Sexual Risks of Central Asian Migrant Women in the Context of the Russian HIV Epidemic*

(Draft)

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Abstract

In dialogue with the scholarship on gendered connections between migration and HIV, this paper uses recent survey and qualitative data to examine HIV-related risks and attitudes among working migrant women from three Central Asian countries and their native counterparts in three Russian cities. The analyses focus on exposure to risky sexual relationships, negotiation of safer sexual practices in permanent partnerships, and experience of HIV testing, and compare natives and migrants as well as women of different provenance within the migrant subgroup. The results suggest that while migrant women are generally less likely to engage in risky behavior, they are also less able to negotiate safer sex within their permanent partnerships, compared to native women. Migrants are also less likely to take HIV tests and to access sexual and reproductive health care. At the same time, the analyses reveal considerable variations among migrants on these outcomes that call for further investigation.

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Background: migration, gender and HIV

Despite expanded prevention efforts, the HIV/AIDS epidemic in the Russian Federation (RF) has grown rapidly in the first decade of the century, with the number of registered HIV infection cases having doubled between 2005 and 2010 (Rospotrebnadzor 2011). Although the epidemic continues to be driven to a large extent by IDU use among men, the share of women among the infected has increased since the early 2000s reaching 35% in 2010, and in the young adult population (aged 15-24) HIV prevalence is now already higher among women than among men (UNAIDS 2012). Sexual transmission is the primary channel of infection among women, accounting for 65% of all registered cases, compared to only 25% among men (Rospotrebnadzor 2011) The official data also points to considerably higher levels of HIV infection among foreign labor migrants than among the native population: for example, the infection rate among migrants in some regions reached around 300 per 100,000 tested, which is double the average for the RF (Rospotrebnadzor 2011). The RF has the second largest population of international migrants in the world (World Bank 2012) and foreign labor migrants have been recognized as a high-risk group for HIV infection in Russia (Demoscope 2009), echoing the ample cross-national evidence of elevated HIV/STI risks associated with migration (Agadjanian and Avogo 2008; Agadjanian, Arnaldo, and Cau 2011; Brockerhoff and Biddlecom 1999; Decosas et al. 1995; Lurie 2006; Sevoyan and Agadjanian 2010; Weine and Kashuba 2012; Yang 2004). Migrants' risks are further exacerbated by limited access to health services in general and to HIV testing, counseling, and treatment services in particular.

The vast majority of international migrants in the RF come from the countries that once made up the Soviet Union, with three nations of Central Asia—Kyrgyzstan, Tajikistan, and Uzbekistan—accounting for a disproportionate and growing share. Although migrants from the three countries have a lot in common, especially when compared to the host population, there are important ethnocultural distinctions among them, which our study also intends to capture and explore. Thus Kyrgyz and Uzbeks speak similar Turkic languages, whereas the language of Tajiks is of Iranian stock. Uzbeks and Tajiks represent traditionally sedentary populations of Central Asia whereas Kyrgyz are historically a nomadic group whose sedentarization is relatively recent. Although all three groups are Muslim, the influence of Islam is generally stronger among Tajiks and Uzbeks than among Kyrgyz, with corresponding implications for the position and autonomy of women. Finally, Kyrgyz women, like Kyrgyz migrants in general, are relative newcomers to the Russian labor market, especially compared to Tajiks.

Most Central Asians arrive in Russia, at least initially, as temporary labor migrants. Whereas Moscow, the Russian capital and by far the largest city, has been a primary magnet for these migrants, the destinations of migration flows have been diversifying to include other big Russian cities. Although labor migration from Central Asia began as almost exclusively male, women have come to constitute an increasingly large share of the migration flow. According to the recent data from the Russian Federal Migration Service (FSM), among foreign citizens aged 18 and older living or staying in the Russian Federation, women constituted 37% of all Kyrgyz citizens, 13 % of Tajik citizens, and 13% of Uzbek citizens (computed from FMS 2013). Most of these migrants, men and women alike, have irregular legal status (e.g., lacking migration registration, residential registration, or work permit) and therefore are often marginalized, harassed, and exploited by their employers and law enforcing officials. Central Asian migrants' ethno-racial background (most are darker-skinned, often with poor command of the Russian language) and religion add to their economic and legal marginalization (Menjívar, Zotova, and Agadjanian 2012).

Whereas HIV-related research and interventions focus disproportionately on migrant men, risks among migrant women, a rapidly growing segment of Russia's international migrant population, have not been adequately studied. Yet, it may be argued that female migrants are at a particular disadvantage, as gender inequality exacerbates the challenges inherent to their migration status in comparison to male migrants (Agadjanian and Zotova 2013; Weine et al. 2013). These gendered disadvantages may translate into elevated exposure to risky sexual behavior and, at the same time, further constrain access to sexual and reproductive health (SRH) services in general and STI/HIV testing, counseling, and treatment, in particular. Given Russia's explosive HIV/AIDS epidemic and its increasing feminization, on the one hand, and migrant women's marginalization in Russian society, on the other, these women may be at a disproportionate risk of HIV infection. Migrant women's elevated exposure to risky sexual behavior and to HIV and other sexually transmitted infections is supported by cross-national evidence (Bandyopadhyay and Thomas 2002; Wang et al. 2007; Weine et al 2013; Yang and Xia 2006; 2008).

Increasingly, this cross-national evidence also points to a vital connection between women's access to sexual and reproductive health care and HIV/AIDS mitigation: the most effective path to reducing HIV infections lies through the integration of HIV counseling, testing, and treatment with SRH services (Askew and Berer 2003; Lindegren 2012). In line with this emerging consensus, studies focusing on migrant women show that such women's excessive HIV/STI risks should be viewed in conjunction with their marital and reproductive aspirations and behavior (Yang and Xia 2006; 2008), and access to sexual and reproductive health services (Agadjanian and Zotova 2013). Thus, as in other parts of the world, migrant women's HIV prevention needs in Russia would be served most effectively within the context of provision of prenatal/postnatal, contraceptive, and abortion services.

Because a costly HIV test is required for official employment of foreign nationals and a positive HIV diagnosis means immediate annulment of employment and residency permits followed by deportation (Demoscope 2003; Government of the Russian Federation 2003) migrants are often reluctant to take the test. As a result, Russian health officials admit an alarmingly low coverage of HIV testing among international migrants (Rospotrebnadzor 2011). Not surprisingly, at the June 2013 launch of the joint Russian Federation-UNAIDS Regional Cooperation Programme for Technical Assistance for HIV and other Infectious Diseases in the Commonwealth of Independent States, migrants were named as a population segment of particularly high risk for HIV infection (UNAIDS 2013).

Even when they are tested for HIV, labor migrants are much less likely to receive HIV counseling, and HIV-infected foreign nationals are effectively cut off from antiretroviral therapy (ART) and prevention of mother-to-child transmission, which are available free of charge to Russian citizens but are beyond the means of most migrants, who can have access only to very expensive options in the private sector (Demoscope 2009). Again, migrant women's limited access to HIV testing, counseling and treatment services should be seen in the context of their overall near-exclusion from sexual and reproductive health services. Most migrants are not eligible for Russia's Compulsory Medical Insurance (OMS, in Russian abbreviation), which offers free access to state-run health care, and cannot afford alternative private insurance plans or out-of-pocket health care costs (Rocheva and Peshkova 2013). Hence, as in other parts of the world (e.g., Bravo 2003; Chavez 2012; Schoevers et al. 2010), limited access to SRH services magnifies migrant women's gender-specific vulnerabilities.

Approach

In light of the accumulated cross-national evidence on the nature of gendered HIV risks and the multilayered vulnerabilities of women migrants in the Russian Federation, our study aims to examine migrant women's characteristics and behaviors that might elevate their exposure to HIV risks. We compare migrant women with their non-migrant counterparts, but we also make comparisons within the migrant subsample.[1] At this stage of our investigation, we look at several attitudinal and behavioral outcomes. We start with a statistical analysis of the number of sexual partnerships and exposure to risks in such partnerships. We then look at women's relationships with current permanent partners, both married and non-married, focusing on women's trust in the partner's faithfulness and ability to negotiate sex in such partnerships. We conclude with an analysis of women's worries about HIV and experience of HIV testing (the final version of the paper will include additional analyses as outlined in the concluding section of this draft).

Our general hypothesis is that Central Asian migrant women, given their religious and ethnocultural background, would be less likely to engage in risky sexual behavior than native women. At the same time, we anticipate that due to the same ethnocultural characteristics and related gender dynamics in marital partnerships, migrant women would be less able to navigate potential risks stemming from their permanent partnerships, compared to native women. We also expect migrants to have had less exposure to HIV testing and counseling and to worry less about the risks of HIV infection. Yet, at the same time, we expect to find considerable variations among migrant women along the ethnocultural, legal, and socioeconomic axes in these outcomes. Thus, Kyrgyz, given a relatively weak influence of Islamic norms in that group, should be closer on the selected outcomes to native women than Tajiks or Uzbeks. Russian citizenship, net of other factors, should facilitate access to health services, including HIV testing, and may also have a protective influence on behavior. Because the effects of socioeconomic factors, such as education, type of employment sector, or income, on HIV risk behavior have been shown to vary greatly across contexts and types of HIV epidemics, we do not propose specific hypotheses regarding these effects at this early stage of analysis.

Data

The data used in this study were collected between October 2012 and March 2013. Three mutually complementary types of data were gathered: 1) survey of women using a fully structured survey questionnaire; 2) semi-structured in-depth interview with a subsample of the survey respondents; and 3) expert interviews with health providers. All three types of data were collected at two main study sites – the cities of Moscow and Novosibirsk. To achieve a more thorough test of the sampling approach and the instruments and to increase the diversity of the studied population, additional survey data were collected in a third site, Yekaterinburg. This study was approved by the Institutional Review Board of Arizona State University and the Ethics board of the Institute of Ethnology and Anthropology.

The survey The survey sample included representatives of all three migrant groups of interest—Kyrgyz, Tajik, and Uzbek—as well as a control group of non-migrant (native) women. Because the vast majority of female Central Asian migrants work in eateries (mainly as

[1] The terms "migrant" is used here to refer to individuals who came to the Russian Federation from one of the three Central Asian countries at any time after those countries' independence in 1991, regardless of the initial purpose and duration of their migration and of their legal status in Russia. The native subsample included some women who had lived elsewhere in Russia prior to moving to the cities where they were interviewed, but we do not classify these women as migrants in this analysis.

waitresses and cleaners), semi-formal produce and clothing bazaars (продуктовые и вещевые рынки) (as stall owners and/or vendors), and formal retail and grocery stores (mainly as sales clerks and cleaners), the survey focused on migrants working in these industries. The survey sampling frame excluded migrant sex workers; although sex workers are typically at high risk of HIV due to the nature of their occupation (Weine et al., 2013), the antecedents and structure of their risk behavior are very different from those of other women and a focus on this unique group would have constituted a substantial deviation from the specific aims of the parent project. Likewise, the survey excluded migrant women working in personal and child care because such are usually past the peak age of sexual activity, when HIV/STI risks are also highest.

To sample women working in eateries and formal retail, a time-location approach was used (see Agadjanian and Zotova (2012) for a detailed description of an application of the time-location approach in a Russian setting). A three-stage sampling procedure was used. At the first stage, each city's territory was parceled into squares of approximately 1 km^2. In a randomly selected sample of these squares all eateries and retail outlets were recorded. At the second stage, eateries and retail outlets were randomly selected from the lists. At the final stage, women aged 18-40 who were migrants from the three Central Asian groups and non-migrants (the control subsample) working at the selected establishments were approached for a survey interview and approximately the same time of the day (if more than one eligible woman works at a given establishment, one was randomly selected). For the bazaar subsample, first, bazaars were randomly selected from the list of each city's bazaars and then in each selected bazaar, women were selected using a random-walk algorithm (if the selected bazaars did not yield the target number of respondents of each ethnicity, additional bazaars were added). As a result, of this sampling procedure, approximately one-third of the sample in the two main sites came from each of the three types of workplace—retail, eateries, and bazaars. In the additional experimental site, Yekaterinburg, only bazaars were included due to budget limitations. In all three sites, the sample was more or less evenly split among the four ethno-provenance groups.

Each woman who agreed to participate in the survey was administered a face-to-face questionnaire. To ensure high level of trust and maximize the quality and completeness of the survey data, the survey interviews were conducted by rigorously trained female interviewers of matching ethnicity, in the language of respondent's choice (Russian, Kyrgyz, Tajik, or Uzbek). Each respondent received a small recompense (200 RUR, or 6.7 USD) upon completing the survey interview. The 25-page-long survey instrument contained questions on respondents' ethnocultural and socioeconomic background, migration history, status, and experiences, sexual behavior and partnerships, perceptions of HIV/STI risks and actions taken to reduce them, HIV/STI diagnosis, and STI-like symptoms, among other questions.[2]

Selected sociodemographic characteristics of the survey respondents are provided in Table 1. As can been seen, respondents in all four ethno-provenance subgroups were about the same age, with an average age of 30. Over two-thirds of respondents were in regular partnerships (married or unmarried, co-resident or not). Almost a third of them had at least some university education, but the educational level varied considerably across groups, with Kyrgyz women being the most educated and Uzbeks being the least educated. Kyrgyz women also reported considerably higher earnings than women from the other two Central Asian groups; in fact, overall their average personal monthly income was slightly higher than that of natives (natives had by far higher earnings in Moscow though). At the same time, Kyrgyz women lived in most crowded

[2] A copy of the complete questionnaire in Russian is available at http://agadjanian.org/uploads/3/0/8/5/3085008/migration_and_risk_questionnaire_2012_russian_final.pdf.

conditions, sharing the room where they usually slept with almost four other people (five in Moscow) on average. In contrast, native women's living conditions could be considered least crowded. Not surprisingly, native women had lived in the cities where they were interviewed much longer, on average, than did Central Asians. Almost three-quarters of respondents had at least one close adult relative living in the same city (but not with them), and, interestingly, this share was particularly high among Tajiks, considerably exceeding the corresponding share even among native women. The average number of years continuously lived in Russia among migrants corresponded more or less closely to the average number of years spent in the city of interview, which points to a lower level of within-Russia mobility.[3] Tajiks had a longer history of continuous life in Russia than did either Kyrgyz or Uzbeks. Yet, Kyrgyz respondents had by far the largest share of respondents who held Russian citizenship, reflecting an earlier law that facilitated the path toward Russian citizenship for Kyrgyz citizens (the law was annulled in 2012, making Kyrgyz citizens subject to the same regulations and procedures that governed the path to citizenship for most other nationalities).

Table 1 about here

For the *qualitative* part of the study, a subsample of survey respondents in the two main sites was purposefully selected. In total, 40 respondents, 20 per site (15 migrants, five from each ethnic group, and 5 non-migrants) were interviewed. These semi-structured in-depth interviews focused on the more sensitive aspects of the women's, sexual, marital, and reproductive experiences, including their experiences with HIV/STIs and strategies employed to minimize corresponding risks. The in-depth interviews were also carried out by female interviewers of matching ethnicity in one of the four languages depending on respondents' preference. In-depth interview subjects received additional financial compensation for their participation.

Interviews with health service providers. Finally, we conducted interviews with nine providers serving sexual and reproductive needs of female migrants—five providers in Moscow and four in Novosibirsk. In Moscow, the interviewed providers included: three gynecologists from private for-profit health clinics serving primarily migrants; an obstetrician-gynecologist and an administrator of a center of phone medical consultations created under the auspices of Nur, an organization of the city's Pamirian (Tajikistan) community. In Novosibirsk, two gynecologists from state-run women's consultations (женская консультация) and two gynecologists from private for-profit health clinics were interviewed. The provider interviews, carried out by Dr. Zotova in Russian, focused on providers' experiences and attitudes surrounding specific reproductive and sexual health needs and services utilization of female migrants, with a particular emphasis on HIV/STI testing, counseling, and treatment, and on use of contraception and abortion.

Method

We start the analyses with exploring bivariate associations of migrant status and provenance with the behavioral and attitudinal outcomes of interest. We then fit multivariate statistical models. For each outcome, we fit two models: the first model of each pair contrasts natives to migrants without distinguishing among migrant ethnic groups. The second model is restricted to migrants only in order to ascertain ethnic differences within the migrant subsample and to control for

[3] The survey collected detailed migration history, including exact years and months of respondents' moves that lasted more than six months.

Russian citizenship can be used (nearly all natives were Russian citizens). The models control for respondents' demographic and socioeconomic characteristics, length of life in the city of current residence, and the presence of personal networks. These models will be fine-tuned as we continue to prepare the paper for the presentation at the meeting.

We complement the statistical analyses of the survey data with insights from the in-depth interviews and interviews with providers. While the qualitative data cannot be linked directly to the statistical results, they usefully illuminate the complex ethnocultural, socioeconomic, and legal dynamics of migrant women's lives that shape their exposure to HIV risks.

Preliminary results

Survey: bivariate associations

In the section, we present some preliminary results of the analyses focused on behaviors that bear direct or indirect relevance to HIV risks. These analyses are still in an early stage and will be refined as we continue to explore the wealth of the collected data and prepare the paper for the presentation. Table 2 displays selective descriptive statistics by ethno-provenance and site. It starts with the number of sexual partners in twelve months preceding the survey. Because alcohol consumption is known to increase risky behavior, we also include a dichotomous indicator reflecting respondents' reports of having had sex while inebriated. The table shows that native women reported a larger average number of sexual partners in the past twelve months than did any of the migrant groups. However, variation among the latter is worthy of note. In particular, Kyrgyz women had more sexual partners, on average, than did Uzbeks and, especially, Tajiks. Kyrgyz women were also very different from the other Central Asians—and very similar to native women—in the likelihood of having sexual intercourse while inebriated.

Table 2 about here

The following four characteristics in Table 2 refer to women's relationship with their regular partners. Interestingly, native women had the highest level of trust in their regular partners' faithfulness (especially in the Novosibirsk-Yekaterinburg subsample). In contrast to more than 70% of natives who were convinced that their regular partners had no sexual relations with other women, less than half of Kyrgyz or Tajiks had that conviction. Native women were also most likely to think that their regular partners would accept condom use if they asked for it; Uzbek women working in Moscow had by far the lowest percentage of respondents who thought so. Moscow Uzbeks were also least likely to have refused having sex with their partners at least once during four week preceding the survey interviews. Interestingly, Kyrgyz women most likely to have refused sex among all the groups: in fact, the share of Kyrgyz who did so was almost twice as large as that among Tajiks. Yet, surprisingly, Tajiks reported by far the highest share of consistent condom use, either for the sole purpose of HIV/STI prevention or for both pregnancy and HIV/STI prevention, with the "advantage" of that group being concentrated in the Moscow subsample.

The last two characteristics presented in Table 2 are worries about HIV and experience of HIV testing. Almost half of the sample said they very worried or somewhat worried about contracting the HIV virus. Here, Tajik women stood out, with a much lower level of worries about HIV than the rest of the sample. Also interestingly, native women were in general less likely to worry about HIV than either Kyrgyz or Uzbeks. Native women also had the largest

share of those who had an HIV test in the two years preceding the survey, but the difference between them and Kyrgyz or Uzbeks was not large (and it was reversed in the case of Kyrgyz in Moscow). Once again, Tajiks differed markedly from the rest, displaying the lowest overall likelihood of having a recent HIV test (because of a very low of those tested in Moscow).

Survey: multivariate results

The bivariate associations displayed in Table 2 allude to some consistent patterns but also reveal considerable variation by ethno-provenance and study site. However, these patterns can be influenced by a number of other characteristics. To account for the potential effects of other factors, we fit multivariate regression models. The results of the first set of such models, which are focused on sexual risk behavior, worries about HIV, and HIV testing, are presented in Table 3. We start by looking at the number of sexual partners in the past twelve months. Given the count nature of the outcome, Poisson regression is used. Two models are fitted: the first model compares natives to all migrants. The second model subdivides migrants by ethno-provenance and excludes natives. The parameter estimates from the two models are presented in Section A of Table 3. The results of the first model, echoing the bivariate pattern, show that natives, ceteris paribus, had significantly more sexual partners in the twelve months preceding the survey than did migrants. However, the migrant-only model points to a significantly larger number of sexual partners reported by Uzbeks and Kyrgyz, compared to Tajiks, net of other characteristics (the difference between Uzbeks and Kyrgyz is not statistically significant).

Table 3 about here

The models in Section 3.B predict the likelihood of having sex in the past four weeks while inebriated. Because of the binary nature of the outcome, binomial logistic regression is used. Only women who reported having sexual intercourse during that period are included in the analysis. The first of the two models shows a statistically significant difference between native and migrant women: all else equal, the former have a significantly higher probability of having had sex while drunk. However, the second model suggests an instructive correction for that conclusion: both Uzbeks and Kyrgyz were much more likely to have sex while inebriated than were Tajik women—paralleling the contrast between Tajiks and other Central Asian respondents that transpired in the analysis of the number of sexual partners (Table 3.A). In fact, if we compare Uzbeks and Kyrgyz to native women, no net significant differences emerge (not shown).

The set of logistic regression models presented in Table 4 focuses on respondents' relationships with their regular partners and are therefore restricted to women with such partners. Because women's risks stems to a large extent from their partners' behavior, rather than their own, it is important to examine the dynamics of their partnerships in-depth. The first pair of models in this set considers women's perception of their partners' sexual faithfulness. It shows that native women were significantly more likely than migrants to be convinced that their partners were faithful. However, there was some variation within migrants: whereas Kyrgyz were no different from Tajiks, Uzbeks appeared more likely than Tajiks to be sure that their partners had no outside sexual relationships, even though the difference between the two groups was only marginally significant ($p<.10$). A marginally significant difference in the same direction also existed between Uzbeks and Kyrgyz (not shown).

Table 4 about here

We then fit models in which the outcome is whether or not a respondent ever refused to have sex with her regular partner when he wanted to have sex in the past twelve months (4.B). Native women were significantly more likely to have refused having sex, compared to migrant women. However, the migrants-only model shows a substantial difference between Tajiks, on the one hand, and the two groups, on the other, even after controlling for a host of other factors: all other things equal, Tajiks were significantly less likely to report having refused sex to their regular partners then either Uzbeks or Kyrgyz. Moreover, there was a highly significant difference between the latter two groups, with Kyrgyz being more likely to have refused having sex with their regular partner when he wanted to have sex (not shown). These results point to important differences in the gender power balance in partnerships among different ethno-provenance groups, which can be potentially consequential for HIV/STI risks, and therefore call for further investigation.

Next, we fit two logistic regression models predicting whether the current regular partner with whom the respondent had sex in the past twelve months would accept condom use, as reported by respondents (the corresponding question was asked only of women who never used condoms with their regular partners; in the cases of respondents who have already used condoms with their regular partners we consider that partners would accept condom use if asked). The results are presented in Panel C of Table 4. The model contrasting natives and migrants shows that the partners of the former are significantly more likely to accept condom use that those of the latter. When we look at migrant women only, Uzbek women are significantly different from the reference group, suggesting that the partners of Uzbek women would be less likely to accept condom use than those of Tajik women (the difference between Uzbeks and Kyrgyz is not statistically significant). These results point to a potential disadvantage of migrant women in negotiating safer sex with their partners but also to non-negligible differences within the migrant population that require further exploration.

Finally, we look at the likelihood of consistent condom use in vaginal sex with regular partner for the sole or partial purpose of HIV/STI prevention in the four weeks preceding the survey (Table 4.D). This analysis is limited to couples who had vaginal sex in that time period. The model contrasting natives and migrants detects no difference. However, the second model, in which migrants are considered separately from natives, confirms the sharp difference between Tajiks and the other two groups first detected in the bivariate explorations. Even after accounting for a host of other factors, including the type of partnership (registered or not) and trust in partner's fidelity, Tajiks had considerably higher odds of consistently using condoms than other Central Asian women. We do not have a ready explanation for this result and intend to investigate this ethnic difference further.

The two models presented in Table 5 examine worries about contracting HIV among respondents who were sexually active in the twelve months preceding the survey. Again, two logistic regression models are fitted. The result of the first model show no net statistically significant difference between natives and migrants; however, within the migrant subsample, Tajiks again stand out, as they were significantly less like to worry about risks of HIV than either of the other two groups, net of other factors included in the model. We experimented with different specifications of the models, including several additional controls, but the difference between Tajiks and other Central Asians remained statistically significant (not shown). This result is intriguing and requires further investigation.

Table 5 about here

Finally, the second section of Table 5 presents the results of a logistic regression that models the probability of having had an HIV test in the two years preceding the survey interview. As can be recalled from Table 2, native women had a larger share of those who had taken an HIV test during that time span. The multivariate test confirms the natives' advantage over migrants, as the latter were significantly less likely to have ever taken an HIV test. However, when we look at specific groups of migrants and exclude natives, significant differences across the three Central Asian groups emerge. Thus, Tajik women were significantly less likely to have had an HIV test than Uzbek ones; the difference between Tajiks and Kyrgyz is in the same direction but is not statistically significant. It is also noteworthy that women working in retail and eateries, where employment typically is more formalized and might include an HIV test as a prerequisite, were more likely to have had an HIV test than women working in bazaars. Education has no net association with the probability of having ever done an HIV test. Interestingly, income has a significant positive effect only in the model restricted to migrants. In that model, being a Russian citizen also significantly increases the odds of having taken an HIV test.

Insights from in-depth interviews

In-depth interviews offer insights into migrants' women sexual lives and risks. Thus, monogamous and faithful partnerships were seen as ideal for many reasons, including for preventing the risks of HIV/STI. As a Kyrgyz woman said, "I tried to keep [sexually transmitted] infection at bay. I also choose, I don't sleep with anyone, because if you do, you always get some infection. But if it is only one partner and there is no cheating, then nothing will stick to you."

The reality of sexual and marital partnerships in Russia is often very different from this idealized model. Interviewees' stories commonly describe changes in their marital relationships after arrival in Russia. An Uzbek woman told us how her marriage started to disintegrate and reached a tragic end:

> Before coming to Novosibirsk, we lived in Kursk oblast. I lived with my husband, mother-in-law and father-in-law and we worked normally… My husband deteriorated [in terms of behavior] there, started to sleep around, to betray me with girls. I gave birth to a son. He started drinking, I even think he started doing drugs, not sure. It reached a point that we almost divorced. Then he went on a drinking binge and hung himself. We buried him there.

Women note the transformative—and usually destructive—effects of the sociocultural environment as well as the economic pressures of life in Russia on their morals and relationships. A Kyrgyz woman in Moscow described this process:

> I see a lot of my countrywomen, they come here, young, and change right away. They change, they probably think that it's far, it's in Moscow, no one will see, no one will hear, and they… become dissolute and vulgar… they don't behave this way back home… At home, [all the norms] are followed… And the married ones change a lot too. Their husbands stay there [in the home country], and they drink, smoke, and sleep around a lot. If they were from the city, they wouldn't do that. But it is those who come from mountainous villages, from regions, and think that everything is permitted to them. If Russians do that, then it is ok

for them to do that too… Those who come here with husbands, 50-60% divorce after living in Moscow. It is because of living conditions, I think, because there is no place to talk, to interact normally, no place to sleep [i.e., to have sex]. That's why marriages fall apart.

Migrant women, anxious to establish lasting partnerships, are often willing to tolerate mistreatment on the part of their partners in hopes that their relationship will evolve into a stable union. A Tajik informant told us about a friend of hers, a young woman from her country:

She graduated from secondary school this year and came to Moscow. She met a boy here, he was fourteen years her senior. He promised to marry her and she agreed to live with him. She thought he would soon marry her, but he always deceives her, doesn't want to get married, and they have already had sex life for a year. Poor thing, she hopes he'll marry her. None of her relatives know that she lives with that boy, she lied to them, said that she lives with a cousin. She always cries, doesn't know what to do.

Due to entrenched cultural norms, migrant women are reluctant to exit partnerships with abusive and unfaithful men. Thus a Tajik informant told us that upon learning that her husband was having a relationship with another woman (also married), she tried to persuade her husband to stop that relationship, but despite all her efforts, he continued to see that woman.

Some interviewed women have accepted the reality of relative sexual freedom in the host environment and the seeming inevitability of multiple sexual partnerships but allay their worries about contracting HIV/STIs with a conviction that consistent condom use will protect them from these infections. This seems particularly true of Kyrgyz women, who typically come from less traditional, religious backgrounds than Tajiks or Uzbeks. Here is a story of one of them:

Of course, there is a worry [to contract HIV or STI), that's why always use condoms. I am not the only one [partner of men I have sex with], and moreover men may have 5-6 girls, how can you trust them?.. Every woman should have a head on her shoulders. For example, if I want, I will have 4-5 men, if I don't, I will have only one—it all depends on me. I don't sleep around, don't drink, I work and on weekends I see [men] because I am grown-up woman. Every woman should have her brains, I think. For me, for instance, it is normal if I see three-four-five [men]—it is normal, I know what I am doing, it is all temporary.

Notes from providers' interviews

Providers' interviews shed additional light on the nature and structure of HIV/STI-related risks. Not surprisingly, the risks of STIs are highest among younger women. A Moscow gynecologist observed: "Young people are the ones who mainly get infected…They don't know how to protect themselves from STIs… And they don't get treated [from STIs]. They buy pills, take them, soothe the process, and go on… It's a very serious problem…" An interviewed physician in Novosibirsk linked high risks of STI among Central Asian women to marriage: "A lot of Kyrgyz and Uzbek women seek our services. One problem is early marriage. I think they get a lot of infections through marriage. Because their husbands do not get examined… Among newcomers [приезжие], sexual risks are linked primarily to husbands."

The following observation by a Moscow gynecologist further explained how STIs are contracted and detected among migrants:

> There are a lot sexually transmitted infections [among migrant women]… Especially among young people. They don't use protection. Probably, back home [in Central Asia] everyone is strict, but when they come here, they start doing god knows what. One with another, the other one with someone else, sleep around without protection and that's it… Often times, a young woman comes to us saying she can't get pregnant. In our [culture] they blame the wife, that she is sterile. We tell her to bring her husband… [When tested for STIs] it turns out that the wife has such and such infection. And they [men] are afraid that she finds out that he's been unfaithful. But we explain that the man got it before marriage… And some sleep around after marriage too.

Importantly, the interviews with physicians point to connections between migrants' women reproductive health and sexual risks. STIs, especially in the absence of clear symptoms, are typically detected during prenatal and other reproductive health-related medical consultations and examinations. Likewise, gynecological consultations are among the few opportunities that migrant women migrant have for counseling on STI/HIV prevention.

Preliminary conclusions and next steps

The preliminary results presented here point to diversity of experiences and attitudes related to HIV/STI both between migrants and natives and among migrants of different backgrounds. The inclusion of a control group of native women working in the same industries and comparable occupations helps to highlight the specifics of migrants' risks. Thus, supporting our hypothesis, the results show that native women typically have more sexual partners than do migrant women. As we reasoned, native women's higher average number of partners fits with a more permissive sexually culture in which they are brought up. Therefore, we argue, native women are generally better prepared to navigate potential risks stemming from multiple or unstable sexual partnerships. We interpret the results presented in Table 4 as generally supportive of our assumption that native women are more likely than their migrant counterparts to engage in more gender-egalitarian relationships, in which male partners' infidelity may be less likely or, at least, women may have a greater ability to exit a relationship when they suspect their partners of outside sexual ties and/or think that their partners' outside ties put them at a greater risk of an STI. Central Asian migrant women typically come from more traditional backgrounds, with both more limited sexual freedom and more restricted woman's agency in sexual partnerships. These cultural norms, while potentially protective in the context of migrants' origin, can become ineffective or even counter-effective in the Russian context, preventing migrant women from adequately assessing their risks and from taking actions to minimize them either by negotiating their partnerships or exiting partnerships that cannot be effectively negotiated.

The results also point to native women's advantage in access to health care. Thus, in line with our expectations, we found that native women were more likely to have recently taken an HIV test and that within the migrant subsample, recent HIV testing was more likely among Russian citizens, regardless of other factors. Qualitative data further highlight barriers in migrants' access to professional medical care and the implications of these barriers for migrants' sexual and reproductive health.

Yet, the detected variations across the subgroups of migrants call for a more refined assessment of migrant women's HIV-related risks. Most intriguing is the apparent contrast between Tajiks and the other two groups on a number of examined dimensions. Because there are no reasons to suspect that reporting and recording quality during survey interviews varied

systematically across the groups, we propose to look for keys to these differences in group-specific ethnocultural characteristics and migration experiences. This further investigation, which will be carried out as we ready the paper for the PAA annual meeting, will take full advantage of the rich data at hand and expand the scope of analysis to examine concurrency of sexual partnerships, experience of STIs and their treatment, and multiple strategies for reducing sexual risks, among other issues. A more thorough analysis of the qualitative data is expected to further illuminate these complex processes and relationships.

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Table 1. Survey sample demographics

Site/sector	Ethnicity/provenance				ALL
	Kyrgyz	Tajik	Uzbek	Native	
Age (mean)					
All	29	30	31	30	30
Moscow	29	31	32	30	30
Novosibirsk & Yekaterinburg	29	29	29	30	29
Regular partner, married or unmarried (%)					
All	63	71	71	70	69
Moscow	64	75	73	66	69
Novosibirsk & Yekaterinburg	61	64	68	76	67
Some university education (%)					
All	46	22	14	39	31
Moscow	53	23	13	39	32
Novosibirsk & Yekaterinburg	37	22	17	40	29
Total personal monthly income, RUR (mean, rounded to 1000)					
All	24000	18000	18000	23000	20000
Moscow	25000	20000	18000	30000	22000
Novosibirsk & Yekaterinburg	20000	15000	17000	16000	16000
Number of other people sleeping in the same room as her (mean)					
All	3.9	2.8	2.8	1.1	2.6
Moscow	5.0	3.4	3.5	1.1	3.2
Novosibirsk & Yekaterinburg	2.2	1.9	1.8	1.1	1.8
Years continuously lived in current city, mean					
All	2.8	3.8	2.9	7.3	4.2
Moscow	2.2	3.6	2.4	6.5	3.8
Novosibirsk & Yekaterinburg	3.5	4.1	3.5	8.5	4.9
Has at least one close adult kin living elsewhere in same city (%)					
All	69	92	60	76	74
Moscow	70	97	59	70	74
Novosibirsk & Yekaterinburg	68	84	61	84	74
Years continuously lived in Russia, migrants only, (mean)					
All	3.0	3.9	3.0	n/a	3.3
Moscow	2.4	3.6	2.5	n/a	2.9
Novosibirsk & Yekaterinburg	3.9	4.4	3.7	n/a	4.0
RF citizen, migrants only (%)					
All	42	19	11	n/a	24
Moscow	34	6	3	n/a	14
Novosibirsk & Yekaterinburg	54	38	22	n/a	38

Table 2. Sexual behavior and risks, descriptive statistics

Site/sector	Ethnicity/provenance				ALL
	Kyrgyz	Tajik	Uzbek	Native	
Number of sexual partners in past 12 months, mean (of those who had sex in past 12 months, n=652)					
All	1.4	1.0	1.2	1.7	1.3
Moscow	1.5	1.0	1.2	1.7	1.4
Novosibirsk & Yekaterinburg	1.1	1.1	1.1	1.6	1.3
Had sex while inebriated in past 4 weeks, % (of those who had sex in past 4 weeks, n=564)					
All	34	4	4	34	22
Moscow	43	0	8	30	20
Novosibirsk & Yekaterinburg	21	10	17	38	24
Trusts that regular partner is faithful, % (of those with a regular partner, n=645)					
All	48	48	65	71	58
Moscow	37	44	66	65	53
Novosibirsk & Yekaterinburg	66	54	62	80	66
Thinks that regular partner would accept condom use, % (of those in sexually active regular relationship, n=565)					
All	43	52	37	64	50
Moscow	33	46	17	63	40
Novosibirsk & Yekaterinburg	60	63	68	66	65
Refused to have sex with regular partner at least once in past 12 months, % (those who had sex with regular partner at least once in past 12 months, n=562)					
All	63	33	46	55	50
Moscow	61	33	24	46	41
Novosibirsk & Yekaterinburg	65	32	77	67	63
Consistent condom use with regular partner in past 4 weeks, % (those who had sex in past 4 weeks, n=486)					
All	8	22	9	14	13
Moscow	8	28	0	11	12
Novosibirsk & Yekaterinburg	9	11	20	17	15
Very or somewhat worried about contracting HIV, % (of those who had sex in past 4 weeks, n=564)					
All	53	32	55	45	47
Moscow	52	41	60	43	49
Novosibirsk & Yekaterinburg	54	15	48	47	43
Had an HIV test in last two years , %					
All	52	34	56	60	51
Moscow	72	21	60	65	54
Novosibirsk & Yekaterinburg	23	53	49	53	45

Table 3. Number of sexual partners and sex while inebriated, Poisson regression and logistic regression parameter estimates

Predictors and controls	A. Number of sexual partners in past 12 months		B. Had sex while inebriated in past 4 wks (those who had sex in past 4 wks)	
	All	Migrants	All	Migrants
Native	0.582 **		0.629 *	
Kyrgyz		0.610 **		3.024 **
Uzbek		0.521 **		2.255 **
RF citizen		0.090		0.574
In registered marriage			-0.885 **	-1.188 **
Moscow	0.140 +	0.263 *	-0.121	0.399
Works in retail	-0.230 **	-0.228 *	-0.871 **	-0.832 *
Works in eatery	-0.151 +	-0.250 *	-0.906 **	-0.505
Some university education	0.180 **	0.074	0.264	0.167
Total personal monthly income (in 1000 RUR)	0.004 **	0.003	0.020 **	0.030 +
Number of other people sleeping in same room	-0.006	-0.002	0.119 +	0.025
Number of years lived in current city	0.018	0.031 +	0.068 +	0.110 +
Has close adult kin living elsewhere in city	-0.048	0.019	0.074	0.249
Age	0.007	0.020 **	-0.046 *	-0.055 +
Intercept	-0.621 **	-1.588 **	-0.491	-3.135 **
Number of cases	940	693	562	389

Notes: Reference categories: Migrant, Tajik, non RF citizen, not in registered marriage, Novosibirsk or Yekaterinburg, works in bazaar, secondary school or less education, no close kin in city. Significance levels: ** <.01, * <.05, + <.10.

Table 4. Relationship with current permanent partner, logistic regression and parameter estimates

Predictors and controls	A. Trusts that partner is faithful		B. Refused sex with partner (those sexually active with permanent partner)		C. Partner would accept condom use		D. Consistent condom use with partner to prevent STD	
	All	Migrants	All	Migrants	All	Migrants	All	Migrants
Native	0.724 **		0.587 *		0.478 *		-0.555	
Kyrgyz		-0.035		1.341 **		-0.523		-0.708
Uzbek		0.459 +		0.607 *		-0.702 *		-1.046 *
RF citizen		-0.045		-0.160		-0.108		-1.037 +
Age	-0.034 *	-0.050 **	0.006	0.006	-0.005	-0.027	0.021	0.028
In registered marriage	1.066 **	1.236 **	0.161	0.084	-0.509 **	-0.694 **	-1.084 **	-0.880 *
Moscow	-0.178	-0.077	-1.026 **	-0.860 **	-1.009 **	-1.380 **	0.177	-0.270
Works in retail	0.384 +	0.301	-0.491 *	-0.835 **	-0.228	-0.498 +	0.022	0.059
Works in eateries	0.194	0.314	-0.654 **	-1.103 **	0.010	-0.432	0.542	0.400
Some university education	0.158	0.367	0.194	0.068	0.264	0.302	0.301	0.386
Total personal monthly income (in 1000 RUR)	-0.016 *	-0.012	0.012 +	0.007	0.009	0.005	-0.001	0.002
Number of other people sleeping in same room	-0.140 **	-0.154 **	0.052	-0.015	-0.073	-0.047	-0.068	-0.013
Number of years lived in current city	0.029	0.043	-0.059 +	-0.030	0.022	0.047	0.093 +	0.148 *
Has close adult kin living elsewhere in city	-0.055	0.092	-0.145	-0.100	0.087	-0.103	-0.280	-0.215
Trusts that partner is faithful							-0.180	0.212
Intercept	1.172 *	1.103 +	0.399	0.134	0.670	2.373 **	-2.431 *	-2.535 +
Number of cases	642	471	561	393	564	394	480	330

Notes: Reference categories: Migrant, Tajik, non RF citizen, not in registered marriage, Novosibirsk or Yekaterinburg, works in bazaar, secondary school or less education, no close kin in city, suspects that partner is unfaithful or not sure. Significance levels: ** <.01, * <.05, + <.10.

Table 5. HIV worries and HIV testing, logistic regression parameter estimates

Predictors and controls	C. Worries about getting HIV (those sexually active in past 12 mos.)				D. Had HIV test in past two years			
	All		Migrants		All		Migrants	
Native	-0.033				0.892	**		
Kyrgyz			1.144	**			0.327	
Uzbek			1.128	**			0.956	**
RF citizen			-0.367				0.471	*
In registered marriage	-0.756	**	-0.786	**	0.298	*	0.326	+
Moscow	0.100		0.226		0.100		0.080	
Works in retail	0.040		0.153		0.929	**	0.886	**
Works in eatery	0.041		0.107		1.064	**	1.219	**
Some university education	-0.310	+	-0.486	+	0.119		0.145	
Total personal monthly income (in 1000 RUR)	-0.002		0.003		0.003		0.026	**
Number of other people sleeping in same room	0.130	**	0.106	+	0.085	*	0.095	*
Number of years lived in current city	0.007		0.038		-0.028		-0.056	
Has close adult kin living elsewhere in city	0.197		0.473	*	-0.299	+	-0.227	
Age	-0.040	**	-0.045	*	-0.003		-0.022	
Intercept	1.041	*	0.029		-0.893	*	-1.409	**
Number of cases	651		427		940		693	

Notes: Reference categories: Migrant, Tajik, non RF citizen, not in registered marriage, Novosibirsk or Yekaterinburg, works in bazaar, secondary school or less education, no close kin in city. Significance levels: ** <.01, * <.05, + <.10.