CARETAKERS’ HOME MANAGEMENT AND HEALTH SEEKING BEHAVIOUR FOR DIARRHOEAL DISEASES AMONG CHILDREN UNDER FIVE YEARS IN ELDORET MUNICIPALITY, KENYA

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DECLARATION

This thesis is my original work and has not been presented for degree or other awards in any University.

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DEDICATION

This work is dedicated to my dear husband Jacob and our beloved daughters, Jullie, Lissa and Ellsie.
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OPERATIONAL DEFINITION OF TERMS

**Appropriate Healthcare-seeking Practice:** Care sought from skilled health care provider in government health facilities and private hospitals/clinic as well as use of Oral Rehydration Solution (ORS) and zinc supplements in the management of diarrhoea.

**Caretaker:** This is a person who is responsible of taking care of a child and providing a variety of services to care recipient (a child) such administering medications, assisting with daily tasks (including personal care, meal planning and preparation, and eating as well as walking, sitting down and standing up), meeting with health providers, daily supervision and activity.

**Diarrhoea:** Diarrhoea is the passage of three or more loose or watery stools per day, or more frequently than is normal for the child. It is usually a symptom of gastrointestinal infection, which can be caused by a variety of bacterial, viral and parasitic organisms (WHO, 2009).

**Episode of Diarrhoea:** An episode of diarrhoea begins with a 24-hour period when a child starts to diarrhoea and ends on the last day without three or more loose or watery stools.

**Healthcare-seeking Practice:** Any activity undertaken by individuals who perceive themselves or their children to have a health problem for the purpose of finding a remedy. This is based on the recognition of symptoms, which are interpreted by individuals who then proceed to address the problems.

**Inappropriate Healthcare-seeking Practice:** Other types of care which are not according to the definition of appropriate healthcare-seeking practice such as purchasing medicine from a pharmacy or shops without prescription, home remedies
and traditional healers. In the current study it also includes those who take no action for the perceived illness.

**Under-five Children:** Children from 59 months and below.
ABBREVIATIONS AND ACRONYMS

AIDS: Acquired Immunodeficiency Syndrome
CBS: Central Bureau of Statistics
CDC: Centre for Disease Control
CI: Confidence Interval
DHS: Demographic and Health Survey
HF: Health Facility
HIV: Human Immunodeficiency Virus
HW: Health Workers
IMCI: Integrated Management of Childhood Illness
KDHS: Kenya Demographic Health Survey
MCH: Maternal and Child Health
MDG: Millennium Development Goal
MOH: Ministry of Health
NGO: Non Governmental Organization
OR: Odds Ratio
ORS: Oral Rehydration Solution
SPSS: Statistical Package for Social Sciences
UNICEF: United Nations Children’s Education Fund
WHO: World Health Organization
ABSTRACT
Diarrhoea remains the second leading cause of death in children under 5 years of age in sub-Saharan Africa. Health care seeking behaviour for diarrhoea varies by context and has important implications for developing appropriate care strategies and estimating burden of disease. The study examined how a diarrhoea episode is handled, as well as how other factors influence the home management and health seeking behaviour with regards to diarrhoea episodes in Langas and Huruma estates of Eldoret Municipality, Kenya. The objective of the study was to determine the factors influencing caretakers’ home management and health seeking behaviour with regards to diarrhoeal diseases among children under five years in Eldoret Municipality. The study employed a descriptive cross sectional research design. The study target population consisted of 1,256 adult home caretakers and 35 officials from the Ministry of Health in Eldoret Municipality leading to total of 1,291 respondents. A sample of 377 households was selected through systematic sampling technique, where every 4th household was selected to participate. The researcher also employed systematic sampling technique to select the 11 county officials from the Ministry of Health. The researcher therefore selected the sample size of 388 respondents from the target population of 1,291 respondents. The study used both secondary and primary data. The secondary data was obtained from the records while the primary data was obtained from the respondents through questionnaires and interview schedule. Data collected was analyzed both quantitatively and qualitatively. The statistical package for social sciences (SPSS V.20) was used for data analysis. Descriptive statistics (frequencies, mean and percentages), chi square tests and regression were used in the analysis. P-value less than 0.05 were considered significant. The study yielded a response rate of 95.4% since out of 377 questionnaires that were given out, 360 (95.4%) were filled and returned. The study findings showed that majority of respondents 301 (83.6%) agreed with the view that diarrhoea was a major problem among children under the age of five years in the region. It was found out that majority of the respondents 111 (30.8%) identified poor hygiene and poorly disposed excreta-refuse as the main cause of diarrhoea among children in the region. It was also found from the study that all the respondents sampled were at least aware of the signs and symptoms of diarrhoea in children with majority of them correctly identifying the cardinal signs of diarrhoea. The study findings further showed that washing hands before eating/preparing food was the main measure to undertake when prevent children from contracting diarrhoeal diseases. The findings showed that a majority of respondents 107 (29.3%) use oral rehydration solution the immediate treatment measures for a sick child suffering from diarrhoea. The results indicated that there was a significant relationship between age (p=0.010) marital status (p=0.022), education level (p=0.011) and home management of diarrhoea as these were socio-demographic factors associated with home management of diarrhoea. Occupation, age and education level were socio-demographic factors significantly associated with health seeking behaviour. Education was a significant factor influencing home management of diarrhoea (p=0.013). Those with primary education were less likely to practice home management of diarrhoea compared to those with tertiary level (AOR; 1 - 0.427= 57%). The researcher concluded that the prevalence of diarrhoea in the study areas is high and that it is a major problem among children under the age of five years. Efforts to educate the caretakers about the importance of seeking care and proper management of diarrhoeal and other childhood illnesses should be intensified.
CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

According to WHO (2010), Diarrhoea is defined as the passage of 3 or more loose or liquid stools per day, or more frequently than is normal for the individual. It is usually a symptom of gastrointestinal infection, which can be caused by a variety of bacterial, viral and parasitic organisms. Diarrhoea is a common disorder of the gastrointestinal system experienced by most of the population sometime in their lives. Generally it is self-limiting and may not require any intervention. Intervention may be considered necessary by patient because of their beliefs and attitude towards normal bowel function (Hogue, 2010). The causes of diarrhoea include various diseases, medications, dietary changes, food or water contamination and psychological distress.

Diarrhoeal diseases remain the major cause of childhood morbidity and mortality in developing countries, especially in African countries. Each year at least 3 million children under the age of five years die in the developing world due to environmental related illnesses, inadequate water supply and poor sanitation (Kaseje et al., 2008). Diarrhoea continues to be a public health problem in many countries, particularly in developing ones. Despite the tremendous advances in medicine and technology over the last decades, diarrhoea diseases are still the main causes of deaths in children under the age of five years. On average, children below three years of age in developing countries experience three episodes of diarrhoea each year (WHO, 2009).
Caretakers’ home management and health seeking behavior refers to an act of taking care of a child and providing a variety of services to care recipient (a child) such as administering medications, assisting with daily tasks (including personal care, meal planning and preparation, and eating as well as walking, sitting down and standing up), meeting with health providers, daily supervision and activity (especially when there is cognitive impairment such as Diarrheal diseases) (Ahmed et al, 2009). Maternal practices regarding health care have been recognized as an important social and anthropological factor behind the high mortality rates among children aged less than five years. Maternal literacy and health education, socioeconomic status, practices, culture, beliefs, practices and access to health care are among factors contributing to the high mortality rates caused by diarrhoea (Negussie, 2008).

Globally, diarrhoeal diseases are also among the leading causes of morbidity and mortality in under-five children (WHO, 2003). Children of less than five years of age have over three diarrhoeic episodes per year, and more than one-third of their deaths are associated with diarrhoea. It is estimated that 1.5 billion diarrhoeic episodes and 2 million deaths in children less than five years old occur in the world each year (Widdoson, 2010).

In Africa, diarrhoeal diseases among under five years of age have been regarded as an epidemic that requires proper attention and good caretakers’ home management as well as early health seeking (UNICEF, 2000). In Tanzania for instance, diarrhoeal diseases are rank third after malaria and respiratory infections as a cause of death in less than five years children in Tanzania. In Tanzania, the main
Aetiological agents for diarrhoea in children include Escherichia coli, Shigella spp, Giardia lamblia and rotavirus (Scheider et al., 2009).

In Kenya, as in other developing countries, diarrhoeal diseases are among the major causes of child deaths (KNBS and ICF Macro, 2010). According to the Kenya Demographic and Health Survey (KDHS) 2008/09, treatment and care-seeking for major illnesses for children remain poor in Kenya. The prevalence is even worse in the informal settlements, which are characterized by poor sanitary conditions among other problems (Magadi et al., 2008). In addition to lack of social amenities, informal settlements are also typified by overcrowding, insecurity and high levels of unemployment, thus they have turned out to be hubs of ill health (Kyobutungi et al., 2008).

Most of the deaths that occur in Kenya among children under the age of 5 years are due to illnesses that can be prevented or effectively treated using simple interventions (Gove, 2007; World Health Organization, 2009). Prompt and appropriate healthcare-seeking is one of the ways that can prevent many of these deaths. Studies have shown that practicing appropriate healthcare-seeking has great prospects of reducing morbidity and mortality due to childhood illnesses (Negussie, 2008). The poor access to formal health care services in the suburbs settlements in most towns in Kenya has led to the proliferation of a largely unregulated health care system with the high levels of morbidity and mortality as a result of diarrhoeal diseases in such areas being reported due to lack of access to safe water and
sanitation. It is also likely that inappropriate healthcare-seeking practice is rampant therein. Understanding health care practices in town suburb areas therefore is essential in improving the health care systems that serve the urban poor, through programs that target both users and suppliers (APHRC, 2000). This has the potential of ultimately reducing childhood mortality among the urban poor. Important aspects in the appropriate healthcare-seeking practice and management of childhood illnesses include early identification of disease, early treatment, diligence with treatment, and promptly opting for more effective treatment (D’Souza, 2008).

1.2 Problem Statement

Ideally, the success of diarrhoeal diseases control strategies depends upon the appropriateness of caretakers’ home management and health seeking behavior, as well as general perceptions of diarrhoeal diseases. It is estimated that 1.5 billion diarrhoeic episodes and 2 million deaths in children less than five years old occur in the world each year, and worse still, it is said to cause more child deaths than malaria, measles and AIDS combined (WHO, 2009).

Currently, diarrhoea continues to be a major cause of death among young children and it has major economic impacts. Although it is a preventable disease, the incidence rates of diarrhoeal diseases continue to rise and it is currently the second-leading killer of under-five children in the world. In Kenya, it is also a leading cause of childhood morbidity and mortality estimated at 53.6% according to the study by the ministry of health in Kenya (KNBS and ICF Macro, 2010).
Delay in seeking health care or not seeking care at all, and ineffective treatment choices can compromise the outcome of a child’s health status. Improving the behavioral practice in the care of children in the homes therefore plays an important role in improving the health status of children. In addition Proper home management can reduce morbidity and mortality due to diarrhoea (WHO, 2002).

1.3 Justification of the Study

The rapid growth of urban centers in many sub-Saharan African countries has occurred largely in an environment of poor economic performance and lack of urban planning and regulation. This has resulted in an increase in the number and size of informal settlements or slums in many cities. There is a high mortality rate in urban slums and in rural farming communities, close association of diarrhoea to socio-economic conditions and poverty. Langas and Huruma estates in Eldoret Municipality where the study was carried out are urban slums in Eldoret town.

Research is needed to identify home management practices and health seeking behavior of Kenyan mothers in controlling their children's diarrhoea. The results of the current study will help decision-makers in Kenya to take a holistic approach in dealing with problems such as improving the planning and implementing of more effective management of diarrhoeal problems to prevent diarrhoea diseases in the future.
It is hoped that the results of this study will provide relevant information on the healthcare-seeking practices of caretakers of under-five children in the slums, which will be useful in determining the type of intervention programmes that can be put in place to alleviate the myriad of health problems in the slums, with particular reference to diarrhoea. It will also assist in policy formulation that will improve healthcare-seeking and management practices and reduce child morbidity and mortality due to diarrhoeal diseases in Kenya. In addition, this will help in planning of diarrhoea prevention and control programs thus bringing the country closer to the achievement of the MDG 4 on reduction of child mortality.

1.4 Research Questions

i. What is the level of knowledge and practices of the caretakers in home management of diarrhoea disease?

ii. What is the health seeking behaviour of caretakers in management of diarrhoeal diseases in children under-five years?

iii. What are the socio-demographic factors that influence the health seeking practices of caretakers in management of diarrhoea diseases in children under-five years?

1.5 Objectives of the Study

1.5.1 Broad Objective

To determine the factors influencing caretakers’ home management and health seeking behaviour with regards to diarrhoeal diseases among children under five years in Eldoret Municipality.
1.4.2 Specific objectives

i. To determine caretakers knowledge and practices on home management of diarrhoea diseases.

ii. To determine the health seeking behaviour of caretakers in management of diarrhoeal diseases in children under-five years.

iii. To determine socio-demographic factors that influences the health seeking practices of caretakers in management of diarrhoea diseases in children under-five years.

1.6 Significance of the Study

The study will be useful to the Ministry of Health as it will provide it with the necessary information to help curb the problem of diarrhoeal diseases among children under-five years in order to reduce the rate of mortality and morbidity caused by diarrheal diseases.

The study will help in formulating workable strategies for responding to the needs and problems of diarrhoeal diseases among under-five children especially in rural and poor urban settlements. For example, the kind of medical services and preventive measures needed, and how and where the services should be offered. Assessments also help in monitoring whether services are producing the desired effect and whether there is a need for a change in strategies. Results from the assessments should be used to create awareness about the causes of diarrhoeal diseases.
The study will be able to unearth the underlying issues concerning the impediments to reducing mortality of under-five years in relation diarrhoeal diseases. It is also an initiating document for other researchers to further discuss and improve the status of healthcare service among children in Kenya and beyond.

1.7 Limitations of the Study

The study relied on retrospective self-reporting. Conversely, during the study period, the researcher faced some constraints such as lack of sufficient time and permission to access some data. This was managed through making prior visits to establish the exact time to be used as well as seeking permission from relevant authorities. Some respondents did not complete answering the questions, while others failed to give genuine responses. The researcher appealed to the respondents individually for their utmost cooperation.

1.8 Scope and Delimitation of the Study

The study purpose was to determine the factors influencing caretakers’ home management and the health seeking behavior with regard to diarrhoeal diseases among children under-five years in Eldoret Municipality, Uasin Gishu County with the aim of establishing caretakers knowledge and practices on home management of diarrhoea disease, the health seeking behaviour of caretakers in management of diarrhoeal diseases in children under-five years, and socio-demographic factors that influences the health seeking practices of caretakers in management of diarrhoea diseases in children under-five years. The study scope was limited to both primary and secondary methods of data collection. The study scope was further limited to
those factors that only influence diarrhoeal diseases such as poor sanitation, unhealthy water supply and inappropriate healthcare-seeking practices.

The study delimited itself to Langas and Huruma estates in Eldoret Municipality, Uasin Gishu County which was considered the most appropriate places to carry out the study due to high population and poor hygienic conditions which are the main cause of diarrhoeal diseases. The study further delimited itself to home caretakers and children under-five years in various households in Langas and Huruma estates.

1.9 Assumptions of the Study
The researcher assumed that respondents would cooperate and give honest responses to the questions in the research tools. The researcher also assumed that all the sampled population had a common understanding on the issues in the tools of data collection. It was also assumed that the sample size chosen was adequate to enable the researcher draw a valid conclusion about the study.

1.10 Conceptual Framework
The conceptual framework employed in this study seeks to show the relationship of the variables under study.
The conceptual model used in this study shows the relationship between the independent variables (Caretakers’ knowledge and practices on home management of diarrhoeal diseases, health seeking behaviour of caretakers, and socio-demographic factors of caretakers that influence the management of diarrhoeal diseases among children under-five years) and the dependent variable which is diarrhoeal diseases.
It is established that the level of education of caretakers, their knowledge on water treatment, level of hygiene in the households and caretakers’ perception on diarrhoeal diseases influences much on the management of diarrhoeal diseases. Also the means of giving babies fluids such as locally/household made ORS, bottle water as well as food determines much on the health of such babies. This means that caretakers should always observe hygiene when giving such services.

In regards to Health seeking behaviour of caretakers, the study established that the time to seek medical care is a key to managing diarrhoeal diseases among children under the age of five years. This shows that good timing in seeking health medication is thus very necessary and important as well. In addition, the study indicates further that economic barriers such as lack of enough money to care and to purchase medical services in most households in the study area also influence on the management of diarrhoeal diseases. The knowledge on diarrhoea diseases among caretakers is as well important in curbing the condition and also easy access to health care contributes to a large extent on how to manage the situation of diarrhoeal diseases.

In specifying the factors influencing healthcare seeking practice, the framework proposes that healthcare-seeking practice is a function of a number of socio-demographic factors. The predisposing factors include age, occupation, sex, marital status and education level of the caregiver among other factors as indicated above.
These factors can work as independent variables or can interact with each other to influence the healthcare-seeking behavior and home management practices.

For instance, factors such as the occupation has influence on the healthcare-seeking practice of an individual, as, it is often assumed that the wealthier person is more likely to manage illness given that they are more likely to afford healthcare costs. Education is also said to have an influence on the healthcare-seeking practice as more educated persons are expected to be more informed on appropriate ways of seeking care compared to the less educated. Seeking appropriate health care or not, also has an influence on the health of the individual.
CHAPTER TWO: LITERATURE REVIEW

2.1 Overview

Childhood diarrhoea is responsible for two million deaths each year amounting to 18% of all child deaths globally (Murray et al., 2011). Although better sanitation, hygiene and access to care have successfully alleviated the burden of diarrhoeal diseases in developed countries (Clasen et al., 2011), diarrhoea remains the second leading cause of death in children under 5 years of age in the world, representing nearly one in five child deaths - about 1.5 million each year (UNICEF/WHO, 2009).

In sub-Saharan Africa, the etiology of diarrhoea is seldom known due to the lack of infrastructure for diagnosis. Further, improved hygiene has not had a major impact on some causes of diarrhoeal diseases, such as rotavirus, for which vaccination is now the recommended prevention strategy (WHO, 2009). As rotavirus vaccines have become available, considerable efforts have been made to document the burden of severe rotavirus diarrhoea with recent focus on Asia and Africa through the Asian and African Rotavirus Networks (Nelson, et al., 2009).

Despite these efforts, knowledge about the disease burden as well as the circulating strains is still lacking in many countries, such as Niger (Sanchez, et al., 2009). In Kenya, diarrhoeal diseases among children under five account for over 4.7% of all outpatient cases countrywide with the annual incidence of diarrhoea being at 3.5 to 4.6 episodes per child per year, making it one the of top child killers. Dehydration
caused by severe diarrhoea is a major cause of morbidity and mortality (O’reilly et al., 2007)

The objective of this study was therefore to explore the mothers’/caretakers’ perceptions on the causes of diarrhoea among under-fives and how it is managed at home before seeking help from skilled health service providers. The mothers’/caretakers’ practices/perceptions target among others, diarrhoea prevention and control through use of safe water supplies and sanitation facilities, food hygiene, correct management of diarrhoea at home, prompt referral of a sick child and adherence to advice and treatment.

2.2 The Concept of Diarrhoeal Diseases

Diarrhoea is the condition of having at least three loose or liquid bowel movements each day. It often lasts for a few days and can result in dehydration due to fluid loss. Signs of dehydration often begin with loss of the normal stretchiness of the skin and changes in personality. This can progress to decreased urination, loss of skin color, a fast heart rate, and a decrease in responsiveness as it becomes more severe. Loose but non watery stools in babies who are breastfed, however, may be normal (WHO, 2003)

The most common cause is an infection of the intestines due to either a virus, bacteria, or parasite, a condition known as gastroenteritis. These infections are often acquired from food or water that has been contaminated by stool, or directly from another person who is infected. It may be divided into three types: short duration
watery diarrhea, short duration bloody diarrhea, and if it lasts for more than two weeks persistent diarrhea. The short duration watery diarrhea may be due to an infection by cholera. If blood is present it is also known as dysentery WHO (2002). A number of non-infectious causes may also result in diarrhea including: hyperthyroidism, lactose intolerance, inflammatory bowel disease, a number of medications, and irritable bowel syndrome among other. In most cases stool cultures are not required to confirm the exact cause (WHO, 2003)

Prevention of infectious diarrhea is by improved sanitation, clean drinking water, and hand washing. Breastfeeding for at least six month is also recommended as is vaccination against rotavirus. Oral rehydration solution (ORS), which is clean water with modest amounts of salts and sugar, along with zinc tablets are the treatments of choice (Hempel et al., 2012). This treatment has been estimated to have saved 50 million children in the past 25 years. When people have diarrhea it is recommended that they continue to eat healthy food and babies continue to be breastfeed. If commercial ORS are not available, homemade solutions may be used. In those with severe dehydration, intravenous fluids may be required (Schiller, 2007). Most cases; however, can be managed well with fluids by mouth. Antibiotics, while rarely used, may be recommended in a few cases such as those who have bloody diarrhea and a high fever, those with severe diarrhea following travelling, and those who grow specific bacteria or parasites in their stool. Loperamide may help decrease the number of bowel movement but is not recommended in those with severe disease (Ejemot et al., 2008)
About 1.7 to 5 billion cases of diarrhea occur per year (WHO, 2003). It is most common in developing countries where young children get diarrhea on average three times a year. Worldwide, as of 2012, it is the second most common cause of deaths in children less than five (0.76 million or 11%). Frequent episodes of diarrhea are also a common cause of malnutrition and the most common cause in those less than five years of age. Other long term problems that can result include poor physical and intellectual development (Glass et al., 2003)

2.3 Causes and Clinical Presentation of Diarrhoea

Diarrhoea affects people of all ages, where loose and watery stools occurring more than three times in a day characterize it. It is a common problem that usually lasts for 24 hours or more and sometimes spontaneously disappears without any special treatment. Some of the major causes of diarrhoea are bacterial infections due to Campylobacter, Salmonella, Shigella, and Escherichia coli. Viral infections such as rotavirus, cytomegalovirus, hepatitis, and herpes simplex viruses also play a major role in diarrhoeal problems among both children and adults (UN Pop Division, 2000)

Similarly, food intolerances and intestinal parasites may also cause diarrhoea. Reactions to medicines such as antibiotics, and antacids containing magnesium may also attribute to diarrhoea. Chronic diarrhoea can be caused by chronic ethanol ingestion, though this kind of diarrhoea is atypical among children under 5-years-old (Longstreth et al., 2009).
Diarrhoea can be a symptom of injury, disease or food borne illness and is usually accompanied by abdominal pain, and often nausea and vomiting. Diarrhoea can also be a symptom of more serious diseases, such as dysentery, cholera, or botulism and can also be indicative of a chronic syndrome such as Crohn's disease. It is also an effect of severe radiation sickness. Diarrhoea can also be caused by excessive alcohol consumption, especially in someone who doesn't eat enough food. Stools that are liquid or watery are always abnormal and considered diarrhoea (Ahmed et al., 2009).

Diarrhoea can lead to dehydration and electrolyte imbalance, and those severely affected by it may need hospitalization. In infants, significant dehydration can occur within a couple of days. Diarrhoea results to loss of body fluids and salts leading to dehydration of varying severity. Severe dehydration may cause death especially in children and the elderly. Thus, if an individual who usually has one bowel movement each day begins to have three bowel movements each day, then diarrhoea is present—even though there are not more than five bowel movements a day, that is, there is not absolute diarrhoeal (WHO, 2009)

2.4 Empirical Review

This subsection discusses the objectives of the study empirically in relation to the past literature studies
2.4.1 Caretaker’s Knowledge and Home Practices of Diarrhoea Management

The importance of mothers’ education regarding infant and child mortality has been well established and widely accepted. It is generally agreed that maternal education acts as an independent determinant of infants and child mortality. Maternal education influences child survival through many pathways, such as enhancing socio-economic status, greater health choice for children, including interaction with medical personnel (Kaseje, 2008).

It’s obvious that education increases mothers’ knowledge about diarrhoea and increases mothers’ perception to recognize the disease. Goldman, (2010) indicates that mothers’ education and the likelihood that she would know the correct causes of the disease are positively correlated. Knowing the causes, signs and symptoms of diarrhoea will help mothers to take care of their children.

Diarrhoea remains one of the leading killers of young children. Perceptions of mothers regarding causes of diarrhoea in children are a recipe to timely and proper management at home and subsequent referral for skilled care. The education of mothers on home management of diarrhoea and the proper use of ORS can significantly reduce complications related to diarrhoea.

A study by Ene-Obong et al., (2010) in Nigeria revealed that majority of mothers perceived that diarrhoea was caused by teething. In most of the cases, mothers treated diarrhoea with a combination of drugs including antibiotics, anti-diarrhoeal and herbal medicine. These drugs were prescribed mainly by mothers themselves and local shopkeepers. Knowledge on the adverse effects of the drugs was found to
be minimal hence underscoring the need for appropriate primary care education among mothers. Bhutta (2010) indicated that a two-week course of zinc once daily significantly reduced severity and duration of diarrhoea and mortality in young children. The need for adequate instructions to the mothers on administration of the zinc tablets was underscored.

A study by Ellis et al., (2011) in Mali revealed that although nearly all mothers knew that Oral Rehydration Solution (ORS) could replace lost fluids, its inability to stop diarrhoea caused them to seek antibiotics from local markets, traditional medicines or anti-malarial to cure the illness. Parents often deemed ORS insufficient and judged that an additional treatment should be combined with ORS to cure diarrhoea.

2.4.2 The Health Seeking Behaviour of Caretakers in Management of Diarrhoeal Diseases in Children Under-five Years

In many developing countries, access to health facilities is poor due to geographical and/or economic barriers (Fotso and Mukiira, 2011). Caretakers may find it difficult to take children to facilities because of competing priorities at home. In such instances, home care might be the only means by which children can receive care, if at all they do. A survey conducted in a slum in Nairobi showed that treatment was sought for only 60 percent of children reported to be ill. Illness perception and lack of finances were mentioned to be the main reasons for not seeking health care outside the home (Negussie, 2010).
Several other studies related to the healthcare-seeking practices have been carried out in other settings. A study carried out in Guatemala to analyze the relationship between child illnesses and healthcare-seeking practices showed that only one third of illnesses result in a visit to a health provider, pharmacist or doctor (Goldman and Heuveline, 2010). It also showed that the likelihood of a provider’s visit depends considerably on the characteristics of the child and his or her illness, with families being much more likely to seek treatment from a provider when the child experienced fever and gastrointestinal symptoms such as vomiting or diarrhoea compared to respiratory and other symptoms.

A study on the healthcare-seeking practices of families of children suspected to have malaria in Uganda reported that 53 percent of the families sought treatment from drug shops/vendors and that only 38 percent of the families knew the correct regimen of chloroquine. The main finding from the study was that although knowledge of malaria diagnosis was reasonable, awareness of the correct treatment was limited (Tumwesigire and Watson, 2002).

Results from a study carried out in Kibera, the biggest slum in Kenya (UNICEF and WHO 2009), on the diarrhoea prevalence indicated that only 58 percent of respondents received health information from recognized health facilities. Even though care seeking interventions have the potential to substantially reduce child mortality, in developing countries large number of children die without ever reaching a health facility and due to delays in seeking care (Terrah et al., 2010). The World Health Organization estimated seeking prompt and appropriate care could
reduce child deaths due to acute respiratory infections by 20% (Victora et al., 2010). However, millions of mothers and their children live in a social environment that is against seeking and enjoying good health (Jaffre’ 2008).

Appropriate care seeking is of particular importance in areas where access to health services is limited (Mariam et al., 2010). In addition, effective management of childhood illness involves a partnership between families and health workers. Families need to be able to respond appropriately when their children are sick, seek a timely assistance when children need additional care and give the recommended treatments (WHO, 2001). According to a study conducted by D’Souza, it was reported that some illnesses are categorized as not for hospital (D’Souza, 2008). In addition, past experience with similar illness can motivate mothers to play a ‘waiting game’ to see if the illness subsides on its own, particularly in situations where the cost of care is an inhibitory factor (D’Souza, 2009).

Various factors have been implicated as determinants of health seeking behavior of parents. Some studies have reported that care seeking behavior is predicted by household size, age and education of parents. Lack of access to health care due to high cost is perhaps the most common deterrent to optimal health care seeking in both rural and urban communities (Thind, Cruz, 2008). Some studies have also shown that perceived illness severity, maternal recognition of certain signs and symptoms of childhood illness were critical factors determining health care seeking behavior (Goldman and Heuveline, 2010).
Guardians and caretakers may also not seek for help or abstain from seeking care for their child health if they fail to recognize symptoms or do not consider them dangerous. Moreover, one disease may be misinterpreted for another; especially where health information has focused on some illness while giving less attention to others. In Uganda, ‘Omusudha’ (hot body) is used for any childhood fever (Nsungwa-Sabiiti et al., 2009) and is frequently treated with anti-malarial drugs (Kallander et al., 2010), this may delay treatment for other febrile illness, in particular pneumonia since symptoms often overlap with those of malaria. Once a caretaker or parents has recognized illness and decide to seek care, household responsibilities and long distances to health units may still delay care seeking (Peterson et al., 2009).

When health care are sought, the quality of treatment or care received might not be adequate and may cause delay in subsequent seeking for the same health care. Further health care system deficiencies include limited human resources, drug supplies and services management capacity (Travis et al., 2009). Observation from eastern Uganda found the epic illness concept “enhonhi” (literally translated “bird disease”) to involve symptoms of all three major childhood killers yet the stated treatment preference was herbs (Hildenwall et al., 2011).
2.4.3 Factors Influencing Health Seeking Practices and Home Management of Diarrhoea

The Demographic and Health Survey (DHS) in Niger in 2009 showed that only 17% of caretakers of children under 5 years of age had sought advice or treatment for childhood diarrhoea (INS, 2011). Eldoret is experiencing an urban population boom, with the attendant increases in poverty and health-outcome disparities, typical of many other major towns in Kenya. Although excess child morbidity and mortality in the slums is mostly a result of constant exposure to infectious environmental agents and household socio-economic differentials it is likewise affected by health-seeking practices/behaviors. Such associations between behavior and health outcome enhance the viability of reducing the occurrence of life-threatening diseases through improved child health care practices, even among the urban poor.

Related to perceived illness severity, maternal recognition of certain signs and symptoms of child illness has been cited as a critical factor determining health care-seeking practices (Hill et al., 2008). Hill et al. (2008) argue that health beliefs are important barriers to care seeking in addition to the maternal ability to recognize symptoms. In their study in rural Ghana, only half of the illness episodes recognized as ‘severe’ were taken to a health facility while some illnesses were categorized as ‘not for-hospital’. Additionally, past experience with similar illnesses can motivate mothers to play a ‘waiting game’ to see if the illness recedes on its own, particularly institutions where the cost of care is inhibitory. Such health beliefs are predicted by household size and the age and education of the mother. Lack of access to and the
high cost of health care are perhaps the most common deterrents to optimal health care seeking in both rural and urban communities.

The environment, which sustains human life, is also a profound source of ill health from any of the world's people. In the least developed countries, one in five children do not live to see their fifth birthday, mostly because of avoidable environmental threats to health. That translates into roughly 11 million avoidable childhood deaths each year. Hundreds of millions of others, both children and adults, suffer ill health and disability that undermine their quality of life and hopes for the future. These environmental health threats, arguably the most serious environmental health threats facing the world's population today, stem mostly from traditional problems long since solved in the wealthier countries, such as a lack of clean water, sanitation, adequate housing, and protection from mosquitoes and other insect and animal disease vectors.

Environmental health risks fall into two broad categories. The first are the traditional hazards related to poverty and lack of development, such as lack of safe water, inadequate sanitation and waste disposal, indoor air pollution, and vector-borne diseases. The second category is the modern hazards such as urban air pollution and exposure to agro-industrial chemicals and wastes that are caused by development that lacks environmental safeguards. Environmental risk factors account for about one-fifth of the total burden of disease in low-income countries according to recent estimates. WHO (2002) reports that among the 10 identified
leading mortality risks in high-mortality developing countries, unsafe water, sanitation and hygiene ranked second, while indoor smoke from solid fuels ranked fourth. About 3% of these deaths (1.7 million) are attributable to environmental risk factors and child deaths account for about 90% of the total. As mentioned in the introduction compared to other countries infant mortality rates in Kenya are still very high and have been on an upward trend.

Poverty in Kenya is pervasive and although it is more widely spread in the rural areas, the urban areas too are faced with high poverty levels. Poverty influences health because it largely determines an individual's environmental risks, as well as access to resources to deal with those risks. Throughout the developing world, the greatest environmental health threats tend to be those closest to home. Many in these countries live in situations that imperil their health through steady exposure to biological pathogens in the immediate environment. More than 1 billion people in developing countries live without adequate shelter or in unacceptable housing, more than 1.4 billion lack access to safe water, and more than 2.9 billion people have no access to adequate sanitation, all of which are essential for good hygiene. Unable to afford clean fuels, the poor rely instead on biomass fuels for cooking and heating. Inside the smoky dwellings of developing countries, air pollution is often higher than it is outdoors in the world's most congested cities (Kosek, 2008).

Such problems, historically considered rural, have now become urban as well, as sprawling slum settlements surround the world's major cities. Risks are compounded
in these peri-urban settlements, where garbage collection is often nonexistent and drainage tends to be poor, creating ideal conditions for insects and other diarrhoeal disease vectors.

Overcrowding increases the risk of disease transmission. Even among the poor, certain groups are more at risk than others. Women and children are more likely than men to be exposed to indoor air pollution from biomass fuels, because women spend many hours a day indoors near an open fire, often cooking with a child strapped on their backs. In developing countries, Mwabete et al., (2010) noted that the poorest strata are often excluded from the benefits of emerging prosperity and may also face a disproportionate share of health risks related to economic growth. Urban slums may be located near major roads, factories, or dumpsites, for instance, exposing residents to higher levels of air pollution or to the risks of industrial accidents.

2.5 Knowledge Gap

Families need to be able to respond appropriately when their children are sick, seek a timely assistance when children need additional care and give the recommended treatments (WHO, 2001). Several other studies related to the healthcare-seeking practices have been carried out in other settings. For instance a study carried out in Guatemala analyzed the relationship between child illnesses and healthcare-seeking practices. They have all focused only on the number of caretakers that seek medical attention when their child became sick but have not looked at the aspect of duration taken before seeking medical and the related factors. Thus this study purposes to
determine the factors influencing caretakers’ home management and the health seeking behaviour with regard to diarrhoeal diseases among children under-five years in order to help decision-makers in Kenya to take a holistic approach in dealing with problems such as improving the planning and implementing of more effective management of diarrhoeal problems to prevent diarrhoea diseases in the future.
CHAPTER THREE: METHODOLOGY

3.1 Study Design

The study employed a descriptive cross sectional research design. According to Kothari (2003), a descriptive cross sectional research design is a study design that is carried out at one time point or over a short period (usually conducted to estimate the prevalence of the outcome of interest for a given population, commonly for the purposes of public health planning). The design was considered most appropriate by the researcher since it made it easier to compare different population groups at a single point in time and that findings were drawn from whatever fits into the frame. The design was also considered appropriate by the researcher since it is inexpensive and takes up little time to conduct.

3.2 Study Variables

3.2.1 Dependent Variable

The dependent is always the outcome variable the researcher is attempting to predict. The dependent variable in this study was the occurrence of diarrhoeal diseases among children under-five years of age. The researcher in this particular study measured the occurrence of diarrhoeal diseases among children under the age of five years in relation to the independent variable (home caretakers management)-which is expected to change or alter in some way this dependent variable.
3.2.2 Independent Variable

These included the socio-demographic characteristics which are age, sex, marital status, education level and occupation, health seeking behavior (time taken before taking child for medical care) and home management (any activity undertaken at home by the guardian for the purpose of finding remedy for example, boiling drinking water, washing hands before eating, use of latrines) in regard to diarrhoea disease as well as caretaker’s knowledge and home practices of diarrhoea management.

3.3 Study Area

This study was carried out in Eldoret Municipality (Langas and Huruma) estates. Eldoret is a town in western Kenya. It is the capital and largest town in Uasin-Gishu County. Lying south of the Cherangani Hills, the local elevation varies from about 2100 Meters above sea level at the airport to more than 2700 Meters in nearby areas (7000–9000 feet). The population was 289,380 in the 2009 census, and it is currently the fastest growing town in Kenya. It is also the 2nd largest urban centre in mid-western Kenya after Nakuru and the 5th largest urban centre in Kenya.

Eldoret town has experienced rapid expansion in the last two decades owing to many factors notably the government policy of decentralization to ease rural urban migration, the growth of manufacturing and commerce, a rich agricultural hinterland, completion of the Eldoret International Airport, good road network, the cosmopolitan nature of the population and a variety of service sectors. Langas and
Huruma estates fall under high density, low-income areas of the Eldoret Municipality. They are divided into four administrative blocks each that are further subdivided into about 2,500 plots each. Each plot (1/8 of an acre) has between one and 30 households each with an average of six occupants. Settlement in Langas and Huruma estates began in 1965 and at the time there were no basic services. Early settlers dug shallow wells for their water needs. The water table is high, and this raises the possibility of ground water contamination where on-site sanitation systems are in use.

The reason for selecting the regions that is Langas and Huruma Estates also was due to the fact that the residence of these areas use borehole water for both consumption and domestic use but these regions have open water sewerages systems and poor environmental conditions due to congestions of people thus exposing people in these areas with high risks of contracting diarrhoeal diseases. Overcrowding in these areas limits the adequate distance between wells and pit latrines so that microorganisms migrate from latrines to water sources. Sanitary practices in these overcrowded areas are also poor, leading to contamination of these wells.

3.4 Target Population

A population is a set of individual cases, people or objects which bear common observable characteristics. It is a set of entities concerning which statistical inferences are to be drawn (Patton, 2006). On the other hand, target population refers to the entire group of individuals or objects to which researchers are
interested in generalizing the conclusions (Patton, 2006). The study target population consisted of adult home caretaker as well as officials from the Ministry of Health in Eldoret Municipality. Therefore, the target population comprised of 1,256 adult home caretakers and 35 County Officers from Ministry of Health leading to total of 1,291 respondents (Table 3.1)

Table 3.1 Target Population of Respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Target Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home caretakers</td>
<td>1,256</td>
</tr>
<tr>
<td>County Officers from Ministry of Health</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,291</strong></td>
</tr>
</tbody>
</table>

*Source: Human Resource Department Eldoret County (2014)*

3.5 Sample Size and Sampling Technique

3.5.1 Sample Size Calculation

The researcher obtained this household sample size using the Mugenda and Mugenda (2003) formulae for a target population of less than 10,000 which is recognized as an adequate sample in a research study. It was systematically computed as follows;

\[
n = \frac{30}{100} \times N
\]

Where;

\[
n = \text{Sample size}
\]

\[
N = \text{Estimate of the population size; 1,256}
\]

Therefore the sample size for this study was calculated as follows;

\[
n = (0.3 \times 1,256)
\]

\[= 377 \text{ Caretakers.}\]
A sample size of 10% to 30% of the target population is recognized as an adequate sample in a research study by Mugenda and Mugenda (2003). The researcher therefore, employed a sample size of 10% to 30% to ensure that the sampled population is adequate to form an appropriate representative number for the study. From the 35 County Officers from the Ministry of Health, 30 % of them were selected hence a sample of 11 Officers sample to participate in the research (Table 3.2).

### Table 3.2 Sample Size of Respondents

<table>
<thead>
<tr>
<th>Target Group</th>
<th>Target Population</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home caretakers</td>
<td>1,256</td>
<td>377</td>
</tr>
<tr>
<td>County officers</td>
<td>35</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,291</strong></td>
<td><strong>388</strong></td>
</tr>
</tbody>
</table>

#### 3.5.2 Sampling Technique

The sample of 377 respondents (caretakers) was selected through systematic sampling technique which involved selection of elements from an ordered sampling frame. In this approach, progression through the list is treated circularly, with a return to the top once the end of the list is passed. Based on this sampling technique, the researcher started by selecting an element from the list of households in the study area at random and then selected every $k^{th}$ element in the frame, where $k$, represented the sampling interval this was calculated as:

$$k = \frac{N}{n}$$
Where \( n \) is the desired sample size, and \( N \) is the population size of households with child

That is \( k = \frac{1256}{377} = 4 \)

So every 4\(^{th}\) household was chosen after a random starting point between 1 and 1256 had been identified. From each household selected, one respondent was picked. A total of 377 home caretakers were thus selected.

Simple random sampling technique was used to select the 11 county officers from the total 35 Ministry of Health officers targeted by the researcher. This sampling technique was preferred by the researcher since no complexities are involved. In employing this sampling technique, the researcher used lottery method of a simple random sampling as a mechanism of selecting respondents in the study. Each member of the population was assigned a unique number. Each number was placed in a bowl or a hat and mixed thoroughly. The blind-folded researcher then picked numbered tags randomly from the hat and placed aside. All the individuals bearing the numbers picked by the researcher were the subjects to be used as a sample size for the study.

3.5.3 Eligibility Criteria

3.5.3.1 Inclusion: A home caretaker who had a child under-five years of age and living in the study area who voluntarily consented to participate and also County Officers who had been in the Ministry of Health in Eldoret Municipality for a period of at least one year.
3.5.3.2 Exclusion: Any home caretaker who had not been in custody of the child /children under five years consistently for at least a month in the study area prior to the study as well as County Officers who had not been in the Ministry of Health in Eldoret Municipality for a period of at least one year.

3.6 Research Instruments

The study employed the use of questionnaires and interview schedule as the main data collection tools.

3.6.1 Questionnaires

The study employed the use of questionnaires as the main tool of data collection. A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents (Neuman, 2006). The questionnaire was the most appropriate research tool as it allowed the researcher to collect information from a large population (home caretakers) with varied experiences in taking care of children; the findings remain confidential, save time and since they are presented in paper format there is no opportunity for bias. The data gathered using the questionnaires was coded for easy analysis. Questionnaires were used to collect data from the home caretakers in Langas and Huruma estates.

3.6.2 Interview Schedule

This is a method of collecting data that involve presentation of oral verbal stimuli and reply in term of oral verbal responses (Kothari, 2003). The study employed the structured type of key informant interview schedule which involved subjecting
every informant in a sample to the same stimuli. The researcher used this key informant interview schedule for guidance during the interview process. This method of data collection was preferred by the researcher since the reliability of the information gathered is high and also gives in-depth information about particular case of interest to the researcher. The interview schedule design was used to collect information from the 11 county officials in the Ministry of Health in Eldoret Municipality in Uasin-Gishu County that were selected based on a simple random sampling technique. The key informant interviews designed enabled the researcher to collect the information based on the objective of the study and balance between quality and quantity of data collected and also more information that cannot be directly observed or is difficult to put down in writing.

3.7 Validity and Reliability of Research Instruments

3.7.1 Validity of Research Instruments

Validity of an instrument is defined as the success of the instruments in measuring what it purports to measure. The research instrument is considered valid if the contents selected and included in the questionnaire is relevant to the variable being investigated. The research purposed to ensure validity of research instruments by using simple language free from jargon that made it easy to be understood by the respondents. The researcher also intended to seek the opinion of individuals who could render intelligent judgment about their adequacy. The researcher also engaged her supervisor and a healthcare expert to ensure that the questions tested or measured what they were supposed to measure.
3.7.2 Reliability of Research Instruments

According to Mugenda and Mugenda (2009), the reliability of an instrument is the measure of the degree to which a research instrument yields consistent results after repeated trials. Piloting was carried out to establish the reliability of the research instruments. To get validity of the research instruments, the researcher piloted the instruments by distributing twenty nine (29) questionnaires to respondents in Iten town, which is not part of the area being sampled. The results of the piloted questionnaires enabled the researcher to determine the consistency of responses to be made by respondents and adjust the items accordingly by revising the document.

3.8 Data Collection Procedure

The study used both secondary and primary data. The secondary data was obtained from the records while the primary data was obtained from the respondents. After seeking the consent of Kenyatta University and other stakeholders, the researcher sought the consent of respective ministries in Uasin Gishu County to be allowed to carry out data collection. The researcher explained the purpose of the visit to the respondents. This assured the respondents of their confidentiality of any information they gave.

3.9 Data Management and Analysis

Based on the data collection instruments, data was analyzed both quantitatively and qualitatively. The data from the questionnaires were coded and entered into the Statistical Package for Social Sciences (SPSS) version 20. This computer aided software for research assisted the researcher to present the data. Open-ended
questions were analyzed through reporting themes and quotas emerging. The data was analyzed using descriptive and inferential statistics. The descriptive statistics used frequency tables and graphs to present the findings of the study. The study used chi-square of inferential statistics to test for association between factors of interest and health seeking behavior of care takers. Multiple logistic regressions were used to identify significant predictors of health seeking behavior and home management of diarrhoea. Results were considered significant at $\alpha=0.05$.

3.10 Logistic and Ethical Considerations

There are certain ethical protocols that were followed by the researcher. First, approval was sought from the Graduate School of Kenyatta University and the University Ethical Review Board. A written consent was obtained from the participants upon proper understanding the gist of the study as respect, dignity, confidentiality were maintained during the study. Secondly, the researcher sought to solicit explicit consent from the respondents to ensure that their participation to the study was out of their own volition. The researcher ensured that the respondents are aware of the objectives of the research and their contribution to its completion.

Another ethical measure that was exercised by the researcher was treating the respondents with respect and courtesy. This was done so that the respondents were at ease; to make them more likely to give candid responses to the questionnaire. The respondents were also informed that the responses that they gave was treated confidentially and used strictly for this study and for no other purposes.
Additionally, there are other ethical measures which were to be followed during data analysis. To ensure the integrity of data, the researcher checked the accuracy of coding of the responses so as to ensure that the statistics generated from the study are truthful and verifiable.
CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Introduction

This chapter is a presentation of the study findings and discussion in relation to literature review. A total of 388 respondents (both home caretakers and Officers from the Ministry of Health) were involved in data collection through filling out of questionnaires and interview schedules design for each category.

4.1.1 Response Rate

The study yielded a response rate of 95.4% since out of 377 questionnaires that were given out, 360 (95.4%) were filled and returned. This was because all the respondents were not willing to participate in the study due to lack of time to respond to such questionnaires. Keeter (2006) states that any survey with a response rate of above 70% gives out a more reliable and accurate information as it manifests significant feedbacks.

4.2 Socio-Demographic Characteristics of the Study Respondents

This section presents the socio demographic characteristics of the respondents in the study area. Attributes considered were age, sex, and marital status, level of education and occupation of the respondents. These social-demographic characteristics were meaningful to the study as it helped to understand the logic of the background factors of the various respondents in relation management of diarrhoeal diseases. All the respondents were selected from the target area, which were Langas and Huruma estates. The findings were as shown in Table 4.1
Table 4.1 Socio-Demographic Characteristics of Respondents (n=360)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>13 (3.6)</td>
</tr>
<tr>
<td>20-29</td>
<td>145 (40.3)</td>
</tr>
<tr>
<td>30-39</td>
<td>109 (30.3)</td>
</tr>
<tr>
<td>40-49</td>
<td>75 (20.8)</td>
</tr>
<tr>
<td>50-59</td>
<td>18 (5)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>109 (30.3)</td>
</tr>
<tr>
<td>Female</td>
<td>251 (69.7)</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>118 (32.7)</td>
</tr>
<tr>
<td>Married</td>
<td>155 (43.1)</td>
</tr>
<tr>
<td>Divorced</td>
<td>51 (14.2)</td>
</tr>
<tr>
<td>Widowed</td>
<td>36 (10)</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>86 (23.9)</td>
</tr>
<tr>
<td>Secondary</td>
<td>188 (52.2)</td>
</tr>
<tr>
<td>Tertiary</td>
<td>86 (23.9)</td>
</tr>
<tr>
<td>No schooling</td>
<td>0</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
</tr>
<tr>
<td>Formal employment</td>
<td>90 (25)</td>
</tr>
<tr>
<td>Farmer</td>
<td>48 (13.3)</td>
</tr>
<tr>
<td>Business</td>
<td>127 (35.3)</td>
</tr>
<tr>
<td>None</td>
<td>95 (26.4)</td>
</tr>
</tbody>
</table>

The study findings in table 4.1 showed that out of 360 (100%) respondents, majority 145 (40.3%) were aged between 20-29 years, followed by 109 (30.3%) who were aged between 30-39 years, 75 (20.8%) of the respondents were aged between 40-49 years, 18 (5%) were of between 50-59 years while the rest 13 (3.6%) who were young respondents age below 20 years of age. The ages of respondents were relevant to the study since views from people of diverse age categories were obtained.
It is therefore evident from the study findings (Table 4.1) that a majority (74.2%) of the respondents were below 40 years of age representing the most productive age group (parents/housemaids) who are responsible and suitable for home caretaking of babies under five years.

The study also sought to find out the gender of the respondents in order to establish whether there was gender balance and to balance the views of both genders. The study results showed that, out of the 360 (100%) respondents, 251 of them representing 69.7% were female while 109 (30.3%) were male respondents. Consideration of gender was reliable in this study in order to get views from both sides which has great importance. Despite the disparity, the findings shows that there was no biasness in the research because all gender participated.

However, it is clear from the study findings (Table 4.1) that majority (69.7%) of the respondents were female. This could likely be due to the cultural practices of the Kenyan communities in the study area which is patriarchal in nature. This patriarchal community gives more privileges to the female than the male when it comes to matters of households responsibilities and in particular caretaking practices of children hence, in any place the female respondents were given the advantage of answering the questionnaires over the male respondents.

Based on the marital status of respondents, the study found out that majority of the respondents, 155 representing (43.1%) were married couples followed by 118
who were single. In addition, the study revealed that some of the respondents 51 (14.2%) were divorced and the rest who were 36 in total representing (10%) were widowed. The marital status of respondents was relevant as it helped in examining the relationship between respondents’ status and home caretaking management.

In regards to academic qualification of respondents, the study findings (Table 4.1), shows that out of 360 (100%) respondents sampled, 188 of them representing 52.2 % had secondary level of education, while 86 (23.9%) and similar percentage had primary and tertiary level of education respectively. It was necessary to establish the education level of the respondents because getting information from diverse knowledge in education was very vital for the study since respondents with different level of education have different perception on the management of diarrhoeal diseases among children.

It was observed from the study findings that a majority of the respondents were well educated having acquired basic primary education and above, therefore the researcher was mostly dealing with literate individuals. This could be for easy answering of questionnaires due to literacy level. Also the researcher’s choice of respondents might have been triggered by the participation of people with post secondary education in home caretaking management of diarrhoeal diseases hence their familiarity with the topic of research.
Regarding the occupation of respondents, the study findings showed that majority of the respondents 127 (35.3%) were small and medium scale business entrepreneurs while part of them 90 (25%) and 48 (13.3%) were in formal employment and farmers respectively. The rest 95 (26.4%) were just housemaids with none of the above occupation.

4.3 Specific Information based on the Objectives of the Study

This section seeks to establish the opinions of the respondents in accordance to the specified objectives and has been summarized and presented in tabular form in each category.

4.3.1 Caretakers Knowledge and Practices on Home Management of Diarrhoea Disease

The study was guided by the first objective which sought to establish caretakers’ knowledge and practices on home management of diarrhoea disease. This analysis includes the views on perceived causes of diarrhoea, awareness of the signs and symptoms of diarrhoea, awareness of diarrhoea transmission and prevention of diarrhoea at home. The findings were summarized and presented as shown below

4.3.1.1 Perceived Causes of Diarrhoea

The researcher sought to find out the perceived causes of diarrhoea diseases from the respondents in order to establish whether they are aware of what causes diarrhoea diseases especially with children under-five years of age. The researcher further established from the respondents whether the diarrhoea was a serious
problem in children below five years in the Langas and Huruma Estates. The findings were analyzed and presented as shown on table 4.2

Table 4.2 Diarrhoea in Children is a Serious Health Problem in the Study Region.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>301 (83.6)</td>
</tr>
<tr>
<td>No</td>
<td>59 (16.4)</td>
</tr>
<tr>
<td>Total</td>
<td>360 (100)</td>
</tr>
</tbody>
</table>

The study findings (Table 4.2) showed that majority of respondents 301 (83.6%) agreed with the view that diarrhoea was a major problem among children under the age of five years in the region. This is because the residence of these areas use borehole water for both consumption and domestic use and that these regions have open water sewerages systems and poor environmental conditions due to congestions of people thus exposing people in these areas with high risks of contracting diarrhoeal diseases.

According to the responses from the key informants (Health Officers), 11 (100%) agreed that diarrhoeal disease in the region is a major health problem among children under five years as it is the leading cause of child mortality and morbidity in the region estimated at 37.5%, and mostly results from contaminated food and water sources.
Conversely, the findings based on the perceived causes of diarrhoea diseases in the region were summarized and presented as in Table 4.3.

**Table 4.3 Specified Cause of Diarrhoea (n=360)**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viral infections such as rotavirus, cytomegalovirus</td>
<td>60 (16.7)</td>
</tr>
<tr>
<td>Eating/drinking contaminated food and water</td>
<td>101 (28.1)</td>
</tr>
<tr>
<td>Weaning</td>
<td>38 (10.6)</td>
</tr>
<tr>
<td>Reactions to medicines such as antibiotics, and antacids containing magnesium</td>
<td>53 (14.7)</td>
</tr>
<tr>
<td>Poor hygiene and poorly disposed excreta, refuse</td>
<td>111 (30.8)</td>
</tr>
<tr>
<td>Teething</td>
<td>97 (26.9)</td>
</tr>
<tr>
<td>Total</td>
<td>360 (100)</td>
</tr>
</tbody>
</table>

The study findings in Table 4.3 shows that majority of the respondents 111 (30.8%) identified Poor hygiene and poorly disposed excreta, refuse as the main cause of diarrhoea among children in the region, 101 (28.1%) of respondents however identified Eating/drinking contaminated food and water as the cause while 97 (26.9%) established teething as one of the main causes of diarrhoea among children under the age of five years. In addition, 60 representing (16.7%) of the respondents were of the view that Viral infections such as rotavirus, cytomegalovirus among others, causes diarrhoea among children, 53 (14.7%) identified reactions to medicines such as antibiotics, and antacids containing magnesium as the cause of
diarrhoea in children below five years while the rest 38 (10.6%) noted weaning as the cause of diarrhoea in children.

The results from the key informants (Health Officers) showed that 11 (100%) identified the causes of diarrhoea as through: Infection in which they point out that diarrhoea is a symptom of infections caused by a host of bacterial, viral and parasitic organisms, most of which are spread by faeces-contaminated water. Malnutrition was another featuring cause identified by the Officers in that children who die from diarrhoea often suffer from underlying malnutrition, which makes them more vulnerable to diarrhoea.

4.3.1.2 Awareness of the Signs and Symptoms of Diarrhoea

Table 4.3 Signs and Symptoms Respondents are Aware of (n=360)

<table>
<thead>
<tr>
<th>Signs and Symptoms</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotness of body/fever</td>
<td>48 (13.3)</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>69 (19.2)</td>
</tr>
<tr>
<td>Many loose stools, watery stools</td>
<td>62 (17.2)</td>
</tr>
<tr>
<td>Repeated vomiting</td>
<td>47 (13.1)</td>
</tr>
<tr>
<td>Eating/drinking poorly</td>
<td>43 (11.9)</td>
</tr>
<tr>
<td>Dehydration</td>
<td>41 (11.4)</td>
</tr>
<tr>
<td>Convulsions</td>
<td>26 (7.2)</td>
</tr>
<tr>
<td>Marked thirst</td>
<td>24 (6.7)</td>
</tr>
</tbody>
</table>
It was found from the study that all the respondents sampled were at least aware of the signs and symptoms of diarrhoea in children with majority of them correctly identifying the cardinal signs of diarrhoea namely; nausea and vomiting 69 (19.2%) frequent watery stools 62 (17.2%), hotness of body/fever 48 (13.3%) and repeated vomiting 47 (13.1%) (Table 4.3). In addition, it was observed further from the study findings that eating/drinking poorly, dehydration, convulsions and marked thirst were some of the signs and symptoms of diarrhoea among children below five years of age as evidenced by 43 (11.9%), 41 (11.4%), 26 (7.2%) and 24 (6.7%) respectively of respondents who were in agreement.

The responses from the key informants (Health Officers) indicated that all the Officers 11 (100%) identified the cardinal signs of diarrhoea as through nausea, convulsions, dehydration, marked thirst among children, poor or total lack of eating, frequent watery stools, high body temperatures/fever and repeated vomiting.

4.3.1.3 Awareness of Diarrhoea Transmission

All the respondents 360 (100%) were aware of how diarrhoea can be acquired of which majority of them reported not washing hands before meals 117 (32.5%), drinking contaminated water 100 (27.8%), eating unwashed vegetables/fruits 73 (20.3%) and poor hygiene 70 (19.4%) (Figure 4.1)
The findings from the key informant interviews showed also that majority of the officers 9 (81.8%) said that most of the residences in the study area are aware of the basic signs and symptoms of diarrhoeal diseases.

4.3.1.4 Prevention of Diarrhoea at Home

The researcher sought to find out the prevention measures of diarrhoea diseases among children below five years. However, it was revealed by the study that over three quarters of the respondents 303 (84.2%) were aware of the measures that can be used to prevent children from getting diarrhoea while only 57 (15.8%) were not aware of the prevention measures. As a result, the findings from the respondents
based on those who were aware of preventive measures of diarrhoea diseases were analyzed and presented as shown on Table 4.4

### Table 4.4 Measures to Prevent a Child from Diarrhoea (n=303)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boil drinking water</td>
<td>51 (14.2)</td>
</tr>
<tr>
<td>Covering all cooked food</td>
<td>38 (10.6)</td>
</tr>
<tr>
<td>Breastfeeding children &lt;6 months</td>
<td>43 (11.9)</td>
</tr>
<tr>
<td>Use of latrines</td>
<td>58 (16.1)</td>
</tr>
<tr>
<td>Washing hands after defecating</td>
<td>41 (11.4)</td>
</tr>
<tr>
<td>Washing hands before eating/ preparing food</td>
<td>72 (20)</td>
</tr>
</tbody>
</table>

The study findings in Table 4.4 shows that washing hands before eating/ preparing food was the main measure to undertake when prevent children from contracting diarrhoeal diseases as evidenced by 72 (20%) of respondents who were in agreement with it. The study further established that 58 (16.1%) of respondents point out the use of latrines as key measure for preventing diarrhoea, 51 (14.2%) were of the view that boiling drinking water helps to prevent diarrhoea in children while Breastfeeding children <6 months and Washing hands after defecating attracted 43 (11.9%) and 41 (11.4%) response from the caretakers respectively. In addition, 38 (10.6%) of the respondents reported Covering all cooked food as a measure to prevent diarrhoeal diseases.
It was observed from the responses given by the key informants interviewed that, 11 (100%) identified the key measures to prevent diarrhoea on both adult and children, as through access to safe drinking-water, use of improved sanitation, regular hand washing with soap, exclusive breastfeeding for the first six months of life, observing good personal and food hygiene. The Officers also stated that conducting health education about how infections spread and ensuring rotavirus vaccination is another key measure to prevent diarrhoea. In addition, all the officers (100%) pointed out in order to treat diarrhoea, there is need to adopt rehydration with oral rehydration salts (ORS) solution and that home caretakers should be made aware of this as first step in preventing diarrhoea before seeking for further medication from health facilities.

4.3.2 The Health Seeking Behaviour of Caretakers in Management of Diarrhoeal Diseases in Children Under-five Years

The study’s second objective was to assess the health seeking behaviour of caretakers in management of diarrhoeal diseases in children under-five years. This analysis includes the views on treatment Measures Sort for a Sick Child, Ministry of Health Recommended First Line Treatment Measures and duration taken to seek medical care.

4.3.2.1 Treatment Measures Sort for a Sick Child

The study findings based on the treatment measures sort for a sick child by home caretakers were examined and presented as shown in figure 4.2
The study findings in figure 4.2 shows that a majority of respondents 90 (29.7%) use ORS solution as the immediate treatment measures for a sick child suffering from diarrhoea, 79 (26.1%) reported to be using plenty of water, 72 (23.9%) of them use food base fluids for a sick child suffering from diarrhoea while 62 (20.3%) use drugs from shops or vendors to prevent diarrhoea in children. Therefore it is clear from the study findings that only 303 (84.2%) of the respondents were aware of any kind of diarrhoea treatment at home while the rest 57 (15.8%) were unaware of any kind of diarrhoea treatment at home.

4.3.2.2 Ministry of Health Recommended First Line Treatment Measures

Less than half of the respondents 153 (42.5%) reported to know the Ministry of health recommended first line drug of choice for treatment of which 84 (54.9%) of
them reported ORS, 58 (37.9%) salty water while 11 (7.2%) reported fluids as in figure 4 (n=153).

![Graph showing the predominant fluids reported]

**Fig 4.3 Ministry of Health First Line Recommended Drug for Diarrhoeal Diseases (n=153)**

The study findings shows that majority 207 (57.5%) of the respondents in the study area were unaware of the ministry of health first line recommended drug for prevention of diarrhoeal diseases before medical care is sought. This therefore calls for the need by the ministry to educate home caretakers particular in Langas and Huruma Estates in Eldoret municipality in order to reduce the mortality of young children under-five years who die as a result of diarrhoea and due to lack of proper awareness by home caretakers on the first line recommended measures.
4.3.2.3 Duration Taken to Seek Medical Care

The study sought to assess the duration the respondents take to seek medical care after they notice signs of diarrhoea in their children. The findings were as presented in figure 4.4

![Pie Chart]

**Fig 4.4 Time Taken To Seek Medical Care (n=360)**

From the findings in figure 4.4, it is evident that less than half of the respondents 111 (31%), sought medical care as soon as they noticed signs of diarrhoea in their children, 106 (29%) sought after a day, 71 (20%) reported to seek medical care after two days 50 (14%) take measures after three days they noticed signs and symptoms of diarrhoea in children while only 12 (5.8%) took four days before seeking care as indicated. For the 69% of the respondents who never sought immediate medical care attributed the delay to observation in case the diarrhoea resolves on its own or with home management.
The responses from the key informants interviewed showed that, 11 (100%) of them said most of the caretakers do not seek medical care as soon as they noticed signs and symptoms of diarrhoea in their children. The Officers reported that home caretakers report to hospital at the time the conditions of diarrhoea among the children have worsened.

4.3.2.4 Reasons Why Seeking For Medical Care is Delayed

The study observed that majority of the respondents do not seek immediate care for their children. It was found that out the 360 (100%) respondents sampled, only 111 (31%) was found to be seeking medical care immediately after signs and symptoms of diarrhoea are observed while the rest 249 (69%) do not seek medication immediately. This was attributed by the poor timely observation of signs and symptoms by home caretakers as well as lack of funds or money in case the diarrhoea resolves on its own or with home management.

All the key informants interviewed (Health Officers) 11 (100%) agreed that the health seeking behaviour of caretakers in management of diarrhoeal diseases in children under-five years is low in this Langas and Huruma Estates. This shows therefore that the caretakers in Langas and Huruma estates have poor timely observation of signs and symptoms of diarrhoea, a factor that is greatly contributing to delay in seeking early medication.
4.3.3 Socio-Demographic Factors that Influence the Health Seeking Practices of Caretakers in Management of Diarrhoea Diseases

Objective three of the study sought to determine socio-demographic factors that influence the health seeking practices of caretakers in management of diarrhoea diseases in children under-five years. The findings were as presented on table 4.5 and 4.6 below.

4.3.3.1 Factors Influencing Home Management of Diarrhoea

The study adopted the chi-square model and Multiple Logistic Regression Analysis to evaluate how each of the identified variables; gender, occupation, age, education level and marital status influenced the home management of diarrhoea diseases among children below the age of five years Langas and Huruma Estates. The findings are summarized as shown on table 4.5.
Table 4.5 Association between Socio-Demographics Factors and Home Management of Diarrhoea (n=360)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Use any method to prevent diarrhoea at Home</th>
<th>$\chi^2$ -value</th>
<th>$P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>72(66.1)</td>
<td>37(33.9)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>142(56.6)</td>
<td>109(43.4)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Employed</td>
<td>49(54.4)</td>
<td>41(45.6)</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>28(58.3)</td>
<td>20(41.7)</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>80(63)</td>
<td>47(37)</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>57(60)</td>
<td>38(40)</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 20 years</td>
<td>7(50)</td>
<td>6(50)</td>
</tr>
<tr>
<td></td>
<td>21 - 30 years</td>
<td>95(65.3)</td>
<td>50(34.7)</td>
</tr>
<tr>
<td></td>
<td>31 - 40 years</td>
<td>59(54.1)</td>
<td>50(45.9)</td>
</tr>
<tr>
<td></td>
<td>41 - 50 years</td>
<td>37(49.3)</td>
<td>38(50.7)</td>
</tr>
<tr>
<td></td>
<td>&gt;50</td>
<td>10(55.6)</td>
<td>8(44.4)</td>
</tr>
<tr>
<td>Education level</td>
<td>Primary level</td>
<td>61(74.4)</td>
<td>25(25.6)</td>
</tr>
<tr>
<td></td>
<td>Secondary level</td>
<td>98(52.1)</td>
<td>90(47.9)</td>
</tr>
<tr>
<td></td>
<td>College/tertiary</td>
<td>52(60.5)</td>
<td>34(39.5)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>78(66.1)</td>
<td>40(33.9)</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>95(61.3)</td>
<td>60(38.7)</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>21(41.2)</td>
<td>30(58.8)</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>20(55.6)</td>
<td>16(44.4)</td>
</tr>
</tbody>
</table>

The results in table 4.5 indicated that there was a significant relationship between age ($p=0.010$) marital status ($p=0.022$), education level ($p=0.011$) and home management of diarrhoea as these were socio-demographic factors associated with home management of diarrhoea. This was interpreted to mean that all these factors (age, marital status and education level) affect the management of diarrhoea at home base level among children below five years of age. This finding relates with study
findings by INS (2011) who argued that child morbidity and mortality in the slums is mostly a result of constant exposure to infectious environmental agents and household socio-economic differentials it is likewise affected by health-seeking practices/behaviors of caretakers. Such associations between behaviors (age, education level and marital status) and health outcome enhance the viability of reducing the occurrence of life-threatening diseases through improved child health care practices, even among the urban poor.

Majority of the key informants (Health Officers) 6 (54.5%) were of the view that socio-demographic factors of home caretakers such as age, education level as well as their marital status influence their health seeking practices in management of diarrhoea diseases in children under-five years. The officers pointed out those home caretakers who are young and have no basic education have inadequate health care practices.

4.3.3.2 Factors Influencing Health Seeking Behavior

The study also adopted the chi-square model and Multiple Logistic Regression Analysis to evaluate how each of the identified variables i.e.; gender, occupation, age, education level and marital status influenced health seeking behaviour of caretakers on the management of diarrhoea diseases among children below the age of five years Langas and Huruma Estates. The findings were summarized as shown on table 4.6
Table 4.6 Socio-Demographics and Duration Taken Before Taking the Child for Medical Care

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Duration taken to seek medical care</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay</td>
<td>No delay</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>92(84.4)</td>
<td>17(15.6)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>217(86.5)</td>
<td>34(13.5)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Employed</td>
<td>70(77.8)</td>
<td>20(22.2)</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>47(97.9)</td>
<td>1(2.1)</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>109(85.8)</td>
<td>18(14.2)</td>
</tr>
<tr>
<td></td>
<td>Not employed</td>
<td>83(87.4)</td>
<td>12(12.6)</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 20 years</td>
<td>8(61.5)</td>
<td>5(38.8)</td>
</tr>
<tr>
<td></td>
<td>21 - 30 years</td>
<td>135(90)</td>
<td>15(10)</td>
</tr>
<tr>
<td></td>
<td>31 - 40 years</td>
<td>93(87.8)</td>
<td>13(12.2)</td>
</tr>
<tr>
<td></td>
<td>41 - 50 years</td>
<td>57(76)</td>
<td>18(24)</td>
</tr>
<tr>
<td></td>
<td>&gt;50</td>
<td>18(100)</td>
<td>0(0)</td>
</tr>
<tr>
<td>Education level</td>
<td>Primary level</td>
<td>78(95.1)</td>
<td>8(4.9)</td>
</tr>
<tr>
<td></td>
<td>Secondary level</td>
<td>166(88.3)</td>
<td>22(11.7)</td>
</tr>
<tr>
<td></td>
<td>Tertiary level</td>
<td>61(70.9)</td>
<td>25(29.1)</td>
</tr>
</tbody>
</table>

Health seeking behavior was defined as appropriate (using ORS to treat diarrhoea or seeking medical care immediately on noticing diarrhoea symptoms) and inappropriate otherwise.

Occupation, age and education level were socio-demographic factors significantly associated with health seeking behavior (using ORS to treat diarrhoea or seeking medical care immediately on noticing diarrhoea symptoms) as in Table 4.7 (p<0.05).
According to the responses obtained from the key informants, it was observed also that all the officers 11 (100%) categorically identified gender, occupation, age, education level and marital status of home caretakers as the main factors that influence health seeking behaviour of caretakers on the management of diarrhoea diseases among children below the age of five years. The officers added that, lack of basic education and socio-economic disparities of majority of home caretakers in Langas and Huruma estates are key factors contributing to the poor management of diarrhoeal diseases in these areas.

The study findings conquers with the findings by Thind and Cruz, (2008) who stated that various factors (occupation, age and education level) have been implicated as determinants of health seeking behavior of parents. They reported that care seeking behavior is predicted by house hold size, age and education of parents. Although they attributed lack of access to health care due to high cost as perhaps the most common deterrent to optimal health care seeking in both rural and urban communities.
Table 4.7 Multiple Logistic Regression Analysis of Factor Influencing Home Management of Diarrhoea (n=360)

<table>
<thead>
<tr>
<th>Factor Influencing Home Management</th>
<th>Beta</th>
<th>AOR</th>
<th>95.0% Confidence Interval for AOR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Upper</td>
<td></td>
</tr>
<tr>
<td><strong>Age group (years)</strong> (ref&gt;49)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>1.157</td>
<td>3.179</td>
<td>0.643</td>
<td>15.711</td>
</tr>
<tr>
<td>30-39</td>
<td>1.534</td>
<td>4.638</td>
<td>0.958</td>
<td>22.442</td>
</tr>
<tr>
<td>40-49</td>
<td>1.666</td>
<td>5.290</td>
<td>1.048</td>
<td>26.708</td>
</tr>
<tr>
<td><strong>Gender(Male)</strong></td>
<td>-0.479</td>
<td>0.619</td>
<td>0.364</td>
<td>1.054</td>
</tr>
<tr>
<td><strong>Marital status</strong> (ref=other)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>-0.565</td>
<td>0.568</td>
<td>0.296</td>
<td>1.089</td>
</tr>
<tr>
<td>Married</td>
<td>-0.331</td>
<td>0.718</td>
<td>0.392</td>
<td>1.317</td>
</tr>
<tr>
<td><strong>Education level</strong> (ref=tertiary)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>-0.851</td>
<td>0.427</td>
<td>0.201</td>
<td>0.905</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.063</td>
<td>1.065</td>
<td>0.599</td>
<td>1.894</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.109</td>
<td>0.330</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AOR= Adjusted Odds Ratio

As indicated in table 4.7, multiple logistic regression indicated that adjusting for age, gender and marital status as confounders, education was a significant factor influencing home management of diarrhoea (p=0.013). Those with primary education were less likely to practice home management of diarrhoea compared to those with tertiary level (AOR; 1- 0.427= 57%).

The regression results agree with the findings from the key informants in which all of them 11 (100%) pointed out that education disparities among caretakers influences greatly on their health seeking behaviour. The officers said that home
caretakers with higher level of education are more likely to practice management of diarrhoea through good timing of signs and symptoms and are also quick in seeking medication as compared to those caretakers with only basic primary education.

**Table 4.8 Multiple Logistic Regression Analysis of Factor Influencing Health Seeking Behaviour**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Beta</th>
<th>AOR</th>
<th>95.0% CI for AOR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education (ref=tertiary)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>0.815</td>
<td>2.260</td>
<td>0.737 6.926</td>
<td>0.154</td>
</tr>
<tr>
<td>Secondary</td>
<td>1.814</td>
<td>6.135</td>
<td>1.896 19.855</td>
<td>0.002</td>
</tr>
<tr>
<td>Occupation (ref=None)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>0.282</td>
<td>1.326</td>
<td>0.578 3.046</td>
<td>0.506</td>
</tr>
<tr>
<td>Farmer</td>
<td>-1.422</td>
<td>0.241</td>
<td>0.029 1.981</td>
<td>0.186</td>
</tr>
<tr>
<td>Business</td>
<td>0.254</td>
<td>1.289</td>
<td>0.576 2.883</td>
<td>0.537</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.912</td>
<td>0.054</td>
<td></td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

As in table 4.8, adjusting for occupation, education was a significant factor influencing health seeking behaviour (p=0.002). Those with secondary level of education were more likely to seek treatment appropriately compared to those with tertiary level (AOR; 95% CI: 6.135; 1.896-19.855). Adjusting was necessary to control for confounding effects of other variables.

**4.4 Discussion**

The study objective was to determine factors influencing home management practices and healthcare-seeking behavior of caretakers of under-five children with regards to diarrhoea. This subsection discusses the findings of the study in relation
to the literature review done by other scholars in past with regards to factors influencing home management practices and healthcare-seeking behavior of caretakers on the management of diarrhoeal diseases.

4.4.1 Awareness and Knowledge on Home Management of Diarrhoea

The focus on diarrhoeal disease as a worldwide health problem as demonstrated by recent efforts of international agencies has raised the question of the importance of social factors such as maternal knowledge, practices and attitudes in explaining differential prevalence.

According to the Community Integrated Management of Childhood Illness (C-IMCI) strategy (WHO/UNICEF, 2009), caretakers at home should have adequate knowledge on the causes and treatment of diarrhoea using appropriate remedies including home-made fluids such as porridge, fresh fruit juices, milk, salt/water solution and breast milk but not herbs.

This study hence sought to explore the knowledge and home practices of diarrhoea management in relation to the low socio-economic urban set-ups of the cosmopolitan Eldoret town, in Kenya. With regards to Caretakers knowledge and practices on home management of diarrhoea disease, the study established that majority of respondents 301 (83.6%) agreed with the view that diarrhoea was a major problem among children under the age of five years in the region. However, the respondents identified Poor hygiene and poorly disposed excreta; refuse as the main cause of diarrhoea among children in the region. It was found from the study
that all the respondents sampled were at least aware of the signs and symptoms of diarrhoea in children with majority of them correctly identifying the cardinal signs of diarrhoea namely; frequent watery stools, dehydration and nausea and vomiting.

In addition, it was observed further from the study findings that eating/drinking poorly, repeated vomiting, convulsions and marked thirst were some of the signs and symptoms of diarrhoea among children below five years of age. The results shows more than half of the respondents were aware of how diarrhoea can be acquired of which majority reported not washing hands before meals, drinking contaminated water, eating unwashed vegetables/fruit as the main means through which diarrhoea can be transmitted to children. However, it was revealed by the study that over three quarters of the respondents were aware of the measures that can be used to prevent children from getting diarrhoea with majority of them identifying washing hands before eating and preparing food as the main measure to undertake to prevent children from contracting diarrhoeal diseases.

According to the responses from the key informants interviewed, majority of them agreed that diarrhoeal disease in the region is a major health problem among children under five years as it is the leading cause of child mortality and morbidity in the in the region estimated at 37.5%, and mostly results from contaminated food and water sources. The officers attributed this to lack access to improved drinking-water and lack improved sanitation in the region. The officers however stated that a significant proportion of diarrhoeal disease in the region can be prevented through
safe drinking-water and adequate sanitation and hygiene. However, majority of the officers said that most of the residences in the study area are aware of the basic signs and symptoms of diarrhoeal diseases.

In regards to the causes of diarrhoea diseases, the key informants (Health Officers) identified the causes as through: Infection in which they point out that diarrhoea is a symptom of infections caused by a host of bacterial, viral and parasitic organisms, most of which are spread by faeces-contaminated water. The officers allegedly stated that infection is more common when there is a shortage of adequate sanitation and hygiene and safe water for drinking, cooking and cleaning. Malnutrition was another featuring cause identified by the officers in that Children who die from diarrhoea often suffer from underlying malnutrition, which makes them more vulnerable to diarrhoea. Each diarrhoeal episode, in turn, makes their malnutrition even worse. The officers categorically pointed that diarrhoea is the leading cause of malnutrition in children under five years old in the region.

Other causes of diarrhoeal disease pointed by the officers include the spread from person-to-person, aggravated by poor personal hygiene. The officers also identified food as another major cause of diarrhoea when it is prepared or stored in unhygienic conditions. The officers further stated that in the study area, children under three years old experience on average three episodes of diarrhoea every year. Each episode deprives the child of the nutrition necessary for growth.
In regards to prevention and treatment, the officers indicated that the following are the key measures to prevent diarrhoea on both adult and children, that is: access to safe drinking-water, use of improved sanitation, hand washing with soap, exclusive breastfeeding for the first six months of life, observing good personal and food hygiene, conducting health education about how infections spread and ensuring rotavirus vaccination. In addition, the officers pointed out the following key measures to be adopted in order to treat diarrhoea: Rehydration with oral rehydration salts (ORS) solution. The officers stated that this is a recommended method that the home caretakers should adopt right at home as ORS is a mixture of clean water, salt and sugar. They said that the use of ORS costs only a few cents per treatment and thus it is affordable to all. Another treatment method pointed out by the health officers was the use of zinc supplements. This reduces the duration of a diarrhoea episode by 25% and is associated with a 30% reduction in stool volume. Rehydration with intravenous fluids in case of severe dehydration or shock will also help reduce the effects of diarrhoea. The officers also stated nutrient-rich foods as another method of treating diarrhoea in that the vicious circle of malnutrition and diarrhoea can be broken by continuing to give nutrient-rich foods – including breast milk – during an episode, and by giving a nutritious diet – including exclusive breastfeeding for the first six months of life – to children when they are well. Finally, the officers said that the residence should always consult with health professional, in particular for management of persistent diarrhoea or when there is blood in stool or if there are signs of dehydration.
The findings of the study relates with the literature by Baros and Victoria (2010) who in their study on breast feeding and diarrhoea among Brazilian children affirmed that not all infections needed to be treated by health professionals as others ought to be prevented right at home so long as the home caretakers are well informed and aware of the signs and symptoms of such infections. They further argued that uncomplicated diarrhoea could be managed successfully at home by continuing administering Oral Rehydration Solution (ORS) correctly.

4.4.2 Health Care Seeking Practices of Caretaker

With regards to treatment measures of diarrhoea at home, out of the total 303 respondents reported to be aware of treatment measures to prevent diarrhoea at home, only 90 (29.7%) were identified to be using ORS solution as the immediate treatment measures for a sick child suffering from diarrhoea. However, it was evidenced from the findings that most of the respondents in the study area were unaware of the ministry of health first line recommended drug for prevention of diarrhoeal diseases before medical care is sought. The study established that less than half of the respondents sought medical care as soon as they noticed signs of diarrhoea in their children while the majority sought a day after and this was attributed by the poor timely observation of signs and symptoms by home caretakers as well as lack of funds or money in case the diarrhoea resolves on its own or with home management.
Majority of the key informants said the health seeking behaviour of the majority of the residents is still wanting as most of them do not take serious the issues concerning diarrhoeal diseases among children. The officers pointed that access to health facilities is poor due to lack of knowledge and/or economic barriers and therefore caretakers may find it difficult to take children to facilities because of competing priorities at home. As such, home care becomes the only means by which children can receive care.

These findings relates with the report by (UNICEF/WHO 2009) that appropriate management of diarrhoea is important in the prevention of dehydration and child mortality One of the recommended ways of managing diarrhoea by the Centers for Disease Control and Prevention (CDC) as well as by the WHO is the use of ORS as the hub of treatment (World Health Organization, 2010). As shown by the study results, only 29.7% of caretakers reported to normally buy ORS for treating their children when they have diarrhoea. Despite the advocacy of the ORS solution by WHO and other NGOs, as well as the consistent campaigns and activities that have been conducted to promote awareness and the use of ORS, the use still remains low. This is seemingly the case in various other parts of the developing world as has been shown in other studies, which have reported low ORS use for childhood diarrhoea (Fayaz et al., 2009). In Brazil, the ORS use rate has been approximated to be about 7% (Barros et al., 2001). Another study conducted in Egypt by Gilany and Hammed, (2010) showed that 25% of children who had diarrhoea had received ORS.
This shows that reducing childhood diarrhoea requires interventions to make children healthier and less likely to develop infections that lead to diarrhoea; clean environments that are less likely to transmit disease; and the support of communities and caretakers in consistently reinforcing healthy behaviors’ and practices over time. However, reflecting the national guidelines on management of diarrhoea and noting that every Kenyan child under five has an average of three episodes of diarrhoea annually (KDHS 2008), the study found that 37.9% of the respondents who practice home management of diarrhoea use locally made salt/sugar solution.

The results from the study thus imply that there is much need for concern on health-seeking practices by home caretakers. However, the concern of inappropriate healthcare-seeking practice for childhood diarrhoea has been reported in various studies, for example a report by WHO (2009) noted that in developing countries only about 39% of children suffering from diarrhoea were given the recommended treatment and this figure has remained more or less constant since 2010. In addition, Tee (2011) studied the healthcare-seeking behavior among Malaysians with acute diarrhoeal disease and found that only about 43% of those who had diarrhoea sought care for the illness.

Although, there is some evidence that inducing health or hygiene behavioral change may be especially difficult among the poorest groups. The study found that for those who used ORS to manage diarrhoea at home, majority obtained it over the counter from chemists or shops, while others obtained from a clinic and from a community
health worker, an indication that formal health care seeking is high in the studied
group. This is contrary to findings elsewhere, where most mothers empirically treat
their children with first line medicines, diarrhoea management inclusively, before
seeking further medical attentions (Mandomando et al., 2011). Several reasons may
explain this; first the availability of medical services, which oblige most of the
mothers to opt for the care and/or the fact that most mothers or caretakers in the
urban set ups are knowledgeable of formal health care. Secondly, could be because
of the demonstrated effectiveness of the formal health care remedies in combating
some common illnesses like diarrhoea.

4.4.3 Factors Influencing Health Care Seeking and Home Management

Practices

In the current study, education was a significant factor influencing health seeking
behaviour. Those with secondary level of education were more likely to seek
treatment appropriately compared to those with tertiary level. These findings are in
agreement with the KDHS ((2008/09) report, that diarrhoea is less common among
children whose mothers have some secondary education than among those whose
mothers have less education. In addition, knowledge about the disease burden as
well as the circulating strains is still lacking in many countries, such as Niger as per
the study of (Sanchez, et al 2009). Virtually these studies that have looked at
caretaker’s education and healthcare-seeking practice have shown a positive
relationship between the two variables. In terms of gender in healthcare-seeking
behavior, the study showed no significant difference between male and female caretakers.

The key informants results showed that social-demographic factors among caretakers’ influences on the home caretaking management of diarrhoeal diseases, the officers pointed out that education, age and occupation have direct relationship with management of diarrhoea, in particular among children under the age of five years.

In relation to the study, a number of studies have shown differences in seeking health care especially for childhood illnesses (Sudharrsanam and Rotti, 2011). The higher the caregiver’s age, the higher the likelihood of seeking appropriate care. In a study by Taffa and Negussie (2010), maternal age was found to be a strong predictor of health care seeking with older caretakers being less likely to seek care for their children (Negussie and Chepngen, 2010). Although not statistically significant in the current study, the findings tend to support the idea that maternal age is an important determinant of healthcare-seeking for childhood illness.

Related to perceived illness severity, maternal recognition of certain signs and symptoms of child illness has been cited as a critical factor determining health care-seeking practices (Hill et al., 2008). Hill et al., (2008) argue that health beliefs are important barriers to care seeking in addition to the maternal ability to recognize symptoms. In their study in rural Ghana, only half of the illness episodes recognized as ‘severe’ were taken to a health facility while some illnesses were categorized as ‘not for-hospital’. Additionally, past experience with similar illnesses can motivate
mothers to play a ‘waiting game’ to see if the illness recedes on its own, particularly institutions where the cost of care is inhibitory. Such health beliefs are predicted by household size and the age and education of the mother.

4.5 Summary

The results of this study show slight improvement in health care seeking behaviour in case of diarrhoea of children under 5 years of age in the study region since the 2008 DHS survey, suggesting the efficacy of recent health policies for children in Kenya. In addition, the data suggest that hospital-based surveillance of severe diarrhoeal diseases might not be appropriate in this type of decentralized health system. Health centres are the cornerstone of the health system and should not be overlooked for the establishment of surveillance systems. Existing interventions to prevent or treat diarrhoeal diseases have proven their efficacy in reducing mortality, but a major challenge as the study found out is to scale up these interventions to achieve universal utilization coverage by the mothers and caretakers of under 5 years children, when there is severe breakout of diarrhoea.
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

From the study findings the researcher concludes as follows:

The prevalence of diarrhoea in the study areas is high and that it is a major problem among children under the age of five years in the area as evidenced by 83.6% who were in agreement with it. It is clear from the reports by the respondents that Poor hygiene and poorly disposed excreta and refuse is the main cause of diarrhoea among children in the area. It was established from the study that all the respondents in the area were aware of the signs and symptoms of diarrhoea in children with majority of them correctly identifying the cardinal signs of diarrhoea such as frequent watery stools, dehydration and nausea and vomiting. Majority of the respondents are aware of how diarrhoea can be acquired of which majority reported not washing hands before meals, drinking contaminated water, eating unwashed vegetables or fruits and poor hygiene as the main means through which children contract diarrhoea diseases.

The study showed that healthcare-seeking practices for diarrhoea remains a great challenge among the urban poor with more than half (70%) of the caretakers seeking inappropriate health care. The use of ORS together with Zinc supplements which has been widely recommended for the management of diarrhoea by the UNICEF and WHO is also low. The critical predictor of healthcare-seeking and home management of diarrhoea identified by the study is caregiver’s level of education. The respondents in the study area are unaware of the Ministry’s
recommended first line drug for prevention of diarrhoeal diseases before medical
care is sought. However, there is delay in time taken to seek medical care by the
majority of the respondents. This was attributed to lack of funds and poor timely
observation on first signs and symptoms of diarrhoeal diseases among the
respondents.

In regards to socio-demographic characteristics, the study observed that Age,
marital status and education level were socio-demographic factors associated with
home management of diarrhoea. Occupation, age and education level are also socio-
demographic factors significantly associated with health seeking behavior
particularly on using ORS to treat diarrhoea or seeking medical care immediately on
noticing diarrhoea symptoms.

5.2 Recommendations

The findings from this study are intended to inform policy makers, health educators,
planners and other health professionals about the healthcare-seeking practices and
home management practices of residents of Eldoret Municipality. This way, they
can initiate policies and programs that respond to the community needs, which will
in turn improve family and community childcare practices as one of the strategies
aimed at reducing morbidity, infant and child mortality. The study therefore makes
the following recommendation aimed at improving healthcare-seeking and home
management practices.
• Intensify efforts to educate the caretakers, as well as the general public by the Public Health Officers or community Health officers, about the importance of health seeking care and proper management of diarrhoeal and other childhood illnesses.

• The absent relationship of practice and home management to socio-demographic characteristics within this community suggests that there are no clear subgroups that should be targeted over others, so health-promotion should be done by the Government, especially through the Ministry of Public Health and the Non-Governmental Organization.

• Employ intersectoral approach by policymakers, public health educators, and community leaders to promote health behaviors performed by caretakers to prevent childhood diarrhoea in the Eldoret Municipality.

5.3 Implications for Further Research

There is need for further research on the socio-cultural factors influencing health seeking behavior and home management practices with regards to diarrhoea in children in other regions in the country.
REFERENCES


APPENDICES

Appendix I: Participant Informed Consent:

Good morning/ afternoon, I am Faith Kitony, an MPH student at Kenyatta University carrying out a research on diarrhoea focusing on mothers with under five children.

I am requesting you to participate in this study if you are a resident of Eldoret town. You will be interviewed and will not be paid or rewarded in any way for being in this study.

Benefits of the study: diarrhoea is a major killer of children in Kenya, yet it is a treatable and preventable condition. This research is being carried out in order to determine the knowledge of the mother’s in the region on diarrhoea and it relation to treatment, remedial care and preventive measures. The research will also help the health authorities to plan better community health services of your area. Therefore, by participating in this study, you would have contributed to the good of your community.

We will maintain confidentiality of the information collected. Your name shall not appear in any document interview or any report that will be presented at the end of the research. You may decide to stop participating at any time. Do you have any questions? (If yes, note the question)
Would you be willing to be in the overall study?

Yes____________ No ___________ (if no, thank the participant and terminate interview)

Participants’ Signature ______________________Date________________

I certify that the above individual has been explained the nature of the research

Signature of Investigator ______________________Date __________________
Appendix II: Sample of Questionnaire

I am a student of MPH at Kenyatta University. I would like to thank you for agreeing to participate in this study. The aim of the study is to determine the mother’s level of knowledge and practices on diarrhoea in under-fives. The questionnaire is made up of two sections A and B. Please answer each question by writing on the space provided or tick against the boxes provided. The information provided will be used for the purpose of this research only. Therefore do not write your name anywhere on the answer sheet.

**SECTION A: BACKGROUND INFORMATION**

Age ........................................

Sex  Male ☐  Female ☐

Marital status: Single ☐
Married ☐
Divorced ☐
Widowed ☐

Education level: Primary level ☐
Secondary level ☐
Tertiary ☐
No education ☐

Occupation: Formal employment ☐
Farmer ☐
Business ☐
Not employed ☐
SECTION B: SPECIFIC INFORMATION

Knowledge on Diarrhoea in Under Five Years Old Children

1) Is diarrhoea in children a serious health problem in this region?
   Yes □ No □

2) a) Are you aware of how diarrhoea is caused?
   Yes □ No □

   b) What are the causes of diarrhoea?

   Viral infections such as rotavirus and cytomegalovirus □
   Eating/drinking contaminated food and water □
   Weaning □
   Reactions to medicines such as antibiotics, and antacids containing magnesium □
   Poor hygiene and poorly disposed excreta, refuse □
   Teething □

3) a) Are you aware of how a child who has diarrhoea presents?
   Yes □ No □

   b) Which signs and symptoms are you aware of?

   Hotness of body/ fever □ Eating or drinking poorly □
   Nausea and vomiting □ Dehydration □
   Many loose, watery stools. □ Convulsion □
   Repeated vomiting □ Marked thirst □

   Others, specify______________________________________________________

4a) Are you aware of any diarrhoea transmission method?
   Yes □
4b) Which these methods of diarrhoea transmission are you aware of?

Not washing hands before meals  
Eating unwashed vegetables/fruits  
Drinking contaminated water  
Poor hygiene  

5) Are you aware of measures that can be used to prevent a child get diarrhoea?

Yes  No  

b) If yes, which preventive measures are you aware of?

Boil drinking water  
Traditional herbs  
Breastfeeding children <6 months  
Use of latrines  
Washing hands after defecating  
Washing hands before eating/ preparing food  
Cover all cooked foods  
Drain stagnant waters in the residence areas  

Others specify …………………………………………

6) a) Are you aware of any measure of treating diarrhoea at home?

Yes  No  

b) If yes, which is the best?

ORS solution
Plain water

Food base fluids e.g. soup

Drugs from Shops/vendors

6) a) Do you know the Ministry of Health’s recommended first line drug of choice for treatment of diarrhoea

Yes ☐ No ☐

b) If yes which one is recommended?

Salty water ☐
ORS ☐
Fluids ☐

Practice and Health Seeking Behaviors of Caretaker

7) a) Do you use any method to prevent you and your family members from getting diarrhoea?

Yes ☐ No ☐

b) If yes, which method do you use to prevent and control diarrhoea against your children?

Breastfeed all children under 6 months ☐
Give fresh prepared food and clean drinking water ☐
Washing hands after passing stool and before preparing or eating food ☐
Using latrines ☐
Traditional herbs ☐
Others specify........................

c) If no, why don’t you use any?
8) a) Do you normally buy ORS for treatment your children when they have diarrhoea?
   Yes □  No □

b) If yes, what is the source of drug?
   Over the counter - shop/ chemist □
   Community health worker □
   Private clinics □
   Friend’s / neighbors □

9) a) How long did you take to seek medical care for your sick child from the time you noticed/ informed of signs and symptoms of diarrhoea?
   Immediately □  Three days □
   One day □  four days □
   Two days □

b) If not, immediate in the above, what was the reason (s)?
   Funds/ money □  Time □
   Distance of hospital □  Means of transport □
Appendix III: Interview Schedule for Health Officers

Please feel free to ask question during and after the interview-Thank you.

1) Is diarrhoea in children a serious health problem in this region?

   Yes ☐  No ☐

2) Do the residence of these areas aware of the signs and symptoms of diarrhoea diseases?

   Yes ☐  No ☐

3) What is the level of knowledge and practices of the caretakers in home management of diarrhoea disease in these areas?

   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

4) How is the health seeking behaviour of caretakers in management of diarrhoeal diseases in children under-five years?

   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

5) The socio-demographic factors influence the health seeking practices of caretakers in management of diarrhoea diseases in children under-five years?

   Yes [ ]  No [ ]

   Briefly explain ……………………………………………………………………………..
6) How is the mothers’/caretakers’ perceptions on the causes of diarrhoea among under-fives and how it is managed at home before seeking help from skilled health service providers?

7) What are some of the challenges you face in trying to combat diarrhoeal diseases in these region?

8) How is the government support towards control of diarrhoea among children under the age of five years?

9) What are the strategies that need to be done in order to effectively control diarrhoea among children in Kenya?
Appendix IV: UASIN GISHU COUNTY MAP