

**What has happened to premarital sexual behavior as age at marriage has risen?
A life table analysis of DHS data**

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Introduction

During the last 30 years substantial reductions have occurred in the proportion of young women married in most regions of the developing world (Mensch, Singh and Casterline 2004). While human rights advocates welcome the decline in early marriage, if it leads to a rise in premarital sex and an increase in multiple partnerships, one possible consequence of such a postponement is an increase in HIV infection. In the United States, where age at marriage has risen since 1960, teenagers are much more likely to have premarital sex now than in the past (Alan Guttmacher Institute 1994).

Is there an association between age at marriage and risk of premarital sex among young women in the developing world? Have the proportions of young women reporting premarital sex increased as age at marriage has risen? If so, is the increase due to the greater period of exposure between puberty and marriage? Or is it due to an increase in the likelihood of having sex, that is to changing norms about the acceptability of sex before marriage, which may have altered with globalization, in particular exposure to western media and popular entertainment. Alternatively, is the concern about a rise in premarital sex unwarranted? Has the decline in the proportions of young women marrying early had no effect on premarital sexual behavior? And if levels of premarital sex are not increasing, is one consequence of the postponement of marriage a rise in the age of sexual initiation among the current generation of young people?

In this paper we will investigate the links between changing age at marriage and premarital sexual behavior using Demographic and Health Survey data. The analysis is limited to 24 countries with two surveys at least 6 years apart since 1990. Only countries whose samples included never married women are included which restricts the analysis to sub-Saharan Africa and Latin America and the Caribbean plus Kazakhstan and the Philippines.

Analysis

The analysis uses multiple decrement life tables to model the competing risks of premarital sex and marriage (without prior premarital sex). By comparing the cumulative proportion of 20-24 year old women who have had sex by the age of 18 at two points in time, we are not only able to identify country-level changes in the percent of young

women who have had sex, but we can also examine the relationship between trends in the age of marriage and premarital sex.

Preliminary analysis of the association between changes in the percentage of women engaging in premarital sex by age 18 and changes in the percentage of women married by age 18 is shown in Table 1. In addition to cross-classifying countries on these two dimensions, we use **boldface** and *italics* to indicate the net changes in the proportion of women having sex by age 18, whether premarital or marital. In only one third of countries has there been an increase in the proportion of young women who have had sex by the age of 18 (see **boldface** countries in Table 1). In the majority of countries (13 of 24), there has been no change in the overall percentage of women having sex by age 18. In only three countries (see countries in *italics*) has there been an increase in the proportion of young women who claim to be virgins at the age of 18. As will be explored in the paper, the reason that there has been little change in overall sexual activity by age 18 is that increases in premarital sexual activity have not been large enough to offset the rising age of marriage.

Table 1: Recent Changes in Percent Marrying or Having Premarital Sex by age 18 (from early 1990s to early 2000s)

Marriage by 18	Premarital Sex by 18		
	Increase	No change	Decrease
Increase	Dominican Republic Rwanda	Madagascar	Uganda
No change	Tanzania Haiti Peru	Burkina Faso Benin Kenya Zimbabwe Philippines	Zambia
Decrease	Cameroon Kazakhstan Mali Guatemala Colombia	Bolivia <i>Cote d'Ivoire</i> <i>Niger</i> Nigeria <i>Senegal</i> Nicaragua	

Change is shown if difference across surveys ≥ 0.03

Italics indicate more virgins at age 18 (i.e. an increase in the proportion who have not either had premarital sex or gotten married).

Boldface indicates fewer virgins at age 18.

SOURCE: Demographic and Health Surveys, countries with two surveys from the early 1990s – 2000s.

By focusing on changes in the cumulative proportion who have either had premarital sex or been married by age 18, four general patterns emerge. First, there are five countries with negligible change in the proportion who have either married or had premarital sex (Burkina Faso, Benin, Kenya, Zimbabwe, and the Philippines). The net effect is that

there has been no change in the overall proportion of young women who have ever had sex.

Second is a set of five countries where there has been a decline in the proportion married by age 18, as well as an increase in the proportion who have had premarital sex by age 18 (Cameroon, Kazakhstan, Mali, Guatemala, and Colombia). However, the net result among these countries is that the proportion of virgins at age 18 has remained the same. In these countries, it is clear that the context of sexual debut is beginning to change.

Third, there are six countries where the proportion married by age 18 has declined, but there has only been negligible change in the proportion who have had premarital sex by age 18 (Bolivia, Cote d'Ivoire, Niger, Nigeria, Senegal, Nicaragua). Although there is diversity across these countries, the net effect is that more young women remain virgins than in the past. In these countries, the delay in marriage has not been counterbalanced by a proportional increase in premarital sex.

In the final set of countries, the proportion married by age 18 has remained the same or increased and the proportion who have had premarital sex by age 18 has also increased, leading to an overall increase in the proportion of young women who have had sex by age 18 (Dominican Republic, Haiti, Peru, Rwanda, Tanzania).

Contrary to the expectations of some, the evidence suggests that in countries where the age of marriage is rising, there is not a commensurate increase in premarital sex. In those countries where premarital sex has increased (Pattern 2), the increase has not been large enough to counterbalance the decline in marriage, leading to no change in the overall proportion of young women who have ever had sex by age 18. Only in a minority of countries has the age at which women initiate sex declined. Although there has been a shift in the context of sexual debut from marriage to premarital sexual activity, in most countries there has not been a change in the age of first sexual activity.

The remainder of the analysis will entail using hazard models to explore the determinants of these diverse patterns. The results are discussed in the context of the changing social and economic environment in each group of countries. We will also examine the consequences of our results for adolescent reproductive health programs in developing countries.

References

Mensch, Barbara S., Susheela Singh and John Casterline. 2003. "Trends in the Timing of Marriage among Men and Women in the Developing World." Paper presented at the Annual Meeting of the Population Association of America, May, Minneapolis.

Alan Guttmacher Institute. 1994. "Sex and America's Teenagers."