FACTORS INFLUENCING UTILIZATION OF LINDA MAMA BORESHA JAMII HEALTH INSURANCE BY EXPECTANT MOTHERS IN TRANS NZOIA COUNTY, KENYA.

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A THESIS SUBMITTED TO THE SCHOOL OF MEDICINE& HEALTH SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE CONFERMENT OF THE DEGREE OF MASTERS IN HEALTH SYSTEMS MANAGEMENT OF KENYA METHODIST UNIVERSITY

SEPTEMBER, 2021

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DEDICATION

This work is dedicated to all nurses working in primary health care facilities in Trans Nzoia County, Kenya. Special dedication to my dear wife Jedidah Wamalwa, my children John Wamalwa, Joan Wamalwa and Joshua Wamalwa. To my late father Cleophas Nalwelisie and my late mum Prisca Khaoma. To my brothers and sisters in Bungoma County, Kenya who gave me moral and psychological support during the course of study; to you all I am very thankful.

ACKNOWLEDGEMENT

I take this golden opportunity to appreciate and give honor to God for granting me the opportunity and ability coupled with unmerited strength to pursue this study. My heartfelt gratitude goes to my supervisors Dr. Wanja Mwaura Tenambergen together with Dr. Muthoni Mwangi for their unrelenting guidance and support throughout my period of study. I also want to thank Dr. Keziah Njoroge for her support and guidance during my course of study, my heartfelt gratitude goes to my school of study, that being the Kenya Methodist University and with reference to the Department of Health Systems Management. I extend my gratitude to the Trans Nzoia County Health Records and Information Coordinator, Mr. Joackim Oreko for his cooperation and support. My gratitude also goes to the National Health Insurance Fund, Kitale Branch Manager Mr. Amos Koech for his cooperation and support. I further want to pour my heartfelt appreciations to my only dear wife Jedidah Wamalwa together with my beloved children: John Wamalwa Joan Wamalwa and Joshua Wamalwa for their support throughout my period of study.

ABSTRACT

Globally, utilization of Social Health Insurance is wanting and Africa South of the Sahara is the worst affected. In Kenya and more specifically Trans Nzoia County, utilization of social health Insurance services under the brand name Linda Mama Boresha Jamii Insurance (LMBJI) which the Kenya government is utilizing to offer free maternity services to expectant women in order to reduce maternal death rate remains a challenge despite the government's effort to create awareness. According to Hospital Insurance Fund (NHIF), Trans Nzoia County office records out of 45,472 women who were eligible to use Linda Mama card only 6,453(14%) women used Linda Mama card during their ante natal period in 2017 and during delivery only 6,430(14%) used Linda Mama card. The broad study objective was determining factors influencing utilization of LMBJI cover in Trans Nzoia County. The study was under the Health Financing Pillar of the Health Systems Management. This study adopted descriptive-cross sectional research design with mixed methods approach. The research study was institutional based and it targeted women of reproductive age with confirmed pregnancy and those with babies less than one-year-old. The study had a target population of 45,472.A sample size of 384 was obtained using Cochran's sample size formula (1977), while 7 Nursing Services Managers working in the sampled health facilities were sampled using purposive sampling technique and were used as key informants. The study also used purposive sampling technique to realize the health facilities study sample. Data collection tools were structured questionnaire for the 384 mothers to realize quantitative data. The study further used key informant interview guide for 7 Nursing Services Managers to realize qualitative data. The research tools were pretested to ascertain reliability and validity. SPSS version 25 was used in coding and analyzing the quantitative data while qualitative data was analyzed thematically and presented in verbatim. The regression equation, taking all factors (Client's characteristics, NHIF Scheme Characteristics, health facility factors and Health Worker's Characteristics) to be constant at zero, growth of Linda Mama would be 1.217. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in Client's characteristics leads to a 0.746 increase in Utilization of Linda mama; a unit increase in NHIF Scheme Characteristics leads to a 0.778 increase in Utilization of Linda mama, a unit increase in health facility factors leads to a .673 increase in utilization of Linda mama; while a unit increase in health worker's characteristics leads to a .622 increase in Utilization of Linda mama. This inferred that NHIF Scheme Characteristics, health facility factors, health worker's characteristics, had the most influence on Utilization of Linda mama with a significance value of (0.000) at 95% level of confidence followed by Client's characteristics with a significance value of 0.002. The study found out and concluded that client's characteristics, NHIF scheme characteristics, health facility factors and health worker's characteristics influenced utilization of Linda mama insurance policy. The study recommended that the implementers of the programme in Trans Nzoia County should focus on improving economic status of the women by creating conducive environment for doing business; the county government of Trans Nzoia should also make sure all roads leading to rural health facilities are passable especially during rainy season while the NHIF scheme should develop and adopt a mobile phone application which can allow as many expectant mothers as possible to register without necessarily visiting health facilities.

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ABBREVIATIONS AND ACRONYMS

ANC	Ante Natal Clinic
ARV	Anti-retro Viral
CWC	Child Welfare Clinic
DHIS	District Health Information System
FBO	Faith Based Organization
FGD	Focus Group Discussion
FMS	Free Maternity Services
FP	Family Planning
HIV	Human Immunovirus
KIPPRA	Kenya Institute for Public Policy Research and Analysis
LLIN	Long Lasting Insecticide Nets
MDG	Millennium Development Goals
MOH	Ministry of Health
MVA	Manual Vacuum Aspiration
NCAPD	National Coordinating Agency for Population Development
NHIA	National Health Insurance Authority
NHIF	National Hospital Insurance Fund
NHIS	Nation Health Insurance Scheme
PMTCT	Prevention of Mother to Child Transmission
PNC	Post Natal Clinic
SHI	Social Health Insurance
SPSS	Statistical Package for Scientific Summation
TT	Tetanus Toxoid
UHC	Universal Health Coverage
UK	United Kingdom
US	United States
VDRL	Venereal Disease Research Laboratory
WHO	World Health Organization
WTP	Willing to Pay

CHAPTER ONE:

INTRODUCTION

1.1 Background of the study

The concept of health care systems is based on six major building blocks that facilitate and strengthen proper delivery of health services, these include: health workforce, health service delivery, health financing, health information systems, medical products vaccines and technology and leadership/ governance (World Health Organization [WHO], 2007). The study focused on health financing. It was facility based study and it targeted expectant women and those with babies less than one-year-old but living in Trans Nzoia County.

According to the world health organization regional office that is concerned with the western pacific (2006), the global view on utilization of Maternal Child Health Insurance seems to be the only option available for achieving the health care coverage that is considered being Universal. Subsequently the national health insurance scheme (NHIS), that is mainly operating in Ghana sub Saharan Africa was introduced through the provisions of parliament's amendments and under the scheme all pregnant women renew their membership yearly free of charge and they access health services without difficulty, (Owosu-Sekyere et al., 2014). This has placed Ghana on the path way to Universal Health Coverage and the maternal child health status of women in Ghana is much better than that of other African countries. In Rwanda, community based health insurance called Mutuelles Desante is in use and unlike in Ghana and Kenya, the community members pool resources for health financing by contributing towards the scheme (Lu et al., 2012). Unlike Linda Mama Boresha Jamii, those who do not afford to contribute towards the Mutuelles scheme in Rwanda do not benefit from it, as a result they face catastrophic health spending whenever they fall sick or during

delivery; now the Kenya government is paying for women in Kenya who are expectant or have children one year and below to enjoy free medical cover through Linda Mama Boresha Jamii insurance but women in Trans Nzoia County are not embracing the free offer extended to them by the government!

In East Africa, Tanzania's rural population approximately 40% of women are not in the care of medical staff at hospital or clinics because they are not on any form of insurance so they deliver alone or sometimes through the assistance of Traditional Birth Attendants (Webber, 2012). In Kenya similar conditions were prevailing until 2013 when the Kenyan government introduced free maternity services (FMS). So as to ensure sustainability of free maternity services the National Hospital Insurance Fund (NHIF) was brought on board and the NHIF in turn came up with Linda Mama Boresha Jamii Insurance policy to specifically take care of pregnant women and their babies up to the age of one year. The Kenyan government pays premiums on their behalf.

In Trans Nzoia County before 2013, home delivery was preferred by expectant women due to costs associated with hospital delivery, for instance within the year 2012, out of 39,700 estimated deliveries in Trans Nzoia County, based on Population and Housing Census (2009), only 9,300 (23%) women delivered in health facilities while 30,400 (77%) women were assumed to have delivered at home either alone or by the assistance of Traditional Birth Attendants (TBAs). According to Population Services International (PSI) (2014), most of the women preferred to be delivered by TBAs because the mode of payment was either in kind or in small token of cash payment. When the government introduced free maternity services in 2013, it was expected that the number of hospital delivery was going to increase tremendously but

according to studies carried out by Njuguna et al. (2017), it was established that after the commencement of free maternity services by the government in 2013, Trans Nzoia County recorded an increase of health facility delivery by only 2.3%. With regards to the housing and Kenya populations census (2009), Trans Nzoia County proportion of expectant women in 2017 was 45,472 and yet according to Hospital Insurance Fund (NHIF), Trans Nzoia County office records only 6453 (14%) women used Linda Mama card during their ante natal period and during delivery only 6430 used Linda Mama card which is normally given to mothers free of charge during pregnancy or if they missed during pregnancy then they can get it during delivery.

WHO (2006), further says that beyond the provisions and accessibility of health care services, the quality of maternal care services matters thus every woman everywhere has the right to high quality maternal healthcare, however the question remains: is it possible to ensure optimal maternal health care for all without maternal child health insurance? In June 2013, the Kenya government announced the immediate removal of the fees that was related to maternity within the public health facilities countrywide and opted to therefore reimburse the general public health facilities whatever they were charging for deliveries through the Ministry of Health. According to NHIF Linda Mama Boresha Jamii Implementation Manual for Program Managers (2016), three years later cumulatively countrywide it was found out that over 400,000 additional women delivered in hospital as opposed to less than 200,000 women over a similar period before introduction of free maternity services. The manual further states "in order to make maternity health services and other related programs free and also sustainable and to expand the choice of free maternity services by bringing on board the Private and faith based organizations (FBOs), the Health ministry in Kenya transferred the FMS to the National Hospital Insurance Fund specifically with the

brand name *Linda Mama Boresha Jamii Health Insurance''*. In Trans Nzoia County, on the other hand over 86 health facilities were accredited to NHIF, NHIF Trans Nzoia County office records (2019), however the percentage of expectant women who were on Linda Mama program was very low as compared to the many health facilities accredited to NHIF.

1.2 Statement of the Problem

Most of the countries south of the Sahara have had insurance coverage of child and maternal health care below 5% and Kenya is in the same league with them, Kenya Demographic Health Survey (2015). According to the table in appendix1 showing the average number of deliveries by County, extracted from HIS 2 (2016), the average percentage of health facility deliveries country wide was 60% up from 46% before introduction of FMS in 2013 while the most improved County was Kiambu with 112% health facility deliveries up from 56% before 2013 the least improved Counties were Turkana and Wajir with 29% health facility deliveries each up from 24% and 23.5% respectively. Trans Nzoia County was the 2nd least improved with 33% up from 25% before 2013. According to studies done by Njuguna et al. (2017), Trans Nzoia County still registered low increase in health facility delivery particularly at the County referral hospital by 2.3% only (Njuguna et al., 2017). Trans Nzoia County is not among the known hardship Counties in Kenya so the researcher wanted to establish factors which might be influencing Trans Nzoia County to record such low improvement in health facility deliveries.

1.3 Purpose of the study

The results of this study are expected to lead to improvement of Linda Mama Boresha Jamii Insurance utilization among expectant women in Trans Nzoia County

1.4 Study Objectives

1.4.1 Broad Objective

To establish the factors influencing utilization of the Linda Mama Boresha Jamii insurance services among expectant women within Trans Nzoia County.

1.4.2 Specific objectives

i) To determine individual client's characteristics influence on utilization of Linda Mama Boresha Jamii insurance in Trans Nzoia County

ii) To determine the influence of NHIF scheme characteristics on the utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County

iii) To determine health facility related factors influence on utilization of Linda Mama Boresha Jamii health insurance services in Trans Nzoia County

iv) To determine health workers' characteristics influence on utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County

1.5 Research Questions

i) To what extent does an individual client characteristics influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County?

ii) To what extent does the NHIF scheme characteristics influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County?

iii) To what extent does health facility related factors influence utilization of Linda Mama Boresha Jamii insurance in Trans Nzoia County?

iv) To what extent do characteristics of health workers influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County?

1.6 Justification of the study

Globally, maternal and child health insurance coverage is a challenge particularly in developing countries like Kenya. Studies have revealed that the average health insurance coverage within the Sub Saharan Africa is considered being below 5% (Wang et al, 2014), also studies done in India by Montgomery (2014), revealed that maternal and infant mortality is higher in women who do not seek the services of an experienced and skilled birth attendant during delivery.

With regard to the demographic health Survey (2015), the average maternal/ child health insurance coverage in Trans Nzoia County before introduction of Linda Mama Boresha Jamii was less than 10% and after introduction of Linda Mama Boresha Jamii it rose to slightly above 14%.

Due to factors which the researcher set out to establish, most of the pregnant women in Trans Nzoia County seemed not to be utilizing the free maternity services, as a result of that the researcher set out to therefore conduct this study with an aim of establishing factors that influence utilization of the Linda Mama Boresha Jamii insurance services and the outcome of the research was to provide the Health care ministry, the Trans Nzoia County policy makers and the NHIF with a situational analysis regarding the utilization of the maternal and child health care insurance and interventions that could be made to increase utilization of Linda Mama Boresha Jamii health insurance.

1.7 Limitations of the study

Informed consent gave room to clients to exclude themselves from the research at any given time which could affect the outcome of the study. However, the researcher gave adequate health education to the clients prior to data collection so instead of opting

out anyhow, they made an informed choice. The road network in Trans Nzoia County was poor and long rains came before data collection was over, as a result the researcher experienced some difficulties in accessing some of the sampled health facilities to collect data. Due to lack of research culture amongst some respondents, the researcher encountered some difficulties in collecting data from them. However, the researcher gave health education to the respondents on the importance of research which persuaded them to accept to respond to questions whenever they were approached to give information on anything.

1.8 Delimitations of the study

The research majorly focused on Trans-Nzoia County leaving out the other 46 counties which constitute Kenya as a country. The study population consisted of women with confirmed pregnancy and those who had delivered but had not completed one year since delivery, sampled in the study area. Other women of reproductive age with confirmed pregnancy or had delivered less than one year ago living in Trans Nzoia County but outside the sampled health facilities were delimited from the study. Seven Nursing Services Managers operating within the sampled health facilities were considered participants in the research but other Nursing Services Managers working in Trans Nzoia County but outside the sampled health facilities were delimited from the study.

1.9 Significance of the study

The Ministry of Health (MOH) would benefit from the study by understanding the factors which influence utilization of Linda Mama Insurance and once the issues are identified and dealt with, pregnant women and their children below one year would start utilizing the cover, in addition the study also benefit pregnant women by identifying factors which influence utilization of Linda Mama Boresha Jamii health

insurance program which the government of Kenya is utilizing to implement free maternity services.

The Government of Kenya also benefit from this research because the factors influencing utilization of Linda Mama Boresha Jamii insurance have been identified, making it possible to reduce maternal death rate by promoting increased skilled hospital delivery. The NHIF also benefit from the results of the research by way of having more clients enrolled on Linda Mama Boresha Jamii Insurance program which leads to the success of the program.

Last but not least, the study adds to the existing literature regarding the health insurance covers and therefore useful to the future researchers and academicians as it will provide a background to the future studies on health insurance covers for the vulnerable groups of the population.

1.10 Assumptions of the study

The researcher assumed that the specific study respondents would provide truthful data that would be relied on to make conclusion and recommendations for action to be taken by relevant authorities. It was also assumed that data tools were accurate and therefore would assemble all the necessary and vital data to make the study successful. It was also assumed that once the study succeeds the obstacle in utilization of Linda Mama Boresha Jamii health insurance would be identified and removed. It was also assumed that after the study, pregnant women would make use of Linda Mama Boresha Jamii health insurance service which would culminate into improved quality of reproductive health of the women in Trans Nzoia County and Kenya as a whole.

1.11 Operational Definition of Terms

Client Characteristics*:* characteristics relating to the client for purposes of this study refers to how the client looks at Linda Mama from socio economic, religious and educational point of view and how those factors cause the client to use or not to use Linda mama insurance.

Client*:* the concept of client therefore relates to the organization or an individual that is benefiting from the professional services of another individual or a company or an organization. In this study a client is a mother who comes seeking for services in ANC or PN clinic.

Community Based Health Insurance*:* The concept of community based health insurance is concerned with provision of quality health care to the vulnerable poor populations within the informal settlements who cannot afford the formal health care services (Hermann et al., 2012). With respect to the present research, the concept relates to the ability of the community to pool resources to provide the necessary financial needs that guarantee protection to the members of the community who fall sick.

Health Facility Accessibility: The concept of health facility accessibility with respect to human rights relates to a health facility being accessible by the entire population and residents that need these services at the right time and with the availability of health care professionals and other essential service that guarantee successful service delivery (WHO, 2013).With regard to this study, accessibility relates to the capability of the women of reproductive age to make use of free maternity services by use of NHIF through Linda Mama insurance.

Health Worker Characteristics*:* Personality traits needed in healthcare which include: respect, patience, punctuality, flexible thinking, emotional stability and

good communication skills (Ameritech, 2016). In this study Health Worker Characteristics relates to the capability of the health worker to relate well with his or her clients while on duty and vice versa.

Linda Mama Boresha Jamii Health Insurance*:* This refers to a nationally financed program that guarantees women and the vulnerable young ones below one year gain quick and easy access to the quality health care services that are affordable (National Hospital Insurance Fund [NHIF], 2016). In this study, Linda Mama Boresha Jamii is one of the characteristic services offered by NHIF and it targets Kenyan women of reproductive age with confirmed pregnancy or less than one year after delivery.

NHIF Scheme Characteristics*:* Description of the model through which the National Hospital Insurance Fund delivers its benefit package to its beneficiaries for example a capitation model is used to carter for in-patient, out-patient, maternity and reproductive health etc.

NHIF*:* Relates to the nationally owned corporation that strives towards achieving its singular objective of providing the health care cover to all Kenyan citizens of majority age and above. In this study NHIF has been contracted by the government of Kenya to facilitate free maternity services to Kenyan women of reproductive age as a result NHIF came up with Lind Mama Boresha Jamii to specifically deal with Kenyan women of reproductive age with confirmed pregnancy.

Social Health Insurance*:* In this study the term as used relates to the government mechanism of pulling resources to provide protections related to the cost and financial implications that are associated with any form of sickness for the protection Kenyan citizen who need them.

Utilization of Linda Mama Health Insurance Services*:* this refers to the ability of any Kenyan expectant mothers to be taken through any NHIF contracted health facility immediately as she realizes that she is pregnant to get the Ante Natal, the delivery and other Post Natal services including immunization of the baby and treatment up to 11 months of age free of charge.

CHAPTER TWO:

LITERATURE REVIEW

2.1 Introduction:

The present chapter takes an in depth considerations of literature on the factors influencing utilization of Maternal Child health insurance cover, more so Linda Mama Boresha Jamii health insurance. It provides a theoretical and conceptual framework of the study. It explores what others have said and done on this topic. The literature review is organized based on the study objectives

2.2 Utilization of Linda Mama Boresha Jamii Insurance Service

2.2.1 Hospital delivery

According to Linda Mama Boresha Jamii Implementation Manual for Program Managers (2016), health facilities that offer maternity services ought to have the capacity to 0ffer fundamental crisis obstetric care, exhaustive crisis obstetric consideration as per the level of the health facility. Fundamental crisis obstetric and infant care signal capacities include: Administration of anti-microbial, Administration of Magnesium Sulfate, Administration of parenteral oxytocic drugs, performing manual expulsion of the placenta, performing evacuation of held products of conception, performing helped vaginal conveyance by manual vacuum extraction and performing infant resuscitation. Far reaching Emergency Obstetric and Newborn consideration signal capacities include: Performing cesarean section, including arrangement of crisis obstetric sedation and organization of blood transfusion among other services as may be needed.

2.2.2 Ante Natal Clinic attendance

According to Linda Mama Boresha Jamii Implementation Manual for program managers (2016), Linda Mama Boresha Jamii insurance carters for centered or focused antenatal consideration which incorporate at least four thorough customized visits every one of which has explicit concerns and approval of customer evaluation, instruction and care to guarantee counteraction or early discovery and brief administration of inconveniences. It additionally deals with the women who may require multiple visits relying upon the individual needs and wants as necessary.

1st ANC visit begins at 16 weeks and it entails: obtaining client information (History taking), performing physical examination. Preventive services include: Tetanus toxoid T.T 1-provided to the primi gravida or on first contact, T.T 2-provided at least a month after T.T 1, T.T 3-allowed during the second pregnancy whenever before 32 weeks of growth, T.T 4-provided during the third pregnancy whenever before 32 weeks of development, T.T 5-given during the fourth pregnancy and offers assurance forever. In Malaria endemic zones Malaria prophylaxis is allowed at about a month stretch from about four months to term also long lasting insecticidal net (LLIN) is issued, for mothers who test HIV positive, protection of mothers to children transfers also known (PMTCT) is given. Nutrition assessment is done, Deworming is done only one time within the second trimester, where iron and also folate is given in the 1st, 2nd, 3rd and 4th trimester and also counseling for appropriate diet is done. Any complication like severe anaemia, ante partum hemorrhage (APH), high blood pressure, intrauterine growth/ development and retardation (IUGR), which includes polyhydramnios, underweight, opportunistic infections and tuberculosis due to HIV should be identified and treated appropriately.

The need for specialized care should be assessed to rule out conditions like heart disease, diabetes, epilepsy, renal disease, drug abuse and any other family history of genetic diseases. Labor and delivery is planned for in advance, advice on danger signs is given to the mother in advance, and health promotion advice is also given to the mother.

2nd ANC visit16- 28 weeks' entails obtaining the patients data or information involving any other changes that has been realized from the former visits and other physical examination which is also done, some tests like urine dipstick are done, preventive services are offered, nutrition counseling is done, screening for complications is done and health promotion advice is given. 3rd ANC visit- 28-32 weeks- patient data and information is obtained which include any other necessary changes that has been noted following the previous visits and the physical examination is performed, routine tests like urine dipstick are done, preventive services like administration of T.T are given, nutrition advice is given and screening for any complications is done. 4th ANC visit- patient data and information like any other changes that is realized following the previous visits is obtained, the physical examinations are performed, routine tests are done preventive services like T.T is given, nutrition advice is given screening for any complication is done. During the entire antenatal period: the complete clinic record should be maintained throughout all the other visits, any pregnancy related diseases should be managed appropriately and also according to Linda Mama Boresha Jamii Implementation Manual for Program Managers (2016), all pregnant women with other related complications or even the bad obstetric history should be referred to the necessary facilities with regard to the provision of the necessary and efficient comprehensive Emergency Obstetric Care among other necessary services.

2.2.3 Child Welfare Clinic attendance

Care for the newborn begins immediately after birth by administering vitamin k, tetracycline eye ointment (TEO), immunizations like birth polio to prevent against poliomyelitis and Bacilli Calmete Guerin (BCG) against tuberculosis (TB) are given also prophylaxis for HIV if indicated and any complication should be treated or referred appropriately within one- two weeks. Within 4-6 weeks after birth the mother should be screened for cervical cancer, sexually transmitted infections and should also be started on family planning while the baby should be started on immunization schedule as per immunization guidelines and vitamin A supplementation (Linda Mama Boresha Jamii Implementation manual, 2016).

2.3 Client Characteristics Influencing Utilization of Linda Mama Boresha Jamii insurance

2.3.1 Socio-Economic Factors

According to WHO (2019), numerous determinants put together to influence the strength of people and networks. Regardless of whether individuals are healthy or not is controlled by their conditions and the surrounding environment. WHO (2019) ranks the social and economic environment as the number one determinant of health, followed by the physical environment and last but not least the respective personal attributes and the resultant actions and conducts. Availability of stable source of income coupled with the social status are connected to the aspects of better healthcare provisions (WHO, 2019). In other words, the bigger and wider the gap that exists between the richest and the poorest individuals is a reflection of the wider gap that exists in the health care services accessibility and affordability.

According to studies carried out in Asia and Sub Saharan Africa by Doror et al. (2016), it was revealed that the economic and social welfare status of a house hold contributes a critical responsibility in guaranteeing whether a client will enroll into a social health insurance like Linda Mama Boresha Jamii or not. It was revealed that the more economically endowed one is the higher the chances of being enrolled into a social health insurance.

Subsequently on a separate consideration other researches done from two continents also revealed that family membership size coupled with the marital status of the family heads of the house hold plays a very critical function in influencing the enrollment into social healthcare insurance like Linda Mama Boresha Jamii (Doror et al., 2016). In Asia studies revealed that the house hold size had a negative effect on enrollment into the insurance of the social health care while in the African sub Saharan, family size had a positive effect, (Doror et al., 2016). Some of the determinant variables such as the socio economic status of the individuals, the education levels among other factors have the same and related impacts generally while some related determining factors have only localized effects. Since inhabitants of Trans Nzoia County are of diverse socioeconomic status, the researcher purposed to investigate and determine whether socioeconomic factors influenced utilization of Linda Mama Boresha Jamii insurance in Trans Nzoia County so as to come up with appropriate recommendations.

2.3.2 Cultural Factors

According to Webina (2014), the impact of culture on wellbeing is tremendous. It influences impression of wellbeing, ailment and demise, convictions about reasons for infections, way to deal with wellbeing advancement, how sickness and torment are experienced and communicated where patients look for help and the kinds of treatment patients liked.

Studies done in Asia and Sub Saharan Africa by the U.S based multinational initiatives for the influence of monitoring and evaluation initiatives (2008), the development policies and other related programs have been formed following the international grants that was awarded therefore enabling the NGO to promote evidence that revealed that there are several other economic and social related factors that have been considered as catalysts or hindrance to the admissions into a social health insurance like Linda Mama Boresha Jamii insurance, for instance one research conducted in India revealed that all the participants recognized the idea (Panda et al., 2016). In similar cultural set ups the participants mentioned that it's only after delivery that an individual may require to talk about the baby. Doror et al. (2016), also found out that with respect to some beliefs and traditions mothers need authorization from their spouses to enroll or guided whether not to enroll into a social health insurance like Linda Mama Boresha Jamii insurance whether for free or not. Trans Nzoia County is inhabited by people with diverse cultural backgrounds so it was possible for cultural factors to affect use of Linda Mama Boresha Jamii insurance. It was with regard to this underlying information that the researcher set out to evaluate and come out with facts and report accordingly.

2.3.3 Religious Beliefs

The strict convictions of the individuals bring about numerous human services convictions and practices which are essentially extraordinary dependent on the people religion; just by understanding the strict convictions of people can clinical professionals meet the social insurance needs of patients' various strict convictions, (Akpenpuun, 2014). Akpenpuun (2014), also say ‘‘the patient’s freedom that is religiously granted shouldn’t therefore be infringed upon them in the course of their treatments, before or after the treatment.’’

However, some of the religious beliefs affect implementation of health programs and eventually and subsequently impacts on the general matters of health and the wellbeing of the general population. According to the researches that were conducted by Adams (1986) among the Amish community in the U.S.A with regard to the effect of the beliefs that are religiously related on the practices that are associated with the healthcare of the individual, it was revealed that the Amish do not belief in social security including health insurance coverage because they belief that God provides their social security, consequently they reject any form of health insurance, they are not attached to any tradition of controlling birth, apparently they do not belief in immunization and prenatal care, as a result the life expectancy of their women is shorter. Trans Nzoia County is cosmopolitan and people have diverse religious beliefs so it was possible religious beliefs could affect use of Linda Mama. The researcher set out to investigate this.

2.3.4 Level of Education

According to WHO (2019), the degree of education has also been taken as one of the considerations on matters of health. According to Fletcher et al. (2009) poor or inadequate level of academic exposure are connected to inadequate health related

matters, increased stress coupled with reduced lesser levels of assurance on one self. Fletcher et al. (2009) says ‘‘this is a well-known fact as concerns individuals with higher levels of education consume more preventive healthcare than curative healthcare.’’ Studies conducted within India by Denny (2016), concluded that a female house hold who is mature and at the same time educated household leader associates more considerations to the social health insurance like Linda Mama Boresha Jamii insurance than immature and uneducated females, it was revealed that the degree of academic exposure of a female head of the house is one main key determinants of enrollment into a social health insurance.

Studies carried out in Asia and Sub Saharan Africa by Doror et al. (2016), revealed that inadequate knowledge and understanding of a social health insurance like Linda Mama Boresha Jamii and lack of knowledge about the principles governing the scheme, mistrust with regard to the operations and control of the scheme, inappropriate profit package like exclusion of coverage of chronic diseases, restricted rules imposed on clients by the insurer, inadequate provision of both the policy frameworks and the legal support with regard to the insurance of social health are barriers towards the enrollment into the program. The researcher set out to establish whether the level of education affected use of Linda Mama Boresha Jamii insurance in Trans Nzoia County and the findings would be availed to the relevant authorities for appropriate action to be taken.

2.4 NHIF Scheme and Utilization of Linda Mama Insurance

The Kenya Institute for Public Policy Research and Analysis (KIPPRA, 2012), indicated that the singular primary provider of health related services to the general public national hospital insurance fund (NHIF) has a supreme mandate to guarantee access to affordable and quality health care services to the public. The body was

initiated back in the year 1966 following the enactment of CAP 255 of the Kenya constitution, the body is managed and controlled by an advisory council appointed by the ministry of health. With regard to its initial stages, the national health insurance fund catered for salaried employees earning Ksh 1000.00 and above monthly and remitting their periodic monthly remittance of Ksh 20.00 per month. There was an amendment that was initiated in the year 1972 which allowed for the incorporation of the membership that was also considered voluntary, these were considered the self-employed and were therefore required to make a monthly contribution of Ksh 60.00, (KIPPRA, 2012). According to Obadha et al, (2018), NHIF has evolved into a social health insurance scheme. It commenced offering outpatient services in July 2015 and it has contracted various health facilities spread across counties both public private and faith based to provide comprehensive outpatient benefits across the country. These benefits are both for outpatient and in-patient. The scheme covers both civil servants and disciplined services. It also runs health subsidy insurance which is granted to those considered less fortunate and elderly people with severe disabilities. The scheme is affordable and all-inclusive with no exclusions for all medical conditions except cosmetic procedures, it has no upper age limit for members to join, Currently the maximum number of beneficiaries per family is six, that is five declared dependents plus the principal member and all members are entitled to comprehensive inpatient and outpatient covers both within the country and outside the country.

Linda Mama Boresha Jamii provides a collection of fundamental wellbeing services reachable by all with regard to the targeted population based on the need and not the capacity to pay, situating Kenya on the pathway to Universal Health Coverage (UHC). It is a general health insurance services which is considered a subsidized plan that will therefore guarantee that pregnant women and their babies access quality

reasonable health care services. Linda Mama probably contributes to the country's progress towards UHC Linda Mama Boresha Jamii Implementation Manual for programme managers (2016). According to NHIF website accessed on 28th February 2020 at15 hours GMT, service entitlement under Linda Mama programme includes an extended packages of advantages to pregnant women and their babies for a time of one year, initiating on the date of actuation of the advantages by the mother at the NHIF contracted health facility. Under the program both the public and the private healthcare service suppliers in Kenya are contracted to offer types of assistance with an objective of 80% of pregnant women and their new conceived profiting in the primary year of the execution. The collection of the advantages includes antenatal consideration, maternity conveyances and post-natal consideration. As per the public rules the packages further incorporate both outpatient and inpatient for conditions and intricacies during pregnancy, conveyance and postnatal; just as treatment for the infant within the one-year time frame under the program.

According to the NHIF website still, (www.nhif.or.ke/healthinsurance), eligibility for Linda Mama: all Mothers who are Kenyan Citizens within child bearing age qualify to gain membership to the free maternal service provisions. Passages for enrollment: cell phone, NHIF enlistment entrance, contracted social insurance suppliers, NHIF administration portals and Huduma service provision centers nationwide. Enlistment necessity included pregnant women who had attained the age of 18 years or more were enrolled utilizing their public distinguishing proof card and ANC records, pregnant mothers under 18 years were enlisted utilizing their parents or guardian's public ID card and her ANC records, pregnant mothers who are without public ID card or guardians are enlisted utilizing ANC records. On fulfillment of enlistment and the enrollment card is given.

Verification and activation of Linda Mama card according to Linda Mama Boresha Jamii implementation manual for the managers (2016), is conducted following the requests that is placed by the beneficiary to the contracted health facility. This is conducted following the provision of the client's specific assigned number used for the identification during enrollment, delivery of the patients' national identity card number or the guardian's national identity card number, or ascertainment of the expectancy of the mother involving the period of gestation. Affordability of the outcome packages within the programme would be formalized during the time of contact when receiving the services of the antenatal care or the services related to maternity at the health facility that has been contracted. On the other hand, reimbursement arrangement is done as follows: health facilities are repaid depending on the nature of the administrations services that are provided. Three services related to the administration will be repaid under the plan: administration services that are given on the outpatient (OPD) premise, benefits that require formal admission to a wellbeing health care organization, for example, maternity conveyance and rescue vehicle administration, transport costs for the emergency referrals for pregnancy related conditions and inconveniences.

In Ghana a similar scheme is operational, under the scheme all pregnant women renew their membership yearly free of charge and they access health services without difficulty (Owosu-Sekyere et al., 2014). The effect of medical coverage on social insurance use is firmly connected with its attributes, for example, premiums benefits and for whom the administrations are indented (Escobar et al., 2010); (Frimpong et al., 2014; Robyn et al ., 2013). Two kinds of protection plans are generally executed

to be specific: Social Health Insurance (SHI) and Community Based Health Insurance (CBHI).

A comparative study of five African countries done by Pokuaa et al. (2018) tried to look at how social medical coverage plans have had the option to cover poor people or not. The chosen nations have either public or network based protection plans. The chosen nations included: Ghana, Tanzania, Kenya, Rwanda and Ethiopia. Ghana, Tanzania and Kenya have comparative social wellbeing programs in spite of the fact that their objective gatherings contrast. Ghana's National Health Insurance Scheme (NHIS), covers each resident by law with exception qualification to certain fragments of the populace. Tanzania and Kenya have separate protection plans for the formal and casual parts. Rwanda and Ethiopia work a network Based Health Insurance (CBHI) program, however Rwanda's CBHI known as Mutuelle de Sante is obligatory.

In Kenya the administration intends to change the current NHIF to a National Social Health Insurance Fund (NSHIF) as a method of guaranteeing value and admittance to wellbeing administrations by poor people and those in the casual area who have been forgotten about for the last 54 years that the NHIF has been in presence, (Kimani et al., 2004). Albeit a large portion of the conditions for setting up a social medical coverage in Kenya are not yet set up, the government of Kenya started targeting some segments of the population which seems to be more vulnerable such as pregnant women to start enjoying free maternity services through a program known as Linda Mama Boresha Jamii. Not forgetting the fact that the government has an ambitious plan of implementing Universal Health Coverage (Government of Kenya [G.O.K], 2016).

According to Tewele et al. (2020), social health insurance (SHI) is a convenient health care funding mechanism that plays an important role in cross-subsidization and

reduction of the influence of high costs of health care and it is characterized by compulsory universal coverage and financed by employers and individual contribution. In a cross sectional survey carried out across middle and low income countries, Tewele et al. (2020) notes that Mongolia, Burkina Faso and Uganda showed that 5.5%, 15% and 2.5% of households respectively suffered from catastrophic health expenditure because they were uninsured, he further notes that in Ethiopia, out of pocket spending is very high accounting for 37% of total expenditure in the health sector.

On the other hand, studies carried out by Tewele et al. (2020) still showed that the average willingness to pay (WTP) for the social health insurance per person per month in Iran was 5.5 US $ while households in Vietnam were willing to pay 4% of their income for social health insurance. In Malaysia 72.5% of the academic staff were willing to pay for the insurance. Based on the above a systematic review of willingness to pay for the social health insurance from ten low-and middle income countries was done by Makenne et al. (2020) and the mean WTP of individuals and households from African countries which included Uganda, South Africa, Ghana, Nigeria and Namibia was 1.18%,1.82%, 1.39%, 2.16%, and 2.5% of GDP per capita income respectively and for middle income countries which included Iran, Malaysia, Vietnam, Bangladesh and Egypt had a mean WTP of 5.5%, 4%, 6.2%, 6.1% and 6.8% per capita income respectively. He noted that evidence shows that socio-demographic and economic factors such as the age of the household head, sex, level of education, family size, economic status of the household, health and health related factors such as health status and awareness, knowledge and attitude towards health insurance schemes determine the acceptance of Social Health Insurance.

2.4.1 Linda Mama Boresha Jamii insurance Premiums

According to Population Services International (2014), the government of Kenya is spending Ksh 6000.00 on every expectant Kenyan woman by way of paying for premiums through Linda Mama program. However Kenyan expectant women need not to worry about Linda Mama premiums because the government has already taken the responsibility of paying the premiums so chances of Linda Mama premiums affecting utilization of Linda Mama insurance services are remote. On the other hand, according to the Constitution of Kenya (2010), Article 43 gives all Kenyans a thorough right-based wellbeing. It gives that each individual has a privilege to the most noteworthy achievable norm of wellbeing which incorporates the privilege to social insurance administrations including conceptive human services. The Act states further that the state will give fitting standardized savings to people who can't uphold themselves and their dependents. In view of that, one could rightly conclude that the government was not doing the Kenyan women a favor by providing free maternity services but it was only fulfilling its mandate.

2.4.2 Channels of Communication to NHIF clients

According to Linda Mama Boresha Jamii Implementation manual for programme Managers (2016), Linda Mama has an effective client feedback system for complaints and complements. The channels of communication include: a toll-free line and email address where complaints and complements from beneficiaries and health providers report for action, social media platforms like face book and twitter are in use and also direct reporting of complaints and complements at NHIF service centers is allowed. Other than the above channels clients are also encouraged to listen to radio and watch T.V programs that are relevant to NHIF. Other open forums like Chief's Baraza are also recognized channels of communication according to Linda Mama Implementation manual (2016). However, according to Fulton et al. (2018), most of

the women of reproductive age in Bungoma County are not aware of the existence of all those channels of communication, as a result majority of the women don't use those channels to express their satisfaction/ dissatisfaction about Linda Mama Insurance Services, the same applies to the health workers.

2.4.3 Linda Mama Boresha Jamii Insurance implementation

According to Linda Mama Boresha Jamii Implementation manual for the Programme Managers (2016), there was a very elaborate Linda Mama implementation framework whose components include: service entitlement under Linda Mama Boresha Jamii insurance program, enrollment of the recipients, contracting of specialist organizations, repayment instruments, usage game plans, observing and assessment, customer criticism systems, jobs of various partners and correspondence exercises. Despite all the above elaborate implementation strategies, studies carried out in Bungoma County by Fulton et al. (2016), showed that Linda Mama Boresha Jamii insurance implementation strategy had a lot of shortcomings like lack of capacity building of health workers before commencement of the program, lack of adequate publicity of the program, poor empowerment of various stake holders of the program like service providers, and clients. The study also found out that channels of communication were not made clear to the various stake holders.

With regard to worldwide maternal and child wellbeing needs, there is a developing need to assess whether medical coverage has added to more noteworthy utilization of maternal health services or not (Abouzahr, 2003). The effect of medical coverage is frequently evaluated regarding enhancements in care use, budgetary assurance and wellbeing status improvement (Giedion et al., 2013). Enlistment in medical coverage has been found to expand the likelihood of utilizing general human services in

different settings (Wang et al., 2009). In Colombia, Giedion et al. (2007), in their examination on the impact of financed medical coverage discovered that ladies in mediation territories had fundamentally higher likelihood of antenatal consideration use, institutional conveyance and post-natal consideration.

According to Kioko (2016) director of medical services- Kenya, Linda Mama was a government of Kenya's ambitious program which was seeking to improve efficiency and performance on government's initiative on maternal and child healthcare, Linda Mama Boresha Jamii implementation manual (2016), he further said that under the program women access to expanded package of benefits comprising of ANC, delivery, postnatal care and care for the newborn. However, according to Maara (2018) NHIF has experienced some challenges in identification documentation where by some clients are not Kenyans while others may be Kenyans but do not have identity cards because they are under age, other challenges included: capacity challenges, in other words many stake holders needed to be capacity build in order to create common understanding of the program. As a result of the above challenges, there was poor utilization of the program (Maara, 2018). Maara (2018) further says ''even the operating environment both for health workers and NHIF was also a challenge because some places had no mobile network.'' Other health systems weaknesses like human resource shortages and erratic transfers of health workers were also cited by Maara (2018) as challenges to implementation of Linda Mama Boresha Jamii insurance program.

2.5 Health Facility Related Factors and the Utilization of Linda Mama Boresha Jamii Insurance Cover

2.5.1 Accessibility

According to Tanahashi (1978), definition even when a service is available it must be located within reasonable reach of those who should benefit from it. ‘‘There are two main dimensions of accessibility’’ according to Tanahashi (1978): physical access and financial access or affordability. On the physical dimension, access may be hindered if resources are available but located inconveniently.

According to studies carried out in the Republic of Moldova in 2009-2011 by World Health Organization Regional Office for Europe on barriers/ facilitating factors in accessing health services (WHO, 2011), a wide range of barriers were identified ranging from lack of uniformity in health infrastructure some of which do not meet national norms in terms of surface area, some of the health facilities were too old and needed refurbishment, Ministry of Health Republic of Moldova (2007), to shortage of vehicles and equipment, shortage of human resource, shortage of pharmaceutical supplies in primary health care facilities. Geographical access to some of the primary healthcare facilities was a major challenge; some involved distances with difficulties in transportation, WHO (2012) Regional Office for Europe the travel time to a health facility to access services and the waiting time to see a health professional seem well associated with patients’ perception of the accessibility.

Unfortunately, preventable the untimely deaths of under-five youngsters stay high in Sub-Saharan Africa because of helpless access to opportune and quality human services interventions. Physical boundaries to getting to health facilities were seen as a determinant of youngster mortality in Tanzania (Webber, 2018), in Tanzania’s rural region approximately 40% of women are not in the care of medical staff at hospitals or clinics when they deliver their babies, (Webber, 2012). They deliver alone or sometimes they are assisted by Traditional Birth Attendants.

Studies carried out in Kilifi County- Kenya by Moindi et al. (2015), on factors associated with home deliveries revealed that long distance to the health facility, the number of rooms available for use were key factors which contributed to many home deliveries. Hospital delivery was only possible to those who managed to deliver in health facilities under the supervision of a skilled birth attendant.

The study further revealed that most of the facilities in Kilifi County did not have delivery rooms, were located more than five kilometers apart and a closer look at the County's use of Linda Mama services was likely to reveal very poor uptake because most of the factors identified above also affected Linda Mama program, a health facility needed to have a delivery room equipped with delivery sets.

2.5.2 Physical Infrastructure

According to a case study carried out in Wareng Sub County of Uasin Gishu county on factors contributing to many home deliveries in Wareng Sub County by Mokua (2014), it was found out that poor infrastructure i.e. poor road network leading to most of the rural health facilities, lack of delivery rooms in most of the rural health facilities and lack of delivery equipment were some of the factors contributing to most of the home deliveries.

Unlike Wareng sub county in Uasin Gishu County which according to studies carried out by Mokua (2014), revealed that poor infrastructure which included poor road network and lack of delivery rooms and delivery equipment were some of the reasons for home delivery, Trans Nzoia county according to this study does not lack delivery rooms and delivery equipment although some of the roads leading to rural health facilities are also bad during rainy season. Trans Nzoia County still based on this study has its health facilities located less than 5 km apart and most of them are operational 24 hours and have utility vehicles available for emergency transfer to

better equipped health facilities unlike in Kilifi County where according to studies carried out by Moindi et al. (2015), revealed that health facilities were located more than 5 km apart and lacked delivery rooms and delivery equipment and they were operational only 12 hours while most of the deliveries occurred at night.

2.5.3 Health Facility Operational Hours

Similarly, in order for Linda Mama Boresha Jamii program to succeed, according to Moindi et al. (2015), there should be adequate staff to facilitate 24 hours' operation of the health facility because some deliveries occur at night. Moindi et al. (2015) also says ''in Kilifi County, staff shortage and health facility operational hours were some of the main reasons why many women in Kilifi County deliver at home.''

2.5.4 Client Waiting Time

Studies carried out in Bungoma County by Maternal and Newborn Improvement (MANI) on Linda Mama implementation found out among other things that long queues and long waiting hours by clients affected implementation of Linda Mama Boresha Jamii insurance negatively in Bungoma County because it was found out that some clients opted to leave before being attended to (Fulton et al., 2018).

2.6 Health Workers' Characteristics

2.6.1 Health Staff Attitude towards Linda Mama Boresha Jamii Insurance

Studies carried out at Embu level five hospital, on factors affecting uptake of NHIF by women of reproductive age by Kithuka et al. (2016), revealed that most of health staff working at Embu level five MCH/FP Clinic had negative attitude towards NHIF, as a result they were not encouraging expectant mothers to join NHIF Supa cover. In other words; apart from other factors contributing to poor use of NHIF, staff attitude

at the MCH/FP was among the factors affecting use of NHIF Supa cover. Similarly, most of the health workers may be having negative attitude towards Linda Mama.

2.6.2 Staff Knowledge about Linda Mama Boresha Jamii Insurance

Findings from a case study on implementation of Linda Mama Boresha Jamii, carried out by Maternal and Newborn Improvement (MANI) Project in Bungoma County, found out that although Linda Mama was being implemented, most of the health staff including the voluntary health workers like Community Health Volunteers (CHVs) had not been sensitized about the program so they were operating from an ignorant point of view (Fulton et al., 2018). Consequently, most of the expectant mothers who visited health facilities for services which included Linda Mama Boresha Jamii insurance, left the health facilities more confused about Linda Mama services than they were before they came. Women in the community were not mobilized to join Linda Mama because CHVs were not sensitized so they didn't mobilize mothers, as a result private health providers ended up not receiving mothers on Linda Mama program, therefore it is noteworthy that a health worker who is not empowered cannot be effective in health service delivery.

2.6.3 Health Staff Practice of Linda Mama Boresha Jamii Insurance

According to the findings of studies carried out in Bungoma County by Fultoni et al. (2018), on health staff practice as far as Linda Mama Boresha Jamii Insurance program is concerned, it was found out that a health worker who was not empowered on matters Linda Mama could not deliver Linda Mama services well instead he/ she left mothers more confused about Linda Mama than they were before they visited the health facility for Linda Mama Boresha Jamii insurance services

2.6.4 Health worker's Public Relation (PR) in relation to Linda Mama Boresha Jamii

According to studies carried out in Bungoma County by MANI, a U.K based organization which was evaluating Linda Mama program in Bungoma County, it was found out that health staffs' poor public relation with clients who went to health facilities in Bungoma County to seek Linda Mama Boresha Jamii insurance services affected utilization of Linda Mama services negatively (Fulton et al., 2018). Despite the fact that most of the health staff in Bungoma County had not been sensitized about Linda Mama, the way they responded to clients whenever they went to Health Facilities to seek Linda Mama Boresha Jamii services left most of them confused and feeling guilty for having asked questions touching on Linda Mama Boresha Jamii insurance services (Fulton et al., 2018).

2.7 Theoretical Framework

This is the structure that can hold or support a theory of a research study. It consists of concepts together with their definitions and reference to relevant scholarly literature. It connects the researcher to existing knowledge. Guided by relevant theory one is given the basis for hypothesis and choice of research methods.

2.7.1Consumer Theory

This theory accept that the consumers who are entirely educated augment their utility as a component of deferring different products given relative costs, their pay and inclinations, Begg et al. (2000), 'changes in costs and pay impact the amount of various merchandise reasonable customers will purchase', They contend that medical coverage is required to be an ordinary decent with a positive pay versatility of interest, suggesting that the individuals are more averse to take protection whenever

given at a lower cost. They further keep up that cost increment of a substitute for protection, for example, client charges are relied upon to raise the protection similarly just like the case with a lessening in protection premiums. In the specialist's view, purchasers' response to the value changes relies on their financial status, the wealthy specifically are probably going to be inhumane toward value changes, if they are as yet getting quality social insurance expected at that excessive cost (Cameron et al., 1988). The researcher's view was that consumer theory could work well for Trans Nzoia County if Linda Mama sensitization meetings could be stepped up. Since the cost of Linda Mama is too low, actually women only meet the cost of travelling to the nearest NHIF contracted health facility for Linda Mama insurance services once they are confirmed pregnant therefore many women may be considering Linda Mama to be of low quality. In other words, Linda Mama insurance tends to fall in the category of goods with a positive income elasticity of demand so women in Trans Nzoia County may be looking at Linda Mama insurance with a lot of suspicion hence the need for sensitization meetings. This study adopted the concept of sensitization of the community which would lead to maximum utility of Linda Mama service.

2.7.2 Expected Utility (EU) Theory

Manning and Marquis (1996), states "under anticipated utility hypothesis, protection request is a decision between questionable misfortune that happens with likelihood when uninsured and a specific misfortune that happens with a likelihood when uninsured". The hypothesis accepts that individuals are chance disinclined and settle on decisions between facing a challenge that has various ramifications on their riches. At the hour of settling on the decision of protection, families are dubious whether any individual from the family will fall debilitated or not and whether the disorder might be of related budgetary outcomes. Protection decreases this vulnerability. Clarifying

this further, Hsiao et al. (2006) contends that the decision of country inhabitants to join or not to join network based medical coverage is a discrete choice cycle steady with subjective decision model and that the ranchers' decision of joining a network based health care coverage conspire in provincial China was grounded in the examination of the normal utility of having health care coverage as opposed to having none. As per Marquis and Holmer (1996), expected utility is most normally utilized in models of dynamic under hazard.

This concept may apply in the researcher's area of study, people in the area of study may be risk averse but the expected utility of Linda Mama insurance may be questionable because most of the rural health facilities do not operate 24 hours and hospitals which operate 24 hours may be far off and yet most of the mothers go into labor at night. The researcher followed up this matter closely and found out that this theory applies in Trans Nzoia County.

2.7.3 State Dependent Theory

The state dependent theory recommends that purchasers' utility level and taste are guided by their wellbeing or financial status. As such contrasts in level of hazard avoidance impacts protection choice and size of what they expect as protection settlements. Many people protect when they are not sick and this shows how focal financial status is in protection choices as in purchaser hypothesis. Where a healthy individual hopefully hopes to stay sound later on, protection inclusion might be underneath full misfortune inclusion, if the foreseen protection pay-off is beneath the genuine misfortune if there should arise an occurrence of disease. Thus the foreseen requirement for instance of infection will influence family request (Schneider, 2004). The state dependent theory posts that the insurance decision of a household is influenced by both demand and supply factors. In the researcher's view the concept of

demand and supply apply in the case of Linda Mama, however a lot more need to be done to create demand for Linda Mama among expectant women in Trans Nzoia County.

2.8 Summary of the Theories

Consumer theory: suggests that consumers who are perfectly informed maximize their utility as a function of consuming various goods given relative prices. This theory prompted the researcher to adopt the concept of community sensitization about Linda Mama Boresha Jamii in order to increase the demand for Linda Mama.

Expected utility theory: suggests that people are risk averse and make choices between taking a risk that have different implications on their wealth and the expected utility of the service. The concept here is expected utility of Linda Mama Boresha Jamii, Community sensitization with emphasis on the cost of Linda Mama. People need to be told that choosing to use Linda Mama has no cost implications because it is free of charge.

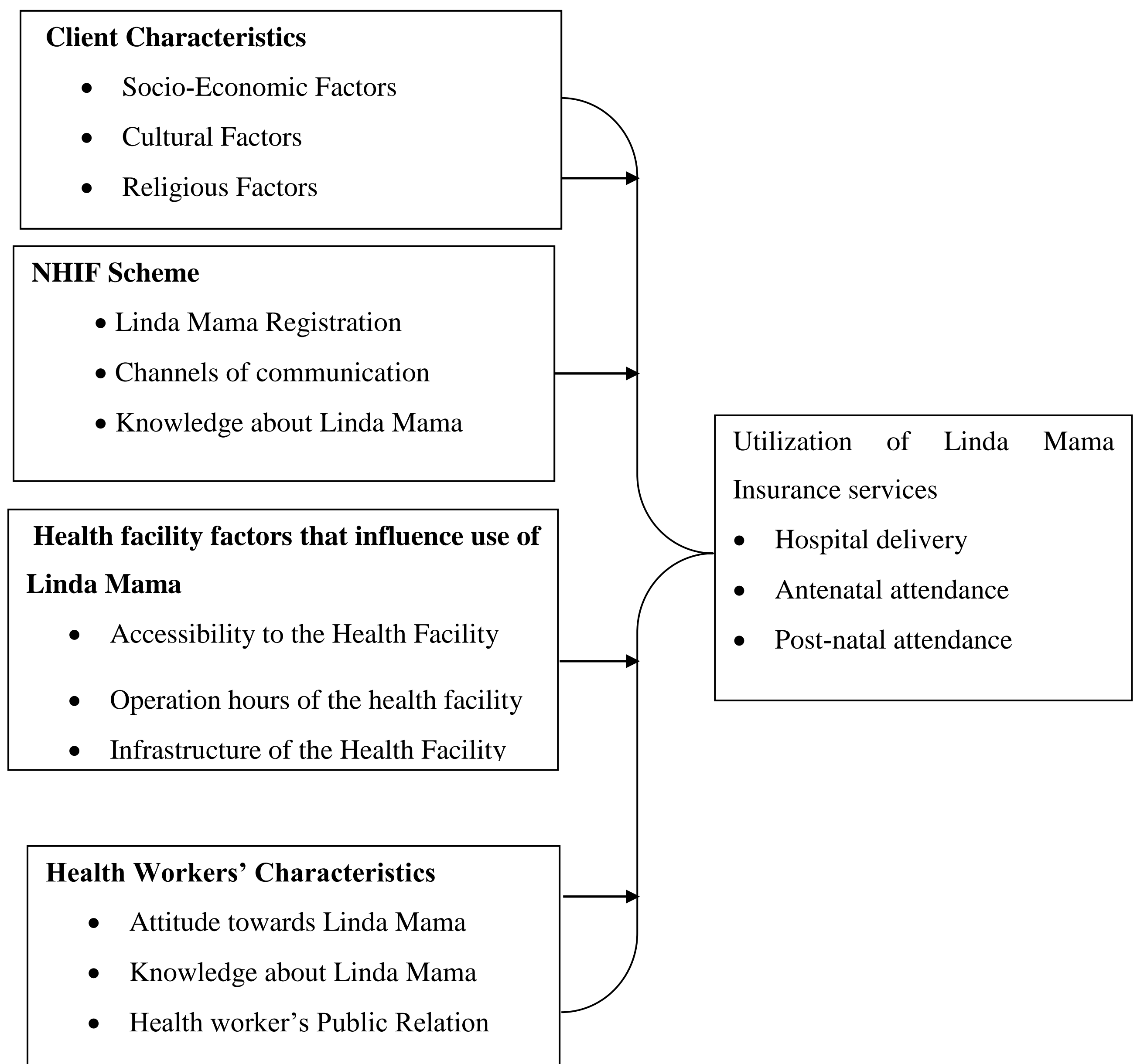
State dependence theory: suggests that the insurance decision of a household is influenced by both demand and supply in respect to household's socio economic status. The concept to be used here is community sensitization to create awareness that Linda Mama insurance service is given to those who qualify to get it free of charge.

2.9 Conceptual Framework

Introduction: This is a brief explanation of the relationships between variables identified for study in the statement of the problem. It provides an overview of the phenomenon. It also determines design procedures, analysis etc. It is also based on research related literature review.

Figure 2.1

Conceptual Framework



CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction:

This chapter presents a detailed description of the research methodology which is a detailed procedure used to answer research questions. It includes a description of the study area, research design, sampling techniques and procedures study population, sample size, validity of the instruments, reliability of the instruments, methods of data collection and data analysis, procedure for administering the questionnaire in the field and finally pre-test and where it was administered.

3.2 Location of the Study

The study took place in Trans Nzoia County which is located in the North Rift between river Nzoia and Mt Elgon, 380 km West of Nairobi. At its center is Kitale town which is the largest town. It has an area of 2,470 square kilometers and it has a population of 990,341, (Kenya population and housing census, 2019), its main socio economic activity includes farming. It is inhabited by almost 40 plus tribes of Kenya because it is a former settlement scheme. The researcher chose to carry out the study in Trans Nzoia County because according to Kenya Health Information System (KHIS, 2018), out of the 45,472 estimated deliveries, based on population and housing census (2009) for Trans Nzoia County, only 15,075 (33%) mothers delivered in health facilities while 30,397 (67%) were assumed to have delivered at home. KHIS (2018) rated Trans Nzoia hospital delivery at 33% which is very low compared to other Counties and yet free maternity services started way back in June 2013, the same is now being implemented through Linda Mama Health Insurance.

3.3 Research Design

According to Mugenda and Mugenda (2003), research design is the scheme, outline or plan that is used to generate answers to research questions. This study adopted descriptive-cross sectional research design with mixed methods approach. The mixed method research provides more comprehensive evidence for studying a research problem than either qualitative or quantitative alone (Creswell & Clark, 2007). The study used both quantitative and qualitative data collection methods. The researcher used those methods to determine factors that influence utilization of Linda Mama insurance in public health facilities in Trans Nzoia County. According to Mugenda and Mugenda (2003) descriptive research design was used to obtain information concerning the current status of the phenomena to describe what exist with respect to variables or conditions in a situation. There are three ways a researcher can go about doing a descriptive research project and they are: observational which involve viewing and recording, cable study which involve in-depth study of group and survey, which is also defined as a brief interview or discussion with an individual about a specific topic.

Under descriptive research design the researcher used self-administered questionnaire for respondents and an in-depth interview with special interest groups (Key Informants) also it was cross sectional so as to ensure complete coverage of the study area. The design was selected because it is pocket friendly compared to other designs like correlation experimental. Descriptive research design is also preferred because it gives room for detail in seeking of answers and explanation of events.

3.4 Target Population

Population refers to an entire group of persons or elements that have at least one thing in common. The study targeted one level 5 Hospital (County Referral Hospital) and

five level 4 Hospitals (Sub-County Hospitals) accredited to NHIF while the target population for clients consist of expectant mothers in Trans-Nzoia County and mothers who have delivered but their babies are less than one-year-old. According to Kenya Population and Housing Census (2019), the study population of clients was 45,472. The key population was women with confirmed pregnancy plus women with children below one year. Plus 7 Nursing services mangers who also served as key informants.

3.5. Sampling Procedure and Sample Size Determination

This section describes the sampling procedure and how the sample size of the study was arrived at.

3.5.1 Sampling Procedure

i) **Health Facility Sample Size**

Out of 86 NHIF accredited health facilities in the County, six health facilities were purposively sampled to participate in the study based on County, Sub County and also level of healthcare.

Table 3.1:

Sampled health facilities in Trans Nzoia County (purposive sampling)

Health Facility	Level of Healthcare	Number
Kitale County Referral Hospital	5	1
Saboti Sub County Hospital	4	1
Matunda Sub County Hospital	4	1
Kapsara Sub County Hospital	4	1
Kwanza Sub County Hospital	4	1
Endebess Sub County Hospital	4	1
Total		**6**

As shown in the table above the total number of NHIF accredited health facilities in which the study took place is 6, Kitale County Referral Hospital stands alone because it is the only level 5 Hospital although geographically it is located in Kiminini Sub County. All sampled health facilities were public owned but located in different parts of Trans Nzoia County therefore the sample size for health facilities was 6 health facilities.

ii) Client sample Size

The sample size of the clients was determined by Cochran's sample size formula (1977). The Cochran formula allows for calculation of an ideal sample size given a desired level of precision, desired confidence level and the estimated proportion of the attribute present in the population. The formula was appropriate in situations with large populations.

The Cochran formula is: $n0 = \frac{Z^2pq}{e^2}$

Where: e is the desired level of precision or the margin of error

P is the (estimated) proportion of the population which has the attribute in question

Q is 1- p

The Z value is found in a Z table

Now a study was done on the women of Trans Nzoia County who were either expectant or had delivered but their babies were below one year of age, to determine factors influencing utilization of Linda Mama insurance. The estimated number of women of reproductive age for Trans Nzoia County based on Kenya Population and Housing Census (2019) is 45,472. It was assumed that half of the target population used Linda Mama insurance and this gave us maximum variability. So p = 0.5. Usually we work with 95% confidence and at least 5 percent plus or minus precision.

A 95% confidence level gives us Z values of 1.96, per the normal tables, so we get: ((1.96)2 (o.5) (0.5))/ (0.05)2 = 384.16. Therefore, the sample size of clients was 384.

3.6 Sampling Procedures

i) Sampling of health facilities

This study adopted purposive sampling method to get the health facilities in which the study took place. The researcher purposively sampled the County Referral Hospital and all the five Sub County hospitals in Trans Nzoia County to participate in the study. This was so because every Sub County happened to have only one Sub County Hospital and the County Hospital also happened to be only one and also all the above health facilities were accredited to NHIF and were offering Linda Mama Boresha Jamii insurance services.

ii) Sampling of clients and key informants

Purposive sampling technique was also used to sample key informants while mixed sampling techniques were used to sample clients. Purposive sampling was used to sample key informants; this is because the researcher was only interested in the unit Nurse Managers. That is to say at the County Hospital the researcher used purposive sampling method to get the Nurse Manager of Maternal Child Health and Family planning clinic (MCH/FP) and Maternity Unit Nurse Manager because the County Hospital is big. As for Sub County Hospitals, the researcher also used purposive sampling method to sample Sub County Nurse Managers for interview and because Sub County Hospitals were smaller and at times they didn’t have clients in maternity units, the researcher used purposive sampling methods to sample only the nurse managers of the Sub County Hospitals for interview as key informants. As shown in the sampling matrix below the total number of key informants was seven.

Table 3.2:

Sampled key informants

Health Facilities	Key Informants
Kitale County Hospital	2
Matunda Sub County Hospital	1
Saboti Sub County Hospital	1
Kapsara Sub County Hospital	1
Kwanza Sub County Hospital	1
Endebess Sub County Hospital	1
Total	**7**

As for clients, simple random sampling method was used to decide who among the eligible clients were allowed to fill the questionnaire and who could be allowed to fill the questionnaire. Through Cochran (1997) formula determined that the total number of clients to fill the questionnaire was 384. Purposive sampling method was used to allocate the County Hospital 309 clients because it had a bigger pool of clients while Sub County Hospitals shared the remaining 75 clients so that each Sub County hospital was allocated a maximum of 15 clients. As to how the researcher decided who among the eligible clients should be given a questionnaire to fill, the researcher used simple random sampling where by some pieces of paper were written YES and another was written NO (two pieces of paper) now when eligible clients came to the clinic, after the researcher had gone through eligibility criteria, the client was asked to pick one of the papers and any of the eligible clients who picked a piece of paper written on YES, that client was further talked to and if she consented she was given a consent form to read and if she accepted she signed then she was given a questionnaire to fill while the client who picked a piece of paper written NO was also talked to but was not given a consent form to sign and also was not given a questionnaire to fill.

A total of 20 clients filled the questionnaires per day at the County Hospital for the first 15 days and on the 16th day 9 questionnaires were filled plus Key Informant guided interviews for the Nurse Managers of MCH/FP and Maternity unit which lasted for a minimum of 60 minutes each so 16 days were spent at the County Referral Hospital. As for Sub County Hospitals, the researcher used similar technique to determine who among the clients filled the questionnaire and strived to have a minimum of 10 clients filling the questionnaire in a day so that the following day the researcher could only be left with five questionnaires to be filled then finish with key informant interview for Nurse Managers, so the researcher spent a maximum of 10 days collecting data in the five Sub County Hospitals. In other words, the researcher spent 26 days collecting data both in the County Referral Hospital and Sub County Hospitals. The matrix below illustrates this.

Table 3.3:

Sampled clients and number of days of interview

Name of Health Facilities	Number of clients	Number of days
Kitale County Hospital	309	16
Matunda Sub County Hospital	15	2
Saboti Sub County Hospital	15	2
Kapsara Sub County Hospital	15	2
Kwanza Sub County Hospital	15	2
Endebess Sub County Hospital	15	2
Total	**384**	**26**

3.7 Pre-testing of the Research Instrument

A pre-test meant to test the instruments before use. According to Mugenda and Mugenda (2003), the pretest sample is between 1% and 10% depending on the sample sizes, in this case the researcher used 10% and the sample size was worked out using

Cochran's formula for calculating sample size. Which is $\frac{n}{\frac{1+n}{N}}$ therefore the pretest

sample was **384 ÷ (1+384÷x)** where x is 10% of the estimated ANC monthly attendance at Ndalu Sub County Hospital in Bungoma County.

Based on available data at Ndalu Sub County Hospital, it was established that the health facility was handling an average of 150 ANC mothers per month, 10% of 150 ANC mothers was 15 therefore 384÷(1+384÷15) = 14.9. Therefore, the sample size for pretest was 15 ANC mothers.

Mixed sampling techniques was employed, that is purposive sampling method was used to choose MCH/FP clinic and Maternity unit as the only places to source clients, also purposive sampling method was used to choose the Nurse Manager as the only key informant were interviewed. Simple random sampling method was employed to identify which eligible client to fill questionnaire. This was done by having some pieces of paper written YES and another one written NO. Any eligible client who picked a YES was given a consent form to read and if she agreed she signed then she was given a questionnaire to fill while the client who picked a NO was not given a consent form to read and sign and also was not given a questionnaire to fill. A total of three days was spent to collect data at Ndalu Sub County Hospital which is located in the neighboring Bungoma County. The pre-test sample was cleaned, sorted and analyzed using SPSS version 25 and the results were used to determine the validity of the research instruments.

3.7.1 Validity of Instruments

Cozby (2001) explains that validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. The researcher used pre- testing to ensure content and construct validity of the research instruments. Content validity refers to how much an instrument can fully assess the relationship between two variables, (Cozby, 2001). On the other hand, construct validity refers to the amount the instrument can actually tap into the theoretical concept it is supposed to assess. Based on the above concept the researcher used the pre-test to determine the validity of the questionnaire. The scores from the pretesting periods had correlation coefficient (r) and a p value of <0.05 was considered statistically significant.

3.7.2 Reliability of the Instrument

Mugenda and Mugenda, (2003), define reliability as a measure to which a research instrument yields consistent results or data after repeated trials. The pretesting of the instrument was conducted to ensure reliability for collecting data required by the researcher. The test-retest technique was used; data was analyzed to get the results and after two weeks the same procedure was repeated on different people and the same results were obtained then the instrument was deemed to be reliable but if different results were obtained then the instrument would have been deemed to be unreliable. In other words, the pretest questionnaire was used to determine the reliability index of the questionnaire. The scores from the testing periods had correlation efficient (r) and a p value of 0.05 was considered statistically significant (Cozby, 2001).

3.7.3 Inclusion and Exclusion criteria

Inclusion criteria: Any woman either pregnant or with a baby 12 months and below, found within the MCH/FP clinic or maternity unit of any of the sampled health facilities and picked a piece of paper written YES, was included.

Exclusion criteria: Any woman outside the sampled health facilities was excluded, any woman within the sampled health facilities but not pregnant/without a baby 12 months and below was excluded, any woman pregnant/with a baby 12 months and below but picked a piece of paper written NO was excluded.

3.8 Data Collection Procedures

The questionnaire was on a five point Likert's scale and was self-administered; each eligible client was given a questionnaire to fill under the supervision of the researcher. Out of the 384 respondents 309 were from Kitale County Referral Hospital because it is a level five hospital and it receives clients from almost all parts of the County. The researcher got fifteen (15) clients to fill the questionnaires per day. In other words, the researcher spent 21 days at the county Referral Hospital supervising clients as they filled the questionnaire. The remaining 75 respondents were shared among the remaining 5 health facilities, that is to say each facility was allocated 15 questionnaires and the researcher was able to supervise at least 8 questionnaires being filled in the first day and in the second day only seven questionnaires were remaining to be filled so the researcher supervised the filling of the seven questionnaires and the remaining time was used to interview Key Informants. In other words, the researcher spent two working days in every Sub County hospital, so a total of 10 working days were spent to collect data from Sub County Hospitals. The period for data collection at the County Referral Hospital and Sub County Hospitals was one month (31 days).

3.9 Data Analysis Techniques

Analysis of data is a process of examining, sorting, cleaning and inspecting raw data before it is organized and visualized in the tables' charts graphs or other representation with the goal of discovering useful information, suggesting conclusions and supporting decision making. Data analysis involved looking for patterns, similarities, disparities, trends and other relationships (Cooper & Schindler, 2003) and also finding out what these patterns may mean. Statistical package for Social Science (SPSS version 25) was used to analyze to compare the variables for clients' characteristics against high number of mothers with Linda mama cards, variables for NHIF scheme characteristics against the number of mothers with Linda Mama cards, Variables for Health facility accessibility against the number of mothers with Linda Mama cards and variables for Health workers' characteristics against the number of mothers with Linda Mama cards. A p value of < 0.05 was considered statistically

significant in respect to the use of Linda Mama Insurance in Trans Nzoia County. The inferential statistics were conducted guided by the following model;

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Whereby the variables were identified as follows: -

Y = Utilization of Linda Mama Boresha Jamii insurance

$\mathbf{X_1}$ = Individual client's characteristics

$\mathbf{X_2}$= NHIF scheme characteristics

$\mathbf{X_3}$ = health facility related factors

$\mathbf{X_4}$ = health workers' characteristics

$\boldsymbol{\beta_0}$ **= Constant** of coefficients While β_1, β_2, β_3 and β_4 were coefficients of determination and ε was the error term

3.10 Ethical Consideration

After approval from Kenya Methodist University (KEMU) Scientific Ethics and Review Committee to carry out the research (Ref No: KeMU/SERC/HSM/37/2020-appendix VIII) a permit to conduct a research was obtained from the National Commission for Science, Technology and Innovation (License No: NACOSTI/p/21/8852-appendix IX). The researcher also wrote to the County Chief Officer of Health to seek permission to carry out the study in the County health facilities and the Director Corporate Health Services replied on behalf of the Chief Officer of Health (letter dated 7th August 2020 appendix XII)

Data collection being a sensitive issue as it borders on invasion of people's privacy, ethical consideration was therefore of paramount importance, (China et al., 2007). The researcher obtained consent (Appendix II) from all clients who participated in the study before allowing them to fill the questionnaire and also all the clients were assured of confidentiality, they were given information concerning the freedom they had either to participate in the research or not to.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Introduction

This chapter analyses and presents the findings of data collected. The purpose of the study was to establish the factors influencing utilization of Linda mama Boresha Jamii insurance. This chapter presents the demographic results, the descriptive characteristics per each of the study variables and the inferential results of all the study variables.

4.2 Pretest Results

The researcher conducted a pretest study at Ndalu Sub-County Hospital with the aim of testing the validity and reliability of the study instrument. The study used Cron Bach's alpha in measuring the internal consistency of the study tool. The reliability results are presented in Table 4.1.

Table 4.1:

Summarized Cronbach's Coefficients

Cronbach's alpha	Number of Items
0.842	5

As per the findings in Table 4.1 above the alpha coefficient for the five study items is 0.801, suggesting that the items have relatively high internal consistency implying that it is good since reliability coefficient of .70 or higher is considered good and acceptable.

4.3 Response Rate

The study targeted a sample of 384 respondents and 7 health care workers at Kitale County Hospital and five Sub County Hospitals in Trans Nzoia County. Out of 384 questionnaires issued out, 346 respondents completed the questionnaire contributing

to 90% response rate. This is a good response rate for data analysis as Mugenda and Mugenda (2009) pointed out that for generalization, a response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and over is excellent. See Table 4.2

Table 4.2:

Response Rate

Response	Frequency (N)	Percentage (%)
Completed questionnaires	346	90
Uncompleted questionnaires	38	10
Total	**384**	**100**

4.4 Demographic Information

The respondents' age, religion, number of children, education, occupation and other demographic characteristics are presented in Table 4.3.

Table 4.3:

Demographic Information (N=346)

Characteristics	Frequency (N)	Percent (%)
Respondents' age		
18-20 Years	43	12
21-30 Years	202	58
31-40 Years	92	27
41 Years and Above	9	3
Religion		
Christian	308	89
Islam	37	10.7
Hindu	1	0.3
Number of children		
Expectant	12	3
One	121	35
Two	71	21
Three	64	18
Four	41	12
Five and above	37	11
Education		

Characteristics	Frequency (N)	Percent (%)
Primary	93	27
High school	140	41
Diploma	100	29
Degree	13	3
Occupation		
House wife	107	31
Business	111	32
Farmer	48	14
Teacher	17	5
Civil Servant	11	3
Others	52	15
Number of people in a household		
One	3	1
Two	36	10
Three	52	15
Four	79	23
Five	67	20
Six	46	13
Seven and above	63	18
Incomes		
< 10000	216	62.2
10001-20000	73	21.2
20001-30000	29	8.4
Above 30000	28	8.2
Nationality		
Kenyan	318	92
Ugandan	28	8
Type of House		
Permanent	45	26
Semi-Permanent	45	26
Temporary	166	48
Marital Status		
Single	87	25
Married	242	70
Divorced	10	3
Widow	7	2

As per the Table 4.3 above, results showed that, majority, 202 (58%) of the respondents were aged 21-30 years, 92(27%) were aged between 31 and 40 years, 43(12%) were aged 20 years and below while 9(3%) of the respondents were 41 and

above years of age. This means that the largest age group of respondents fell between age 21 and 30 years representing the group with the highest fertility index. Also the group represents youthful mothers who are yet to gain financial stability hence the preference of Linda mama insurance cover. Nearly all, 318(92%) of the respondents were Kenyans while 28(8%) had Ugandan origin. The presence of Ugandan citizens crossing the border and enrolling for Linda mama implies the effectiveness of the policy in reducing the mortality rate at birth.

Majority 308(89%) of the respondents were Christians, 37(11%) were non-Christians. The results imply that the communities residing in Trans Nzoia County are dominated by Christianity and the Christian faith which encourages followers to utilize any medical resources availed for their health stability and wellbeing.

Over a third 242(70%) of the respondents were married and 87(25%) were single mothers. In addition, 10(3%) were divorced while 7(2%) of the respondents were widows. The result implies that couples had embraced Linda mama policy as it reduced the financial strain during clinic and delivery in hospitals. Less than a third 121(35%) of the respondents had one child, 71(21%) had two children, 64(18%) had three children, 41(12%0 had four children, 37(11%) had five children and above. Further 12(3%) of the respondents were expecting their first child. The results show that majority had between 1 and 3 children an indication that they are youthful mothers and likely to give birth to additional children in the near future.

Nearly half 140(41%) had attained a high school level of education; 100(29%) had a diploma, 93(27%) had primary level while 13(3%) had a degree. The results imply that the society in general was literate and could comprehend the basic factors that influenced the utilization of the Linda mama policy. Above half 166(48%) of the

respondent indicated that they resided in temporary houses while permanent and semi temporary constituted 45(26%) of the respondents each. The results imply that majority of the people in the area are poor that only a few managed to reside in permanent houses. About 111(32%) of the respondents were running small private businesses, 107(31%) were stay at home wives, 48(14%) were farmers, 17(5%) were teachers, 11(3%) were civil servants working in the government while 52(15%) of the respondents were involved in economic activities not mentioned in the list. The results imply that incomes of the respondents were from the informal sector.

The results further showed that 79(23%) of the respondents had a household with four members, 67(20%) had five, 52(15%) had three members; while 46(13%) had six members in their respective households. In addition, only 63(18%) of the respondents had a household with seven members and above. The findings imply that the households were constituted of young families as majority had less than five members within a household. Over 216(60%) of the respondents had an income of at most ten thousand a month. Further the income per household on average was at least 18, 000. This implies that on average each household earns at least six hundred Kenya shillings every day.

4.5 Utilization of Linda Mama Health Insurance

Using a scale of yes or no, the respondents were requested to indicate their agreement to the statements below that relate to utilization of Linda mama Boresha Jamii health insurance. The results are tabulated in Table 4.4.

Table 4.4:

Utilization of Linda Mama

	Yes		No	
Hospital delivery	**n**	**%**	**n**	**%**
I delivered in a health facility.	322	93	24	7
I delivered by the help of a health worker	309	89	37	11
I used Linda Mama during my last delivery	318	92	28	8
I have a Linda Mama card	285	82	61	18
I paid cash for my last delivery	117	34	229	66
ANC attendance	**n**	**%**	**n**	**%**
I attended 4 ANC visits	232	67	114	33
I knew Linda Mama before you started attending ANC	141	41	205	59
I used Linda Mama card during ANC visits	263	76	83	24
Post Natal Clinic attendance	**n**	**%**	**n**	**%**
I paid cash for registration during my PNC checkup	92	27	254	73
I presented my Linda Mama card during registration for my Post Natal clinic check up	267	77	79	23
I paid cash for my child welfare clinic	95	28	251	72
I presented my Linda Mama card at delivery	270	78	76	22

With regard to hospital delivery majority 322(93%) of the respondents indicated that they delivered in a health facility, 309(89%) delivered with the help of a health care worker; 318(92%) held that they used Linda Mama during their last delivery and that 285(82%) had Linda mama card. In addition, 229(66%) of the respondents indicated that they did not pay anything for their last delivery. In regard to ANC attendance the findings show that 232(67%) of the respondents attended four ANC visits and 205(59%) knew about Linda Mama before they started attending ANC where 263(76%) used Linda Mama card during ANC visits. Moreover, in regard to post-natal clinic attendance, 254(73%) of the respondents did not pay anything for registration during their PNC checkup and 267(77%) presented their Linda Mama card during registration for their Post Natal clinic checkup. Finally, the majority 251(72%) of the respondents did not pay any cash for their child welfare clinic and 270(78%) presented their Linda Mama card at delivery.

Further results from the KII agreed with the results above that over 70% of expectant mothers in the health facilities have Linda Mama Boresha Jamii insurance card. One participant had the following to say:

> "… of about 1,000 of the Post-natal mothers, approximately half of them have used Linda Mama Boresha Jamii card. Over 75% of the clients come with the Linda mama card during delivery …".
>
> (KII, 003, Male)

Another KII participant said:

> "… the women under Linda mama insurance cover viewed the policy as a great initiative by the government as it has relieved most expectant mothers of the financial strain during ANC, PNC as well as CWC …" .
>
> (KII, 005, Male)

The average response rate of KII on all independent variables was at 70% as illustrated above

4.6 Client's Characteristics

Using a scale of 1 to 5 with 1 denoting to strongly disagree and 5 denoting to strongly agree, the respondents were requested to indicate their agreement level to the statements below that relate to client's characteristics. The results are tabulated in Table 4.5.

The results show that majority of the respondents agreed that they always had complete control over their source of income (Mean=3.77) and that they belonged to women groups in their community which dealt with income generating activities (Mean=3.49). Further the respondents disagreed that they always trusted in God Almighty for divine protection more than insurance, that monthly source of income is

always reliable, that Linda Mama Boresha Jamii insurance was a foreign culture contrary to African culture, and that early preparation for the unborn child like enrollment into Linda Mama Boresha Jamii insurance was prohibited by their culture. This implies that the cultural and religious manifestations of the people of Trans Nzoia did not prohibit them from enrolling for Linda insurance policy.

Table 4.5:

Client's Characteristics

Statements	SD	D	N	A	SA	Mean	Std. Dev.
	n(%)	n(%)	n(%)	n(%)	N(%)		
I always have complete control over my source of income	88(25)	83(24)	24(7)	120(35)	31(9)	3.77	1.38
I belong to women groups in my community which deal with income generating activities	110(32)	105(30)	55(16)	55(16)	21(6)	3.49	1.29
I always trust in God Almighty for divine protection more than insurance	30(10)	59(17)	28(8)	143(41)	80(23)	2.42	1.15
My monthly source of income is always reliable	119(34)	179(52)	17(5)	31(9)	0(0)	2.34	1.24
I do not believe in ANC insurance cover but I believe in God Almighty for divine protection	90(26)	215(62)	20(6)	20(6)	0(0)	2.24	1.05
God Almighty is in full control of the future so there is no need for Linda Mama insurance	99(29)	220(64)	10(3)	17(5)	0(0)	2.21	1.02
God Almighty gives divine protection against every eventuality so there is no need for Linda Mama insurance	91(26)	206(60)	12(4)	37(11)	0(0)	2.19	1.02
Linda Mama Boresha Jamii insurance is a foreign culture contrary to African culture	73(21)	160(43)	11(3)	96(27)	6(2)	1.98	.85
Early preparation for the unborn child like enrollment into Linda Mama Boresha Jamii insurance is prohibited by my culture	82(24)	171(49)	21(6)	69(20)	3(1)	1.91	.74
Enrollment into Linda Mama Boresha Jamii insurance is invitation of complications during delivery	81(23)	183(53)	17(5)	62(18)	3(1)	1.88	.86

The key informants in this study were the nurse managers in the target hospitals. The study sought to establish the opinion on what was the main source of income of

majority of expectant women in their health facility. KII responses indicated that the expectant women got their income from the small businesses and others indicated that were engaged in farming activities as the region is predominantly an agricultural area, furthermore, one key informant had the following to say:

> "… there are no cultural taboos or practices in the local society that can affect utilization of Linda Mama insurance by expectant women. Religious believes supports the expectant mothers in utilization of Linda Mama Boresha Jamii …" .
>
> (KII, 002, Female)

The findings are in agreement with the findings of a study done by Doror et al. (2016) that the economic and social welfare status of a house hold contributes a critical responsibility in guaranteeing whether a client will enroll into a social health insurance or not, furthermore the results differed from findings by Panda et al. (2016) that allocating finances separate for the health care may be perceived as attracting diseases and even early preparation for the unborn baby is associated with invitation of complications during delivery. In addition, the findings support the findings by Fletcher et al. (2009) poor or inadequate level of academic exposure are connected to the inadequate health related matters, increased stress coupled with the reduced lesser levels of assurance on one self.

The study found out that the expectant mothers had complete control over their source of income contrary to the findings by Doror et al. (2016), although their sources of income were varied and they moderately agreed that they belonged to women groups in their community which dealt with income generating activities. The study also found that besides trusting in God Almighty for divine protection mothers also needed the insurance contrary to the findings by Adams (1986) in the studies carried out among the Amish community in the USA who only wanted to believe in God and

nothing else. Their monthly source of income was moderately reliable, the study also found out that Linda Mama Boresha Jamii insurance was a foreign culture but not contrary to African culture, additionally, the study found out that early preparation for the unborn child like enrollment into Linda Mama Boresha Jamii insurance was not prohibited by culture contrary to the findings by Panda et al. (2016) in the studies carried out in the Indian community.

The findings are in agreement with the findings of a study done by Doror et al. (2016) that the economic and social welfare status of a house hold contributes a critical responsibility in guaranteeing whether a client will enroll into a social health insurance like Linda Mama Boresha Jamii or not. The results further rejected the findings by Panda et al. (2016) which said that some communities believed that allocating finances specifically for health care may be perceived as attracting diseases and even early preparation for the unborn baby being associated with invitation of complications during delivery, in addition, the findings supported the findings by Fletcher et al .(2009) which says that poor or inadequate level of academic exposure are connected to inadequate health related matters, increased stress coupled with the reduced lesser levels of assurance on one self.

4.7 NHIF Scheme Characteristics

Using a scale of 1 to 5 with 1 denoting to strongly disagree and 5 denoting to strongly agree, the respondents were requested to indicate their agreement level to the statements below that relate to NHIF Scheme Characteristics. The results are tabulated in Table 4.6.

The results depict that the respondents agreed that they know that Linda Mama Boresha Jamii insurance scheme is for all Kenyan women who are expectant or have a

baby less than one-year-old (Mean=3.63) and that registration into Linda Mama Boresha Jamii insurance scheme is simple and straight forward (Mean=3.57). The respondents disagreed that very little documentation was required before enrollment into Linda Mama Boresha Jamii insurance Scheme, that enrollment into Linda Mama Boresha Jamii insurance Scheme takes place only in health facilities, that information concerning Linda Mama Insurance is readily available over the radio, television and even Chief's Baraza, that they were able to access information about Linda Mama Boresha Jamii insurance via social media platforms, that Linda Mama insurance has an effective client feedback system of complains and complements and that the respondents knew that Linda Mama Boresha Jamii is for free. The results imply that NHIF scheme characteristics was not smooth as should be in encouraging the uptake of Linda mama insurance cover starting from its structuring, documenting, payment and communication.

Table 4.6:

NHIF Scheme Characteristics

Statements	SD n(%)	D n(%)	N n(%)	A n(%)	SA n(%)	Mean	Std. Dev.
I know that Linda Mama Boresha Jamii insurance scheme is for all Kenyan women who are expectant or have a baby less than one year old	3(1)	49(14)	193(56)	95(28)	6(2)	3.63	1.52
Registration into Linda Mama Boresha Jamii insurance scheme is simple and straight forward	7(2)	66(19)	149(43)	118(34)	6(2)	3.57	.97
Very little documentation is required before enrollment into Linda Mama Boresha Jamii insurance Scheme	25(7)	39(11)	158(46)	108(31)	16(5)	3.38	.90
Enrollment into Linda Mama Boresha Jamii insurance Scheme takes place only in health facilities	36(10)	68(20)	155(45)	75(22)	12(4)	3.31	1.07
Information concerning Linda `Mama insurance is readily available over the radio T.V and even Chief's Baraza	49(14)	39(11)	49(14)	168(49)	40(12)	3.15	.70
I am able to access information about Linda Mama Boresha Jamii insurance via social media platforms	14(4)	57(17)	45(13)	209(60)	21(6)	3.14	.93
Linda Mama insurance has an effective client feedback system of complains and complements	31(9)	53(15)	55(16)	191(55)	16(5)	3.14	.81
I know that Linda Mama Boresha Jamii is for free	17(5)	38(11)	192(56)	78(23)	18(5)	3.03	1.13
I knew about the existence of Linda Mama Boresha Jamii insurance Scheme before I became expectant	19(6)	165(48)	25(7)	106(31)	31(9)	2.92	1.53
Linda Mama Boresha Jamii insurance is being implemented both in public health facilities and faith based and private health facilities	32(9)	126(36)	70(20)	89(26)	28(8)	2.89	1.16
Linda Mama has embraced use of technology which include use of mobile phones and emails to communicate with clients/customers	25(7)	90(26)	101(29)	107(31)	23(7)	2.88	.97

These findings differed from the KII findings which indicated that majority of the ANC, PNC and CWC clients heard about Linda Mama insurance through their friends, the mainstream media as well as the social media platform. One of the KII had the following to say:

> "… there are posters that are displayed on walls at strategic places like the shopping centers to make sure the information reaches as many expectant mothers as possible ...".
>
> (KII, 001, Female)

Another KII participant said

> "… the expectant mothers always tell that registration procedure to Linda Mama Boresha Jamii was always simple and fast. Our staff always update the clients on Linda Mama Boresha Jamii once a month with regard to issues of who is eligible or not ..."
>
> (KII, 004, Female)

The findings were in line with the findings of a study done by Kimani et al. (2004) that the NHIF scheme has policies that targeted vulnerable segments of the population such as children and pregnant women, in addition, the results supported the need for government's agenda of implementing Universal Health Coverage (UHC). The out coms were in line with Linda Mama Boresha Jamii Implementation manual for programme Managers (2016). The manual holds that there is a toll-free line and email address where complaints and complements from beneficiaries and health providers report for action, the manual also said that social media platforms like face book and twitter are in use and also direct reporting of complaints and complements at NHIF service centers is allowed.

4.8 Health Facility Factors

Using a scale of 1 to 5 with 1 denoting to strongly disagree and 5 denoting to strongly agree, the respondents were requested to indicate their agreement level to the statements below that relate to health facility factors. The results are tabulated in

Table 4.7. As per the findings in table 4.8 above, the respondents agreed that their local health facilities were operational 24 hours seven days/week (Mean=4.01) and that also agreed that their local health facilities had maternity wing which had a delivery rooms and a recovery rooms (Mean=3.83). In addition, the respondents agreed that their nearest health facilities were within a radius of less than 5km (Mean=3.79); their local health facilities had functioning utility vehicle for emergency (Mean=3.61) and also agreed that they pay nothing to access services relevant to child birth at their local health facilities (Mean=3.52). Moreover, the respondents moderately agreed that their local health facilities had enough medical equipment like suction machines and others (Mean=3.47) and that the facilities had enough clean toilets and bath rooms (Mean=3.46). Further in moderation, the respondents agreed that local health facility post-natal clinic is operational from 8.00 am to 5.00 pm 5 days per week (Mean=3.08) as well as the availability of ANC and CWC from 8.00 am to 5.00 pm 5 days per week (Mean=3.00). Finally, the respondents disagreed that it took them more than one hour to be served in their respective local health facilities. The result implied that the health facility factors affected the utilization of Linda Mama positively despite some aspects like time taken while waiting in line and the low speed of dispensing health services.

Table 4.7:

Health Facility Factors

Statements	SD n(%)	D n(%)	N n(%)	A n(%)	SA n(%)	Mean	Std. Dev.
My local health facility is operational 24 hours seven days/week	20(6)	23(7)	82(24)	103(30)	118(34)	4.01	.93
My local health facility has maternity wing which has a delivery room and a recovery room	8(2)	80(23)	18(5)	201(58)	39(11)	3.83	.86
My nearest health facility is less than 5km away	158(46)	72(21)	6(2)	86(25)	24(7)	3.79	1.15
My local health facility has a functioning utility vehicle for emergency	33(10)	54(16)	13(4)	230(67)	16(5)	3.61	.86
In my local health facility, one does not need an appointment to be seen for 1st ANC	18(5)	44(13)	23(7)	192(56)	69(20)	3.60	2.39
I do not pay anything to access services relevant to child birth in my local health facility	22(6)	135(39)	20(6)	131(38)	38(11)	3.52	1.14
My local health facility has enough medical equipment like X-ray and others	3(1)	32(9)	158(46)	116(34)	37(11)	3.47	.86
My local health facility has enough clean toilets and bath rooms	35(10)	125(6)	20(6)	136(39)	30(9)	3.46	.99
In my local health facility post-natal clinic is operational from 8.00 am to 5.00 pm 5 days per week	3(1)	84(24)	42(12)	183(53)	34(10)	3.08	1.21
In my local health facility ANC and CWC are operational from 8.00 am to 5.00 pm 5 days per week	67(19)	56(16)	190(55)	33(9)	0(0)	3.00	1.22
It takes me less than one hour to be served in my local health facility	3(1)	53(15)	42(12)	223(65)	25(7)	2.26	1.42

In regard to the health facility factors the KII held that some of the roads leading to health facilities were in poor conditions especially during the rainy seasons. One participant had the following to say:

> "……….nothing was charged for ANC, PNC and CWC clients and that on average the clients were required to cover a distance of around two and a half kilometers while others held that the distance covered by clients was below five kilometers….."
>
> (KII, 005, Female)

On the operation hours of the health facilities. One participant had the following to say:

> "………..that the health facilities operated for 24 hours but for ANC, PNC and CWC they were operational from eight in the morning to five in the evening every day from Monday to Friday…."
>
> (KII, 003, Male)

On what happens when a client comes to the facilities at night in labor pains. One participant had the following to say:

> "………they would admit the client and help her deliver and some indicated that they would refer them to a facility of a higher level and that the equipment at the hospital were in good conditions but few required some minor repairs or upgrades…..."
>
> (KII, 002, Female)

The findings were contrary to the findings by Webber (2018) which said ''physical boundaries to getting to medicinal services offices were seen as a determinant of youngster mortality in Tanzania.'' On the other hand, the findings are in line with the findings of

Mokua (2014), which says ‘‘poor infrastructure like poor road network leading to most of the rural health facilities were some of the factors contributing to most of the home deliveries.’’ The study also agreed with the recommendations of Moindi et al. (2015) which said: ‘‘there should be adequate staff to facilitate 24 hours’ operation of the health facility because some deliveries occur at night.’’

4.9 Health Worker’s Characteristics

Using a scale of 1 to 5 with 1 denoting to strongly disagree and 5 denoting to strongly agree, the respondents were requested to indicate their agreement level to the statements below that relate to Health Worker’s Characteristics. The results are tabulated in table 4.8.

From table 4.8, the respondents agreed that healthcare workers in their local health facilities always talked well of Linda Mama Boresha Jamii insurance (Mean=4.08) and that health workers in their local health facilities explained to them how Linda Mama Boresha Jamii worked (Mean=4.04). Additionally, the respondents agreed that heath workers in their local health facilities encouraged them to join and use Linda Mama Boresha Jamii insurance Scheme (Mean=4.02) and that they usually receive clients well whenever they visit the health facility (Mean=3.67). Further the healthcare workers advised them to be using Linda Mama insurance card whenever they were expectant (Mean=3.63); always allow clients to ask any question concerning the use of Linda Mama Boresha Jamii insurance (Mean=3.54) and that to a moderate extent the respondents agreed that health workers are always friendly to them whenever they visit the health facility (Mean=3.08). The findings imply that the health care workers have a pivotal position in the enrollment and utilization of Linda Mama Boresha Jamii insurance.

Table 4.8:

Health Worker's Characteristics

Statements	SD n(%)	D n(%)	N n(%)	A n(%)	SA n(%)	Mean	Std. Dev.
The health workers in my local health facility always talk well of Linda Mama Boresha Jamii insurance	3(1)	56(17)	18(5)	247(71)	23(7)	4.08	.83
Health workers in my local health facility explained to me how Linda Mama Boresha Jamii works	0(0)	20(6)	37(11)	232(67)	56(16)	4.04	.81
Heath workers in my local health facility encouraged me to join Linda Mama Boresha Jamii insurance Scheme	0(0)	6(2)	35(10)	248(72)	57(17)	4.02	.57
All Health workers in my local health facility usually receive me well whenever I visit the health facility	10(3)	6(2)	31(9)	212(61)	87(25)	3.67	.82
Health workers in my local health facility advised me to be using Linda Mama insurance card whenever I'm expectant	7(2)	61(18)	12(4)	238(69)	28(8)	3.63	.93
The health workers in my local health facility always allow me to ask any question concerning use of Linda Mama Boresha Jamii insurance	7(20)	70(20)	29(8)	206(60)	34(10)	3.54	.98
Health workers in my local health facility are always friendly to me whenever I visit the health facility	54(16)	81(23)	20(6)	164(47)	27(8)	3.08	1.28

On the health workers' characteristics, the KII praised their nurses and other staff that they positively view the Linda Mama Boresha Jamii and were in full support of the programme. One key informant had the following to say:

"…....the staffs possess diversified work and personal strengths which have collectively influenced the uptake and utilization of Linda Mama Boresha Jamii insurance and that the staff view the policy as good for the community members who cannot afford the services but Linda mama assures them of quality services for free under Linda Mama……."

(KII, 006, Female)

The study findings differed with the findings of Maina et al (2016), in Embu which said that most of the health staff working at Embu level five hospital MCH/FP clinic had negative attitude towards NHIF so they were not encouraging expectant mothers to join NHIF. Further the findings differed with the findings by Fultoni et al. (2018), which said that in Bungoma County most of the health staff including the voluntary health workers like Community Health Volunteers (CHVs) had not been sensitized about the program so they were operating from an ignorant point of view and that staff were relating poorly with the general public.

4.10 Inferential Statistics

4.10.1 Tests of Normality

The study conducted Normality tests by the use of Kolmogorov-Smirnov[a] and Shapiro-Wilk with the aim of determining which kind of analysis should be done. The results are presented in table 4.9.

Table 4.9:

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Client's Characteristics	.111	346	.300*	.971	346	.832
NHIF Scheme Characteristics	.158	346	.300*	.867	346	.817
Health Facility Factors	.121	346	.300*	.947	346	.822
Health Worker's Characteristics	.208	346	.300*	.932	346	.801
Utilization of Linda Mama	.233	346	.300*	.892	346	.878

a. Lilli efors Significance Correction

*. This is a lower bound of the true significance.

The results in Table 4.9 above, the significance value of the Kolmogorov-Smirnov test is greater than 0.05, hence the distribution of the data is normal. Hence the multivariate analysis was conducted to establish the collective predictive power of the independent variables on the dependent variables.

4.10.2 Bivariate Logistical Analysis

The study finally used the Pearson correlations to run a bivariate logistical analysis to test the kind and magnitude of the relationship that exists between the study independent variables. The results are tabulated in the table 4.10.

Table 4.10:

Bivariate Logistic Analysis

		Client's Characteristics	NHIF Scheme Characteristics	Health Facility Factors	Health Worker's Characteristics	Utilization of Linda Mama
Client's Characteristics	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	346				
NHIF Scheme Characteristics	Pearson Correlation	.068	1			
	Sig. (2-tailed)	.204				
	N	346	346			
Health Facility Factors	Pearson Correlation	.445**	.434**	1		
	Sig. (2-tailed)	.000	.000			
	N	346	346	346		
Health Worker's Characteristics	Pearson Correlation	.421**	.417**	.524**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	346	346	346	346	
Utilization of Linda Mama	Pearson Correlation	.171**	.190**	.271**	.298**	1
	Sig. (2-tailed)	.001	.000	.000	.000	
	N	346	346	346	346	346

**. Correlation is significant at the 0.01 level (2-tailed).

As per the findings in table 4.10 above, minor positive relationships that exist between the Client's Characteristics and NHIF Scheme Characteristics with a correlation value of .068. Further, Client's Characteristics and Health Facility Factors while Client's Characteristics; Health Worker's Characteristics and utilization of Linda mama positively correlate with each other with correlation values of .445**, .421** and .171** respectively. Further the bivariate logistical analysis results indicated that moderate positive relationships between NHIF Scheme Characteristics and Health Facility Factors; and NHIF Scheme Characteristics and Health Worker's Characteristics and utilization of Linda mama with correlation coefficients of .434**, .417** and .190** respectively, finally the analysis showed that the health facility

factors and health worker's characteristics had a strong positive connection with a correlational value of .524** implying that the presence of the two variables affected the utilization of Linda mama to a great extent meaning that the two variables were significant influencers of the Utilization of Linda Mama. The study factors had positive correlations are because the variables were closely related and moving in the same direction.

4.10.3 Multiple Regressions

The study further applied general linear model to determine the predictive power of the independent variables in utilization of Linda mama Boresha Jamii health insurance. This included the Model, ANOVA of regression and coefficient of determination. The researcher applied the statistical package for social scientists (SPSS V 25.0) to code, enter and compute the measurements of the multiple regressions for the study.

Coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Utilization of Linda mama Boresha Jamii health insurance) that is explained by all the four independent variables (Client's characteristics, NHIF Scheme Characteristics, health facility factors and Health Worker's Characteristics).

Table 4.11:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	. 787a	.715	.711	.29018

a. Predictors: (Constant), Client's characteristics, NHIF Scheme Characteristics, health facility factors and Health Worker's Characteristics.

The four independent variables in the study influence 71.1% of the utilization of Linda mama Boresha Jamii health insurance as represented by the R^2. This therefore means that other factors not studied in this study influence 28.9% of utilization of Linda mama Boresha Jamii health insurance. Therefore, further research should be done to determine the other factors that influence 28.9% of utilization of Linda mama Boresha Jamii health insurance. See Table 4.12

Table 4.12:

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	25.888	4	6.472	56.863	.000[b]
Residual	28.644	341	.084		
Total	**54.532**	**345**			

a. Dependent Variable: Utilization of Linda mama Boresha Jamii health insurance
b. Predictors: (Constant), Client's characteristics, NHIF Scheme Characteristics, health facility factors and Health Worker's Characteristics.

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how Client's characteristics, NHIF Scheme Characteristics, health facility factors and Health Worker's Characteristics influenced the Utilization of Linda mama Boresha Jamii health insurance. The F critical at 5% level of significance was 56.863. Since F calculated is greater than the F critical, this shows that the overall model was significant.

Multiple regression analysis was conducted to determine the extent to which each independent variable influences the Utilization of Linda mama Boresha Jamii health insurance. Table 4.13 shows that all the independent variables were significant predictors of Utilization of Linda mama Boresha Jamii health insurance, $p<0.05$.

Table 4.13:

Determinants of utilization of Linda Mama

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.206	.228		3.492	.001
	Client's characteristics	.746	.043	.103	1.986	.002
	NHIF Scheme Characteristics	.778	.042	.114	2.097	.000
	Health facility factors	.673	.061	.266	4.669	.000
	Health Worker's Characteristics	.622	.048	.474	7.883	.000

a. Dependent Variable: Utilization of Linda Mama Boresha Jamii Health Insurance

In this study, the regression equation is: ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$), hence the results show that:

$Y = 1.206 + .746X_1 + .778X_2 + .673X_3 + .622X_4 + \varepsilon$

According to the regression equation, taking all factors (Client's characteristics, NHIF Scheme Characteristics, health facility factors and Health Worker's Characteristics) to be constant at zero, growth of Linda Mama will be 1.206. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in Client's characteristics leads to a 0.746 increase in Utilization of Linda mama; a unit increase in NHIF Scheme Characteristics leads to a 0.778 increase in Utilization of Linda mama, a unit increase in health facility factors leads to a .673 increase in utilization of Linda mama; while a unit increase in health worker's characteristics leads to a .622 increase in Utilization of Linda mama. This infers that NHIF Scheme Characteristics, health facility factors, health worker's characteristics, has the most influence on Utilization of Linda mama with a significance value of (0.000) at 95% level of confidence followed by Client's characteristics with a significance value of 0.002.

The findings are in line with the findings of Doror et al (2016) that individual characteristics of the clients positively influenced the enrollment of mothers into a social health insurance. Further, the findings are in agreement with the findings of Pokuaa et al (2018) that the characteristics of the insurance scheme influences the uptake of health covers for mothers in Ethiopia. In addition, the findings are in line with findings of Owosu-Sekyere et al (2014), that health facility related factors significantly influence the of insurance covers in Ghana, furthermore the findings are in agreement with the findings of Fultoni et al (2018) that the skills and attitudes of the healthcare providers significantly influenced the enrollment and utilization of the Linda Mama cover in Bungoma County.

CHAPTER FIVE:

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings on the factors influencing utilization of Linda Mama Boresha Jamii Insurance by expectant mothers in Trans Nzoia County. The conclusions and recommendations are drawn thereto. The chapter is structured into: summary of findings, conclusions, recommendations and area for further research.

5.2 Summary of Findings

The broad Objective of the study was to establish factors influencing utilization of Linda Mama Boresha Jamii health insurance by expectant mothers in Trans Nzoia County**.** The specific objectives of the study were: to determine individual client's characteristics influence on utilization of Linda Mama Insurance, to determine the influence of NHIF scheme characteristics on utilization of Linda Mama insurance, to determine health facility related factors influence on utilization of Linda Mama Insurance and last but not least to determine health workers' characteristics influence on Linda Mama Boresha Jamii insurance. The study adopted descriptive-cross sectional research design with mixed methods approach. SPSS version 25 was used in coding and analyzing quantitative data while qualitative data was analyzed thematically and presented in verbatim.

5.2.1 Client's characteristics

The study found that the expectant mothers had complete control over their source of income although their sources of income were varied and moderately agreed that they belonged to women groups in their community which dealt with income generating

activities. Further the study found that besides their cultural believes they need the insurance and there were no religious believes which interfered with enrolling into Linda Mama Boresha Jamii Insurance.

Also the study found that Linda Mama Boresha Jamii insurance was a foreign culture but not contrary to African culture. Additionally, the study found that early preparation for the unborn child like enrollment into Linda Mama Boresha Jamii insurance was not prohibited by culture and also found that from a cultural point of view, enrollment into Linda Mama Boresha Jamii insurance was not invitation of complications during delivery.

5.2.2 NHIF Scheme Characteristics

The study found that Linda Mama Boresha Jamii insurance scheme was for all women who were expectant or have a baby less than one-year-old and that registration into Linda Mama Boresha Jamii insurance scheme was simple and straight forward. It was also found out that very little documentation was required before enrollment into Linda Mama Boresha Jamii insurance Scheme and that enrollment into Linda Mama Boresha Jamii insurance Scheme took place only in health facilities.

Also found that information concerning Linda Mama Insurance was readily available over the radio television and even Chief’s Baraza and that they were able to access information about Linda Mama Boresha Jamii insurance via social media platforms. Moreover, the study found that Linda Mama insurance had an effective client feedback system of complains and complements and that the clients knew that Linda Mama Boresha Jamii was for free.

Further the study found that the clients knew about the existence of Linda Mama Boresha Jamii insurance Scheme before they became expectant, further, the study found that Linda Mama Boresha Jamii insurance was being implemented both in public health facilities, faith based facilities and private health facilities. Last but not least, the study found out that Linda Mama had embraced use of technology which included use of mobile phones and emails to communicate with clients/customers.

5.2.3 Health Facility Factors

The study found out that local health facilities were operational 24 hours seven days/ week and also found that their local health facilities had maternity wing which had delivery rooms and recovery rooms, in addition, the study found that the nearest health facilities were within a radius of less than 5km and that the local health facilities had functioning utility vehicles for emergency also agreed that they paid nothing to access services relevant to child birth at their local health facilities.

Moreover, the study found out that their local health facilities had enough medical equipment like suction machines although some required some minor repairs in order to promote their functioning and that the facilities had enough clean toilets and bath rooms, the study also found out that local health facilities ANC, PNC and CWC were operational from 8.00 am to 5.00 pm 5 days per week. Last but not least, the study found out that it took more than one hour to be served in their respective local health facilities.

5.2.4 Health Worker's Characteristics

The study found that healthcare workers in their local health facilities always talked well of Linda Mama Boresha Jamii insurance and that health workers in their local health facilities explained to clients how Linda Mama Boresha Jamii worked. The study also found out that heath workers in the local health facilities encouraged clients to join and use

Linda Mama Boresha Jamii insurance Scheme and that they received clients well whenever they visited the health facilities. Further the study found that the healthcare workers advised clients to be using Linda Mama insurance card whenever they were expectant and that always allowed the clients to ask questions concerning the use of Linda Mama Boresha Jamii insurance and that health workers were always friendly to clients whenever they visited the health facilities.

5.2.5 Utilization of Linda Mama

The study found that moderately the mothers delivered in health facilities with the help of health care workers; they used Linda Mama during their last delivery and that they had Linda mama card. In addition, the study found that the clients did not pay anything for their last delivery. In regard to ANC attendance the study found that the clients attended four ANC visits and that majority knew about Linda Mama before they started attending ANC where most of them used Linda Mama card during ANC visits. Moreover, in regard to post-natal clinic attendance, the study found that the clients never paid anything for registration during PNC checkup and that majority presented their Linda Mama card during registration for their Post Natal clinic checkup. Finally, the study found that the clients did not pay any cash for their child welfare clinic and that presented their Linda Mama card during the clinic.

5.3 Conclusions

The study concluded that individual client characteristics influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County in that the expectant mothers had complete control over their source of income and that moderately agreed that they belonged to women groups in their communities which dealt with income generating activities. The study also concluded that monthly source

of income is moderately reliable; in addition, the study also concluded that most of the expectant mothers believed in ANC insurance cover but also believed in God Almighty for divine protection.

The study concluded that the NHIF scheme characteristics influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County in that Linda Mama Boresha Jamii insurance scheme was for all women who were expectant or have a baby less than one-year-old and that registration into Linda Mama Boresha Jamii insurance scheme was simple and straight forward, additionally, concluded that very little documentation was required before enrollment into Linda Mama Boresha Jamii insurance Scheme and that enrollment into Linda Mama Boresha Jamii insurance Scheme takes place only in health facilities. It also concluded that information concerning Linda Mama Insurance is readily available over the radio, television and even Chief's Baraza and that they were able to access information about Linda Mama Boresha Jamii insurance via social media platforms.

The study further concluded that health facility related factors influence utilization of Linda Mama Boresha Jamii insurance in Trans Nzoia County in that their local health facilities were operational 24 hours seven days/ week and also concluded that local health facilities had maternity wing which had delivery rooms and recovery rooms. Last but not least the study concluded that the nearest health facilities were within a radius of less than 5km and that the local health facilities had functioning utility vehicles for emergency also agreed that they pay nothing to access services relevant to child birth at their local health facilities.

The study concluded that the characteristics of health workers influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County in that healthcare

workers in their local health facilities always talked well of Linda Mama Boresha Jamii insurance and that health workers in their local health facilities explained to clients how Linda Mama Boresha Jamii worked, additionally, the study concluded that heath workers in their local health facilities encouraged them to join and use Linda Mama Boresha Jamii insurance Scheme and that they received clients well whenever they visited the health facility.

The study concluded that majority of the mothers delivered in a health facility, delivered with the help of a health care worker; they used Linda Mama during their last delivery and that they had Linda mama card. In addition, the study concluded that the clients did not pay anything for their last delivery. In regard to ANC attendance the study concluded that the clients attended four ANC visits and that majority knew about Linda Mama before they started attending ANC where most of them used Linda Mama card during ANC visits.

5.4 Recommendations

The study recommends that the implementers of the programme in Trans Nzoia County should stop paying too much attention on the religious and cultural factors of their clients, the main focus to be on their economic status because the Linda Mama policy is aimed at covering expectant mothers with low incomes and help them in times of financial strain during ANC, PNC and CWC.

The NHIF scheme should develop and adopt a mobile phone application which can allow as many expectant mothers to register without necessarily visiting the health facility. The mobile phone application with the assistance of a healthcare provider visiting clients at their home would help the ministry of health to create a database on the uptake and utilization of the Linda mama Boresha Jamii policy.

On health facility factors, the county government of Trans Nzoia should make sure all roads leading to health facilities are passable especially during rainy seasons. This would encourage the expectant mothers to visit the health facilities irrespective of the prevailing weather.

On health care workers, a system should be set in such a way that each health worker is assigned a number of expectant mothers as they visit for the first ANC and the nurses assigned to them monitor them up to delivery. At personal level the nurse would understand the reasons why some do not enroll for Linda mama.

5.5 Suggestions for Further Research

In fulfilling the purpose of this study, the researcher came across areas that need further research. This study was conducted in a cosmopolitan society and therefore a similar study should be conducted in a place which is dominated by one ethnic community and compare the outcomes.

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APPENDICES

APPENDIX I: NUMBER OF DELIVERIES BY COUNTY, 2016

According to the table below showing the average number of deliveries by County, extracted from HIS (2016), the average percentage of health facility deliveries country wide was 60% up from 46% before introduction of FMS in 2013 while the most improved County was Kiambu with 112% health facility deliveries up from 56% before 2013 the least improved Counties were Turkana and Wajir with 29% health facility deliveries each up from 24% and 23.5% respectively. Trans Nzoia County was the 2nd least improved with 33%up from 25% before 2013 Trans Nzoia County is not among the known hardship Counties in Kenya so the researcher wants to establish factors which make Trans Nzoia County to record such low improvement in health facility deliveries and yet Linda Mama Boresha Jamii insurance is facilitating Free Maternity services in Kenya as a whole.

County/National	Est Deliveries	Public Facilities	Private Facilities	Total Facility Deliveries	Home Deliveries	% Facility Deliveries
Kenya	**1,521,250**	**740,688**	**179,186**	**919,874**	**601,376**	**60%**
Baringo	24,246	11,114	528	11,642	12,604	48%
Bomet	31,324	11,305	3,234	14,539	16,785	46%
Bungoma	58,589	32,601	2,127	34,728	23,861	59%
Busia	28,137	15,944	972	16,916	11,221	60%
Elkeyo-Marakwet	16,275	8,629	1,640	10,269	6,006	63%
Embu	12,532	9,432	2,140	11,572	960	92%
Garisa	21,772	9,224	1,133	10,357	11,416	48%
Homa Bay	41,162	22,133	1,318	23,451	17,711	57%
Isiolo	6,154	3,866	449	4,315	1,839	70%
Kajiado	32,277	9,590	4,200	13,790	18,487	43%
Kakamega	63,407	37,288	2,534	38,822	23,585	63%
Kericho	32,947	15,397	3,717	19,114	13,833	58%
Kiambu	**48,126**	**38,334**	**15,758**	**54,092**	**-**	**112%**
Kilifi	46,178	31,199	5,325	36,524	9,654	79%
Kirinyaga	11,983	7,786	2,420	10,206	1,777	85%
Kisii	46,886	28,841	2,107	30,948	15,938	66%
Kisumu	37,590	20,262	8,961	29223	8,367	78%
Kitui	42,444	9,330	8,820	18,150	24,294	43%
Kwale	26,442	20,992	248	21,240	5,202	80%
Laikipa	17,329	10,534	915	11,449	5,880	66%
Lamu	3,722	2,637	15	2,652	1,070	71%
Machakos	45,607	17,740	7,584	25,324	20,283	56%
Makueni	27,122	14,357	466	14,823	12,299	55%
Mandera	38,446	9,725		9,725	28,721	25%
Marsabit	13,315	4,338	1,560	5,898	7,417	44%

Meru	55,061	19,676	8,986	28,662	26,399	52%
Migori	42,813	29,575	3,233	32,808	10,005	77%
Mombasa	33,595	21,566	5,561	27,127	6,468	81%
Murang'a	22,136	13,520	1,780	15,300	6,836	69%
Nairobi	142,962	51,405	52,435	103,840	39,122	73%
Nakuru	65,718	37,007	8,038	45,045	20,673	69%
Nandi	36,564	11,737	1,085	12,822	23,742	35%
Narok	39,055	12,041	1,208	13,249	25,806	34%
Nyamira	17,759	14,096	1,488	15,584	2,175	88%
Nyandarua	17,124	7,978	1,840	9,818	7,306	57%
Nyeri	14,443	11,873	2,616	14,489	0	100%
Samburu	9,412	2,949	504	3,453	5,959	37%
Siaya	34,173	19,589	1,910	21,499	12,674	63%
Taita Taveta	8,745	6,470	169	6,639	2,106	76%
Tana River	9,491	4,335	92	4,427	5,064	47%
Tharaka Nithi	14,252	5,137	1,220	6,357	7,895	45%
Trans Nzoia	**45,472**	**13,087**	**1,988**	**15,075**	**30,397**	**33%**
Turkana	26,924	5,522	2,384	7,906	19,018	29%
Uasin Gishu	39,100	20,693	3,426	24,119	14,981	62%
Vihiga	19,667	11,432	573	12,005	7,662	61%
Wajir	32,424	9,542	11	9,553	22871	29%
West Pokot	20,348	8,860	468	9,328	11,020	46%

Source: MOH HIS (2016)

APPENDIX II: INFORMED CONSENT FORM

Dear Respondent,

My name is Michael Wamalwa. I am a Master's of Science student from Kenya Methodist University. I am conducting a study titled: **Factors influencing utilization of Linda Mama Boresha Jamii Health Insurance by Expectant Mothers and mothers with babies less than one-year-old in Trans Nzoia County.** The purpose of the research is to strengthen the health systems in Kenya and other Low income countries in Africa. As a result, counties, communities and individuals will benefit from improved quality of healthcare services. This research proposal is critical to strengthening health systems as it will generate new knowledge in this area that will inform decision makers to make decisions that are research based.

Procedure to be followed

Participation in this study will require that you fill a questionnaire which is designed on a Likert's scale. Most of the questions address the health financing pillar of the health system. I will record the information from you in a questionnaire check list.

You have the right to refuse participation in this study. You will not be penalized or victimized for not joining the study and your decision will not be used against you or affect you at your place of employment.

Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions and you may stop an interview at any time. You may also stop being in the study at any time without any consequences to the services you are rendering.

Duration: it will take you approximately sixty (60) minutes to fill the questionnaire, the questionnaire consists of six sections, that is from section A to F and you are expected to spend a maximum of ten (10) minutes per section.

Confidentiality: Filling of the questionnaire will be conducted in a private setting within the hospital. Your name will not be recorded on the questionnaire and the questionnaires will be kept in a safe place at the University. However confidentiality may only be breached when the government asks for the research records while following up some criminal activities which may have taken place in the study area like child abuse which is not a common occurrence.

Discomforts and risks: Some of the questions you will be asked may be embarrassing or make you uncomfortable. If this happens; you may refuse to answer if you choose.

You may also decline to answer some questions at any time. Filling the questionnaire may take about 60 minutes to complete.

Benefits: If you participate in this study you will help us to strengthen the health systems in Kenya and other low income countries in Africa. As a result, countries, communities and individuals will benefit from improved quality of healthcare services. Maternal Child Health Insurance is critical to strengthening the health systems as it will generate new knowledge in this area that will inform decision makers to make decisions that are research based. You may not get the results of this study coming to you directly but if you purpose to know the results of this study you can visit the County hospital library after three months and you will access a copy of the study report. There is no reward or compensation for anyone who chooses to participate in the study.

Withdrawal: Participation in the study is voluntary and one can withdraw from the study at any time he/ she wishes without fear of any kind of victimization or loss of anything.

Concerns: If you have any questions you may contact the following supervisors:

1. Dr. Wanja Mwaura Tenambergen of Department of Health Systems Management, Kenya Methodist University, Nairobi Campus, Phone no: +254-726678020 or Dr. Muthoni Mwangi of Department of Health Systems Management, Kenya Methodist University, Nairobi Campus, phone number: +254722986349

Participant's Statement

The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time. I understand that I will not be victimized by anybody whether I decide to leave the study or not and my decision will not affect the way I am treated at my work place.

Name of Participant ………………….……………………………………………..

Date…………………………………. Signature………………………………...

Investigator's Statement

I, the undersigned, have explained to the volunteer in a language she understands the procedures to be followed in the study, the risks and the benefits involved.

Name of Interviewer: **Michael Wamalwa** Mobile Number: **+254712627314**

Date………………………………… Interviewer Signature…………………...

APPENDIX III: QUESTIONNAIRE FOR EXPECTANT MOTHERS/ MOTHERS WITH BABIES UNDER 1 YEAR

Name of Health Facility…………………………………………………………………...

TOPIC: FACTORS INFLUENCING UTILIZATION OF LINDA MAMA BORESHA JAMII INSURANCE

This structured questionnaire is on five point Likert's scale and consist of sections A up to F. Section F consist of YES and NO questions and the entire questionnaire is self-administered; every eligible client to be given her own questionnaire to fill except in cases where the client may need clarification, the researcher shall be available to clarify.

SECTION A: DEMOGRAPHIC DATA

1. What is your age (Years) ______________
2. What is your nationality: Kenyan ☐ Ugandan ☐ Others ☐
3. Which religion do you belong to: Christian ☐ Islam ☐ Hindu ☐ Others ☐
4. What is your marital status? Single ☐ Married ☐ Divorced ☐ Widow ☐
5. How many children do you have?________________
6. What is your educational status: ☐ Primary ☐ High school ☐ Diploma ☐ Degree
7. Which type of house do you live in? Temporary ☐ Semi Permanent. ☐ Permanent ☐
8. What is your occupation? House wife ☐ Business ☐ Farmer ☐ Teacher Civil Servant ☐ Others ☐
9. What is the number of people in your household? ______________________
10. What is your average household income per month in Ksh?_______________

Please answer the Likert's scale questions to the best of your knowledge.

All answers will be treated with confidentiality and used only for learning purposes. Do not write your name. Indicate your answer by tick (√)

KEY: 5-Strongly Agree; 4-Agree; 3-Neutral; 2-Disagree; 1–Strongly Disagree

No.	**SECTION B: CLIENT'S CHARACTERISTICS**					
	Socio-Economic Factors:	**5**	**4**	**3**	**2**	**1**
1	I always have complete control over my source of income					
2	My monthly source of income is always reliable					
3	I belong to women groups in my community which deal with income generating activities					
	Cultural Factors					
4	Enrollment into Linda Mama Boresha Jamii insurance is invitation of complications during delivery					
5	Early preparation for the unborn child like enrollment into Linda Mama Boresha Jamii insurance is prohibited by my culture					
6	Culturally I should not anticipate problems while I'm expectant, enrollment into Linda Mama insurance is one way of anticipating problems during delivery					
7	Linda Mama Boresha Jamii insurance is a foreign culture contrary to African culture					
	Religious Factors:					
8	I always trust in God Almighty for divine protection more than insurance					
9	I do not believe in ANC insurance cover but I believe in God Almighty for divine protection					
10	God Almighty gives divine protection against every eventuality so there is no need for Linda Mama insurance					
11	God Almighty is in full control of the future so there is no need for Linda Mama insurance					
	SECTION C NHIF SCHEME CHARACTERISTICS					
	Channels of communication to clients	**5**	**4**	**3**	**2**	**1**
12	Information concerning Linda Mama insurance is readily available over the radio T.V and even Chief's Baraza					
13	Linda Mama insurance has an effective client feedback system of complains and complements					
14	I am able to access information about Linda Mama Boresha Jamii insurance via social media platforms					
15	Linda Mama has embraced use of technology which					

	include use of mobile phones and emails to communicate with clients/customers					
	Linda Mama Boresha Jamii insurance implementation					
16	Registration into Linda Mama Boresha Jamii insurance scheme is simple and straight forward					
17	Enrollment into Linda Mama Boresha Jamii insurance Scheme takes place only in health facilities					
18	Very little documentation is required before enrollment into Linda Mama Boresha Jamii insurance Scheme					
19	Linda Mama Boresha Jamii insurance is being implemented both in public health facilities and faith based and private health facilities					
	Knowledge about Linda Mama Boresha Jamii insurance					
20	I knew about the existence of Linda Mama Boresha Jamii insurance Scheme before I became expectant					
21	I know that Linda Mama Boresha Jamii insurance scheme is for all Kenyan women who are expectant or have a baby less than one year old					
22	I know that Linda Mama Boresha Jamii is for free					
23	Linda Mama Boresha Jamii insurance does not cover the entire family but only an expectant mother and the baby up to 11 months					
	SECTION D HEALTH FACILITY FACTORS THAT INFLUENCE UTILIZATION OF LINDA MAMA					
	Accessibility to the Health Facility	**5**	**4**	**3**	**2**	**1**
24	My nearest health facility is less than 5km away					
25	I do not pay anything to access services relevant to child birth in my local health facility					
26	It takes me less than one hour to be served in my local health facility					
27	There are no religious or cultural barriers that can hinter me from accessing Linda Mama services in my local health facility					
	Operation hours of the Health Facility					
28	My local health facility is operational 24 hours seven days/week					
29	In my local health facility post natal clinic is operational from 8.00 am to 5.00 pm 5 days per week					
30	In my local health facility, one does not need an appointment to be seen for 1st ANC					
31	In my local health facility ANC and CWC are operational from 8.00 am to 5.00 pm 5 days per week					

	Infrastructure of the Health Facility					
32	My local health facility has enough clean toilets and bath rooms					
35	My local health facility has maternity wing which has a delivery room and a recovery room					
36	My local health facility has enough medical equipment like X-ray and others					
33	My local health facility has a functioning utility vehicle for emergency					
	SECTION E HEALTH WORKER'S CHARACTERISTICS					
	Attitude towards Linda Mama Boresha Jamii insurance Scheme	**5**	**4**	**3**	**2**	**1**
34	All Health workers in my local health facility usually receive me well whenever I visit the health facility					
35	The health workers in my local health facility always talk well of Linda Mama Boresha Jamii insurance					
36	Heath workers in my local health facility encouraged me to join Linda Mama Boresha Jamii insurance Scheme					
37	Health workers in my local health facility explained to me how Linda Mama Boresha Jamii works					
38	Health workers in my local health facility advised me to be using Linda Mama insurance card whenever I'm expectant					
39	The health workers in my local health facility always allow me to ask any question concerning use of Linda Mama Boresha Jamii insurance					
40	Health workers in my local health facility are always friendly to me whenever I visit the health facility					

SECTION F DEPENDANT VARIABLES QUESTIONS

	Hospital delivery	**Yes**	**No**
41	I delivered in a health facility. If yes move to Q 47		
42	If no to question 45, were you delivered by a health worker?		
43	I used Linda Mama during my last delivery		
44	I have a Linda Mama card		
45	I paid cash for my last delivery		
	ANC attendance		
46	I attended 4 ANC visits		
47	Did you know about Linda Mama before you started attending ANC?		
48	Did you use Linda Mama card during ANC visits?		
	Post Natal Clinic attendance		
49	I paid cash for registration during my PNC checkup		
50	I presented my Linda Mama card during registration for my Post Natal clinic check up		
51	I paid cash for my child welfare clinic		
52	I presented my Linda Mama card during		

APPENDIX IV: KEY INFORMATIVE GUIDE FOR NURSE MANAGERS

FACTORS INFLUENCING UTILIZATION OF LINDA MAMA BORESHA JAMII HEALTH INSURANCE

VENUE:

DATE:

TIME:

SECTION A: CLIENT CHARACTERISTICS

Socio-Economic Factors

1) In your opinion what is the main source of income of majority of expectant women in your health facility?
2) How do you describe the financial independence of majority of women who attend ANC PNC and CWC in your health facility?
3) According to you, how do you rate the standard of living of majority of expectant women who attend ANC, PNC AND CWC clinics in your health facility?
4) Which income generating activities do majority of mothers who attend ANC, PNC and CWC in your health facility engage in

Cultural Factors

5) Which cultural taboos in the local communality affect utilization of Linda Mama insurance by expectant women
6) Which cultural practices in the local community affect utilization of Linda Mama by expectant mothers
7) How independent are expectant women from the local community as far as decision making is concerned?

Religious Factors

8) In your opinion how does the religious believe system among members of the local community affect utilization of Linda Mama?
9) What religious factors among expectant mothers in your opinion affect utilization of Linda Mama Boresha Jamii in your health facility?
10) In your opinion which religion in the catchment area of your health facility preach against Linda insurance?

SECTION B: NHIF SCHEME CHARACTERISTICS

Channels of Communication

11) How did majority of your ANC, PNC and CWC clients hear about Linda Mama insurance?
12) Which media is most mentioned by ANC PNC AND CWC clients as far as publicity of Linda Mama insurance is concerned?
13) Which communication channel being used by NHIF seems to be popular with majority of your Linda Mama clients

Linda Mama Implementation

14) What do expectant mothers say about registration procedure of Linda Mama Boresha Jamii?
15) What are some of the communication barriers ANC clients' face that may affect use of Linda Mama?
16) How do you find NHIF reimbursement procedures in relation to Linda Mama?

Knowledge about Linda Mama

17) How did majority of your Linda Mama clients learn about the existence of Linda Mama insurance scheme?
18) How updated is your staff in matters Linda Mama Boresha Jamii
19) Who is eligible to utilize Linda Mama Boresha Jamii insurance scheme?

SECTION C: HEALTH FACILITY FACTORS THAT INFLUENCE UTILIZATION OF LINDA MAMA INSURANCE

Accessibility to the Health Facility

29) How is the state of roads leading to your health facility?
30) How much do you charge for ANC, PNC and CWC?
31) What is the average number of kilo meters your clients need to cover in order to access services in your health facility?

Operation hours of the health facility

32) How is the operation schedule of your health facility?
33) At what time do you normally open and close the ANC, PNC and CWC in your health facility?
34) What happens to women who come to your health facility at night while in labor pains?

Infrastructure of the Health Facility

35) How is the state of delivery equipment in your health facility?

36) How is the state of sanitary facilities in your health facility?

37) How do you move patients who need referral to other health facilities?

SECTION D: HEALTH WORKERS' CHARACTERISTICS

Attitude towards Linda Mama

38) How motivated is your staff towards Linda Mama Boresha Jamii?

39) How is the staff strength of your health facility and what effect has it on Linda Mama Boresha Jamii practice.

40) What do your staff say about Linda Mama Boresha Jamii insurance

Dependent Variable Questions

41) How many expectant mothers in your health facility have Linda Mama Boresha Jamii insurance card?

42) How many Post Natal mothers under one year have used Linda Mama Boresha Jamii card?

43) How many mothers in CWC have used Linda Mama Boresha Jamii card?

44) How many mothers in your health facility have used Linda Mama card during delivery?

45) What do women who do not have Linda Mama card in your health facility say about Linda Mama insurance?

APPENDIX V: MAP OF TRANS-NZOIA COUNTY

APPENDIX VI: REQUEST FOR CONSENT

KENYA METHODIST UNIVERSITY
Department of Health Systems Management

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Tel: 020-2247987, 020-2248172
Fax: 02-248160

Mobile: 0725-751878
0735 - 372326
E-mail nairobicampus@kemu.ac.ke

3rd May, 2018

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

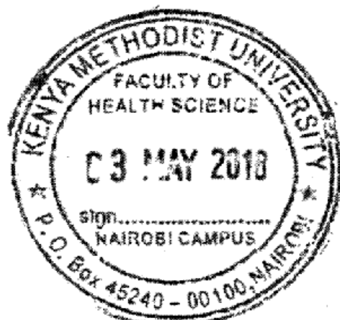
RE: STUDENT ENROLLED FOR A MSc –NALWELISIE MICHAEL WAMALWA REG. NO HSM-3-5626-3/2016

The above named is a student in the department of Health System Management at Kenya Methodist University. He was enrolled in September 2016. He is in the process of writing his research proposal and would like to collect some background information from your institution.

Topic: "Factors Affecting Uptake of Linda Mama Boresha Maisha Insurance Service in Trans-Nzoia County"

Any assistance accorded to him will be highly appreciated.

Yours Sincerely,



Dr. Wanja Mwaura- Tenambergen

Chair, Department of Health Systems Management

APPENDIX VII: CONSENT LETTER

HF / PUB / 13 / VOL II / 4[illegible]

11th June, 2018

Michael W. Nalwelisie
P.O. BOX 2649 - 30200
KITALE

Dear Sir,

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH FOR THE PURPOSE OF STUDY

We refer to your letter dated 3rd May 2018, in which you requested Management to grant you permission to undertake a research on the **Factors Affecting uptake of Linda Mama Boresha Maisha Insurance servce in Trans Nzoia County.**

We are pleased to inform you that your request has been granted and you will be able to undertake the said research for one (1) month with effect from the date of this letter.

You are advised to report to the **Branch Manager - Kitale** before embarking on the exercise. **Upon completion you are requested to submit a copy of your research project report** to the Branch Manager Kitale and Manager Training & Development respectively.

If you need more assistance do not hesitate to contact the undersigned and thank you for choosing our organization as your mentor.

J. K. TONUI
MANAGER - TRAINING & DEVELOPMENT

Copy to: Deputy Director - Registration & Compliance
Branch Manager - Kitale.

National Hospital Insurance Fund, Ragati Road P.O. Box 30443 - 00100 Nairobi, Kenya

KENYA VISION 2030

APPENDIX VIII: UNIVERSITY ETHICAL CLEARANCE

KENYA METHODIST UNIVERSITY
P. O. BOX 267 MERU - 60200, KENYA FAX: 254-64-30162
TEL: 254-064-30301/31229/30367/31171 EMAIL: serc@kemu.ac.ke

December 14, 2020 KeMU/SERC/HSM/37/2020

Michael Wamalwa Nalwelishe
Kenya Methodist University

Dear Michael,

SUBJECT: FACTORS INFLUENCING UTILIZATION OF LINDA MAMA BORESHA JAMII HEALTH INSURANCE BY EXPECTANT MOTHERS IN TRANS NZOIA COUNTY, KENYA

This is to inform you that Kenya Methodist University Scientific Ethics and Review Committee has reviewed and approved your above research proposal. Your application approval number is KeMU/SERC/HSM/37/2020. The approval period is 14th December 2020 – 14th December 2021.

This approval is subject to compliance with the following requirements

I. Only approved documents including (informed consents, study instruments, MTA) will be used.

II. All changes including (amendments, deviations, and violations) are submitted for review and approval by Kenya Methodist University Scientific Ethics and Review committee.

III. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KeMU SERC within 72 hours of notification.

IV. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KeMU SERC within 72 hours.

V. Clearance for export of biological specimens must be obtained from relevant institutions.

VI. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal

VII. Submission of an executive summary report within 90 days upon completion of the study to KeMU SERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

Dr. A. WAMACHI
Chair, SERC

APPENDIX IX: NACOSTI RESEARCH LICENCE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **161925**

Date of Issue: **09/February/2021**

RESEARCH LICENSE

This is to Certify that Mr.. Michael Wamalwa Nalwelisie of Kenya Methodist University, has been licensed to conduct research in Transnzoia on the topic: FACTORS INFLUENCING UTILIZATION OF LINDA MAMA BORESHA JAMII HEALTH INSURANCE BY EXPECTANT MOTHERS IN TRANS-NZOIA COUNTY, KENYA for the period ending : 09/February/2022.

License No: **NACOSTI/P/21/8852**

161925

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

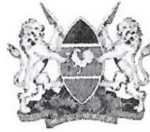
Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

National Commision for Science, Technology and Innovation -

APPENDIX X: COUNTY PERMISSION TO CARRYOUT RESEARCH

REPUBLIC OF KENYA



COUNTY GOVERNMENT OF TRANS NZOIA
DEPARTMENT OF HEALTH
HEALTH CORPORATE SERVICES

Office of the Director (H.C.S.)
health-corporate-services@outlook.com

P.O. Box 4211-30200, Kitale
Tel: +254-722-540-959

7th August, 2020

To: Mr. Michael Wamalwa Nalwelisie,
Kenya Methodist University,
Adm. No. HSM-3-5626-3/2016

Dear Sir,

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on the topic "***Factors Influencing Utilization of Linda Mama Boresha Jamii Health Insurance by Expectant Mothers in Trans Nzoia County, Kenya***", I am pleased to inform you that the authority is hereby granted.

Please note that the authority granted is only administrative and is subject to the validity of the following two (2) requirements:

i. Approval from a competent Institutional Ethics Review Committee (IERC);

ii. Approval from the National Commission for Science, Technology and Innovation (where applicable);

Please ensure that your research is conducted within the time stipulated in your application. Any extensions shall require fresh endorsement.

With Best Wishes.

Sincerely,

Dr. Masibo W. Sammy,
Director - Health Corporate Services,
County Government of Trans Nzoia.

Vision: A Healthy and Nationally Competitive County