Factors Influencing Use of Linda Mama Boresha Jamii Health Insurance by Expectant Mothers In Trans Nzoia County, Kenya

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Abstract

Generally, utilization of maternal and child health insurance around the globe is wanting, and African countries that lie South of the Sahara are the worst affected. Consequently, Kenyan government has established free maternity services (FMS) for all expectant mothers and children under one year. FMS insurance is offered under the brand name Linda Mama Boresha Jamii Insurance (LMBJI). However, access to maternal child health (MCH) services using LMBJI remains wanting in Trans Nzoia County. Based on population and housing census (2009), out of 45,472 estimated deliveries in 2017, only 6453(14%) utilized LBJI insurance service. The broad objective of this study was to establish factors that influence utilization of Linda Mama Boresha Jamii Insurance in Trans Nzoia County. The study adopted a cross-sectional design with mixed data collection methods. The target population was 45,472, and sample comprised 384 mothers and seven nursing services managers operating in the sampled facilities within Trans Nzoia County. Data collection tools were structured questionnaire for the 384 mothers; and a key informant tool for the seven nursing services managers. SPSS was used to analyze quantitative data, while qualitative data was analyzed thematically and presented in verbatim. The regression equation, in a combined relationship of all factors, namely; clients' characteristics, NHIF scheme characteristics, health facility factors and health workers' characteristics, indicated a positive effect, and were statistically significant in utilization of MCH services using LMBJI. The study recommended that Trans Nzoia County Government should ensure accessibility to rural health facilities, especially during rainy seasons, by repairing rural access roads; that it should empower women economically by providing enabling environment for them to do business; and that NHIF should adopt a mobile phone application which can allow as many expectant mothers as possible to register into LBJI without necessarily visiting preferred health facilities.

Key Words: *Client Characteristics, health facility related factors, health workers' characteristics, NHIF Scheme Characteristics, Maternal Child Health Insurance and Utilization of Linda Mama Health Insurance Services.*

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1.0 Introduction

According to World Health Organization (WHO), the global view on utilization of maternal child health insurance seems to be the only option available for achievement of universal health care coverage. In Kenya, like other East African countries, women in reproductive age from rural areas do not have adequate access to healthcare. Most of the countries in the South of the Sahara have had insurance coverage for child and maternal health care below 5%, and Kenya is in the same league with them, (Kenya Demographic Health Survey, 2014). The Kenyan government introduced Free Maternity Services (FMS) which are managed by the National Hospital Insurance Fund (NHIF) under the slogan "Linda Mama Boresha Jamii Insurance" (LMBJI) policy. According to Linda Mama Boresha Jamii implementation manual for managers (2016), LMBJI provides insurance to pregnant women and their babies up to the age of one year.

In Trans Nzoia County before 2013, home delivery was preferred by expectant women due to costs associated with hospital delivery. In 2012, before introduction of FMS, out of 39,700 estimated deliveries in Trans Nzoia County, 9,300 (23%) of women delivered in health facilities while 30,400 (77%) women were assumed to have delivered at home either alone or with the assistance of Traditional Birth Attendants (TBAs). According to Population Services International, (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 FMS in 2013, it was expected that the number of hospital delivery was going to increase tremendously. However, a study by Njuguna et al. (2017) established that after the commencement of the FMS in Kenya in 2013, Trans Nzoia County recorded an increase of health facility delivery by only 2.3%.

Despite government's effort to provide FMS through Linda Mama Health Insurance for all expectant women right from the time they are confirmed pregnant up to one year post-natal, most of the women had not fully embraced the use of LMBJI by the time the study was carried out. According to the NHIF Trans Nzoia County branch office, out of estimated 45,472 women eligible to attend ANC in 2017, only 6,453 (14%) had LMBJI card and had utilized the insurance for delivery at a health facility by the end of 2017. This is in comparison to the Kenyan national LMBJI utilization of 60%. (DHIS2, 2018).

"The economic and social welfare status of a household contributes in determining whether a client enrolls into maternal child health (MCH) insurance or not."

The aim of this study was to establish the factors which influence expectant mothers' use of Linda Mama Boresha Jamii Insurance to access healthcare services. The specific objectives of the study were to determine the influence of i) clients' characteristics; ii) health facility related factors; iii) health workers' characteristics' and iv) The NHIF scheme characteristics on utilization of

Linda Mama Boresha Jamii insurance (LMBJI) in Trans Nzoia County.

Theoretical framework

Consumer theory suggests that consumers who are perfectly informed maximize their utility as a function of consuming various goods given relative prices, Begg et al. (2000). Furthermore, Expected Utility theory by Manning and Marquis (1996) states ‘‘under anticipated utility hypothesis, protection request is a decision between questionable misfortune that happens with a likelihood when uninsured and specific misfortune that happens with a likelihood when uninsured’’ These theories prompted the researcher to adopt the concept of community sensitization.

2.0 Materials and Methods

This study adopted descriptive-cross sectional research design with both quantitative and qualitative methods of data collection. The study area was Trans Nzoia County. The target population was 45,472, while the respondents comprised expectant mothers or mothers with babies below one year, and seven nursing managers as key informants. The study used mixed sampling techniques: simple random sampling was used for expectant mothers, and purposive sampling technique was used to select the nursing managers.

The sample size of LMBJI clients was determined by Cochran’s sample size formula (1977).

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. 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.

Quantitative data was collected using a structured questionnaire, while interview guides were used to collect qualitative data from nurse managers. The research tools were pretested to ascertain reliability and validity. Quantitative data was analyzed using SPSS. Descriptive statistics (frequencies, mean and standard deviation) were used to summarize the findings and correlation analysis was employed to test the influence of determinants of utilization of LMBJI. Qualitative data was analyzed thematically and presented in verbatim. The following regression model was used to measure the predictive power of the independent variables on the dependent variable.

$Y = f\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$

Where:

Y = Utilization of Linda Mama Boresha Jamii insurance; X_1 = Individual client’s characteristics; X_2= NHIF scheme characteristics; X_3 = health facility related factors; and X_4 = health workers’ characteristics. β_1, β_2, β_3 and β_4 were coefficients of determination, while ε was the error term.

3.0 Results and Discussions

The study achieved a response rate of 90 % (346) which was considered sufficient (Kothari, 2005). The following analysis is based on 346 respondents. Table 1 shows the demographic characteristics of the respondents.

Table 1

Respondents Demographic Characteristics

Characteristics	Frequency (N)	Percent (%)
Respondents' age in years		
18-20	43	12
21-30 Years	202	58
31-40 Years	92	27
>41 Years	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		
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
Incomes		
< 10000	216	62.2
10001-20000	73	21.2
20001-30000	29	8.4
Above 30000	28	8.2
Marital Status		
Single	87	25
Married	242	70
Divorced	10	3
Widow	7	2

The study sought to find out responses on utilization of healthcare services using the LMBJI. Majority 322(93%) of the respondents indicated that they had delivered in a health facility; 318(92%) had used LMBJI during their last delivery, and that 285(82%) had LMBJI card. In addition, 229(66%) of the respondents indicated that they did not pay anything for their last delivery. Most 232(67%) of the respondents attended four anti-natal care (ANC) visits and 205(59%) knew about LMBJI before they started attending ANC.

More than a third, 263(76%) used LMBJI card during ANC visits. Majority, 254(73%) of the respondents did not pay anything for registration during their post-natal care (PNC) checkup, and 267(77%) used the LMBJI to access PNC services. Majority 251(72%) of the respondents did not pay for their child welfare clinic. Further results from the key informant interviews (KII) agreed with the findings that over 70% of expectant mothers in the health facilities had LMBJI card.

One of the KII participant said:

> "… the women under Linda mama insurance cover view 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 results showed that most of the respondents disagreed that they always trust in God Almighty for divine protection more than insurance cover; that monthly source of income is always reliable; that LMBJI was a foreign culture contrary to African culture; and that early preparation for the unborn child like enrollment into LMBJI was prohibited by their culture. This implied that cultural and religious manifestations of the people of Trans Nzoia did not prohibit them from enrolling into LMBJI.See table 2.

The study sought to establish the KIIs' 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 small businesses, and others indicated that they were engaged in farming activities as the region is a predominantly agricultural area. Further one key informant had the following to say:

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

Table 2
Expectant Mothers' 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 gives divine protection against every eventuality so there is no need for LMBJI.	91(26)	206(60)	12(4)	37(11)	0(0)	2.19	1.02
LMBJI 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 LMBJI is prohibited by my culture.	82(24)	171(49)	21(6)	69(20)	3(1)	1.91	.74
Enrollment into LMBJI is invitation of complications during delivery.	81(23)	183(53)	17(5)	62(18)	3(1)	1.88	.86

Key: SA=strongly agreed, A=Agreed, N=Neutral, D=Disagreed, SD= Strongly Disagreed

The results depicted that the respondents agreed that they knew that LMBJI scheme was for all Kenyan women who were expectant or have a baby less than one-year-old (Mean=3.63) and that registration into LMBJI scheme was simple and straight forward (Mean=3.57). See Table 3.

Table 3

NHIF Scheme Characteristics

Statements	SD N(%)	D N(%)	N N(%)	A N(%)	SA N(%)	Mean	Std. Dev.
I know that LMBJI 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 LMBJI 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 LMBJI Scheme.	25(7)	39(11)	158(46)	108(31)	16(5)	3.38	.90
Enrollment into LMBJI Scheme takes place only in health facilities.	36(10)	68(20)	155(45)	75(22)	12(4)	3.31	1.07
Information concerning LMBJI is readily available over the radio, TV 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 LMBJI via social media platforms.	14(4)	57(17)	45(13)	209(60)	21(6)	3.14	.93
LMBJI has an effective client feedback system of complaints and complements.	31(9)	53(15)	55(16)	191(55)	16(5)	3.14	.81
I know that LMBJI is for free.	17(5)	38(11)	192(56)	78(23)	18(5)	3.03	1.13
I knew about the existence of LMBJI scheme before I became expectant.	19(6)	165(48)	25(7)	106(31)	31(9)	2.92	1.53
Linda LMBJI 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
LMBJI 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

Key: SA=strongly agreed, A=Agreed, N=Neutral, D=Disagreed, SD= Strongly Disagreed

These findings differed from the KII findings which indicated that majority of the ANC, PNC and CWC clients heard about LMBJI through their friends, the mainstream media as well as the social media platform.

Another KII participant said;

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

The results showed that the respondents agreed that their local health facilities were operational 24 hours, seven days/week (Mean, 4.01); that their local health facilities had maternity wing which had delivery rooms and recovery rooms (Mean, 3.83); that their nearest health facilities were within a radius of less than 5km (Mean, 3.79); their local health facilities had functioning utility vehicles for emergency (Mean, 3.61); and that they pay nothing to access services relevant to child birth at their local health facilities (Mean, 3.52). See Table 4.

The health facility factors findings were further collaborated by a key informant who said that some of the roads leading to health facilities were in poor condition, especially during rainy seasons. The following is the excerpt:

> "… 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 operation hours of the health facilities, a key informant said:

> "… that the health facilities operated for 24 hours but for ANC, PNC and CWC they were operational from 8am in the morning to 5pm in the evening every day from Monday to Friday ... " (KII, 003, Male).

Table 4

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

Key: SA=strongly agreed, A=Agreed, N=Neutral, D=Disagreed, SD= Strongly Disagreed

The results showed that respondents agreed that healthcare workers in their local health facilities always talked well of LMBJI (Mean, 4.08), and that health workers in their local health facilities explained to them how LMBJI worked (Mean, 4.04); that heath workers in their local health facilities encouraged them to join and use LMBJI scheme (Mean, 4.02); and that they received clients well whenever clients visited the health facility (Mean, 3.67). Further the healthcare workers advised clients to be using LMBJI card whenever they were expectant (Mean, 3.63), and that health facilities always allow clients to ask any question concerning the use of LMBJI (Mean, 3.54). See Table 5.

Table 5

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

Key: SA=Strongly agreed, A=Agreed, N=Neutral, D=Disagreed, SD= Strongly Disagreed

On the health workers' characteristics, the KII praised their nurses and other staff that positively viewed LMBJI and were in full support of the programme. One key informant said:

> "… the staff possess diversified work and personal strengths which collectively influence the uptake and utilization of LMBJI, and staff view the policy as good for the community members who cannot afford the services; so Linda mama assured them of quality services for free ..." (KII, 006, Female).

Multivariate Regression Analysis

Multiple regression analysis was conducted to determine the extent to which each independent variable influenced the utilization of healthcare services using LMBJI. The results show all the independent variables were significant predictors of utilization of LMBJI $P<0.05$. See Table 6.

Table 6
Coefficient of Determination

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	1.206	.228		3.492	.001
Clients' 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 workers' characteristics	.622	.048	.474	7.883	.000

a. Dependent Variable: Utilization of LMBJI

According to the regression equation taking all factors (clients' characteristics, NHIF scheme characteristics, health facility factors, and health workers' characteristics) to be constant at zero, growth of Linda Mama was 1.27. In other words, utilization of MCH services using LMBJI will always be there. The study findings showed that in a combined relationship, an improvement in clients' understanding of the LMBJI would likely lead to an increased utilization of LMBJI (r= 0.746, P=.002), improvement of NHIF scheme, health facility factors, and health workers' characteristics would likely lead to increase in utilization of LMBJI (r= 0.778, P=.001), (r= 0.673, P=.001), (r= 0.622, P=.001) respectively. This infers that NHIF scheme characteristics, health facility factors, health workers' characteristics, have positive relationship and are statistically significant.

Discussions

The findings are in agreement with the findings of Doror et al. (2016) that the economic and social welfare status of a household contributes in determining whether a client enrolls into MCH health insurance or not. Further the results differed with 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 being associated with invitation of complications during delivery. In addition, the findings supported Fletcher et al (2009) findings that poor or inadequate level of academic exposure are connected to inadequate health related matters, increased stress coupled with reduced levels of assurance on oneself.

The study also found that besides trusting in God Almighty for divine protection, mothers needed the insurance. This negates findings by Adams, (1986) in studies carried out among the Amish community in the USA who only believed in God and nothing else. The women's monthly source of income was moderately reliable. The study also found out that LMBJI was a foreign culture that did not contradict African culture. The study found out that early preparation for the unborn child, like enrollment into LMBJI, was not prohibited by culture contrary to the findings by Panda et al., (2016) in the studies carried out in Indian community.

The findings were in line with Kimani et al., (2004) results that indicated that NHIF scheme has policies that targeted vulnerable segments of the population such as children and pregnant women. The results supported the need for government's agenda of implementing Universal Health Coverage (UHC). The outcomes were in line with LMBJI implementation manual for programme managers (2016), which 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 indicates that social media platforms should be used for direct reporting of complaints and complements at NHIF service centers.

The findings are in line with the findings of Mokua (2014) which indicated that poor infrastructure like poor road network leading to most rural health facilities were a factor contributing to most of the home deliveries; and further recommendations by Moindi et al, (2015) which showed adequate staff to facilitate 24 hours' operation of the health facility because some deliveries occur at night. However, the findings were contrary to the findings by

Webber (2018) which said physical boundaries limiting access to medicinal services offices were seen as a determinant of youngster mortality in Tanzania.

The study findings differed with the findings of Maina et al (2016), in Embu which showed that most health staff working at Embu level five hospital MCH/FP clinic had negative attitude towards NHIF *Supa* cover. As a result, they were not encouraging expectant mothers to join NHIF. Further, the findings differed with the findings by Fultoni et al., (2018), which indicate 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.

The study 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 maternal 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. The findings also corroborate with the findings of Owosu-Sekyere et al., (2014), that health facility related factors significantly influence utilization of insurance covers in Ghana. In addition, 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 healthcare covers in Bungoma County.

4.0 Conclusion

The study concludes that individual client characteristics influence utilization of Linda Mama Boresha Jamii insurance services in Trans Nzoia County. The study also concludes that most expectant mothers believed in God Almighty for divine protection and that although God Almighty was in full control of their future, there was need to have a health insurance. The study concludes that the NHIF scheme characteristics, including registration process, availability of information on LMBJI all positively influenced expectant mothers or mothers / caregivers with children below one year to utilize MCH services using LMBJI in Trans Nzoia County.

Health facility related factors including hours of operation, availability of maternity facilities, distance to the health facilities, free access to delivery services, and availability of emergency ambulance vehicles all positively influenced utilization MCH services using LMBJI in Trans Nzoia County. Health workers' characteristics, including explaining and encouraging expectant mothers to take up LMBJI card, positively influenced utilization of MCH services using LMBJI in Trans Nzoia County. Majority of the mothers delivered in health facilities, with the help of a health care worker and had used LMBJI to access MCH services. Most expectant mothers had knowledge about LMBJI even before they started attending ANC, and those who had the LMBJI always accessed services using the insurance.

5.0 Recommendations

The study recommends that Trans Nzoia County Government should ensure that all roads leading to rural health facilities are

passable during rainy season to enable expectant mother's access health facilities with ease. Further, the county government of Trans-Nzoia should empower women economically by creating conducive environment for business; and that the NHIF should adopt a mobile phone application which can allow as many expectant mothers as possible to register into LBJI without necessarily visiting preferred health facilities.

References

Adams C. E, & Leverland M. B (1986). The effects of Religious Beliefs on the Health care practices of the Amish. *The Nurse Practitioner*, 11(3), 58-67. https://doi.org/10.1097/00006205-19603000-00008

Doror, D. M., Hossain, S. A. S., Majumdar, A. Pérez Koehlmoos, T. L., John, D., & Panda, P. K. (2016). What Factors Affect Voluntary Uptake of Community-Based Health Insurance Schemes in Low- and Middle-Income Countries? *A Systematic Review and Meta-Analysis.PLOS ONE*, 11(8), e0160479. https://doi.org/10.1371/journal.pone.0160479

Fletcher, J.M. &. Frisvold, D. E., (2009), Higher Education and Health Investments; Does more Schooling Affect Preventive Health care use? *Journal of Human Capital* 3(2), 144-176.https://doi.org/10.1086/645090

Fultoni N. C., Sarah B. L., Camille T. T., Mahindra S. G., & Kaimenyi P.J. (2018). *Implementing Linda Mama Boresha Jamii in Bungoma County; A case study by MANI project in Bungoma County, Kenya.* Options Consultancy Services. https://options.co.uk\sites\default\files

Kimani, D. L.& Muthaka, D. K., (2004), *Health Financing through Health Insurance in Kenya. The shift to Social Health Insurance Fund.Social Sector Division, Kenya Institute for Public Policy Research and Analysis*. (KIPPRA Discussion Paper No. 42.)http://repositry.kippra.or.ke/handle/123456789/2620.

Kothari C.K. (2005). *Research Methodology*. (2nd ed). New age Intl (p) Ltd publisher

Maina, J. M., Kithuka, P., &Tororei, S. (2016). Perceptions and uptake of health insurance for maternal care in rural Kenya: A cross sectional study. *The Pan African Medical Journal*, 23, Article 125. https://doiorg/10.11604/pamj.2016.23.125.8936

Manning, W. G., & Marquis, M. S. (1996). Health insurance: The tradeoff between risk pooling and moral hazard. *Journal of Health Economics*, 15(5), 609-639, https://pubmed ncbi.nlm.nih.gov

Moindi, R. O., Ngari, M. M., Nyambati, V. C. S., &Mbakaya, C. (2015). Why mothers still deliver at home: understanding factors associated with home deliveries and cultural practices in rural coastal Kenya, a cross-section study. *BMC Public Health*, 16(1), 114. https://doi.org/10.1186/s12889-016-2780-z.

Mokua, J.-A.B. (2014). Factors Influencing Delivery Practices among Pregnant Women in Kenya: A Case of Wareng' District in UasinGishu County, *Kenya.International Journal of Innovation and Scientific Research*, 10(1), 50–58. http://www.ijisr-journals.org/

Njuguna, J., Kamau N., & Muruka, C. (2017) Impact of free delivery policy on utilization of maternal health

services in County referrals in Kenya. *BMC Health Services Research* 17(1), Article 429. https://doi org/10.1186/s12913-017-2376-z.

Owusu-Sekyere, E., & Chiaraah, A. (2014). Demand for Health Insurance in Ghana: What Factors Influence Enrollment? *American Journal of Public Health Research*, 2(1), 27–35**.** https://doi.org/10.12691/ajphr-2-1-6.

Panda, P. K., Hossain, S. A. S., Majumdar, A. Pérez Koehlmoos, T. L., John, D., & Doror, D. M., (2016). What Factors Affect Voluntary Uptake of Community-Based Health Insurance Schemes in Low- and Middle-Income Countries? *A Systematic Review and Meta-Analysis.PLOS ONE*, 11(8), e0160479.https://doi.org/10.1371/journal.pone.0160479.