

# **Early Marriage and First Birth Interval in Ethiopia: Evidences from EDHS 2005**

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## **Background**

Marriage is one of the proximate determinants of fertility (Bongaarts, 1978). It affects fertility via frequent and regular exposure to sexual relations and the age at entering into marital life. Given the fact that fertility often takes place within marriage, there is an inverse relationship between age at first marriage and fertility (Blanc and Poukouta, 1997). This is because age at first marriage determines the length of exposure to the risk of becoming pregnant and the actual commencement of the process of child bearing (Islam, 2009). The relationship between age at first marriage and marital fertility is, however, based on the assumption that contraceptive practices are non-existent and child bearing outside wed-lock are quite rare.

In Ethiopia marriage is universal and occurs early (Ezra and Gurmu, 2002). In 2005, for instance, among women aged 25 – 49, 66% married by age 18 while the proportion married by age 20 is 79% with median age at first marriage of 16.1 years (CSA and ORC Macro, 2006). On the other hand, there is a delay in age at first birth. The median age at first birth is 19.2 years for women in the 25 – 29 age cohort which lags by 3.1 years when compared to age of entry into marriage for the first time (Ibid).

Despite low contraceptive prevalence rate in Ethiopia, there is a longer birth interval between marriage and couples' first birth - the first birth interval. The mean length of first birth interval is about three years in rural and urban Ethiopia, closer to four years in some of the regions where child marriage dominates, but two and half years in places where girls marry at later ages. A decline in fertility and rising in age at first marriage is expected to shorten the timing between first marriage and first birth. The direct link between the shortening of first birth interval and the rising age at first marriage could be attributed to the use of fertility regulation mechanisms such as contraceptive methods and induced abortion to avoid premarital pregnancies that has societal and community disgrace (Gurmu and Alemu, 1998). When age at first marriage rises, couples often bear their first child soon after marriage to compensate for their late start. The need to ensure that they would have enough time to achieve their desired fertility is also another factor to hasten their entry into motherhood.

To date there are a number of studies researching on factors affecting the timing of marriage and the number of children that a woman would have at the end of her reproductive life span. However, little is done on the relationship between timing of first marriage and first birth. In Ethiopia, too, a number of studies have investigated the reasons behind early marriage, though most of them do not assess the consequences of such act on the reproductive outcomes of early marriage victims (Tefera, 1995; Emire, 2005; Shiferaw, 2009). In addition, much is not known about the timing of motherhood of those who engage in marital life before maturity and the driving forces behind it. If age at first marriage does not necessarily coincide with age at first

sexual debut, attempting to increase age at first marriage alone does not necessarily resolve the reproductive health complications of women exposed to early sexual consummation.

This relationship between age at first marriage and first birth has its own demographic, health, and socio-economic significances. Demographically, it is associated with rates of fertility and population growth (Bloom and Reddy, 1986) as slow rate of population growth is related to later age at first marriage or longer birth interval between marriage and first birth (Lofstedt *et al.*, 2005; Kumar and Danabalan, 2006). Age at first marriage and first birth determines the health of a mother and a child (Al-Sabir *et al.*, 2005 cited in Roy, 2005; CSA and ORC Macro, 2006). The socio-economic implication is related to school attendance (truncated educational opportunities) and labour force participation, particularly for females (Bloom and Reddy, 1996).

Given the little attention made to examine the factors that influence the length of the first birth interval, it is, therefore, found important to study the relationship between age at first marriage and first birth in general and the determinants of the first birth interval in Ethiopia in particular in the condition that there is social pressure to prove couple's fertility soon after marriage on the one hand and long first birth interval in the context of low contraceptive prevalence rate on the other hand. The purpose of this study is to assess the interrelationship between age at first marriage and age at first birth. Specifically, we want to investigate whether early age at first marriage leads to early child birth, and whether it could be one of the explanatory factors for high fertility in Ethiopia.

## **Theoretical Considerations**

In a study conducted in China to assess the length of first birth interval and emerging change in sexual behavior among young Chinese couples, Feng and Quanhe (1996) argued that the one child policy of socialist China was not the only factor to define late marriage and shorter first birth interval but other factors such as a fundamental transformation in the marriage system, mass education and broader employment opportunities in non-familial sectors, a significant change in young couples sexual behavior due to wider access to fertility regulation mechanisms unintentionally assisted by the government policies and programs. For them, perspectives for social and behavioral changes highly associated with development activities are responsible for transformation in timing for marriage and birth. Shrestha (1998) also argued that the temporal change in the interval between marriage and first birth is strongly influenced by a social transformation which encourages quicker intimacy between spouses.

In relation to the effect of modernization on the marriage system, Malhotra and Tsui (1996) indicated that it results in a shift from arranged marriages to love marriages and a motive of economic independence, with gradual obliteration of parental role as a consequence. Thus, marriage that is based on self-selection of marriage partner takes longer time as the search process is lengthier and more uncertain, involving some trial and error (*ibid*), which raises age at first marriage. In societies where marriage is based on free mate selection of couples and premarital sexual relations are common, late marriage could result in shorter birth intervals. Changes in traditional norms and values dictating early marriage as a result of ensuring girl's virginity upon marriage and enhancing the social status of daughter's family shall be in place to

restore arranged marriages into love marriages in which couples have more coital frequency resulting in pregnancy than infrequent sexual relations that might not lead to conception.

Contrary to this, UN (1989) and Dagne (1994) argue that early marriage particularly child marriage in which girls marry before puberty and have exposed to sexual relations could lead to late entry into motherhood due to its impact on their susceptibility to conceive and sustainability of that marriage. According to Moore and Waite (1981), the age at first marriage of young women is strongly related to the probability that the marriage remains intact. The likelihood that the first marriage of young couple's end up in breakup is higher for those who marry at younger ages compared to those who marry in their twenties. This has an implication on the timing of the first birth. If early marriage leads to physiological damage of the reproductive organ of women who exposed to sexual relations before maturity and the marriage is to be dissolved due to the unwillingness of the bride, the timing between first marriage and first birth would be longer since recoveries of such health hazards and remarriage to have a baby within marital union could take time. The delay in first birth in some rural areas of India, for instance, is because of temporary separation of married partners with the females' partners going to their parents places for some time even after marriage (Kumar and Danabalan, 2006). In traditional societies where birth out-of-wedlock is not approved, victims of early marriage often take longer time to have babies not only in recovering from the effects of premature sexual relations but also to find another partner of whom they want to have a child.

If shorter birth intervals are in response to a catch-up effects of late marriage, an inverse relationship between factors affecting timing of first marriage such as educational attainment and employment status and length of first birth interval would be expected. If that is so, controlling for the effects of age at first marriage might have taken care of the effects of individual characteristics such as educational attainment and residence type. Because, the entire interplay between the timing of marriage and first birth rests on the period to legalize marriage and having social approval to have children than individual characteristics affecting fertility preferences.

## **Data and methods**

In this study the marital-conception-first birth sequence is used to define the first birth interval. Though premarital conception (conception-birth-marriage) and premarital birth (conception-birth-marriage) could lead to first birth, these sequences are not considered in this study as their chances of occurrence is very rare in Ethiopia, where birth-out-of wedlock and premarital sex have no much acceptance among members of the society (Gebreselassie and Kebede, 1998). As age at first marriage and age at first sex is the same for the majority of the women included in the study, the marital-conception-first birth sequence is believed to precisely address the interval between first marriage and first birth in the Ethiopian context. As consensual union (living together before formally getting married) and the time gap between marriage ceremony and marriage registration is limited to major urban towns (if any), its effect on the prediction of the determinants of first birth interval would be minimal.

Analysis of this study is conducted among representative samples of 9803 ever married women included in the 2005 Ethiopian Demographic and Health Survey covering all regions in the country. Among the socio-economic and demographic characteristics collected from the sampled

women, place of residence, region, age at first marriage, marriage cohort, woman's educational attainment, couples social status, and spousal age differences were used in fitting the model identifying determinants of the interval between first marriage and first birth.

Besides using descriptive statistics, Kaplan Meier's plot and Cox's proportional hazards model were applied in analyzing the data.

## **Major findings**

Results of analysis revealed that there are marked differences in the interval between first marriage and first birth by age of entry into marital life, region of residence (a reflection of cultural practices as Ethiopia's regionalization is ethnic based federation), marriage cohort, and educational attainment of women themselves. Amhara region, where child marriage is commonly practiced, exhibits longer interval between marriage and first birth. Results of the multivariate analysis where age at first marriage is controlled for has also shown that women living in Amhara region have the lowest yearly risk of conception as compared to Oromia, the largest region in the country. The data were further analyzed for women married only once to withheld the effect of marital dissolution shortly after marriage due to disinterest in conjugal life. Its result also shows that the first birth interval is longer for Amhara region. This suggests that postponement of the timing of first birth has cultural roots among Amhara women as compared to those living in other regions under different cultural settings.

Although adoption of the National Population Policy in 1993 (NOP, 1993) and change of the Family Law towards the end of the 20<sup>th</sup> century (FDRE, 2000) are expected to increase age at first marriage and first births, it has noticeable effect on the former but the latter. Median age at first birth among rural women that have limited access to family planning services remain unchanged since 1980s though there is noticeable change among urban women. Consequently the interval between the two events have shown a declining trend since mid-1990s due to the rise in age at first marriage but not age at first birth. Had there been a proportional increase in age at first birth, there would have been an increase in the first birth interval.

Woman's educational attainment has not shown similar effect on the interval between marriage and first birth once the effect of age at first marriage is controlled for. A separate model fitted for women living in Amhara region has not indicated the effect of education on the interval between first marriage and birth while its strongest effect is observed in Southern region where people of diverse culture live. Similarly, the effect of urban influence on timing of first birth is observed only at the national level but not in any of the separate analysis for specific regions. This reveals that timings of marriage and first birth are partly governed by cultural practices of a given society than modernization effects attributed through urbanization.

Age differences between couples (divided into husband equals to or less than five years old, husband 5-9 years older, and husband 10 or more years older) and their social status (classified into both farmers, husband farmer wife not working, and both engaged in non-farm activities) have not shown any effect on the interval between marriage and first birth.

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