## **ABSTRACT**

The prevalence of unintended pregnancy in Kenya continues to be high with 43% of all births reported as unintended. A fifth of these births are due to incorrect use of short-term contraceptive methods which are the most popular methods resulting in contraceptive failure. In contrast, studies have shown that Long Acting and Reversible Contraceptive (LARC) method which are least popular have the highest effectiveness, do not depend on users' adherence and do not require frequent visits for re-supply. Despite these advantages, LARC uptake is very low in Kenya and the reason remains unknown. Modern Contraceptive Prevalence Rate (CPR) in Kenya is at 46.5% of which only 3.5% of women are using LARC. In Kakamega County, the CPR is at 46.0%, however, LARC uptake is even lower at 2.0%. As such, the current study was carried out to assess the determinants of the uptake of LARC by women seeking family planning services in public health facilities in Kakamega County. In a cross-sectional study, socio-demographic factors, reproductive health factors and health system factors associated with LARC uptake were explored. This was a health facility based crosssectional survey using multi-stage sampling to select 1 public health facility in each of the 12 subcounties based on the one with the highest catchment population. A total of 423 women of reproductive age (18-49 years) visiting the family planning clinic were randomly sampled through client exit interviews. In addition, 12 health care providers, one from each facility were interviewed. Data on independent variables including socio-demographic characteristics (age, level of education, marital status, religion, occupation and residence), reproductive health characteristics (parity, sexual debut age, desired number of children, fertility intention, age at first birth and number of living children) and on health system factors (cost, commodity supply, sources of information, contraceptive counseling) was collected through structured, interviewer administered questionnaires. Chi-square tests were used to determine the proportions. Logistic regression analyses was used to identify the determinants influencing the uptake of LARC and estimated odds ratio was used to establish the strength of association between the variables and the uptake of LARC. P-values  $\leq 0.05$ were considered statistically significant. The results demonstrated that on socio-demographic factors; being  $\geq$  35 years of age [OR= 2.15; 95% CI, 1.04-4.48, P=0.04], married (OR, 2.82, 95% CI, 1.41-5.62, *P*=0.003), having secondary education (OR, 2.05, 95% CI, 1.15-3.64, *P*=0.015) or tertiary education (OR, 2.68, 95% CI, 1.18-6.09, P=0.018) were associated with LARC uptake. reproductive health factors, age at first birth (OR= 1.13; 95% CI, 1.02-1.26, P=0.018) and having no desire for more children (OR= 2.71; 95% CI, 1.21-6.07, P=0.015) while on health system factors, cost (OR=1.02; 95% CI, 1.00-2.03, P=0.001), information on LARC from a formal network (OR=1.82; 95% CI 1.19-2.79, P=0.006), prior implant counseling (OR=23.48; 95% CI, 2.94-187.45, P=0.003) and prior IUCD counseling (OR=10.6; 95% CI, 1.25-90.32, P=0.030) were significantly associated with uptake of LARC methods. Strategies to enhance awareness on the suitability of LARC methods by all women, strengthening contraceptive counseling, addressing cost barriers and shortage of staff in facilities will increase the uptake of LARC. Understanding the determinants associated with LARC use contributes to a better uptake of these methods. Information generated provide decision-making and actions that lead to increased LARC uptake hence reducing the burden of unintended pregnancy caused by failure of short term methods.