

Patterns of Marriage, Sexual Debut, Premarital Sex, and
Unprotected Sex in Central Asia

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Abstract

This study uses 1995 and 1999 DHS data from Kazakhstan to chart patterns of marriage, sexual debut, premarital sex, and unprotected sex over the past 20 years among young women aged 15-29. DHS data from Uzbekistan (1996) and Kyrgyzstan (1997), while not as rich in the details of sexual behavior, such as condom use, is analyzed to determine how the mean ages of first marriage and sexual debut have fluctuated in recent times, as well as the prevalence of premarital sex and frequency of intercourse. Preliminary findings indicate that, while the median age of first marriage is relatively high in Central Asia compared to other developing regions, the median ages of first marriage and of sexual debut have been declining slightly in all three countries, across all ethnic groups, and that married women have frequent unprotected sexual encounters, relative to their unmarried peers. The prevalence of premarital sex has also been increasing, particularly among women of Russian ethnicity, and, although unmarried sexually active women do not have sex as frequently as their married counterparts, up to a quarter of these sexually active unmarried women have had unprotected sex in the past week.

Introduction

Central Asia has been cited by several international health organizations, including the WHO, UNAIDS, and the World Bank, as a region that should expect, and plan for, significant increases in the incidence and prevalence of HIV/AIDS in the coming decade. Although the epidemic is now largely concentrated in high-risk populations, such as IV drug users and sex workers, sexual transmission into the general population is becoming more common, as has already happened in other Eastern European countries, such as Belarus and the Ukraine. The number of new infections is increasing rapidly, with new infections doubling in only two years in the late 1990s¹.

¹ (1999) "The HIV/AIDS Epidemic at the End of 1999." *Population and Development Review*, 25:4, 827-829.

Adolescents and young adults represent high-risk populations for HIV infection in Central Asia in the coming years. While Buckley et. al.² have found that contraceptive use in Uzbekistan has increased and reproductive health indicators have improved since the fall of the Soviet Union, they also indicate that sexual health indicators for young women have worsened, and document the rising prevalence of other STDs, such as gonorrhea and syphilis, among adolescent girls and young women. Furthermore, UNAIDS has already discovered that more than 80% of HIV-positive persons in Central Asia are under the age of thirty, and that women in particular are increasingly at risk of infection, with women representing one in three new infections in 2003, up from one in four since 2002³.

Women under thirty in Central Asia fall into two distinct categories in terms of risk of disease and sexual behavior: married and unmarried women. Many married women use contraception to avoid pregnancy, but the majority of these women use methods, such as the IUD, that do not protect against HIV and other STD infection. Although women in Central Asia marry rather late, relative to much of the rest of the developing world, in most other developing countries, married adolescents and young women engage in sexual activity, and unprotected sex in particular, much more frequently than their unmarried peers⁴, due to factors such as cultural taboos against premarital activity, a desire by newly-wedded women to get pregnant quickly, and inability to negotiate condom use within marriage. Married adolescents and young women have some of the highest prevalence rates of HIV infection, rates that exceed those of their sexually active unmarried peers, in regions such as sub-Saharan Africa where prevalence is already high⁵. In order to guide education and prevention policy, it is

² Buckley C. Barrett J. and Asminkin Y. P. (2004) "Reproductive and Sexual Health Among Young Adults in Uzbekistan." *Studies in Family Planning* 35:1, 1-13.

³ http://www.unaids.org/bangkok2004/GAR2004_html/ExecSummary_en/Execsumm_en.pdf

⁴ Bruce J. and Clark S. (2003) "Including Married Adolescents in Adolescent Reproductive Health and HIV/AIDS Policy." In *UNFPA/WHO/Population Council Technical Consultation on Married Adolescents*. Geneva: December 9-12.

⁵ Glynn J. R., Carael M., Auvert B., Kahindo M., Chege J., Musonda R., Kaona F., and Buve A. (2001). "Why Do Young Women Have a Much Higher Prevalence Rate of HIV Than Young Men?" *AIDS*: 15 (supp. 4), S51-60.

important to understand whether the situation of married young women in Central Asia is similar to that in other countries where women's greatest risk for HIV infection is marital status, due to frequent, unprotected sexual activity, at younger ages of sexual debut than unmarried peers.

While most sexual activity in Central Asian nations takes place within the context of marriage, premarital sexual behavior represents a competing risk for HIV infection. The sexual behavior patterns of unmarried women are not well known or documented; furthermore, national family planning programs promote family planning, rather than broad-based sexual education including prevention of STDs, and specifically preclude a focus on unmarried adolescents. Unmarried women find accurate information about sexuality and reproduction hard to obtain, particularly because Central Asians largely believe sex education for young women should take place in the home, rather than at school or in other public forums, yet adults seem to have difficulty discussing sexual behavior with young people⁶. Sexually active young women also have different reproductive health needs and constraints than their married peers. They might be more able to negotiate condom use because, for instance, relationships are more casual or less focused on procreation, but they might not have knowledge of contraception that protects against HIV and other STDs, and thus may represent an opportunity for preventive education. In order to begin to assess the needs of unmarried young women, it is important to document the extent of premarital activity, particularly risky premarital activity such as unprotected sex.

In all three countries, the national population is comprised of several different ethnic subpopulations, the result of internal migration and deportations during the Soviet period. In addition to titular nationalities (Kazakhs, Kyrgyz, and Uzbeks), there are also large subpopulations of ethnic Russians, Tatars, Ukrainians, Germans, Poles, and minority groups of other Central Asians in each country (i.e., Uzbeks are a minority group in Kazakhstan, Kazakhs are a minority group in Kyrgyzstan, etc.). The national trends, in terms of marriage, reproductive, and sexual activity (particularly premarital sexual activity), mask different behaviors and norms within each subpopulation. The

⁶ Mee W. (2001) "Women in the Republic of Uzbekistan." *ADB Country Briefing Papers*. Manila: Asian Development Bank.

native Kazakhs, Kyrgyz, and Uzbeks are usually of Muslim religion, are concentrated in rural areas, and have traditionally yielded poorer population health statistics relative to Russians, which represented a privileged economic and social group during the Soviet period. In terms of sexual health, however, this pattern might not persist. Russian and other non-native ethnic populations might be at higher risk of HIV and STD infection, particularly among unmarried women, because differing religious and social mores do not preclude premarital sexual activity as strongly as those within the Muslim native population. Conversely, however, discussions of sexual health, STD prevention, and risky behavior might be less common in these Muslim subpopulations; thus, these women might be less likely to engage in sexual behavior, but more likely to engage in risky behaviors such as unprotected sex because they do not have accurate knowledge of how to protect themselves. An essential research question is to understand the experiences of different ethnic groups, in order to better prepare and target educational messages.

Although HIV prevalence has not yet reached sub-Saharan levels in Central Asia, as the epidemic moves from specific, high-risk populations such as drug abusers into the larger, more general population, it will be increasingly important to identify groups at high risk for sexual transmission and to understand patterns of behavior that puts these individuals at risk, in order to better target prevention efforts. In order to understand the differing risk profiles of married and unmarried women, I examine how the frequency of recent, unprotected⁷ intercourse varies by marital status, age, and ethnicity. Although the majority of women who are sexually active are married, I also explore the sexual behaviors of unmarried women, including the likelihood of premarital sexual debut and unprotected sex. Finally, to gain a sense of how the competing risks of marriage and premarital sexual debut have changed over time, I look at time trends of median ages at marriage and sexual debut.

⁷ The Uzbekistan and Kyrgyzstan data do not include information about condom use.

Data

The data for the study comes from the following Demographic and Health Surveys (DHS): Kazakhstan 1999, Kyrgyz Republic 1997, and Uzbekistan 1996⁸. These surveys are nationally representative of married and unmarried women of reproductive age, 15-49, and include information about sociodemographic characteristics, marital status, and sexual behavior. Formerly-married women are excluded from the sample; these women account for less than 10% of women in the main ages of interest (15-29). Probability weights are used in all analyses.

In the interest of parity, I have narrowed ethnic categorization into three groups: the titular nationality of that country, Russians, and all other groups. This categorization is somewhat artificial, and masks heterogeneity within groups, particularly in the ‘other’ group, which is comprised of non-native Slavs, non-titular Central Asians, and other Asian ethnicities, all of which might have very different cultural norms and patterns of behavior from one another. The sample size for minority ethnic groups other than Russians, however, would be too small to conduct distinct analyses for each group. When interpreting the results, especially for the ‘other’ ethnic group, the potential for distinct trends within these subpopulations being masked in an overall average should be considered.

The Kazakhstan survey includes information about condom use; the Kyrgyz and Uzbek surveys do not. I have calculated odds ratios and probabilities of unprotected sex in the past week where possible; when condom use information is unavailable, I have look only at the likelihood of recent sexual activity.

Results

Tables 1, 2a, and 2b indicate that married women aged 15-29 in Central Asia are consistently exposed at far greater frequencies than their unmarried counterparts to sexual intercourse and unprotected sex. In Kazakhstan, married women in all three age groups represent a higher proportion of women who have debuted sexually than they do in the general population, and represent a higher proportion still of women who have had sex in

⁸ Demographic and Health Surveys. Calverton, MD: ORC Macro International. Data available for download at www.measuredhs.com.

the previous week. While this increased frequency might be attributed to partner availability and desire for pregnancy, women who are married might also find it harder to refuse; indeed, 5.3% of women aged 15-29 indicate that they believe their husbands have the right to beat them if they refuse sex.

The odds ratios of unprotected sex indicate that married women in Kazakhstan are also much more likely to engage in unprotected sex than their unmarried counterparts, even when examining behavior only from the past week. Column 9 of Table 1 indicates that, even when removing unmarried women who have not yet debuted sexually, married women still report odds of having recent, unprotected sex that are 4.4, 9.5, and 21 times the odds of unmarried women reporting unprotected sex in the last week, while Table 2a indicates that these differences are highly significant across all age and ethnic groups.

Table 2a, however, while illustrating the consistent trend of increased risky exposure to married women, also indicates differential behavior among unmarried women by ethnic group, with higher proportions of non-ethnically Kazakh unmarried women reporting engaging in unprotected sex within the past week. These differences are further explored in Table 3a. Although all age and ethnic groups have non-negligible percentages of unmarried women participating in sex before marriage, the percentages are much higher for women of Russian ethnicity; women of non-Kazakh, non-Russian nationalities more closely mirror the behavior of Russians than Kazakhs. Particularly striking is that Russian women and women of non-Russian, non-Kazakh ethnicity are, in all age groups, much more likely to engage in premarital sex and to have had unprotected sex in the past week relative to ethnically Kazakh women, as evidenced by the high odds ratios presented in columns 7-12.

These high odds ratios indicating more frequent unprotected sex for Russian and other non-Kazakh women can be explained somewhat by the fact that more of them have had premarital sex, generally, than ethnically Kazakh unmarried women. It is possible, however, that these odds ratios are high because condom use differs by ethnic groups; thus, Kazakh women might have lower chances of having unprotected sex both because they do not have premarital sex as often, and because, when they do, they are more likely to use condoms. Table 3b presents information on condom use for last intercourse (regardless of when it took place) for sexually active unmarried women. This table

indicates that condom use does not differ much by either ethnicity or age group. Although the odds ratios of using condoms are slightly lower for Russian women, and condom use increases with age among ethnic Kazakhs, chi-square analyses confirm that neither the age differences nor the ethnic differences are significant. Thus, Russian and other non-Kazakh ethnicities have higher odds ratios of unprotected sex because they, generally, have sex more frequently, not because they use condoms less frequently when they do have sex.

The results regarding sexual behavior from Uzbekistan and Kyrgyzstan, presented in Tables 2b and 3c, indicate that there is almost no sexual activity outside of marriage, although results from the 15-19 year age group in Kyrgyzstan, column 2 in Table 2b, indicate that premarital sexual activity is prevalent among women of non-Kyrgyz ethnicity (the 100% numbers in columns 4 and 6, while striking, should be considered with the knowledge that the number of unmarried women of these age and ethnic groups is quite low). Married women, however, in both countries and all ethnic and age groups, have a high probability of reporting sexual intercourse within the last week. While information on condom use is not available for these countries, it can be inferred that at least some of this intercourse is unprotected, especially since 19.4% of married women 15-29 in Kyrgyzstan and 20.9% of married women 15-29 in Uzbekistan report that they are actively seeking pregnancy.

Table 3c further elaborates on the sexual behaviors of unmarried women in Kyrgyzstan and Uzbekistan. While the Uzbekistan data confirms that sexual activity for young women occurs within marriage for virtually all ages and ethnic groups (with a small amount of sexual activity among Russian women in the 20-24 age group), the Kyrgyz data indicates that women of Russian ethnicity are more likely to have had sex in the last week than either unmarried Kyrgyz women or unmarried women from other ethnic groups.

Finally, Table 4 presents historical trends in the median ages of marriage and sexual debut. In Kazakhstan, the median ages of marriage and sexual debut have been steadily declining for women of non-Kazakh ethnicity, indicating that these women are now at risk of sexually transmitted diseases following sexual debut, generally, for an increasing period of time, and also move into marriage, the category with a higher risk of

frequent unprotected sex, sooner than in the past. The trends for ethnically Kazakh women are opposite: both the median age of first marriage and the median age of sexual debut have recently increased, decreasing the amount of time that these young women, generally, are at risk of sexual transmission of disease as well as decreasing the amount of time that these women are in the riskier marriage phase. Furthermore, women of Russian and other non-Kazakh ethnicities have lower median ages of marriage and of sexual debut than ethnic Kazakhs, a trend that has persisted over time; the gap has become even greater with the last age group with data available. These women also have larger gaps between median ages of sexual debut and marriage, supporting the findings in Table 3a, that Russian and other non-Kazakh women engage in a larger degree of premarital sexual activity.

In Kyrgyzstan, the time trends are more consistent, with median ages at marriage and sexual debut dropping for all ethnic groups, increasing the amount of time that all women are exposed to the risk of sex, generally, as well as increasing the amount of time women are exposed to frequent unprotected sex within marriage. Once again, Russian women have lower median ages of marriage and sexual debut than native Kyrgyz and a larger gap between the two; women of other ethnicities have median ages of marriage and sexual debut that fall roughly between those of Russians and ethnically Kyrgyz women. The steady drop in median ages of first marriage and sexual debut across all ethnic groups (except for median age of sexual debut for Russian women) is replicated in Uzbekistan. The gap between marriage and sexual debut is almost nonexistent for ethnically Uzbek and Kyrgyz women, and, while the gap between median ages at marriage and sexual debut is higher for Russian and other ethnicities in these countries, the gap is smaller for these women than it is in Kazakhstan. The median age of sexual debut is also higher for Russians and other ethnicities in Uzbekistan than it is in the other two countries.

Conclusions

The data from these three countries indicate that, given the competing risk categories of marriage and premarital sex, married young women engage in sexual intercourse, especially unprotected sexual intercourse, much more frequently than their

unmarried peers. This trend is consistent across countries, age groups, and ethnic groups, and indicates that married young women are at significant risk of unprotected sexual activity. HIV prevention activities must be designed with the needs of these young women in mind if they are to be effective in preventing transmission, particularly among wives and long-term partners of drug users that are at high risk of HIV transmission.

In all three countries, unmarried women of Russian ethnicity have a higher probability of premarital sexual debut and a higher frequency of reporting sexual activity in the previous week, than unmarried ethnically Kazakh, Kyrgyz, and Uzbek women. Unmarried women of ‘other’ ethnicities tend to have experiences that more closely follow these Russian unmarried women. In Kazakhstan, where condom use data is available, Russian and other non-Kazakh women are at higher risk of unprotected sex not because they use condoms less frequently than native Kazakhs, but because they have sex more often. Russian and other non-native young women thus represent a subpopulation at higher risk; these populations, which tend to be clustered in urban areas, can be targeted for prevention efforts.

Over time and ethnic groups, the median ages of marriage and sexual debut have been consistently falling, except for ethnically Kazakh women in Kazakhstan. These trends increase the time of exposure to sexual activity, generally, and the time of exposure to the more risky state of marriage. Encouraging the delay of marriage and sexual debut among women of all ethnic groups in all countries would decrease the amount of time these women are at risk of unprotected sex.

Future Directions

While this data indicates that married women have sex, including unprotected sex, at much higher rates than their unmarried peers, this data does not indicate whether the sexual behavior of married and sexually active unmarried women differs in terms of numbers of partners or the risky behaviors of these partners, such as multiple partners, visits to sex workers, infidelity, or drug use. While marriage may be more of a risk in terms of increasing exposure to unprotected sex, unmarried women may be at higher risk of actually contracting HIV because they may be more likely to have infrequent, yet risky, sex with multiple partners. Conversely, women with only one partner, but with a

single partner who is himself in a high-risk group, such as injecting drug users, might be at very high risk of sexual HIV transmission. It is important that future work focus not only on the difference in behavior between married and unmarried women, but also on the differing risks of contracting HIV sexually due to differences in the partners of married and unmarried women, in order to better target prevention efforts.

Furthermore, among all age and ethnic groups in Kazakhstan, the majority of women who have debuted sexually (except for the 25-29 'Other' group) did not use condoms, but at least one third in all age and ethnic groups (except for the 20-24 'Other' group) did. These figures indicate that some of these women, at least, have received information about family planning and sexually transmitted disease prevention and are able and willing to use condoms, even among Muslim, ethnically Kazakh women; these figures also indicate that there is still a substantial population of unmarried, sexually active young women that are not yet using condoms. In order to better understand how to reach these young unmarried women with HIV prevention education, future work should focus on why these women are not using condoms, and how non-use of condoms correlates with other risky behaviors, such as drug use and sex with multiple partners.

Table 1. Percentage married women among all women and among women who are sexually active

Country	Age	Column 1.	Column 2.	Column 3.	Column 4.	Column 5.	Column 6.
		Among all women	Among sexually active women	Among women who had sex last week	Among women who had unprotected sex last week	Odds unprotected sex, married women	Odds unprotected sex, unmarried women
Kazakhstan	15-19	8.08	48.40	62.30	68.34	2.22	0.03
	20-24	56.93	84.08	90.94	92.96	3.92	0.08
	25-29	84.03	91.55	96.72	98.51	3.58	0.08
Kyrgyzstan	15-19	12.44	95.01	96.72	N/A	N/A	N/A
	20-24	78.28	99.75	99.83	N/A	N/A	N/A
	25-29	94.93	99.51	99.67	N/A	N/A	N/A
Uzbekistan	15-19	12.81	100.00	100.00	N/A	N/A	N/A
	20-24	76.54	99.92	100.00	N/A	N/A	N/A
	25-29	94.55	100.00	100.00	N/A	N/A	N/A

¹Excluding those who have not yet initiated sex

²Excluding those who are formerly married

Column 7.	Column 8.	Column 9.	Column 10.	Column 11.
Odds unprotected sex, unmarried women ¹	Odds ratio	Odds ratio ¹	N	Usable N ²
0.50	66.73	4.44	778	770
0.42	47.45	9.46	662	613
0.17	46.51	20.95	688	597
N/A	N/A	N/A	740	730
N/A	N/A	N/A	639	588
N/A	N/A	N/A	552	505
N/A	N/A	N/A	943	942
N/A	N/A	N/A	816	793
N/A	N/A	N/A	700	664

Table 3a. Sexual behavior among never-married women, Kazakhstan

	Column 1. % women 15-19 who have had premarital sex	Column 2. % women 20-24 who have had premarital sex	Column 3. % women 25-29 who have had premarital sex	Column 4. % women 15-19 who had unprotected sex last week	Column 5. % women 20-24 who had unprotected sex last week	Column 6. % women 25-29 who had unprotected sex last week
Kazakh ¹	1.71	8.72	37.04	0.89	1.60	2.07
Russian	24.09	58.61	80.14	5.54	25.66	16.22
Other	16.38	54.21	75.66	7.65	6.55	16.53

	Column 7. Odds ratio ¹ premarital sex 15-19	Column 8. Odds ratio premarital sex 20-24	Column 9. Odds ratio premarital sex 20-24	Column 10. Odds ratio unprotected sex 20-24	Column 11. Odds ratio premarital sex 25-29	Column 12. Odds ratio unprotected sex 25-29	Column 13. N
	18.24	6.53	14.82	21.23	6.86	9.16	684
	11.26	9.22	12.39	4.31	5.28	9.37	301
							110

¹ Odds ratios calculated relative to ethnically Kazakh women

Table 3b . Condom use among never-married women who have debuted sexually, Kazakhstan

Ethnicity	Column 1.	Column 2.	Column 3.	Column 4.	Column 5.	Column 6.	Column 7.
	% women 15-19 who report condom use	% women 20-24 who report condom use	% women 25-29 who report condom use	Odds ratio ¹ condom use 15-19	Odds ratio condom use 20-24	Odds ratio condom use 25-29	N
Kazakh	39.77	40.10	50.38	0.95	0.74	0.52	54
Russian	38.56	33.18	34.82	1.13	0.21	1.93	91
Other	42.67	12.58	66.56				24

¹ Odds ratios calculated relative to ethnically Kazakh women

Table 3c. Premarital sex among never-married women, Kyrgyzstan and Uzbekistan

Ethnicity	Column 1.	Column 2.	Column 3.	Column 4.
	% women 15-19 who have had premarital sex	% women 20-24 who have had premarital sex	% women 25-29 who have had premarital sex	N
Kyrgyz	0.00	0.00	3.19	555
Russian	8.12	6.35	48.87	71
Other	0.32	1.83	14.65	172
Uzbek	0.00	0.00	0.00	824
Russian	0.00	10.57	0.00	52
Other	0.00	0.00	0.00	195

Table 4. Trends in ages at first marriage and sexual debut

Country	Age group	Column 1.		Column 2.		Column 3.		Column 4.		Column 5.		Column 6.	
		Median age at marriage titular ethnic group ¹	23.42	Median age at sexual debut, titular ethnic group ¹	21.42	Difference, titular ethnic group ¹	-2.00	Median age at marriage, Russians	19.75	Median age at sexual debut, Russians	18.00	Difference, Russians	-1.75
Kazakhstan	20-24	23.42		21.42		-2.00		19.75		18.00		-1.75	
	25-29	21.50		20.92		-0.58		20.00		19.00		-1.00	
	30-34	21.33		21.00		-0.33		20.83		19.00		-1.83	
Kyrgyzstan	20-24	19.58		19.50		-0.08		19.67		18.00		-1.67	
	25-29	20.25		20.00		-0.25		19.92		19.00		-0.92	
	30-34	20.58		20.50		-0.08		19.83		19.00		-0.83	
Uzbekistan	20-24	19.50		19.50		0.00		19.75		19.00		-0.75	
	25-29	19.75		19.75		0.00		20.58		20.33		-0.25	
	30-34	20.17		20.08		-0.08		21.08		20.00		-1.08	

¹ Kazakhs in Kazakhstan, Kyrgyz in Kyrgyzstan, Uzbeks in Uzbekistan

Median age at marriage, other ethnic groups	Column 7.		Column 8.		Column 9.		Column 10.	
	debut, other ethnic groups	18.00	Median age at sexual debut, other ethnic groups	Difference, other ethnic groups	-1.58	other ethnic groups	N	
19.58	18.00		19.58	-1.58		613		
19.67	19.00		19.67	-0.67		597		
20.83	20.00		20.83	-0.83		586		
19.17	19.00		19.17	-0.17		588		
19.67	19.33		19.67	-0.33		505		
20.50	20.50		20.50	0.00		560		
22.00	22.00		22.00	0.00		793		
21.08	21.08		21.08	0.00		664		
21.25	21.25		21.25	0.00		578		