supply situation?

1. Too expensive ☐ 3. Not enough water for needs ☐
2. Takes too much time to get water ☐ 4. Poor quality water/ unsafe ☐

**PRACTISES**

27. How long do you exclusively breast feed your child? ☐

28. Which of the following water sources does your family use on a regular basis?

1. Private tap ☐ 3. Pubic tap ☐
2. Public well ☐ 4. Rain water collection ☐
5. Other ☐

29. What methods do you use for cleaning water?

1. Boiling ☐ 3. Chlorine ☐
2. Filtering with cloth ☐ 4. Other ☐

30. Where do members of your family go to the Ease yourself?

1. Use the latrine ☐ in our home 3. Public toilet ☐
2. At neighbor's ☐ toilet4. Other ☐

31. How many doors does the latrine have? ☐

32. How many families share the latrine? ☐

33. Does the latrine have hand washing bay (if possible verify)

1. Yes ☐ 2. No ☐

34. Has the pit ever been emptied?

1. Yes ☐ 2. No ☐ 3. Do not know ☐

35. If yes how was the pit emptied?

1. Vacuumed out by a machine ☐ 3. Punctured on the side during rains ☐
2. Bucket by hand ☐ 4. Other ☐

36. Where do your children in your family usually urinate and defecate?

☐ 1. Potty ☐ 4. Public latrine

☐ 2. Diapers ☐ 5. Where they can/in the open

☐ 3. Use latrine in your home ☐ 6. Other

37. At about what age do your children start using the latrine? ☐

38. Thinking about yesterday, how many times did you wash your hands? ☐

39. Yesterday, can you tell me when you washed your hands? Tick all mentioned

1. After using a toilet ☐ 4. Before Breastfeeding ☐
2. After cleaning up a child ☐ 5. After eating ☐
3. Before preparing food 6. Other ☐

40. What are the main reasons that you wash your hands? Tick all mentioned by the caregiver.

1. Remove dirt/soil/food ☐ 3. Appear clean/Decent ☐
2. Kill germs/be healthy ☐ 4. Other ☐

41. How do you dispose off your garbage?

1. Burn ☐ 3. Communal Damping site ☐
2. Own rubbish pit ☐ 4. Other ☐

**END THANKS**

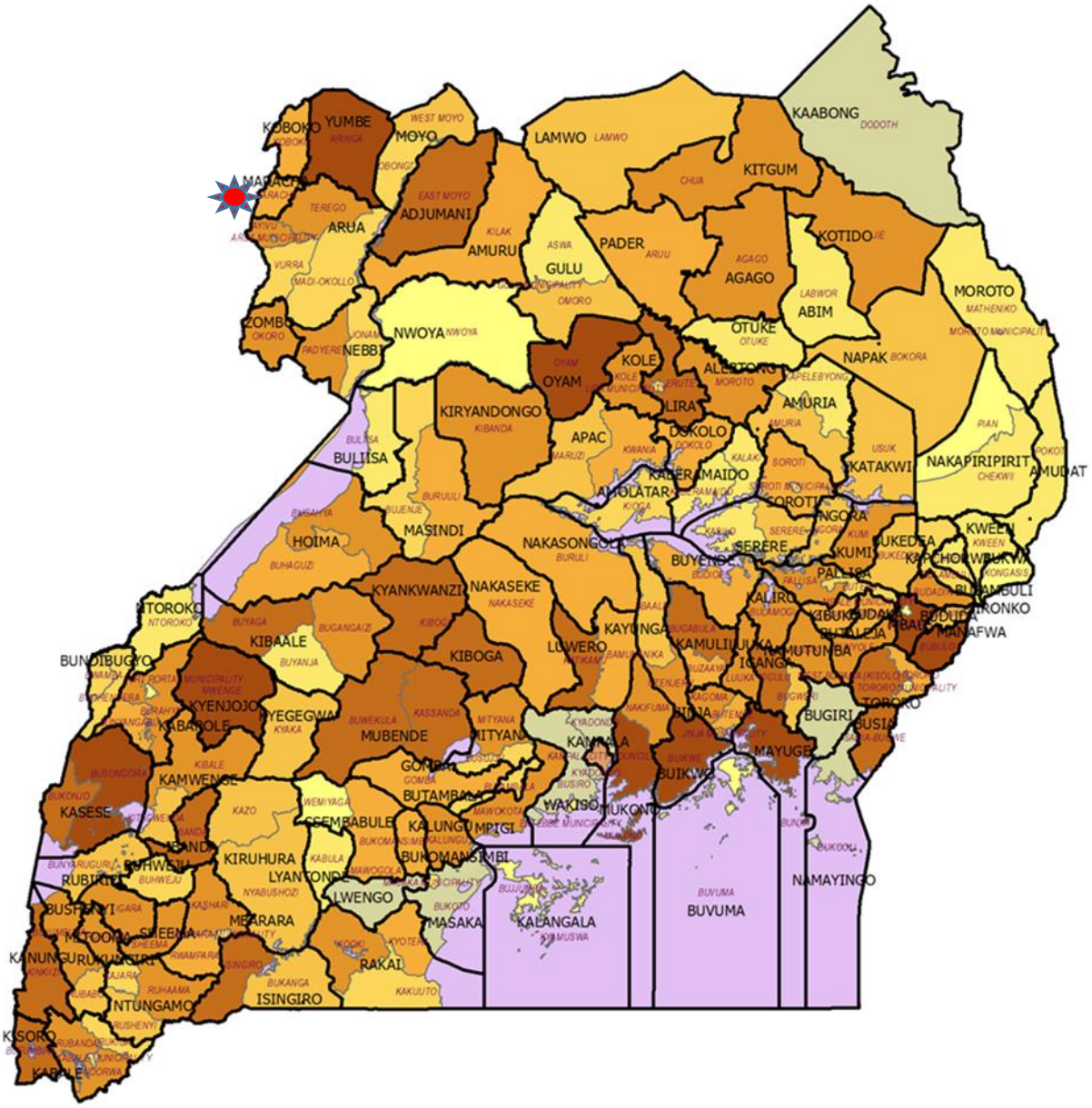
## APPENDIX III: WORK PLAN

| Activity | August 2018 | September 2018 | October 2018 | November 2018 | December 2018 |
|---|---|---|---|---|---|
| Proposal writing and development | | | | | |
| Proposal presentation | | | | | |
| Proposal approval | | | | | |
| Data collection | | | | | |
| Analysis, Dissertation writing and dissemination of results | | | | | |

## APPENDIX IV: BUDGET

| Items | Unit | Unit Cost | Cost (UGX) |
|---|---|---|---|
| **Stationery** | | | |
| Papers | 10 reams | 18,000= | 180,000= |
| Pens | 50 | 500= | 25,000= |
| Pencils | 2 | 100= | 200= |
| Data analysis (SPSS) assistant | | | 200,000= |
| **Secretarial Work** | | | |
| Type setting | 120 pages | 1,000= | 120,000= |
| Photocopying | 480 pages | 200= | 96,000= |
| Biding | 4 Books | 2,0000= | 80,000= |
| **Transport** | | | |
| Data Collection | 8 times | 20,000= | 160,000= |
| Meeting Supervisor | 4 times | 20,000= | 80,000= |
| Secretarial work | 4 times | 20,000= | 80,000= |
| **Meals** | | | |
| Data Collection | 8 times | 15,000= | 120,000= |
| Secretarial work | 10 times | 10,000= | 100,000= |
| **Medical needs** | | | |
| Sterile gloves | 4 boxes | 15,000 | 45,000 |
| Non sterile gloves | 3 boxes | 5000 | 15,000 |
| Miscellaneous | | | 100,000= |
| **Grand Total** | | | **1,301,200** |

## APPENDIX V: MAP OF MARACHA DISTRICT (RED STAR & RED INSET)




Introductory letter

KAMPALA INTERNATIONAL UNIVERSITY – WESTERN CAMPUS
EXPLORING THE HEIGHTS

P O BOX 71, ISHAKA UGANDA
Tel: +256 200923534
www.kiu.ac,ug

**OFFICE OF THE DEAN**
**FACULTY OF CLINICAL MEDICINE & DENTISTRY**

10/10/2018

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

**RE: TIKO ANNET (BMS/0024/133/DU)**

The above named person is a fifth year student at Kampala International University pursuing a Bachelor of Medicine, Bachelor of Surgery (MBChB) Programme.

He wishes to conduct his student research in your community.

**Topic:** Knowledge, attitude and practices of care givers of children under 5yrs who have diarrhea at Kijumuro Health Centre III Olugge sub-county Maracha district

**Supervisor**: Dr. Mirembe S.K

Any assistance given will be appreciated.

K.I.U TEACHING HOSPITAL
08 OCT 2018
W.Campus
DEDI/ASSOCIATE DEAN FCM&D

Yours Sincerely,

S O Akib

**Dr. Akib Surat O**
**Deputy Executive Director/Assoc Dean (FCM & D)**

TELEPHONE: 0772- 471 338

*e-mail:* onzubop@yahoo.com

THE REPUBLIC OF UGANDA

THE DISTRICT HEALTH OFFICE
MARACHA DISTRICT LOCAL
GOVERNMENT
P.O. BOX 1
MARACHA

**September 6, 2018**

**Our ref: HEA/154/1**

**MS. TIKO ANNET**
**STUDENT DOCTOR,**
**KAMPALA INTERNATIONAL UNIVERSITY**

Dear Madam,

**PERMISSION TO COLLECT RESEARCH DATA FROM KIJOMORO HC III**

Reference is to yours dated 14th February 2018 in which the university is seeking permission for you to collect research data from Kijomoro HC III in Maracha district.

Conscious of the World Health Organization and World Bank recommendation of building and enhancing the competencies of Health workers as a pre-requisite to being productive, the District Health Team cleared and recommended you for further studies five years ago to pursue Human medicine and surgery.

I also note that Research is a partial requirement in fulfilment of the award but also most importantly the fact that the findings of your research shall feed in to the planning , implementation and monitoring of health care delivery system of Maracha district. I am glad your topic touches a core service are of care for the under five children, a component of the Reproductive Maternal, Neonatal, Child and Adolescent Health.

By copy of this letter therefore, I would wish to inform you that I have no objection to your request and grant you the permission to collect the data you need for your research. By the same copy, the In-charge of Kijomoro HC III is hereby informed.

Wishing you the best

Yours,

DISTRICT HEALTH OFFICER
MARACHA DISTRICT LOCAL GOV'T
06 SEP 2018
P.O. BOX 1 MARACHA

**Dr. Paul Onzubo**
**DISTRICT HEALTH OFFICER**

**Copies:**
**In-charge Kijomoro HC III**