FACTORS AFFECTING UTILIZATION OF SKILLED DELIVERY SERVICES IN PUBLIC HEALTH FACILITIES BY WOMEN OF SOMALI ORIGIN IN KAMUKUNJI SUB-COUNTY, NAIROBI COUNTY, KENYA

BY

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DECLARATION

DECLARATION BY THE STUDENT

This Research Proposal is my original wok and has not been submitted for the award of any degree or any other award in any other institution.

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DEDICATION

I dedicate this research to my beloved mother. I'm forever grateful for your encouragement, courage and spirit of endurance.

ABSTRACT

In Kenya, 21% of deaths to women of reproductive age were due to pregnancy related causes in 2014. Nairobi County is ranked 3rd amongst the leading 15 Counties in Kenya in maternal deaths. Kamukunji sub County, with a high proportion of people of Somali origin, is one of the sub-counties with comparably high maternal death rates in Nairobi County. Kenya is promoting skilled care during pregnancy and childbirth for both mothers and new-borns in line with the WHO recommendations. However, only about 21.7% of urban women refugees including women of Somali origin use skilled delivery services in public health facilities in Nairobi, in contrast to high proportion (82 %) of Kenyan women living in urban areas. In Kamukunji Sub-County, reports indicate that use of hospital deliveries services by women of Somali origin, the leading ethnic community and comprising 30% of the total women of reproductive age, is low. The true prevalence of use of hospital delivery services and factors affecting utilization of health services for health deliveries by the women of Somali origin in Kamukunji, however, are unknown. Delineating these facts would be significant to public health policy makers, planners and practitioners in identifying special focus areas that need to be addressed in efforts geared towards improvement the maternal health of this subpopulation. The main objective of this study is to assess factors affecting utilization of hospital delivery services by women of Somali origin in Kamukunji sub-County. The specific objectives are to: determine the socio-demographic factors; establish the economic factors; determine cultural factors and determine the perceptions of Community Health Workers on factors affecting utilization of skilled delivery services by women of Somali origin in Kamukunji sub-County. The study will be cross-sectional in design with sampling of participants calculated using Fisher Formula. A total of 302 participants will be interviewed. The instruments for data collection will be structured questionnaire and key interview guide using interview guides. Qualitative data will be coded while descriptive statistics will be used to calculate proportions. Categorical data will be analysed using chi-square. Binary multiple logistic regression analysis will be performed to identify factors affecting the use of delivery services.

LIST OF ABBREVIATIONS

ANC	Antenatal Care
DHS	Demographic and Health Survey
IOM	International Organization for Migration
IRC	International Rescue Committee
KDHS	Kenya Demographic Health Survey
KNBS	Kenya National Bureau of Statistics
MDGs	Millennium Development Goals
MMR	Maternal Mortality rate
MoH	Ministry of Health
MUERC	Maseno University Ethical Review Committee
PNC	Postnatal Care
TBA	Traditional Birth Attendant
UNFPA	The United Nations Population Fund
UNHCR	United Nations High Commission for Refugees
UNICEF	The United Nations Children's Fund
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

1.1. Introduction

This chapter focuses on the background of the study, statement of the problem, main research objectives, specific research objectives, research questions, justification of the study and significance of the study.

1.2. Background of the Study

Globally, 287 000 mothers die from complications of pregnancy and childbirth. Of all the global maternal deaths reported in 2015, developing regions accounted for approximately 99% of the global maternal deaths, with sub-Saharan Africa alone accounting for roughly 66% (Alkema et al., 2016) (World Health Organization, 2015). A woman's risk of dying from treatable or preventable complications of pregnancy and childbirth over the course of her lifetime is 1 in 22 in sub-Saharan Africa, compared to 1 in 7,300 in the developed regions (Alkema et al., 2016).

In 2015 maternal mortality rate in Kenya was 510 per 100,000 live births, more than double the global rate of 216 maternal deaths per 100,000 live births (Alkema et al., 2016) (World Health Organization, 2015). Hospital delivery has been shown to decrease maternal mortality death rates (Begum et al., 2009). In Kenya, about 37% of births still take place at home, and not in health facilities (Kenya Demographic Survey, 2014) although Kenya is promoting skilled care during pregnancy and childbirth for both mothers and newborns (Kitui, Lewis, & Davey, 2013).

Nairobi County is ranked 3rd amongst the leading 15 counties in Kenya in Maternal deaths. Kamukunji sub County is one of the sub-counties with high maternal deaths in Nairobi (UNFPA Kenya, 2014). A large proportion of the population in Kamukunji sub County are people of Somali origin most of whom are refugees. Majority of the Somalis in Nairobi reside in Kamukunji Sub County, Nairobi County (Widmann et al., 2014). The use of hospital delivery services by the women of Somali origin has been reported to be low ((Owili et al., 2016). Migrant women, including asylum-seeking and refugee women, have a higher risk of experiencing obstetric complications than women in the host population (WHO 2001).

In Kenya, 82 % of Kenyan women living in urban areas use hospital delivery services, but only about 21.7% of urban women refugees including women of Somali origin use skilled delivery services in public health facilities in Nairobi. Increasing the percentage of births delivered in health facilities is important for reducing deaths arising from complications of pregnancy. The expectation is that if complications arise during delivery in a health facility, a skilled birth attendant can manage them or refer the mother to the next level of care.

It has also been documented that in North Eastern region of Kenya, where ethnic Somalis constitute 90% of the population, maternal mortality rate is more than double the national maternal mortality rate: between 1,000 and 1,200 per 100,000 live births in north Eastern versus the national rate of 510 deaths per 100,000 births (Alkema et al., 2016) (World Health Organization, 2015). Low hospital delivery has also been reported in these counties where people of Somali origin comprise the overwhelming majority. In Wajir County, for example, only 18.3% deliveries are conducted in health facilities (Nguhiu, Barasa, & Chuma, 2017), about one third the overall, the national hospital delivery rate is 61 (Nguhiu et al., 2017).

Understanding the factors that influence the utilization of skilled hospital delivery services by Somali women in urban areas where services are available is crucial in this study. The study

will determine the reasons why Somali women have low uptake of skilled birth attendants in urban areas where services may be available since they remain unknown.

The main objective of this study is to assess factors affecting utilization of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County.

1.3. Statement of the Problem

In 2015, maternal mortality rate in Kenya was 510 per 100,000 live births, more than double the global rate of 216 maternal deaths per 100,000 live births in that year (Alkema et al., 2016) (World Health Organization, 2015). There is no evidence that the maternal mortality ratio has declined in recent years in Kenya (Kenya Demographic Survey, 2014). It has also been reported that Kenya has not made tangible progress towards the achievement of the Millennium Development Goal of Improving Maternal Health (World Health Organization, 2015). Kamukunji sub County is one of the sub-counties with high maternal deaths in Nairobi (UNFPA Kenya, 2014). Increasing the percentage of births delivered in health facilities is important for reducing deaths arising from complications of pregnancy. Although Kenya is promoting skilled care during pregnancy and childbirth for both mothers and newborns (Kitui, Lewis, & Davey, 2013), and despite the fact that about 82 % of Kenyan women living in urban areas are reported to be using hospital delivery services, only about 21.7% of urban women refugees including women of Somali origin use skilled delivery services in public health facilities in Nairobi (Waweru, 2014). Women of Somali origin is the leading ethnic community and comprise of 30% of the total women of reproductive age in Kamukunji Sub-County.

Understanding the factors that influence the utilization of skilled hospital delivery services by Somali women in urban areas where services are available is crucial in this study. The study

will determine the reasons why Somali women have low uptake of skilled birth attendants in urban areas where services may be available since they remain unknown.

1.4. Main Objective:

The main objective of this study is to assess the prevalence and factors affecting utilization of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County, Kenya

1.5. Specific Objectives:

I. To determine the prevalence of **non-skilled delivery by** women of Somali origin in Kamukunji sub County
II. To determine the socio-demographic factors that affect the use of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County.
III. To establish the economic factors that affect the use of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County.
IV. To determine cultural factors that affect the use of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County.
V. To determine the perceptions of Community Health Workers on factors affecting utilization of skilled delivery services by women of Somali origin in Kamukunji sub-County

1.6. Research Questions

I. What is the proportion of women of Somali origin living in Kamukunji sub County who use non-skilled delivery services
II. What are the demographic characteristics of the women of Somali origin requiring skilled hospital delivery services in public health facilities in Kamukunji sub-County, Nairobi County?

III. What are the economic factors that determine access to hospital delivery services for women of Somali origin requiring hospital delivery services in health facilities in Kamukunji sub-County, Nairobi County?

IV. What are the cultural factors that influence women of Somali origin in using or not using hospital delivery services in public health facilities in Kamukunji sub-County, Nairobi County?

V. What perceptions do health workers at the public health facilities hold on the factors affecting utilization of health facilities for delivery by women of Somali origin in Kamukunji sub-County?

1.7. Significance of the study

The findings describing the prevalence of use of skilled delivery services by women of Somali origin would be significant to local public health practitioners in appreciating the true burden of nonuse of hospital delivery services, and how much efforts are needed to improve on hospital delivery services by the women of Somali origin in Kamukunji subcounty, in Nairobi County. The findings on economic social and cultural factors would be of use to policy makers, planners and intervention strategist in identifying special focus areas that need to be addressed in reaching this subpopulation in strategies and efforts aimed at improving the hospital delivery services and in understanding significant factors that can be useful in formulating relevant policy strategies in improving maternal health to this minority subpopulation in Kamukunji sub County in an urban environment. Understanding community health workers perspectives would be significant in identifying the important views of local health workers in touch with the community and including their views on strategies aimed at improving the maternal health for this minority subpopulation by increasing the use of hospital delivery services.

CHAPTER TWO: REVIEW OF LITERATURE

2.1. Introduction

This chapter covers the global, country and county maternal deaths and skilled delivery services outlook plus literature on how factors such as socio-demographic, economic, perception of women and attitude of healthcare workers affect utilization of skilled delivery services.

2.2. Global Maternal Deaths

Globally, 287 000 mothers die from complications of pregnancy and childbirth. Of all the global maternal deaths reported in 2015, developing regions accounted for approximately 99% of the global maternal deaths, with sub-Saharan Africa alone accounting for roughly 66% (WHO, 2015). A woman's risk of dying from treatable or preventable complications of pregnancy and childbirth over the course of her lifetime is 1 in 22 in sub-Saharan Africa, compared to 1 in 7,300 in the developed regions (Alkema et al., 2016).

2.3. Maternal Deaths in Kenya

In Kenya, maternal mortality rate was 510 per 100,000 live births, more than double the global rate of 216 maternal deaths per 100,000 live births (WHO, 2015). Maternal mortality rate is highest in North Eastern region of Kenya, where ethnic Somalis constitute 90% of the population (Kitui et al., 2013). In North Eastern Kenya region, the maternal mortality rate of between 1,000 and 1,200 per 100,000 births, is more than double the national maternal mortality rate of 510 deaths per 100,000 births (WHO et al., 2015).

North Eastern Province comprising of Garissa, Mandera and Wajir counties is predominantly composed of people of Somali origin. According to the United Nations Population Fund Report, Garissa, the capital of North Eastern Province, is among five counties in Kenya where more

than half of the deaths in the country occur during delivery (Obare, Warren, Abuya, Askew, & Bellows, 2014). Other counties where half of the deaths occur during delivery are Lamu, Wajir, Mandera and Turkana As for the burden of maternal mortality per county in Kenya, Mandera leads the pack (Obare et al., 2014).

2.4. Maternal deaths in Nairobi

Nairobi County is ranked 3rd in Maternal deaths amongst the leading 15 counties in Kenya & Kamukunji sub County is one of the sub-counties with high maternal deaths in Nairobi (UNFPA Kenya, 2014). In Kamukunji sub County, the people of Somali origin comprise a large proportion of the population, hence the study area. WHO has reported that migrant women, including asylum-seeking and refugee women, have a higher risk of experiencing unwanted pregnancy, induced abortion and obstetric complications than women in the host population (WHO 2001).

2.5. Global Skilled Delivery Rates

Globally, coverage of skilled attendant during childbirth was shown to be 78% in 2016 (World Health Organization, 2017). In sub-Saharan Africa approximately only half of all live births were delivered with the assistance of skilled birth attendant in 2016. Although the sub-Saharan Africa Region has the highest maternal mortality rate, only half of the births in the sub-Saharan Africa Region, are attended by skilled health personnel, compared to other WHO regions where over 70% to 99% of all births are attended by skilled health personnel **(ibid).**

2.6. Kenya Skilled Delivery Services

In Kenya, health facilities deliveries comprised 61% of all deliveries nationally in 2014. (Kenya Demographic Survey, 2014). Health facility births are most common in urban areas (82%). More than 90% of births in Kirinyaga and Kiambu counties are delivered in a health facility,

while Wajir has the lowest rate of facility deliveries at 18% (ibid). Just over 60% of births are delivered with the assistance of a skilled provider—36% by midwives and 26% by doctors. Five percent of live births were delivered alone. In Nairobi City, the hospital delivery rate is 88.7 percent, slightly higher than the national rate. (Kenya Demographic Survey, 2014).
Understanding the socio-demographic factors that influence the utilization of hospital deliveries is important information that can be useful in increasing use of hospital deliveries in this community and similar communities elsewhere. The 2014 survey found that according to age, delivery in a health facility is least common among births to mothers age 35-49 (53 percent), and it decreases as birth order increases. Delivery in a health facility increases with the number of ANC visits the mother made. Health facility delivery increases with increasing mother's education and wealth. For example, 25 percent of births to mothers with no education are delivered in a health facility, as compared with 84 percent of births to mothers with a secondary or higher education (Nguhiu et al., 2017).

Closely related to the socio demographic factors are economic factors which will also be investigated. Studies reveal that, 30 percent of births to mothers in the lowest wealth quintile are delivered in a health facility, compared with 93 percent of births to mothers in the highest quintile. Private-sector deliveries are more common among births to women in the higher wealth quintiles and women at higher educational levels (Arthur, 2012).

Despite SRH being an important aspect of women's quality of life, the utilisation of these services by refugee and migrant women is low, leading to negative SRH outcomes (Mengesha et al., 2017). For example, Sebo and colleagues (Sebo et al., 2010) found that utilization of family planning methods and STI prevention were low among undocumented migrant women. Refugee women have also been shown to experience higher rates of unplanned pregnancy compared with women of host countries (McMichael, 2013) due to lack of appropriate health

information and low utilisation of contraceptives. The World Health Organisation (WHO) has reported that migrant women, including asylum-seeking and refugee women, have a higher risk of experiencing unwanted pregnancy, induced abortion and obstetric complications than women in the host population (WHO 2001). This may have significant consequences on the physical, psychological and social health and wellbeing of women and their families

Cultural factors like cultural perceptions among Somali women in Kenya, whereby pregnancy however unplanned is still wanted will also be determined. (Small et al., 2008). Other cultural factors that will be studied include religious beliefs and illness factors. For example studies have shown that Somalia-born women had a higher incidence of anemia (30% to 15%), gestational diabetes (11% to 5.3%), and hyperemesis (7% to 2%) as compared to all other women (Herrel et al., 2004). In addition, fifty percent more Somali women (9%) required social worker intervention than all other women (6%) (Herrel et al., 2004)

The last objective will determine the perceptions of health workers at the public health facilities on factors affecting utilization of health facilities for delivery by women of Somali origin in Kamukunji sub-County

In Somalia, the country of origin for many refugees, the maternal mortality ratio stands at above 732/100,000 live births according to latest UNICEF, WHO and UNFPA estimates, with one out of every 12 women dying due to pregnancy related causes (Alkema et al., 2016).

The reasons why Somali community have low uptake of skilled birth attendants in urban areas where services may be available therefore need to be studied based on the aforementioned factors.

Increasing the percentage of births delivered in health facilities is important for reducing deaths arising from complications of pregnancy. The expectation is that if complications arise during

delivery in a health facility, a skilled birth attendant can manage them or refer the mother to the next level of care. Kenya is promoting skilled care during pregnancy and childbirth for both mothers and newborns. This is more for refugee women and women with low education, harmful cultural practices and poor economic status. In another study on the factors influencing place of delivery for women in Kenya based on an analysis of the Kenya demographic and health survey 2008/2009, it was found that living in urban areas, among others predicted where women delivered, and so did region, ethnicity, and type of facilities used. Since 82 % of Kenyan women living in urban areas use hospital delivery services and only 18 % of women of Somali origin, use hospital facilities in Northern Kenya, the present study sought to investigate whether Somali women in urban areas would mirror their counterparts in northern Kenya in regard to factors affecting utilization of hospital delivery services. In the study therefore, the author sought to establish the factors associated with utilization of hospital delivery services by Somali women in Kamukunji sub-County, Nairobi County, Kenya. Below, we show how study factors affect utilization of health facilities delivery services.

2.7. Socio Demographic Factors

2.7.1. Age

Age has long been recognized as a key factor in care-seeking behavior. However, patterns regarding age and the utilization of delivery care are somewhat inconsistent, with most studies finding a positive association, and few studies finding a negative or curvilinear association. Studies that have found a positive association hypothesize that maternal age acts as a proxy for women's accumulated knowledge of health care services (Elo, 1992)

For example, in one study that analyzed Demographic and Health Survey (DHS) data from Peru, Elo determined that age was positively associated with having medical assistance at delivery provided by a doctor or a trained nurse/midwife. In another example, a cross-sectional

survey on the use of maternal care conducted in a sub-district in Karnataka state, India, found that women over 25 years were more likely to deliver at a health care facility compared to younger women, after controlling for a number of other variables (Mony et al., 2016)

Some studies have also found that lack of knowledge associated with older age is a factor as observed by (Mwangome, Holding, Songola, & Bomu, 2012) on a study related to the barriers to hospital delivery in a rural setting in Coast Province, Kenya: community attitude and behaviours

2.7.2. Education

The relationship between maternal education and the utilization of health care has been frequently studied in the literature. Most studies have found a positive association. (Kitui et al., 2013) found that education played a significant role in determining whether a pregnant woman sought skilled delivery in a health facility or not. However, more research is needed on the strength of the effect as well as on the underlying mechanisms by which education influences women's likelihood of using health care (Vissandjee, Barlow, & Fraser, 1997)

Support for the role of education in affecting the utilization of medical assistance at delivery comes from various studies in developing countries. Using DHS data from Nepal, (Gubhaju, 2009) found that after controlling for several factors (such as availability of services, occupation, economic status, family structure), having a primary school level of education was the most important variable in determining both the increased likelihood of a health institution delivery, and assistance at delivery provided by a health care professional. In a second example using DHS data, in this case from Peru, the role of women's education was examined in relation to the utilization of delivery care (Elo, 1992)

The findings demonstrated that maternal education significantly influenced whether delivery assistance was provided by a doctor or trained nurse/midwife (versus some other attendant),

after controlling for service availability, mother's childhood place of residence, and the socioeconomic status of the household. Similarly, in a multivariate analysis of DHS data from Ghana, (Addai, 2000) investigated the factors that affect women's propensity to utilize delivery care. This research revealed that maternal education was the strongest factor in influencing hospital delivery. Women with no or limited education were significantly less likely to have a hospital delivery compared to their counterparts with secondary or higher education. (Raghupathy, 1996) reported similar findings in her study from Thailand using DHS data to examine the influence of education on delivery care. The education - utilization relationship was examined after controlling for confounding factors such as maternal age, parity, birth-planning status, religious affiliation, income, and residence. Findings showed that compared to uneducated women, women with secondary and higher education were significantly more likely to use delivery assistance provided by a trained doctor or nurse/midwife than some other source.

In another example, a study from Bangladesh on women's utilization of health facilities for treatment of obstetric problems (not just delivery care), found that women with a primary school education or above were significantly more likely to use medical care than women with no education, after controlling for sociocultural and economic variables (Barkat, Rahman, Bose, Com, & Akhter, 1997). This prospective study focused specifically on the utilization of medical care by women with obstetric complications, and was part of a larger research project on emergency obstetric care in Bangladesh.

Researchers who have found a positive relationship between women's education and utilization offer a number of explanations for the association including the following: educated women are more likely to realize the benefits of using medical assistance at delivery and therefore are more likely to use such care; education may enhance female autonomy thereby enabling women to

make decisions about their own health; and education increases knowledge about health care, subsequently increasing demand for delivery services (Gubhaju, 2009)

2.7.3. Economic Factors

Studies have repeatedly demonstrated a positive association between economic factors and the utilization of health care (Thaddeus & Maine, 1990, 1994). Because income data is frequently unavailable or meaningless from studies in developing countries, other economic indicators (such as household wealth, family resources, and husband's occupation), are often used to reflect women's and their family's ability to bear the cost of health care. For instance, a multivariate analysis of DHS data from Turkey determined that household wealth (including car ownership, type of sanitation facilities in the household, and type of floor in the house) was positively associated with choosing both a health facility delivery and medical assistance for home deliveries (Celik & Hotchkiss, 2000). These findings are replicated by other studies. A study from Karnataka, India, for example, showed that ownership of consumer durables (including radio, TV, fan, refrigerator, furniture, washing machine, bicycle, motor vehicles, and tractor) was a significant predictor of a health facility delivery (Bhatia & Cleland, 1995). Similarly, a multivariate analysis of DHS data from Nepal found that the economic status of the household had a positive and significant effect on delivery at a health facility (Matsumara & Gubhaju, 2001). Economic status was measured by a composite score of several indicators of household possessions (including piped water, toilet, non-dirt floor, electricity, radio. TV, telephone, and bicycle). Barkat et al., (1997) reported similar findings in their study from Bangladesh on the utilization of emergency obstetric care by women with complications. Better economic status (as measured by land ownership and husband's occupation) exhibited a strong positive association on women's (and their family's) decision to seek treatment for obstetric problems.

The studies cited above illustrate how household wealth or possessions can be used as economic indicators of a woman's and her family's ability and willingness to pay for the out-of-pocket expenditures that are associated with the use of facility-based delivery care. Moreover, the findings from such research demonstrate that the use of delivery care is clearly affected by economic factors. Qualitative research from India and Bangladesh further emphasizes the importance of economic factors in relation to the utilization of delivery care (Griffiths & Stephenson, 2001; Afsana & Rashid, 2001). For example, in a qualitative study from Maharashtra, India, women with young children were recruited using a “snowball' technique, and were interviewed in-depth about their use of maternal health care during pregnancy. The findings revealed that even though delivery at a government hospital was free, the costs that would be incurred in traveling to the hospital resulted in many women delivering at home (Griffiths & Stephenson, 2001). In a qualitative study on delivery care from Bangladesh, rural women aged 20 to 40 who had had at least one live birth, were purposively selected for in-depth interviews. An important finding from the research was that economic constraints were one of the main factors that inhibited women from accessing facility-based delivery care, even if they had obstetric complications (Afsana & Rashid, 2001). Indeed, women who have limited economic resources may be more likely to resort to home rather than institutional deliveries largely because of the costs associated with the latter.

2.8. Cultural Factors

2.8.1. Cultural Perceptions

It is well accepted that illness factors influence health care-seeking behavior (Webair & Bin-Gouth, 2013). To begin with, individuals must first recognize that a problem exists. The decision to seek care is then shaped by the perceived severity and the perceived etiology of the problem. In some cases, it is possible that women do not seek health care because of a lack of

recognition of symptoms, or because the symptoms are viewed as a natural part of pregnancy and childbirth (Sundari, 1992). For example, an investigation into maternal deaths in Zimbabwe determined that delay in the decision to seek care for symptoms was partly due to a failure in recognizing the severity of certain symptoms (Fawcus, Mbizvo, Lindmark, & Nystrom, 1996). Similar findings were reported in a case-control study of maternal mortality from Ananthapur, India, where over one-fifth of family members of women who died reported that they did not comprehend the seriousness of the problem and therefore did not seek medical care (Bhatia-JC, 1993).

Similar findings were reported from a retrospective study of maternal morbidity in Karnataka, India, which demonstrated a significant association between reporting of obstetric problems and subsequent health-related behavior (Bhatia & Cleland, 2001). Multivariate analysis revealed that women who experienced problems during pregnancy or had a history of prior obstetric problems were more likely to seek an institutional delivery than problem-free women (Bhatia & Cleland, 2001). In another retrospective study, in this case from urban Uttar Pradesh, India, (Ram & Singh, 2006) and (RamaRao, Caleb, Khan, & Townsend, 2001) found that women who experienced problems during delivery were more likely to deliver at a health facility than women who did not experience such problems, after controlling for other variables. In a final example, a study from Bangladesh determined that after controlling for other factors, women who experienced complications during delivery were significantly more likely (than women without complications) to deliver with a doctor, nurse, or trained traditional birth attendant, at home or at health facility, than deliver with an untrained attendant at home (Edmonds, Paul, & Sibley, 2012). This study was based on a retrospective community survey of women who had given birth in the past two years, in 39 villages in rural Bangladesh.

The studies described above are important because they imply that women (and their families) make an appropriate response to symptoms of possible complications, or that practitioners refer women to seek additional care during delivery (Bhatia & Cleland, 2001). In other words, some sort of self-screening process, or a referral of complicated cases, is a likely explanation for the findings described above. However, because of the retrospective nature of these study designs, it is not possible to ascertain the actual sequence of events and the links in the process of care-seeking for women who experienced obstetric complications. A word of caution is warranted here: the association between complications and facility-based deliveries may not be solely the result of a self-screening or referral process, since poor quality of care is often a problem in public health facilities in developing countries (Magadi, Diamond, & Rodrigues, 2000). Nevertheless, such findings emphasize the need for further clarification on the association between obstetric complications and the use of facility-based delivery care.

2.8.2. Religious Beliefs

According to Nayer (2008), contemporary Muslims' approach to health care is still strongly based on preventative measures. In many cases, although Muslim patients seek a curative process through surgical or medical means, they still look to their religious and cultural heritage to address their spiritual, social and cultural needs. Preventative healthcare strategies in Muslim experience include: personal hygiene, dietary measures such as the restriction in eating specific ingredients (such as pork and its byproducts, and drinking alcohol), and the avoidance of addictive habits such as smoking tobacco or over-consumption of food.

An increasing number of contemporary research publications acknowledge the influence of religion and culture on sexual and reproductive behavior and health-care utilization. It is currently hypothesized that religious influences can partly explain disparities in sexual and reproductive health outcomes.

Clinical and public health research across the world have continually reported on how patients, primarily women, with immigrant background face challenges in obtaining sufficient levels of health care in secular health-care settings. Further, it is evident that women with migrant background face greater disparities in health (Wray, Ussher & Perz, 2013) and due to linguistic, cultural, and socioeconomic factors (Boerleider et al., 2013). Yet, other studies suggest that, for example, increased perinatal and maternal morbidity among foreign-born women cannot be explained by cultural or specific religious factors (Esscher et al., 2014). Although still an under-communicated aspect of health disparity research, an increasing number of research publications acknowledge the influence of religion on sexual and reproductive behavior and health-care utilization (Kleinman & Benson, 2006). Within all major religious traditions, Judaism, Christianity, Islam, Hinduism, Sikhism, and Buddhism, scholars have in one way or another reflected upon the meaning of sexuality, providing frameworks for good and bad sexuality, characteristics of male and female sexuality, and family planning strategies. Thus, religion cannot be easily separated from sexuality and reproductive health.

In common for all major religions is that they offer a distinct belief system, which aims to guide devout followers in sexual and reproductive health matters (Christopher, 2006). Yet, it is also acknowledged that religion may have a more or less profound influence on the real-life practice of devout people, a fact also illustrated in several research contributions showing that personal interpretations of any faith tend to vary from very liberal to conservative and traditional (Khorfan & Padela, 2010).

2.9. Perception of women of Somali origin on the quality of services

Though there has been a fair amount of research on the utilization of delivery care in general, there has been little research focusing on women in Africa and specifically Somali women in Kenya. Available studies fail to acknowledge the specific factors related to socio-cultural issues

that influence the utilization of hospital deliveries in an urban setting where services are available. By conducting an analysis for Somali women, this study seeks to address these gaps in the literature.

2.10. Previous Utilization of Health Care

Previous health care utilization - specifically, the use of antenatal care - is believed to be a potentially important factor for women's use of facility-based delivery care (Kavitha & Audinarayana, 1997; Magadi et al., 2000b; Suci, 1999). Having had contact with the health care system during the antenatal period and knowing exactly where to go in the event of an obstetric emergency, may lead to shorter delays in terms of decision-making when complications arise (RamaRao, Caleb, Khan, & Townsend, 2001). Bloom et al. (1999) have asserted that "Routine antenatal visits may raise awareness about the need for care at delivery or give women and their families a familiarity with health facilities that enables them to seek help more efficiently during a crisis" (Bloom et al., 1999: 38). For example, the Jamaican Perinatal Morbidity and Mortality Survey from 1986 - 87 found that women who did not attend antenatal care were significantly more likely to deliver at home than have a hospital delivery (McCaw-Binns, La Grenade, & Ashley, 1995). Similarly, in their study from Uttar Pradesh, India, Bloom et al. (1999) determined that after controlling for relevant socio-demographic and maternity history factors, urban women who had a relatively high level of antenatal care were significantly more likely to have both a doctor, nurse, or midwife at delivery, and a health facility delivery, than women who had a low level of antenatal care.

These studies suggest that antenatal care has the potential to influence women's use of health facility-based delivery care. Women may feel increasingly more comfortable with professional health care through progressive exposure over the course of the pregnancy, and this could contribute to their use of facility-based delivery care (Bloom et al., 1999). Moreover, if women

and their family members have knowledge of available health care facilities and experience with accessing those facilities, they may be more likely to utilize medical care in the future (Fosu, 1989). Antenatal care can also provide an opportunity for health providers to encourage women to seek appropriate medical care when complications arise, and to encourage contingency plans in case of an emergency.

2.11. Attitude of health workers

The relationship between patients and service provider is said to have an impact on future utilization of maternal services (Mannava et al., 2015). Patient satisfaction on quality of the services is changed by issues like privacy, confidentiality as well as sensitivity of the staff. It is said to be reflected on the willingness to return for the same services in the forthcoming pregnancy. In Tanzania, a study associated poor communication by the health providers during antenatal attendance to prevailing low hospital delivery (Magoma et al., 2010)

Similarly, others associated maternal delays in using maternal services with previous negative experiences with the health staff interaction (Mannava et al., 2015). Likewise, discourtesy by health workers and disrespect for local cultural values causes resentment among clients.

Inability to express themselves in the language of the skilled delivery among many Somali women living in Nairobi is associated with underutilization of skilled delivery services (Ndonga, 2014). Irregular opening hours, long waiting hours and language barrier to relay health information are factors that were identified by previous studies to be affecting women when seeking health services (Kongnyuy, Mlava & van den Broek, 2009). The study also mentioned feeling of mistrust, lack of respect and cultural insensibility among the health workers as some of the problems the clients face in reference to staff interaction during service delivery.

2.12. Conceptual framework on factors that influence skilled delivery use

Increasing the percentage of births delivered in health facilities is important for reducing deaths arising from complications of pregnancy. The expectation is that if complications arise during delivery in a health facility, a skilled birth attendant can manage them or refer the mother to the next level of care. Kenya is promoting skilled care during pregnancy and childbirth for both mothers and newborns (Tasnim, Rahman, & Shahabuddin, 2009)

According to the Kenya Demographic and Health Survey (2014), on the per cent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to County, North Eastern Province counties of Garissa, Mandera and Wajir accounted for the lowest health facility deliveries at 35.5%m 26.1% and 17.1% respectively while it was 46% for Nairobi (KNBS, 2014)

Since obstetric care from a health professional during delivery is recognized as critical in reducing maternal and neonatal mortality, among all counties in Kenya, North Eastern counties of Garissa, Mandera and Wajir and mainly inhabited by populations of Somali origin were provided with the least assistance during delivery at 5.5%, 20% and 1.2% respectively. This against 65% for Muranga, 54% for Mombasa and 26% for Nairobi (KNBS, 2014)

In Nairobi, in 2014, 533 women died due to pregnancy related complications making itr the third leading county by number of maternal deaths and maternal mortality ratio in Kenya (UNFPA Kenya, 2014).

This framework considers contextual and intermediate determinants. Contextual determinants include socioeconomics development factors such as availability of services, residence, income level, distance and transportation costs, cultural factors such household heads and decision making, religious belief, marital status and child bearing and gender factors such as the level of

education, income, occupation, power, residence and decision making. Determinants include health facility factors such as cultural influences, quality of the services such as timing, equipment and supplies; health workers such as their gender and attitude, and client/women factors such as sexual or reproductive health, age , parity, and ANC attendance facilities.

FACTORS AFFECTING UTILIZATION OF HOSPITAL DELIVERY SERVICES

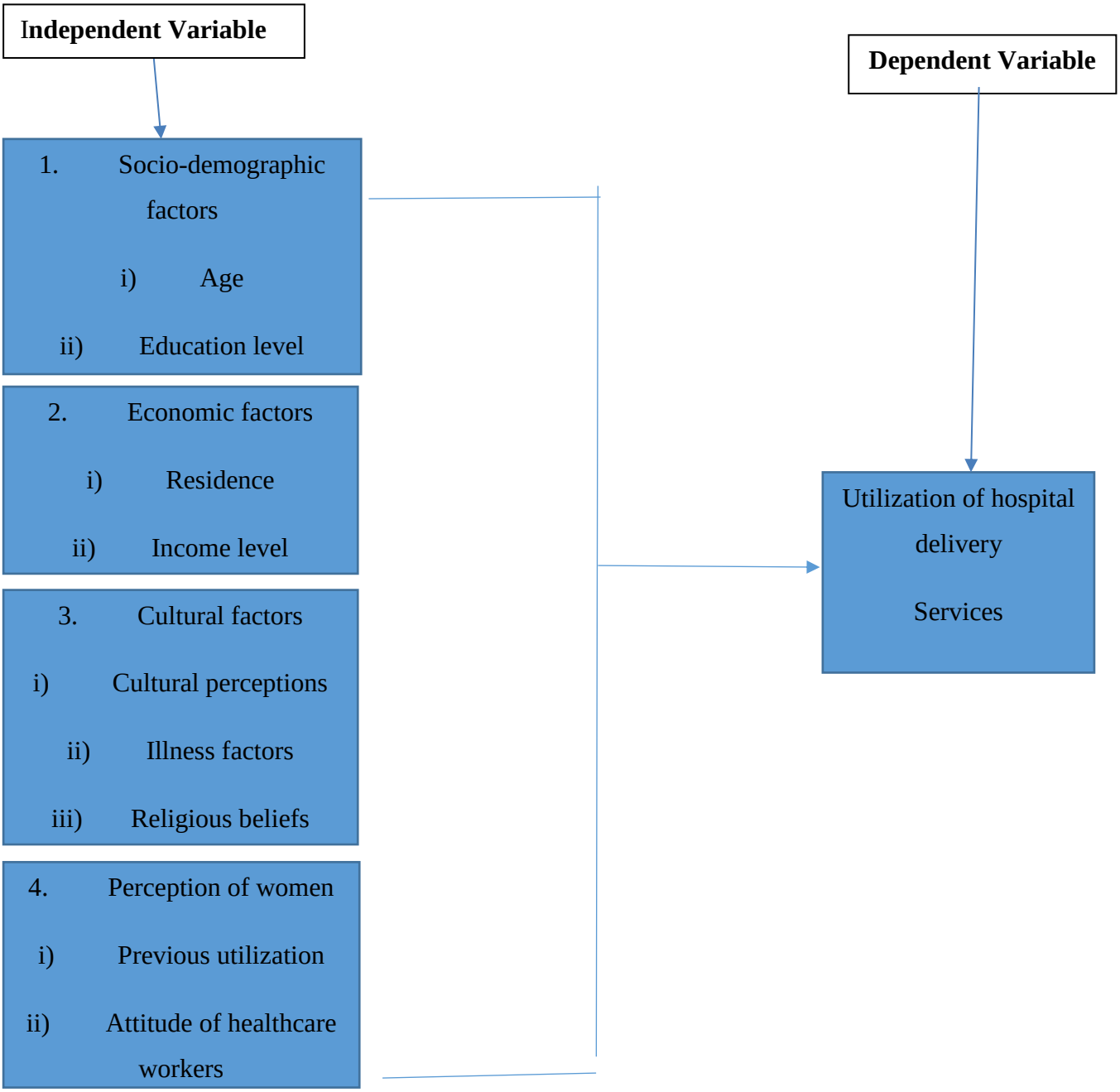

Fig 1. Conceptual Framework on Skilled Delivery

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter outlines the methodology that will be used in the research study. It describes the study site, research design, instruments for data collection, the study participants, calculation of sample size, sampling technique, pilot study, data collection, data analysis and ethical permission.

3.2. Study Site

The study site will be Kamukunji sub-County in Nairobi County (Figure 2). Kamukunji sub-County was purposively chosen for two main reasons. One, it is predominantly occupied by residents of Somali origin both immigrants from Somalia and Somali of Kenyan origin. Two, the sub County has the lowest Ante natal visit rates in Nairobi County (Kenya Health Information System).

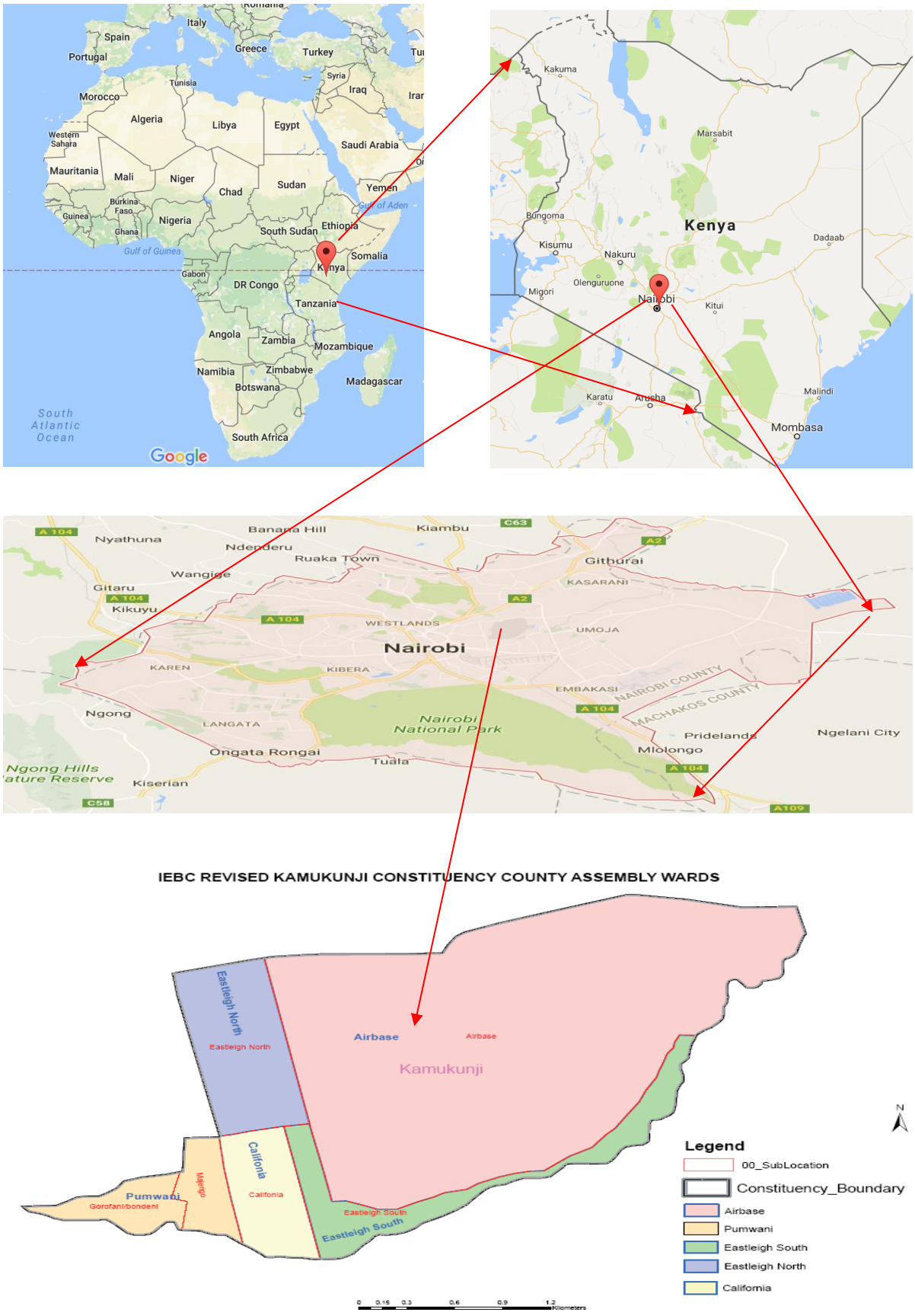

Fig 2. Study Sites Indicating the Kamukunji sub-County wards

3.3. Research Design

The study will be cross-sectional in design in which information on factors affecting utilization of hospital delivery services by women of Somali origin in Kamukunji sub County will be sought and obtained from women of reproductive age (between 18 and 49 years) of Somali origin who have had at least one delivery in the last one year and have resided in the area for not less than one year.

3.4. Instruments for Data Collection

Instruments for data collection for this study will be questionnaires, key informant interview guide. The questionnaire will have both open and close-ended questions. The close-ended questions will provide more structured responses to facilitate tangible recommendations. The closed ended questions will be used to test the rating of various attributes and this will help in reducing the number of related responses in order to obtain more varied responses. The open-ended questions will provide additional information that may not have been captured in the close-ended questions. Key informant interviews with Community Health Workers and Sub County Health Supervisors and Traditional Birth attendants working in the sub County, Somali Community leaders in the sub County.

3.5. Study population

The study population will consist of women of Somali origin, who have been residing in Kamukunji sub County for not less than one year and have heard at least one delivery in the past one year in the subcounty.

3.6. Sample size calculation

Sample size will be calculated using Fisher's Formula (Fishers et al,). An estimated 56,520 Somalis live Nairobi, mostly in Kamukunji sub-County, two third of them refugees. (Urban Refuges Organization)

Using Fisher's Formula Sample Size, an initial sample of 272 is obtained

$n = \frac{Z^2\ P(1-P)}{d^2} = \frac{1.96^2\ (0.23)(1-023)}{0.05^2} = 272$

With a 10% non-response, a final sample of 302 is obtained based on the formula below

= 90/ (1-0.1) = 302

Where z score for 95% confidence level is equal to 1.96

Where p is proportion of the condition under investigation in the study population and is 0.23

Where q When p is in percentage terms and is equal to (100-p) =0.77

Where d is equal to 0.05

3.7. Sampling Technique

The researcher random sampling in selecting the respondents in order to ensure that all Somali women living in the six wards of Kamukunji sub-County had the equal chance of inclusion. The target sample of 266 will be randomly selected from women of reproductive age (between 18 and 49 years) of Somali origin who have had at least one delivery in the last one year and have resided in the study area for more than one year in the study area. In order to ensure that refugee women are captured, three community and social workers from IRC and AMA who provide services to refugee women in the area will be used to draw their beneficiaries and will be provided with the sampling frame to avoid biased selection.

Twelve key informants were also purposively identified from agencies working in the area including public health facilities and also with refugee and the refugee community leaders as the persons who are knowledgeable in host community and refugee issues.

3.8. Scope

The study will be confined to assessing the prevalence prevalence of use of non-skilled delivery services and factors affecting utilization of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County, Kenya.

3.9. Limitation

The information obtained will be based on self-reports with no way of ascertaining the responses provided by the participants.

3.10. The Pilot Study

The researcher will carry out a pilot study to pre-test and validate the questionnaire. To establish the validity of the research instrument the researcher will seek opinions of experts in the field of study especially the researcher's supervisor and lecturers in the respective department. This will facilitate the necessary revision and modification of the research instrument thereby enhancing face validity. The researcher intends to select a pilot group of 10 individuals from the target population to test the reliability of the research instrument.

The pilot data will not be included in the actual study. The pilot study will allow for pre-testing of the research instrument. The clarity of the instrument items to the respondents will be established so as to enhance the instrument's validity and reliability. The pilot study will enable

the researcher to be familiar with research and its administration procedure as well as identifying items that require modification. The result will help the researcher to correct inconsistencies arising from the instruments, which will ensure that they measure what is intended.

3.11. Data Collection

The questionnaire will be administered by trained research assistants working together with the researcher. Informed consent will be sought and obtained from respondents before the interviews are conducted. Interview will be obtained only from women from whom informed consent will have been granted. Information will be sought on their perception in relation to their previous experience if any at the hospital and what they think of hospital delivery service and their utilization. Key Informant Interview will be held with key persons who work in programmes, targeting poor urban host and urban refugees. The Key Informants will be purposively sampled based on whether they interact with Somali women in the study area and if so in what capacity.

3.12. Data Analysis

Before processing the responses, the completed questionnaires will be edited for completeness and consistency. Categorical data will be analysed using chi-square and Cochran-Armitage tests. Binary multiple logistic regression analysis will be used to identify factors affecting the delivery location

Quantitative data collected will be processed using Statistical Package for Social Sciences (SPSS) (George, D., & Mallery, P. (2012). Analysis will be done by the use of descriptive statistics and presented through percentages, means, standard deviations and frequencies. The qualitative data will be coded thematically and then analysed statistically. Content analysis will

be used to data that is qualitative in nature or aspect of the data collected from the open-ended questions.

3.13. Ethical Permission

Permission to conduct the study will be sought and obtained from Maseno University School of Graduate Studies. Ethical Permit will be sought and obtained from Maseno University Ethical Review Board. Informed Consent will be sought and obtained from participants.

No below 18 years of age will be interviewed. Information will be obtained only from participants who will give informed consent. Anonymity and privacy during interview will be ensured.

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APPENDICES

Appendix 1: Letter of Authorization, Nairobi County Health Department

MASENO UNIVERSITY

SCHOOL OF PUBLIC HEALTH AND COMMUNITY DEVELOPMENT

(SPHCD)
DEPARTMENT OF PUBLIC HEALTH

Tel: (057- 3 - 51622/51267/51110)

Fax: (057- 3- 51221/51153/51011)

E-mail: espudec@maseno.ac.ke

School of Public Health and
Community Development (ESPUDEC)
Siriba Campus
Private Bag
MASENO, Kenya

23 March 2018

Medical Officer of Health,
Kamukunji Sub-County, Nairobi County.

Dear Sir/Madam

RE: ABDULLAHI RASHID IBRAHIM, ADMISSION NUMBER EL/ESM/00454/2013

The above named is a student undertaking the Master of Public Health (Epidemiology and Population Health) degree in the Department of Public Health, School of Public Health and Community Development, Maseno University. He has successfully completed his Course Work and is currently in the second stage which involves developing a research proposal for MPH thesis as part of the degree requirement. As a University, we encourage students to undertake relevant researches within the County where they work which can be used to improve the health of the community. Use of hospital delivery services is a very important area of public health concern. Abdullahi has chosen to conduct his research in this area and his tentative research title is "*Factors affecting utilization of skilled delivery services in public health facilities among women of Somali origin in Kamukunji sub-County, Nairobi County, Kenya".* In order to develop a full research proposal for his Master of Public Health thesis, he needs to acquire certain information, the list of which is attached here with.

The purpose of this letter is to request you to assist him gather the required information that may be useful in developing a research proposal. Any assistance accorded to him will be highly appreciated. If you have any questions regarding the above, please do not hesitate to contact the undersigned at +254720887806.

Thank you.

Dr Japheths Ogendi, PhD
Department of Public Health, Maseno University

Appendix 2: Informed Consent

Dear Participant

My name is Abdullahi Rashid Ibrahim (Admission No EL/ESM/454/2013). I am a student from Maseno University, department of Public Health. I am conducting a research work for my Master of Public Health thesis. The research is entitled "*The factors affecting utilization of skilled delivery services in public health facilities by women of Somali origin in Kamukunji sub County, Nairobi County"*. The main objective of this study will be to assess the prevalence and factors affecting utilization of skilled delivery services in health facilities among women of Somali origin in Kamukunji sub-County, Nairobi County, Kenya. You have been chosen to be one of the participants in this study. You can choose to participate or decline. You can also refuse to answer some parts of the questions which you feel like not answering. However, we urge you to participate.

Tick appropriate decision

Accept…….

Decline…….

Name…… Signature……. Date……...

Appendix 3: Research questionnaire for Somali women in Kamukunji sub-County, Nairobi County

Q1. What is your ethnicity?

Q2. Please indicate your Age bracket

a) 18-23 ☐
b) 24-29 ☐
c) 30-35 ☐
d) 36-42 ☐
e) 43-49 ☐

Q2. What religion do you practice?

a) Islam ☐
b) Christian ☐
c) Traditional ☐
d) None ☐

Q3. Which ward of Kamukunji Sub-County do you live in?

a) Eastleigh North ☐
b) Eastleigh South ☐
c) Kimathi ☐
d) Muthurwa ☐
e) Pumwani ☐
f) Uhuru ☐

Q4. How many weeks pregnant were you when you first thought you might be pregnant? Please tick one box.

6 weeks or less ..... ☐
7-12 weeks ..... ☐
13-28 weeks ..... ☐
More than 28 weeks ..... ☐
Don't know/can't remember ..... ☐

Q5. Which one of the following health care providers did you first contact when you first thought you might be pregnant? Please tick one box.

Public Hospital..... ⌊⌋
Private Hospital..... ⌊⌋
Family Doctor (GP) or Doctor's nurse ..... ⌊⌋
Traditional Birth Attendant..... ⌊⌋
None..... ⌊⌋

Q6. How many weeks pregnant were you when you first saw this health care provider? Please tick one box.

6 weeks or less ..... ⌊⌋
7-12 weeks ..... ⌊⌋
13-28 weeks ..... ⌊⌋
More than 28 weeks..... ⌊⌋
Don't know/can't remember..... ⌊⌋

Q7. Where did you get 'antenatal care' from for most of your pregnancy? Please tick one box.

Public Hospital ..... ⌊⌋
Private Hospital ..... ⌊⌋
Midwife/TBA ..... ⌊⌋
I didn't have any antenatal care..... ⌊⌋
Don't know..... ⌊⌋

Q8. In Your last delivery, where did you give birth? Please tick one box.

At home..... ⌊⌋
At a public hospital/Health Centre..... ⌊⌋
At the maternity unit of a private hospital ..... ⌊⌋
At the home of a TBA..... ⌊⌋
In my own home ..... ⌊⌋

Q9. Among your children, how many were born with assistance of skilled birth attendants in a public facility? ☐

Q10. Have you ever used Kamukunji sub-County public hospitals and health facilities for delivery? a) If yes, how many? ☐

b) If no, what were the reasons? Please tick applicable boxes.

Expensive..... ☐

Poor quality..... ☐

Language and cultural barrier with facility staff ..... ☐

I'm fine with home delivery and TBA..... ☐

I don't know about their existence ..... ☐

Section 2: Socio-demographic and economic factors that affect the use of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County.

Q1. What country were you born in?

a) Kenya ☐

b) Somalia ☐

c) Another ☐

Q2. Please choose one of the following that best describes your social class or income?

Lower Working Middle Upper middle Upper

Q3. Do you receive any financial and other incentives do deliver at public health facilities?

a) Yes ☐

b) No ☐

c) Don't know ☐

Q4. What is the highest level of education you have completed?

a) Primary ☐ b) Secondary ☐

b) College or higher ☐ d) None ☐

Q5. Marital Status: What is your marital status?

a) Single ☐

b) Married ☐

c) Divorced ☐

d) Widowed ☐

Q6. Are you or your spouse employed?

a) I'm employed ☐

b) Husband employed ☐

c) Both of us ☐

d) None is employed ☐

Section 3: Cultural factors that affect the use of skilled delivery services in health facilities by women of Somali origin in Kamukunji sub-County, Nairobi County

Q1. Do you speak any language apart from Somali? If yes, which one?

Q2. Will anyone other than yourself be participating in decisions affecting you? If yes, who?

a) Husband ☐

b) My mother ☐

c) Mother-in-Law ☐

d) Extended family ☐

e) None ☐

Q3. Are there any barriers related to you choosing the hospital of your choice to deliver or for treatment? Please tick one.

a) Economic factors ☐

b) Cultural considerations ☐

c) Language flexibility ☐

d) Distance ☐

e) Family wishes ☐

Q4. Share with me what you believe causes illness?

a) God ☐ b) Lifestyle ☐

b) Pathogens ☐ d) Don't know ☐

Q5. Tell me about your feelings about pregnancy and how much care you need?

a) Normal ☐

b) Fearful ☐

c) Close observation needed ☐

d) Don't know/ my 1st pregnancy ☐

Appendix 4: Questionnaire for Community Health Workers/Health Workers

Q1. Are there any particular reasons Somali women may not come for antenatal care?

Many can't speak apart from Somali, therefore language barrier .....☐

They don't consider ANC important prior to delivery .....☐

Many are not aware that the services including ANC are free .....☐

Some believe their background, culture & beliefs may not be respected .....☐

I don't know.

Q2. Do you know how to effectively handle complaints as per the National Patients' Rights Charter?

a) Yes ☐

b) No ☐

c) Don't know ☐

Q3. Does this hospital practice or promote affirmative action approach to hiring culturally appropriate, female practitioners?

a) Yes ☐

b) No ☐

c) Don't know ☐

Q4. Do you think all health workers are trained to properly manage maternal and neonatal complications boosting the confidence of care seekers?

a) Excellent ☐

b) Medium ☐

c) Limited ☐

d) Negligible ☐

Q5. In your estimation, which areas should be improved on so that more women come and deliver at public health facilities?

a) The help and support that's available to women during delivery ☐

b) How clean the facilities are ☐

c) The amount of privacy they get ☐

d) The amount of rest that they are able to get ☐

e) Allowing visitors or support people to be with them whenever they want them ☐

Q6. In your estimation, what is the prevalence of Somali women in Kamukunji sub-County who seek delivery services in your hospital or health centre?

a) 100% ☐

b) 75% ☐

c) 50% ☐

d) 25% ☐

e) I don't know ☐

Q7. Has a previous experience affected the subsequent decision of a Somali woman to deliver at this public facility? If yes, what type of experience?

a) Poor services ☐

b) Expenses ☐

c) Language barrier ☐

d) Lack of privacy ☐

e) I don't know ☐