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Timing and Circumstances of First Sex Among Female and Male Youth From Select Urban Areas of Nigeria, Kenya, and Senegal

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A B S T R A C T

Purpose: To examine the timing and circumstances of first sex among urban female and male youth in Kenya, Nigeria, and Senegal.
Methods: Recently collected data are used to examine youth sexual behaviors in Kenya, Nigeria, and Senegal. In each country, a large, representative sample of women (ages 15–49) and men (ages 15–59) was collected from multiple cities. Data from youth (ages 15–24) are used for the analyses of age at sexual initiation, whether first sex was premarital, and modern family planning use at first sex. Cox proportional hazard models and logistic regression analyses are performed to determine factors associated with these outcomes.
Results: Across all three countries, a greater percentage of male youth than female youth report initiating sex with a nonmarital partner. More educated youth are less likely to have initiated sex at each age. In Nigeria and Senegal, poor female youth report earlier first sex than wealthier female youth. In Kenya, richer female youth are more likely to have premarital first sex and to use contraception/condom at first sex than their poorer counterparts. Older age at first sex and youth who report that first sex was premarital are significantly more likely to use a method of contraception (including condom) at first sex. City-specific distinctions are found and discussed for each outcome.
Conclusions: Programs seeking to reduce HIV and unintended pregnancy risk among urban youth need to undertake needs assessments to understand the local context that influences the timing and circumstances of first sex in each city/country-specific context.

IMPLICATIONS AND CONTRIBUTION

Novel data from Kenyan, Nigerian, and Senegalese urban youth demonstrate education and wealth distinctions in the timing and circumstances of first sex between youth from different cities in each country and across countries. Programs to prevent HIV and unintended pregnancy among urban youth should take into account observed distinctions.

Increasingly, young people (ages 15–24) are moving to urban areas for improved education and employment opportunities [1]; understanding their sexual and reproductive health behaviors is important for designing programs to improve attainment of education and employment goals. Sexual debut is an important transition in a young person's life as it is the beginning of his or her exposure to the risk of pregnancy (planned and unplanned) and sexually transmitted infections (STI), including HIV [2–9]. Recent studies demonstrate that earlier sexual debut is associated with more lifetime sexual partners and greater risks of STI/HIV [10–13]. For women, initiation of sexual activity is closely tied to marriage and childbearing; however, more educated women are better able

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to delay sexual debut and dissociate sexual initiation, marriage, and childbearing [12,14,15]. Young men's sexual and reproductive behaviors are less closely tied; a greater percentage have nonmarital first sex and tend to have a long period between first sex, marriage, and subsequent procreation [1,12,16].

Recent national-level studies from sub-Saharan Africa have demonstrated declines in early sex (sex before age 15) [1] and concomitant declines in teenage pregnancies [17]. Notably, use of contraception or condoms at first and recent sex among young people remains low [1,17]. Studies comparing urban and rural youth demonstrate that a greater percentage of rural youth have early sex, are married, and have initiated childbearing, whereas a greater percentage of urban youth engage in premarital sex, have sex with multiple partners, and use modern contraception [4,6–8,18–22]. Educated and wealthier youth, who tend to be concentrated in urban areas, have similar behaviors to urban dwellers [4,7,8,15,16,21,23,24].

With the dissociation of sexual initiation, marriage, and childbearing, there is a need to more closely examine which factors influence risk of unintended pregnancy, abortion, STI, and HIV among urban youth. Recent studies demonstrate that, compared with females, males are more likely to engage in early and premarital sex [25–28]. Moreover, in urban settings, higher education and current enrollment in school are protective against early sex [27,29]; however, higher education is associated with having multiple sexual partners [30]. Finally, residents of slums or disadvantaged environments are more likely to engage in early and unprotected sex [27,31,32]. Although these studies provide important insights into youth sexual behaviors, they are mostly limited to the unmarried, to youth in one specific city [26,27,29–31], and to Demographic and Health Surveys data that have small sample sizes for urban areas [28].

Large, representative samples of urban youth are needed to allow for more refined analyses of education and wealth effects. In this study, we use recently collected data to examine the timing and circumstances of first sex among female and male youth from select major urban areas in Kenya, Nigeria, and Senegal. This study answers the following research question: How similar or different are factors associated with the timing and circumstances of first sex among female and male youth? We hypothesize that young people having premarital first sex will be more likely to use contraception than young people having marital first sex. We also hypothesize that education and wealth will be associated with sexual experience, premarital first sex, and contraceptive use at first sex; however, the effects may differ between female and male youth and across the countries.

Methods

In 2009, the Bill and Melinda Gates Foundation initiated a program to increase contraceptive use in urban areas in four countries: India (Uttar Pradesh), Kenya, Nigeria, and Senegal. This study uses baseline data collected by the Measurement, Learning & Evaluation project to evaluate the Urban Reproductive Health Initiative in the three African countries (India data were not included because the sample only included married women).

In each study country, the Measurement, Learning & Evaluation project collected baseline data from a representative sample of women ages 15–49 and men ages 15–59 in program cities selected by the implementing partner and donor. In Kenya, three cities are included: Nairobi, Kisumu, and Mombasa; in Nigeria, the four cities are: Abuja, Ibadan, Ilorin, and Kaduna; and in Senegal the four cities are: Dakar, Pikine, Guédiawaye, and Mbao. (See baseline reports at www.urbanreproductivehealth.org for details of data collection and cities.)

A similar two-stage sampling design was used in each country. In Kenya, the 2009 national census frame was used to determine whether each primary sampling unit (PSU) was informal (no land tenure/slum) or formal (has land tenure/non-slum). In Senegal, municipal leaders were asked to classify neighborhoods as poor or nonpoor based on characteristics of the majority of the households in the neighborhood; United Nations Habitat criteria on five housing conditions were used (type of housing, residential security, neighborhood density, access to water, and access to flush toilets). Classified neighborhoods were linked to the census sampling frame before selection. In Nigeria, there was no way to distinguish a PSU as poor or nonpoor before (or after) selection; therefore, the 2006 census sampling frame was used. For each city (within each country), a representative sample of PSUs was selected. Where stratification by slum/non-slum was possible, half of the selected PSUs were from each stratum. In the second stage of selection, a random sample of households was selected (30 per PSU in Kenya, 41 in Nigeria, and 21 in Senegal) based on the listing and mapping conducted in the selected PSU. In all selected households, all women (ages 15–49) who spent the previous night in the household were eligible for interview. In half of the selected households, all men ages 15–59 who spent the previous night were interviewed. All study methods were approved by the Institutional Review Board at the University of North Carolina in Chapel Hill and by in-country Institutional Review Boards in Kenya, Nigeria, and Senegal.

This analysis includes 15- to 24-year-old female and male respondents as is typically done in youth studies; this resulted in a sample of between 30% and 40% of the full study sample in each country. See Table 1 for weighted sample sizes by sex and country.

The first outcome variable is age at sexual debut. For youth who never had sex, the age at the time of survey was considered in the survival analysis. The second outcome, derived from age at first sex and age at first marriage, is whether first sex was premarital (coded one) or not (coded zero). When the ages were the same, we coded first sex as in union; this is the conservative approach. Finally, we examine modern contraceptive method use at first sex, which is coded one if the woman (or man) reported using pill, intrauterine device, injections, male condom, implant, emergency contraception, spermicides, or female condom at first sex and coded zero if no modern method was used.

All analyses control for education, employment status, duration of residence, religion, and whether living in a slum/non-slum site (not available for Nigeria). See Table 1 for descriptive characteristics and classifications of these variables. Analyses also control for wealth quintiles calculated across the cities within countries using household assets similar to the Demographic and Health Surveys [33]. In each country, analyses control for city variables; for standardization, the capital city was selected as the reference group.

Descriptive statistics are presented to demonstrate differences across the countries and for female and male youth. Kaplan-Meier survival curves of age at first sex for persons younger than age 35 are presented to provide a descriptive perspective of the transition to sexual experience among female and male youth and across countries. Multivariate analyses stratified by sex and country examine which factors are associated with the outcomes and similarities and differences between female and male youth