

SPATIOTEMPORAL DIMENSIONS OF FIRST NUPTIAL AGE IN HOMA BAY COUNTY, KENYA

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Abstract: *Given the current high early marriage prevalence rate and corresponding high levels of socio-economic and health problems, a detailed understanding of the dynamics of early age at first marriage is indispensable. The assessed the spatiotemporal dimensions of first nuptial age across gender in Homa Bay County, Kenya. The study employed a cross sectional research design to collect retrospective and present status data. Primary data were directly collected using structured questionnaires and in-depth interviews in line with the objective of the study. The sample constituted of 420 household heads between 20-49 years. Inferential statistics including the Logistic Regression, Kaplan Meier Survival Analysis and Quantum GIS were used to analyze quantitative data. Of all the 420 household heads, 106(48.6%) of women and 17(8.3%) of men married early. Geographical region had no substantial influence on age of first marriage, possibly because all the sub-counties are culturally homogeneous in the marriage patterns. Men and women who never courted before marriage, lacked gainful premarital labor and lived in rural areas during their childhood increased the odds of early marriages. Early onset of marriage was also attributed to the lower age at sexual debut and ex-nuptial birth among women. Important factors such as premarital contraceptive use and migration status were found to be significant predictors of age at first marriage among men. It is thus recommended that an integrated strategy framework through structural improvements, accessibility of alternative opportunities for adolescents, and creating an enabling environment that empowers adolescents be adopted to change the significant drivers of early marriages.*

Keywords: *spatiotemporal dimensions, age at first marriage, childhood place of residence, Geo-political zone, cohabitation, age cohort, age at first sexual debut, ex-nuptial birth & modern contraceptives*

I. Introduction

Early marriage, defined as any marriage that involves an individual that is below the age of 18, is a violation of human rights, social justice and compromise adolescent's development and hinder the attainment of Sustainable Development Goals (UNICEF, 2016). Even though there is a paucity. of literature on the worldwide history of early marriage, a study by Brewer (2005) postulate that, in the 14th century, the practice was common in medieval Europe, Southern and Northern America. The first nuptial age at the time was either for the family to decide or a matter of traditional customs (McLaughlin, 1997). In some cases, however, family alliances or properties were at stake in medieval early marriages (Power, 1975). A study by Herlihy (1985)

discloses that medieval-early marriages were not limited to a specific group, but practiced by all sectors of society. Nonetheless, in the 18th century, attitudes began to change, and the practice of early marriages started to reduce in the West (Lewis, 1992). This change of attitude was attributed to the acknowledgement of childhood as a distinct and essential phase of the life course, concerns about the protection of children from physical, sexual and emotional harm and a concern for the future of the nation, and children were seen as holding the key to the nation (Robertson, 2002).

The UN since 1948 has persistent in its endeavors to end early marriages internationally, particularly in developing countries (Nour, 2006). In comparison to the 1980s where 1 in 4 women were married before the age of 18, today 1 in 3 marry too early, and nearly 1 in 5 girls were married before the age of 15 in sub-Saharan Africa (UNICEF, 2020). Numerous interventions and initiatives (Loaiza & Wong, 2012; Kalamar, Lee-Rife & Hindin, 2016) have been initiated to eradicate the practice of early marriages but the rate of change in decline is at a snail pace rate. In particular Kenya, which the researcher use as the setting, has a median age at first marriage of 20.3 years compared to 18.8 in Tanzania and 17.9 in Uganda (DHS, 2014). As per the 2014 KDHS, 23 percent of women and 3 percent of men aged 20-24 years were married before the age of 18, whereas 4.4 percent of women and 0.3 percent of men in the same age group were married before the age of 15 years (KNBS, 2014). Among the Kenyans aged 20-49 years, 27.4 percent of women and 3.4 percent of men were married before the age of 18 years (KNBS, 2014). However, national averages obscure marked differences on the prevalence rate of early marriages by Kenyan regions (KDHS, 2014).

The KDHS 2014 data confirm the overall impression of high early marriage prevalence rate in Homa Bay County at 40.7 percent compared to other outstanding cases such as Makueni and Elgeyo Marakwet counties with 10 and 7 percent respectively. Moreover, as of 2020, Homa Bay had the highest proportion of women (76%), of childbearing age (20 – 49 years) who were married when they were below the age of 18 years and had begun motherhood (State of Kenya Population Report, 2020). The foregoing analysis shows that Homa Bay County represents an unusual pattern and runs counter to worldwide trends of marriage postponement. This might suggest a societal shift away from traditional ideals, coinciding with a significant influx of socio-economic, material and health-care modernization among other measurers put in place to curb early marriage in the region. These statistic is definitely a matter of concern necessitating greater attention in a fast modernizing country (WHO, 2011).

Prior studies of the determinants of first nuptial age find statistically significant influence of individual, family background characteristics and situational factors. Also importantly, the marital timing is influenced by many other factors, comprising young peoples' contemporary socio-economic conditions, ancient conditions, and conditions of local marriage markets (Ahawo, 1981; Ayiimba, 1983; Angawa, 1988; Ochieng, 2016). However, several studies in this area established that the influence of spatiotemporal dimensions persists even after these other established determinants of first nuptial timing are taken into account. Notwithstanding this extensive body of research, few studies have considered the likelihood that the impact of spatiotemporal dimensions on first nuptial age may be dependent on either historical or individual time. The tacit assumption of most of these studies is that influence of spatiotemporal dimensions are invariant across both past periods and the individual life course. Yet, recent theoretical developments in population studies and family demography suggest reasons for suspecting otherwise, but have received relatively less scholarly attention (Parsons, Edmeades, Kes, Petroni, Sexton & Wodon, 2015; Othuon, MCOOnyango, Angawa & Ayieko, 2006). Such an assessment is critically relevant to fill the practical as well as an intellectual gap by examining their potential implications both for individuals and for the larger society.

II. Literature Review

The extent to which spatiotemporal dimensions affect propensity and age at marriage has been largely overlooked in studies of family formation (Perelli-Harris, Kreyenfeld, Sigle, Jasilioniene, Berghammer & Di Giulio, 2012; Darroch, Woog, Bankole & Ashford, 2016). More specifically, a shortcoming in most studies evaluate premarital experiences in terms of courtship, age at first sexual debut and premarital childbearing while ignoring respondents current age or birth cohort and premarital use of modern contraceptives (Handayani, 2014; Darroch et al., 2016; Noviana, Soemanto & Ety, 2017). Some researchers (Cremin et al., 2008; Ochieng, 2016), have identified age at first sex as an important correlate of age at marriage. These studies found that women whose first sexual debut was at marriage had prolonged time to age at first marriage than those who had premarital sex. The postponement of marriages by having sex at first marriage could be described by generational distinctions brought about by dynamism of beliefs, values and standards and weakening traditional frameworks (Harding and Jencks, 2003; Gayaman and Adebayo, 2013). In contrast to a study by Scolaro et al., (2015), young women who were sexually active and unmarried was statistically associated with lower risk of early first marriage.

Age is a fundamental variable in demographic investigation because vital population dynamics such as mortality, migration, fertility and marriage are dependent on it (Palamuleni, 2011). In explaining the association between current age and first nuptial age, a study conducted in the developed countries established that a number of young adults are delaying marriage despite the high hopes that they will ultimately marry (Thornton et al., 2008). A similar study that was conducted in Russia by Mensch et al., (2005) found that a large number of women aged 20-24 have entered marriage late compared to women aged 30-34. Moreover, a study in 32 sub-Saharan African nations found that the odds of early marriages continues to decline particularly among females aged 15-19 for majority of the nations (Garenne, 2004). Therefore, the researcher argues that the effect of birth cohort on first nuptial age could be positive. Meaning that the later born men and women delay marriage than the earlier born.

Darroch et al., (2016) found that cohabitation in developing countries to have more substantial lower risk of union formation. They stated that cohabitation may take longer period to determine the suitability of the partners before settling down. The researchers however suggest that this “weeding hypothesis” would only lead to early marriage if only those couples find themselves well suited to marriage. Consonant with existing findings in industrialized countries, (Berrington & Diamond, 1997; Perelli-Harris et al., 2012) found that this is to be expected due to heterogeneity of marriage markets and growing individualization of societies. The researchers posited that courtship provide potential couples with a good opportunity to establish their emotional bonds as well as allows each companion to have ample freedom to ascertain the compatibility and quality of the partner match. This have a lower risk of early marriage than those who did not court.

Premarital birth is an important determinant of age at marriage. In developing societies where marriage is early, most women will be expected to start childbearing in marriage (Montazeri et al., 2016). In such societies premarital birth is discouraged and often is associated with strong sanctions and many such women may delay marriage. Moreover, most men may also shy away from marrying women with children and this may delay their exit from the marriage market (Bennett et. al., 1995). However, in some societies where premarital childbearing is tolerated, it can be a means of marrying sooner as childbearing is often seen as a sign of proven fertility (Ikamari, 2008; Okigbo, Kabiru, Mumah, Mojola & Beguy, 2015). Assumed benefits such as socio-economic protection children and women are expected to get within a marriage may result into early union formation (Sandoy et al., 2016).

A study conducted by Adhikari (2010) in Thailand found that early marriage prevalence among young people is negatively associated with premarital use of contraceptives. The study showed that educated women and men were more likely to delay marriage and use contraceptives than their counterparts. Other studies also suggest that effective use of contraceptives lowers the risk of adolescent pregnancies that may compel them to premature marriages (Abejo, Cruz & Marquez, 2006; Yihunie, 2013). While there is an abundance of material on the use of contraceptives among women in Homa Bay county after marriage (Ouma, 2014), little is known about the sorts of experiences adolescents have had with contraceptive methods before marriage, and whether these experiences have affected their age at marriage.

Migration is an occurrence that is expected to have a major bearing the decision making of an individual (Palós & Garcia, 2012). Migration is a key component of family life often overlooked in many developing countries. Many authors agree that apart from displacing individuals from the local marriage market, migration is also associated with a period of adjustment and greater freedom as geographical distance reduces the authority of family and community members thus delays timing of marriage (Hearton 1996; Sultana, Hossain, & Hoq, 2015). In contrast, as Jampaklay, (2006) posited, migration into urban areas reduces the age of entry into first unions because it provides an opportunity for an individual to interact and socialize with many people. It is necessary to evaluate the impacts of migration on marriage timing. Most studies focused largely on causes of migration (Castles, 2013; Vahia et al., 2016). The causes of migration are important, but it is also important to consider the impact of migration on first marriage timing among young people. The impact of migration on marriage timing is infrequently studied compared to the role of migration on labour provision. This proposed study will seek to fill this knowledge gap.

III. Methodology

The Study Setting: The study was carried out in Homa Bay County, located in the southwest part of Kenya along Lake Victoria. The County extends approximately from latitude 0°15' South to 0°52' South, and from longitudes 34° East to 35° East, and like some other sub-counties in the country, the largest population (90%) live in rural communities (KNBS, 2014) (as indicated in Figure 3.1). The county comprises of 8 sub-counties (as indicated in Figure 1) (KNBS, 2014). The selection of Homa Bay County was justified due to the persistent high rates of early marriage prevalence despite the existing interventions in curbing the problem (KDHS, 2014). Moreover, comparison between the first nuptial patterns of females and those of males has not been researched on and still remains a practical as well as an intellectual gap.

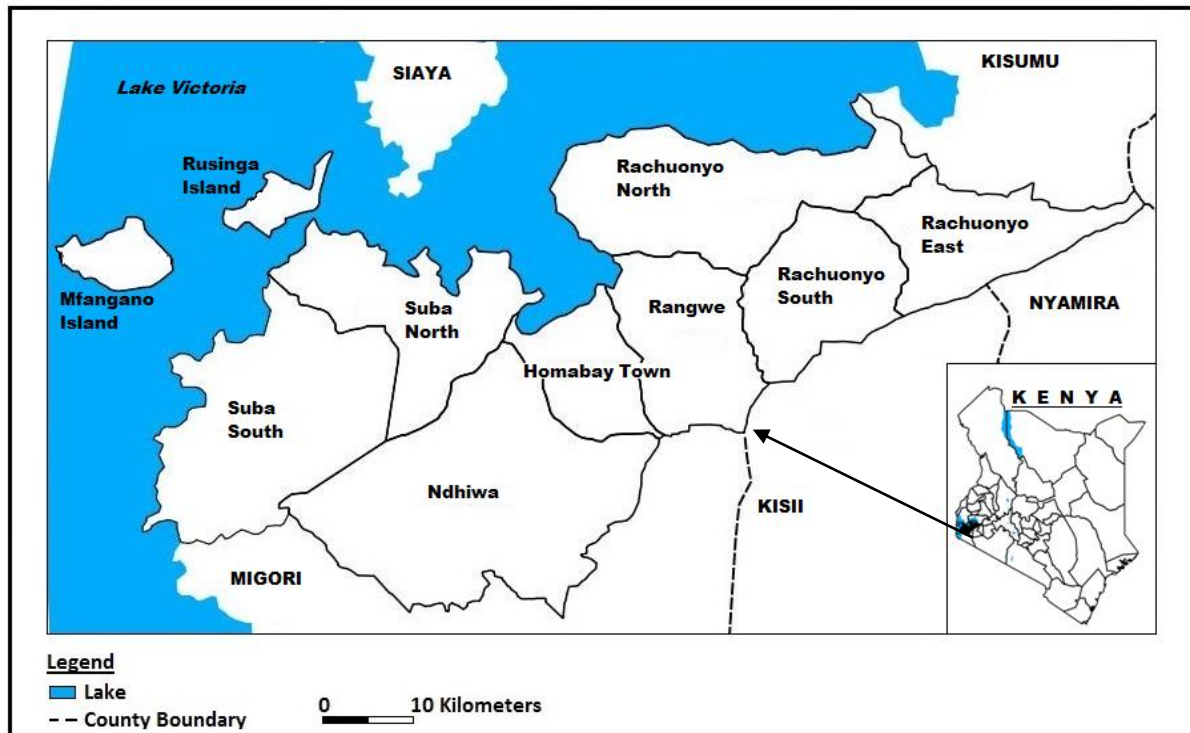


Figure 1. Map of Homa Bay County in the Kenyan Context and Showing the sub-Counties
 Source: Homa Bay County Integrated Development Plan (2018-2022)

Research design, sample size and data collection

This study employed a cross-sectional retrospective design to give snapshot of the entire population and to test the effects of spatiotemporal dimensions on the hazard of young people’s first marriage. A demographic questionnaire that comprised variables on a person’s bio-demographic factors was used to collect firsthand primary information. Qualitative approach on the other hand adopted an in-depth interview. Data collection was carried out by trained research assistants recruited and supervised by the principal investigator.

The micro-demographic survey relied on probability and non-probability sampling procedures to select target population. First, a cluster random sampling technique was used to divide the study area into clusters using the 24 zones. Secondly, after selecting the zones, a random sample of 2-4 neighborhoods, consisting of 5-25 households from the zones was carried out. To ensure the same sampling fraction in all the eight sub-counties, proportionate random sampling technique was used to get the actual proportions of households from each zone. Once a neighborhood was selected, the selection of respondents was done in their de jure place of residence using systematic random sampling method. Specifically, research assistants began their selection with a random start and a sampling interval of every fifth household (that is, fifth, tenth, fifteenth and so forth) until the desired sample was achieved in each zone (Asrese & Abebe, 2014). In each eligible household, a female and a male of reproductive age 20-49 years who agreed to participate in the study through verbal consent was selected and interviewed. Purposive sampling was used for selection of the key informants. The total sample included 420 household heads.

Analytical approach: Data was analyzed using the Statistical Package of Social Sciences (SPSS) software version 21. Firstly, a descriptive summary of all plausible independent variables was done using frequency

distributions, simple percentage and mean. Secondly, the study employed binary logit regression, Cox Proportional Hazard Analysis and Kaplan Meir to estimate multivariate models of the relationship between the marriage outcome for men and women in the sample and the explanatory variables (Cox, 1970).

The logistic regression model is defined as;

$$\log \left[\frac{p_i}{1-p_i} \right] = \alpha_0 + \alpha_1 X_{1i} + \alpha_2 X_{2i} + \alpha_3 X_{3i} + \dots + \alpha_k X_{ki} + \epsilon_{ij} \quad (2)$$

Where p_i is the probability of early marriage, $1 - p_i$ is the probability of not marrying early, $\alpha_0 \dots \alpha_k$ are partial intercept and slope coefficients, $X_{1i} \dots X_{ki}$ are explanatory variables and ϵ_{ij} is the error term (Boyd et al., 1987).

Based on the field survey data, survival analysis was applied to assess the median survival estimates and its differentials using the Kaplan-Meier survival method (Crowther et al,2014). In this case, the respondents are tracked retrospectively until an event happens or survive (censored observations). The equation estimator is defined as:

$$\hat{S}(t) = \prod_{t(i) \leq t} \frac{n_i - d_i}{n_i}$$

Where:

n_i = number of people at risk for the event (early marriage) at time $t(i)$; d_i = number of events (early marriages) observed at time $t(i)$; $\frac{n_i - d_i}{n_i}$ = conditional likelihood of surviving past a given time $t(i)$ given survival to that time.

The log rank Chi-square test was utilized to statistically assess whether the Kaplan Meier survival curves from the different subpopulations are significantly different from each other at $p < 0.05$. The log rank test (Q) equation is as follows:

$$Q = \frac{(\sum_{i=1}^m d_{1i} - \sum_{i=1}^m \hat{e}_{1i})^2}{\sum_{i=1}^m \hat{V}(\hat{e}_{1i})}$$

where:

d_i = total number of women who experienced the event in both groups; \hat{e}_{1i} = the expected number of women who married at time (t); V = variance of \hat{e}_{1i} .

Lastly, the prevalence data was exported into Quantum GIS to establish spatial relationships and visualize key estimations. Spatial heterogeneity of high prevalence / low prevalence areas of early marriage was examined using the Q-statistic in Quantum GIS using the Spatial Statistics tool.

Bio-demographic variables included Geo-political zone, age Cohort, premarital cohabitation, childhood place of residence, age at first sexual debut, ex-nuptial birth and premarital use of contraceptives.

IV. Results

Descriptive analysis: The micro-demographic household survey reached a total of 420 women and men aged 20-49 years, who were ever married. Descriptive statistics for all variables used in the analysis are presented in Table 1.

Table 1: Socio-Demographic Characteristics of Household Heads' Surveyed Aged 20-49 In Homa Bay County (N =420)

Categories	Number	%	Categories	Number	%
Gender			Nature of Marriage		
Female	214	51	Religious	41	9.8
Male	206	49	Civil	64	15.2
Age (Mean, 32.13)			Customary	174	41.4
20-24	56	13.3	Consensual unions	141	33.6
25-29	113	26.9	Migration Status (Men)		
30-34	87	20.7	Migrated	148	73.4
35-39	100	23.8	Not Migrated	58	26.6
40-44	47	11.2	Premarital Place of Residence		
45-49	17	4	Rural	275	65.5
Age at sexual debut			Urban	145	34.5
Below 16 Years	67	16	Main Occupation		
16-19 Years	225	53.6	Peasant Farmer	76	18.1
Above 19 Years	128	30.5	Trading	89	21.2
Religious Affiliations			Public Servant	126	30.0
None	12	2.9	Housewife	24	5.7
Roman Catholic	84	20	Politician	2	0.5
SDA	137	32.6	Unemployed / Student	14	3.3
Pentecostal	117	27.9	Self-employment	71	16.9
Muslim	22	5.2	Fishing	18	4.3
A. Independent	48	11.4	Monthly Income in Ksh		
Cohabitation			< 10,000	137	32.6
Cohabited	272	64.7	10,000-49,999	100	23.8
Not Cohabited	148	35.3	50,000-89,999	159	37.9
Premarital Contraceptive Use (Men)			>90,000	24	5.7
No method Used	83	40.3	Mean	Ksh.12,464.31	
Contraceptive Used	123	59.7	Ex-nuptial birth (women)		
Early Marriage Prevalence			Pregnant at Time of Marriage	49	22.9
Men	17	8.3	Did not have child	133	62.1
Women	104	48.6	Had Child Before Marriage	32	15.0

Source: Field Data (Author, 2023)

The response in respect to the gender of the 420 respondents was almost even, 51% females and 49% males depending on the willingness to take part in the study. In terms of current age of the respondent, the least proportion of the sample of respondents (4.0%), was found within the age range of 45-49. Nearly a third of the married men and women (26.9%) were aged 25-29, representing the majority of the population overall. The mean age of the household head in the sample were, on average, 32.13 years old, and approximately 51% (206) of them were men.

The participation of the household head in an occupation other than peasant farming was limited; only 30.0% (126) of household heads were engaged in such work as public servants. Among household characteristics, the total monthly income structure of the households shows that majority of the respondents earned between Kshs 50,000-89,999 per month and make up almost over a third of the population (37.9%). Remarkably, slightly more than a third (32.6%) of the households fall below the poverty line (US\$1.90 or Kshs. 195 daily). This poverty rate is not a surprising result bearing in mind the fact that more than 33.4% of the population in Kenya survive on less than US\$1.95 daily (World Bank, 2022). Only a small proportion (34.5 percent) of the respondents resided in urban areas during their childhood.

The results revealed that while most respondents 64.7% (272), preferred cohabitation, only 35.3% (148) did not cohabit and consequently contributed to higher propensities of early marriages before age 18. Seventh Day Adventists and Pentecostal denominations predominated in the survey sample, making up 32.6 percent and 27.9 percent of the sample respectively. Over half of the respondents (53.6%) initiated premarital sexual activity between 16-19 years (Table 4.3), whereas 16% initiated premarital sexual activity below 16 years. Overall, the median age at first sexual debut was 17.5 years. This finding is reflected and comparable with the Kenya Demographic and Health Survey (KDHS), 2014 which reported that the median age at first sexual debut was 16.88 years. The implication of early sexual initiation is that it reduces protracted periods of singlehood, and in some cases cause relationship stability at younger age (van Roode et al., 2012).

The statistics revealed that, variation exists in early marriage prevalence level across gender in Homa Bay County. Females have the highest prevalence of early marriage (48.6%) whereas men have the least (8.3%). This is considerably higher than the rates among females of the same age in the general population (6 % first married before age 15, 26.4 % (one in four) first married before age 18) (KDHS, 2014). The early marriage prevalence level of 42% obtained by KDHS (2014) in the area of study also lends support to the early marriage prevalence rate for each gender found by this study. Such a slow progress in reducing early marriage prevalence in a decade demonstrates how the county is lagging in achieving the integrated global action plan for ending early marriage by 2030 (UNICEF, 2013).

Multivariate analysis: The second set of results in Table 2 report multivariate analyses on age at first marriage. The table gives the summary statistics of the samples and the variation of the likelihood of early marriage across spatiotemporal dimension variables. From the bivariate logistic results, a positive association was detected between age cohort, between men and women who did not cohabit (OR=3.67) and (OR=2.89) respectively, women having a child before first marriage (OR=4.017), men having no migration experience after the age of 15 years (OR=4.727) and early marriage (Table 2). A negative association was detected between women’s time at first sexual debut (OR=0.332), women having no child before first marriage (OR=0.148), men who used either traditional or modern contraception method (OR=0.075) and early marriage (Table 4.4).

Table 2: Odds ratios of binary regression showing effect of spatiotemporal dimensions on the likelihood of early marriage, by sex

SELECTED COVARIATES	Women			Men		
	Co-efficient (b)	Sig.	Odds Ratio	Co-efficient (b)	Sig.	Odds Ratio
Age Cohort						
20-24 (RC)	....		1.00			
25-29	1.056	.254	2.875			

30-34	1.340	.139	3.818			
35-39	.582	.531	1.789			
40-44	.141	.877	1.152			
45-49	.336	.736	1.400			
Cohabitation						
Cohabited (RC)	....		1.00			
Not Cohabited	-1.060	0.001	2.89	1.299	0.014	3.67
Time at first sexual debut						
Before First Marriage (RC)	....		1.00			
At First Marriage	-1.101	.003	.332			
Ex-nuptial birth						
Pregnant at Time of Marriage (RC)	....		1.00			
Did not have child	-1.910	.003	.148			
Had Child Before First Marriage	1.391	.001	4.017			
Premarital Contraceptive Use						
No method Used (RC)	....		1.00			
Traditional / Modern Method	-2.591	.001	.075			
Migration Status						
Migrated (RC)	....		1.00			
Not migrated	1.553	.009	4.727			

NOTE: RC: Reference Category

Source: Field Data (Author, 2023)

The median age and its differentials were also computed using the Kaplan-Meier survival method and the results are presented in Table 3. Overall the median age at first marriage in the study population was 19 years and it increased with the increase in age cohorts of women before declining at older ages. The median age at marriage increased from 23 years in the 20-24-year age group to 25 years in the 25-29-year age group before declining to 21 years in the 30-34 years and declined more to 16 in the 45-49 years respectively. Those in the age cohort of 35-39 and 40-44 years had identical median times to age at first marriage of 17 (95% CI, 16.432-17.568) years and 17 (95% CI, 16.432-17.568) years, respectively, 6 years earlier than the 20-24 age cohort. The median age was also significantly different for women in the different age cohorts with a log rank $\chi^2=14.546$; $p=0.012$ (Table 3). The consistent declines in the risk of first marriage for later birth-cohorts have confirmed the expectation and thus signify the importance of social transformation on the timing of marriage.

Table 3: Kaplan-Meier estimate of the median survival time to age at first marriage by spatiotemporal dimensions

Spatiotemporal dimension	Median survival time to first marriage	95% C.I	Log Rank χ^2 -value
Age Cohort			
20-24	23	19.423-26.577	14.546; $p=0.012$
25-29	25	22.303-24.168	
30-34	21	14.509-27.491	
35-39	17	16.432-17.568	

40-44	17	16.432-17.568	
45-49	16	15.465-28.868	
Premarital Cohabitation			
Cohabited	25	24.968-27.943	18.133;
Not cohabited before marriage	17	16.584-17.416	p=0.000
Time at First Sexual debut			
Before First Marriage	17	17.938-24.062	10.571;
At First Marriage	23	20.561-25.439	p=0.001
Ex-nuptial Birth			
Pregnant at Time of Marriage	17	16.819-17.181	92.435;
Did not have Child	23	20.561-25.439	p=0.000
Had Child Before First Marriage	17	15.512-18.488	
Premarital Place of Residence			
Rural	20	18.543-21.457	7.272;
Urban	25	20.561-25.439	p=0.007

Source: Field Data (Author, 2023)

The median age at first marriage for women who cohabited was 25 years and those who never cohabited was 17 years. Women who reported to have not cohabited married eight years earlier than those who cohabited. The result between the two groups of women are statistically significantly different with log rank $\chi^2= 18.133$; $p=0.0001$. The median age at first marriage increased from 17 years among women who were pregnant at the time of marriage to 23 years among women who did not have a child before first marriage, an age difference of 6 years (Table 3). The age at first marriage and ex-nuptial birth, were significantly different with the log rank $\chi^2=92.435$; $p=0.000$. While women who lived in rural locales married at 20 years, those who grew up in urban locales married 5 years later at 25 years of age. Age at first marriage in urban and rural areas are significantly different with log rank $\chi^2=7.272$; $p=0.007$ (Table 3).

Discussion

The positive association between age cohorts and marital timing is consistent with existing literature (Kamal, 2012; Ayiga & Rampagane, 2013). Rates of early marital union may be different in the age cohorts due to modifications in females' socio-economic status, predominantly increased educational attainment, urbanization and employment opportunities (Ayayo, 2002; Copen et al., 2012; Kamal, 2012), women empowerment that encourage women to exercise their rights including rights to decide when to get married, and the effect of greater heterogeneity of marriage markets and growing individualization of societies (Harding and Jencks, 2003; Gayaman and Adebayo, 2013). As a result, this thus makes them less susceptible to the discriminatory practice of early marriage in relation to older females. Improved access to economic resources focusing on expanding employment and entrepreneurial opportunities as a recommended intervention for married adolescents (Manda and Meyer, 2005) has been indicated to lower the vulnerability, social isolation and marginalization of women who married during their teenage years (Manda and Meyer, 2005; Umar et al., 2014), while micro-credit programs focusing on providing women and girls with the basic economic opportunities they often lack have been indicated as key interventions for granting them higher status and more control over their lives – including their options in marriage, quitting or terminating such early marriages (Kabeer, 2005; Umashankar, 2006).

From the qualitative data obtained from married men, a religious leader recommended a seven step criteria of cohabitation which youths ought to follow in order to avoid or minimize cases of early marriages and its associated problems:

“... the first fundamental step is to ask whether God is calling one to marriage, and not when should I marry or who should I marry. In addition, it also involves one taking time to commune with God so as to be shown whether it is time to commit into a serious relationship....”. **FGD male participant (religious leader)**

The religious leader further had this to say after an assurance that it was an appropriate time to enter a relationship:

“... an individual should ask herself or himself whether she / he is prepared for marriage. The individual should then try to find the appropriate partner with whom to enter marriage based on their tastes and preferences which should be in line with God’s directives on marriage....”. **FGD male participant**

Another participant further explained the next step after identifying a potential spouse:

“... the two should seek counsel and guidance from parents or men and women of experience. They then enter a duration of cohabitation, where the two study and examine each other’s character carefully, and watch every development in character. Importantly, the expression of love and affection is to be reserved until marriage until every question is settled....”. **FGD male participant**

The next fundamental step should the cohabitation proceed successfully was:

“... the two parties then enter an engagement period and marriage arrangement commences...”. **FGD men participants**

Finally, after successful preparation:

*“... the two parties marry either traditionally or in a church wedding, promising to keep oneself from all others. These seven fundamental steps, ordered after the Word (**Psalms 119:133, Proverbs 9:1 and Jeremiah 10:23**) are aimed at ensuring that early pregnancies and early marriages are minimized and consequently the challenges that come with them....”*. **FGD men participants**

Figure 2 is the framework that summarizes the seven fundamental steps of cohabitation which young people ought to follow in order to avoid teenage marriages and its associated challenges.

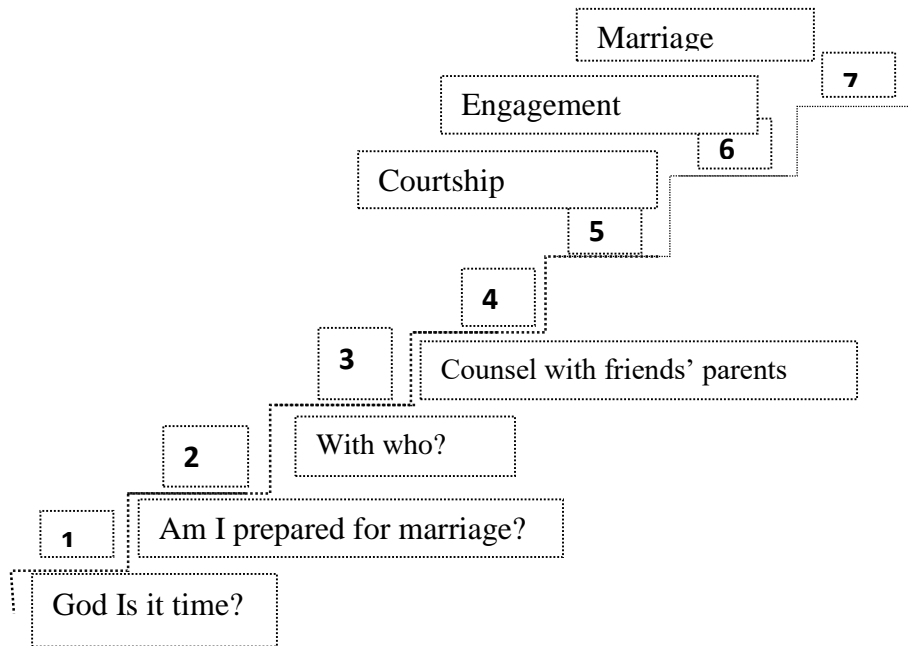


Figure 2: Christian Courtship and Marriage
 Source: Field Data (Author, 2023)

Not surprisingly, women’s earlier age at first sex debut was observed to be associated with an increased likelihood to marry earlier. A plausible explanation for this finding, on the one hand, could be a result of peer influence. One aspect of this socialization is the sharing of information about sex. This in itself becomes a problem when the information is inaccurate, teenagers share and propagate misleading views about sex and sexuality. This can lead to teenagers engaging in risky or harmful sexual behavior when they act on misinformation, which usually leads to early marriage (Musana, Kisovi, and Tonui 2012).

On the other hand, early marriages by women whose time at sexual debut is before marriage is often non-consensual since many of these girls are forced into marriage because of premarital pregnancy or for the fear of lowering their value as marriageable women (Ochieng, 2016). This is mostly because marriage remains the sanctioned sexual setting in which childbearing takes place. Such an argument showcases the need for intervention strategies that not only target schools and the wider community in isolation, but should involve the individual family units as they have a bigger role to play in this regard (Huschek et al., 2010). Such strategies include provision of basic life skills to young women, positive parenting practices and role modelling on issues pertaining to sexuality, compulsory religious and moral education in schools to avoid early sexual activity and ultimately early marriage.

The positive association observed between under-age pregnancy or premarital child bearing and a greater probability of marrying earlier was however not surprising and well aligned with other existing literature (Sandoy et al., 2016; Ochieng, 2016). This finding can be explained in relation to the feeling of the need to legitimize the status of their children, for economic protection children, and women are expected to get within a marriage so as to reduce the burden that comes with getting a child. This finding provides an insight into the need for adolescent pregnancy interventions targeting older adolescents (aged 17 years) at the tipping point of early marriages. However, the findings are discordant with prior evidence in SSA (Haddad, 2009; Ikamari, 2015; Msuya, 2017), indicating that in most societies in SSA, it is not culturally and socially acceptable for a young man to marry, as first wife, a woman who already has a child from another relationship. As a result, prospective suitors generally avoid women with ex-nuptial births and this will delay their exit from the

marriage market. In addition, women who have ex-nuptial births tend to distrust men and as such they are rather reluctant to form relationships with men. As several observers have noted (Lesthaeghe, 2010, Klusener, Perelli-Harris, and Gassen, 2012), the increasing acceptance of pre-marital child-bearing could be due to a shift in values towards individualization and secularization values that may have led to a rejection of the traditional beliefs and values of the institution of marriage.

It is well known that marrying at a younger age is negatively associated with the use of contraception before marriage (Adhikari, 2010). This study analysis indicates that men's contraceptive use is one of the strongest determinants of early marriages. Delayed marriage outcome could be a result of effective use of contraceptives which usually help women prevent unwanted pregnancies among teenage adolescents (Yihunie, 2013; Abejo, Cruz & Marquez, 2006). Contraceptive use in the tipping point period (17 years) is crucial to ensure that young women are protected from under-age pregnancy, which usually leads to rushed marriage in an attempt to protect the family name and honour as well as to protect their wellbeing and their children (Adhikari, 2010).

In one IDI interview, a child protection officer indicated how barriers socio-economic barriers affected the use of contraceptives among young men and adolescents.

“.... access to contraceptives is not universal for teenagers in this community. Contraceptive use is low among youths due to the fear of side effects and the negative cultural attitudes of parents to contraceptive use, the role of gatekeepers in deterring their access to reproductive health services, the judgmental attitude of providers when they attend the young people and the poor organization of services planned to meet young people's needs....” **IDI Interview**

In another IDI interview, the area chief from Suba South had this to say:

“.... the unmet need of universal access to family planning is rooted in discrimination against teenagers and the stigmatization of their sexuality under the excuse of protecting them from pre-marital sex or immorality. This leads to state agencies and non-governmental organizations failing to provide services such as the distribution of condoms in institutions, and the failure to provide all the necessary means to promote the use of family planning through comprehensive education and information. **IDI Interview**

The two excerpts showcase an urgent need to put in place laws and policies that create 'adolescent-friendly' environment in ways that help them overcome social and personal barriers to contraceptive use, including access to condoms where they are freely distributed, irrespective of marital status. This is very much in line with the principles of non-discrimination and the well-being of young boys and girls. In the same breath, efforts to broaden contraceptive use should target both gender rather than women alone, reaching out to young men to encourage a behavioral shift on their part as well in order to reduce teenage childbearing essentially among young unmarried women (Wulifan et al., 2017). Available evidence suggests that teenagers under 18 should also have access to sexual and reproductive health and rights programmes and services (Chaundhuri, 2015).

Consistent with the study finding, prior studies found a positive association between men with no migration experience and likelihood of marrying early (Hearton 1996; Sultana, Hossain, & Hoq, 2015). A plausible explanation for this finding, could be that, most men who are raised in rural areas and migrate to urban areas in adulthood are likely to have low education, but delay marriage (Hearton 1996). For some of these men, postponing marriage and searching for employment opportunities and stable income becomes the only gateway for improving their own and their family's socioeconomic conditions. Additionally, it could be that migration displaces individuals from the local marriage market, as well as associated with a period of adjustment and greater freedom as geographical distance reduces the authority of family and community members thus delays

timing of marriage (Hearton 1996; Sultana, Hossain, & Hoq, 2015). The study findings are however discordant with the findings of a study conducted in Kisumu and previous studies elsewhere (Sassler, 1997; Clark & Cotton, 2013), that established young men and women entered into first unions early since they are socially and economically independent from their parents when they moved into the urban centers.

The significant difference observed between childhood place of residence and timing of first marriage in both gender was not a surprising outcome. The study findings are well aligned with prior studies (Garenne 2004; Jeofrey, 2014; Jisun, 2016), and can be explained in relation to the fact people who reside in urban spaces are exposed to contemporary beliefs that propagate entering marital union later on in life. They are less likely to be controlled by their families who decide the time of union formation and choice of spouse (Jeofrey, 2014; Jisun, 2016). Previous studies also advocate that the existence in urban areas of modern values and avenues for self-improvement as well as easier access to modern family planning are some of the reasons for the differential family formation patterns in urban and rural areas in sub-Saharan Africa (Forward, 2008; Jisun, 2016). Narrowing the rural-urban socio-economic differentials to curb early marriage requires intervention efforts that focus on cushioning against unemployment risk for the poorest households largely in rural areas (Ayiga and Rampagane, 2013). This suggests an urgent need for the Government to incorporate early marriage interventions into broader poverty alleviation and development programs particularly in the rural areas (Ajwang, 2019).

Spatial Variations in Early Marriage Prevalence Rate

Spatial differences of the early marriage prevalence rate at sub county level in Homa Bay County were further investigated by use of Quantum GIS using the survey data. This use of Global Positioning System (GPS) identified significantly high and low prevalence spots of early marriages which informed the specific sub regions which required precedence and pivotal in discussing the phenomenon. Figure 3 depicts the spatial clustering of early marriage prevalence rate among women in all the sub-counties.

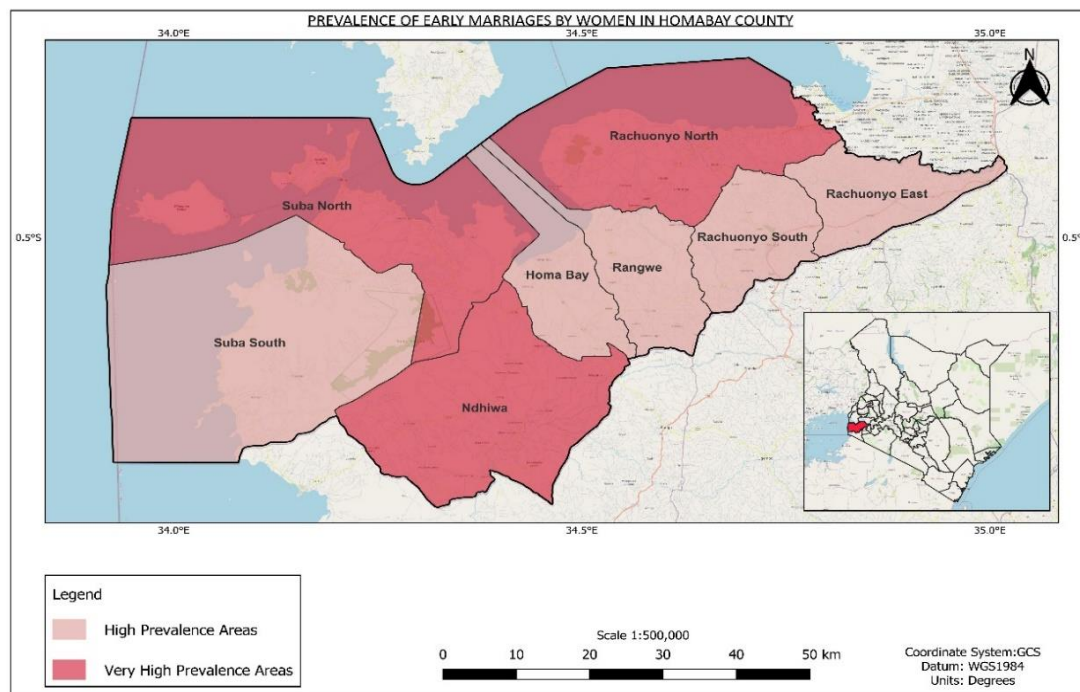


Figure 3: Prevalence clusters of early marriages among married women
Source: Field Data (Author, 2023)

The spatial analysis specified that age at first marriage varied though not significantly, according to sub-county, with women from Ndhiwa sub-county predominantly exhibiting higher risk of early marriage compared to all other sub-counties. Other sub counties (Suba North and Rachuonyo North) also predominantly had very high prevalence rates of earlier marriages. The high rates of earlier marriages in Ndhiwa, Suba North and Rachuonyo North sub-counties pose that drivers widespread to these sub-counties may be responsible for the spatial patterns observed, which are relative low economic level of industrial production and standard of living, low level of education, low contraceptive use and low urbanization (Ochieng, 2019; Dede, 2019). These have important policy implications, as interventions aimed at delaying marriage will have to be holistic in their approaches, going beyond descriptive spatial variables.

On the other hand, Figure 4 shows the spatial clustering of early marriage prevalence rate among men in all the sub-counties.

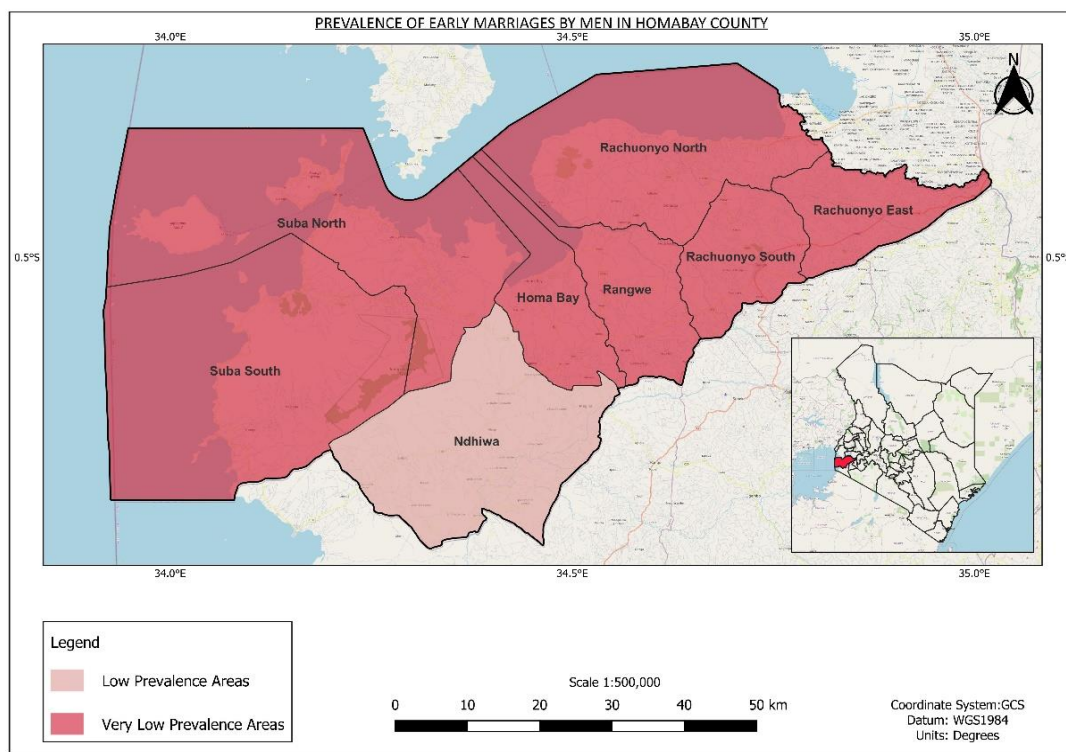


Figure 4: Prevalence clusters of early marriages among married men
 Source: Field Data (Author, 2023)

The spatial distribution revealed that there are no significant geographical variations in the sub-counties. However, males who reside in Ndhiwa sub-county still maintained the greatest increased risk of exposure to early marriage as they exhibited a higher risk of exposure to early marriage compared to males who reside in other sub-counties. With respect to the geographical regions shown to have no significant differences in this study, a possible reason could be that people in these sub-counties practice similar culture and customs and have homogenous belief systems and societal norms. Additionally, these sub-counties may have similar levels of economic growth.

V. Recommendations and Conclusion

It is concluded that early onset of marriage is attributed to the lower age at sexual debut ex-nuptial birth, lack of gainful employment and rural childhood place of residence among women. Factors such as premarital contraceptive use and migration status were found to be significant predictors of early marriages among men. The study recommends an integrated approach so that the process of changing the root drivers of early marriages is supported through the accessibility of alternative opportunities for adolescents especially girls, the creation of an enabling environment for community support, and structural improvements. Communal cultural education that cultivated a deep respect for sex, discouraged pre-marital sexual relations and consequent pregnancy should be highly emulated and continued. The study findings highlight the potential benefits of promoting easy and confidential access to family planning services to young people through health centers, school-linked health centers and condom availability programs to reduce teenage pregnancy among young women. There is also need to introduce sex and relationship education in learning and health institutions for effective relationships and HIV/STI education.

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