



TRAC SUMMARY REPORT PSI DASHBOARD

CENTRAL ASIAN REPUBLICS (2010): HIV AND TB TRAC STUDY EVALUATING RISK BEHAVIOURS ASSOCIATED WITH HIV TRANSMISSION AND UTILIZATION OF HIV PREVENTION SERVICES AND HIV/TB CO-INFECTION PREVENTION AMONG FEMALE SEX WORKERS ROUND ONE

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Bottom Line Health Impact * Private Sector Speed and Efficiency * Decentralization, Innovation,
and Entrepreneurship * Long-term Commitment to the People We Serve

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Central Asia Republics (2010): HIV and TB TRaC study evaluating risk behaviours associated with HIV transmission and utilization of HIV prevention services and HIV/TB co-infection prevention among SWs in Karaganda and Almaty (Kazakhstan), Chui Oblast (Kyrgyzstan), Dushanbe, Vahdat District, Kurgan-tube, Kulyab (Tajikistan). First Round.

PSI Research Division
2010

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Suggested citation of this work:

PSI Research & Metrics, "HIV and TB TRaC study evaluating risk behaviours associated with HIV transmission and utilization of HIV prevention services and HIV/TB co-infection prevention among SWs" PSI Social Marketing Research Series, (2010)
<<http://www.psi.org/resources/publications>>.

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ACRONYMS

ANOVA	Analysis of variance
MARPs	Most at-risk populations
MDR-TB	Multidrug-resistant TB
SW	Sex workers
PSI	Population Services International
TLS	Time-Location sampling
TB	Tuberculosis
TRaC	Tracking Results Continuously
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

SUMMARY

Background & Research Objectives The HIV/AIDS epidemic in Eastern Europe and Central Asia (CAR) is still described as the fastest growing HIV/AIDS epidemic in the world. Annual numbers of newly reported HIV diagnoses are rising across CAR with the exception of Turkmenistan, which reports zero HIV cases. Driven primarily by injecting drug use, high rates of HIV infection can be observed among MARPs along the drug trafficking routes that run from Afghanistan through Tajikistan, Uzbekistan, the Kyrgyz Republic, and Kazakhstan.

The common overlap between sex work and injecting drug use further facilitates the spread of HIV in the region. The number of sex workers in Eastern Europe and Central Asia countries has risen dramatically in recent history. This is due to social, economic and political changes that led many to turn to sex work as a means of income. Levels of sexually transmitted infections are high, suggesting that few sex workers are practicing safer sex. This raises concerns that HIV could become more common among sex workers in coming years (UNAIDS, 2006).

These four countries also report epidemic levels of TB among their general populations, above 110 cases per 100,000, reaching 231 in Tajikistan. Multidrug-resistant TB (MDR-TB) has become a serious problem. According to the Fourth Global Report on Anti-Tuberculosis Drug Resistance Surveillance, Tajikistan and Kyrgyzstan have the third and sixth highest proportions of MDR-TB cases in the world, 16.0 and 14.7 percent, respectively, of newly diagnosed cases. Almost all Central Asian countries are below the WHO targets for case detection rates and treatment success rates.

PSI/CAR is implementing a 5-year USAID Dialogue on HIV and TB Project targeting MARPs (IDUs, FSWs, MSM, migrants, prisoners and PLWH) in four countries of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan). The purpose of the project is to reduce risk behaviors associated with HIV transmission and to increase the utilization of HIV and TB treatment services among MARPs through high-targeted quality outreach to vulnerable groups including incentive-based motivational interviewing, evidence-based communications materials and building upon existing services and structures and using a high coverage social marketing (SM) strategy to increase access to and availability of condoms as well as TB treatment.

Methodology

A total of 881 SW were surveyed using Time-Location Sampling, where the primary sampling unit (PSU) was various locations where sex workers congregate (streets, bars, saunas, hotels and some discos); locations corresponded to programmatic area. The initial mapping of locations was carried out in January and February 2010 by BISAM research agency, with direction from PSI. The survey was implemented in 4 cities and 2 oblasts in Kazakhstan, Kyrgyzstan and Tajikistan: (Almaty city and Karaganda city in Kazakhstan; Chui oblast and Osh oblast in Kyrgyzstan; and Dushanbe and Kulyab in Tajikistan) during March-April 2010. The survey used 2 stage cluster sampling and PSUs were selected using probability proportionate to size.

Analysis was performed with SPSS 16. The segmentation table produced was based on logistic regression analyses. Explanatory variables (i.e., OAM perceptions, demographic characteristics) which significantly contribute to the explanation of the variance in the behavior of interest (i.e., consistent clean needle use and condom use) were identified.

Odds ratios are reported for each significant explanatory variable. Analysis of variance (ANOVA) was employed to estimate the adjusted means or proportions of each explanatory variable by the behavior of interest.

Main Findings

- ***The monitoring table on drug use highlights that:***
 - (1) Over 70% of SWs in Kazakhstan and Kyrgyzstan and more than 86% in Tajikistan reported having consumed alcohol during the last month. However, drug injection rates seem not so high across all three countries (2.8% in Kazakhstan, 8.7% in Kyrgyzstan, 12.6% in Tajikistan). Sharing needles/syringes is found to be very high in Tajikistan (43.4%) compared to Kazakhstan (10.0%) and Kyrgyzstan (13.1%). Sharing injecting equipment was reported by 26.1% in Kyrgyzstan, 20.0% in Kazakhstan and 13.8% in Tajikistan.
 - (2) A high proportion of drug using SWs in Tajikistan and Kyrgyzstan said that they provide sexual services in exchange for drugs (66.7% in Tajikistan, 75.0% in Kyrgyzstan, and 30.0% in Kazakhstan).
 - (3) Most of drug using SWs in Kazakhstan and Kyrgyzstan know where to get detoxication services (90.0% and 73.9% respectively), whereas only the third of SWs in Tajikistan could say the same. However none in Kyrgyzstan used this service. Very low percentage in Kazakhstan and Kyrgyzstan used rehabilitation services (10.0% and 8.7% respectively).

- ***The monitoring table on consistent condom use and STI highlights that:***
 - (1) In Kazakhstan and Kyrgyzstan, the percentage of respondents who consistently used condoms at vaginal and anal sexual intercourse was highest with commercial partners (94.4% and 90.9%), lower with casual partners (80.3% and 74.6%), and lowest with regular partners (52.4% and 54.8%).
 - (2) Among respondents in Tajikistan, consistent condom use was quite low with all types of partners: regular (5% only), casual (37.1%), and commercial (69.1%). However, the mean numbers of casual and commercial partners per year in Tajikistan were much higher (25.1 and 703.0 respectively) than the means in Kazakhstan (2.8 of casual and 617.2 of commercial partners) and Kyrgyzstan (6.2 of casual and 529.9 of commercial partners).
 - (3) Consistent condom use during oral sex was generally low across all three countries.
 - (4) A small proportion of respondents in Tajikistan used a condom from start to finish with the most recent sexual partner (32.2%) compared to Kyrgyzstan (84.2%); and Kazakhstan (85.7%).
 - (5) More than a half of SW in Tajikistan suspected or had STI during the last 12 months.
 - (6) SW across all three countries reported a significant number of STI episodes per person in the last 12 months (2.5 times/year/person in Kazakhstan, 3.6 times/year/person in Kyrgyzstan and 2.9 times/year/person in Tajikistan).
 - (7) The proportion of those who practiced self-treatment is comparably high in all three countries, although the most SW are aware of the location of specialized STI services.
 - (8) The availability of condoms was reported to be quite high across all three countries (mean score in all three countries is higher than 3.0).
 - (9) Knowledge of **correct** HIV transmission routes was high in the three countries. There were, however, notable misconceptions on **incorrect** ways of HIV transmission. Thus, only 26.1% of SWs in Tajikistan knew that HIV **cannot be**

transmitted by sharing utensils or food with an infected individual, 37.6% - through kissing and 21.1% through mosquitoes. Kazakhstan and Kyrgyzstan showed comparably higher level of knowledge of incorrect ways. On the other hand, only 75.1% of respondents in Tajikistan, 79.3% in Kazakhstan and 87.6% in Kyrgyzstan noted that HIV can be transmitted from a single sexual act. In overall, a very low proportion of SWs across all three countries could correctly answer to all HIV transmission related questions.

(10) Attitudes towards condom use with partners were particularly poor in Kyrgyzstan and Tajikistan (2.3 and 2.0, respectively). Attitudes towards condom use were more positive in Kazakhstan (2.9).

- ***The monitoring table on VCT utilization highlights that:***

- (1) Only 41.9% of SWs in Tajikistan were tested for HIV during the last year (41.9%). The proportion of those who got tested in Kazakhstan and Kyrgyzstan was higher (74.8% and 61.1% respectively).
- (2) A low proportion of SWs in Kyrgyzstan received counseling at the place of HIV test (42.0%), whereas the percentage of those who received this service was higher in Tajikistan (95.2%) and Kazakhstan (79.6%).
- (3) A low proportion of SWs in Kazakhstan and Kyrgyzstan disclosed the results of the test to their partners (38.9% and 38.4% respectively).
- (4) Perceived availability of VCT services was higher in Kazakhstan (3.6) and Kyrgyzstan (3.4) compared to Tajikistan (2.7). Intentions to get tested for HIV in the next 12 months were lower in Tajikistan (2.4) than in Kazakhstan (3.3) and Kyrgyzstan (3.2).
- (5) Social norms for HIV testing were comparably low in all three countries. Thus, the mean score of the construct scale on social norms was 2.8 in Kazakhstan, 2.9 in Kyrgyzstan and 2.3 in Tajikistan, whereas the social support from the regular partner was 2.2 in Tajikistan, 2.7 in Kyrgyzstan and 3.0 in Kazakhstan.
- (6) The respondents across all three countries noted that HIV disclosure to partners, friends, and family members is not so common among SWs. Thus, the mean score for the social norms for HIV status disclosure was 2.4 in Kazakhstan, 2.7 in Kyrgyzstan and 1.8 in Tajikistan. This is replicated in the other determinant - "self-efficacy": SWs are not sure that they will reveal their status (both positive and negative) to their partners or family members (2.4 and 2.1 in Kazakhstan, 2.6 and 2.5 in Kyrgyzstan and 2.0 and 1.6 in Tajikistan). However, they are more confident in disclosing the status to doctors (3.5 in Kazakhstan, 3.4 in Kyrgyzstan and 2.8 in Tajikistan).

- ***The monitoring table on TB testing and treatment highlights that:***

- (1) A particularly small proportion of SWs across all three countries have been tested for TB, particularly in Tajikistan (6.9% only).
- (2) Most of SWs in Kazakhstan and Kyrgyzstan were very likely to know where a TB testing facility is (77.9% and 79.3% respectively) but only 40.6% in Tajikistan knew of such a facility.
- (3) Awareness of the fact that TB treatment is free was low in all three countries (only 66.0% in Kazakhstan, 39.2% in Kyrgyzstan and 10.3% in Tajikistan consider that TB related treatment is free of charge).
- (4) Likewise, 88.1% of respondents in Kazakhstan, 63.7% in Kyrgyzstan and only 37.3% in Tajikistan felt they could get proper TB treatment.

- (5) A low proportion of respondents in all three countries felt at risk of getting infected with TB (41.1% in Kazakhstan, 29.5% in Kyrgyzstan, 29.0% in Tajikistan).
 - (6) Lower proportion of SWs in Tajikistan felt they could reveal their diagnosis to friends/partners (38.2%) and relatives (68.1%), if TB is detected, compared to Kazakhstan (54.1% and 85.6%) and Kyrgyzstan (51.2% and 71.4%).
 - (7) The overall knowledge related to TB transmission routes and treatment was low across all three countries. Misconceptions were mainly about TB transmission through sharing food and shaking hands with someone. Moreover, a sizable proportion did not know that TB is curable if treated correctly and on time (only 50.2% in Tajikistan and 75.9% in Kyrgyzstan could correctly answer compared with 92.4% in Kazakhstan).
- **The monitoring table on exposure highlights that:**
 - (1) Many SWs in all three countries received free condoms. Most of them received condoms from outreach workers or peer educators;
 - (2) Many SWs in all three countries participated in long (an hour or more) educational sessions on HIV (43.5% in Kazakhstan, 38.0% in Kyrgyzstan and 37.2% in Tajikistan), mostly through outreach workers; a high proportion of SWs in all three countries received IEC on HIV (73.7% in Kazakhstan, 57.0% in Kyrgyzstan and 50.6% in Tajikistan);
 - (3) A low proportion of SWs in all three countries participated in long (an hour or more) educational sessions on TB (14.6% in Kazakhstan, 16.2% in Kyrgyzstan and 14.2% in Tajikistan); a low proportion of SWs in all three countries received IEC on TB (20.5% in Kazakhstan, 22.6% in Kyrgyzstan and 10.7% in Tajikistan); And not many SWs received counseling services on TB related issues (20.0% in Kazakhstan, 22.1% in Kyrgyzstan and 10.6% in Tajikistan).
 - **The results of segmentation analysis on Condom use from start to finish with the last client indicate that:**
 - (1) SWs, who are competent in using condoms and confident in negotiating with their partners about condom use, were 2.81 times more likely to have used condoms with the last client from the beginning to the end of the sexual intercourse.
 - (2) SWs, who had high knowledge of correct and incorrect ways of HIV transmission, were 2.30 times more likely to have used condoms with the last client from the beginning to the end of the sexual intercourse;
 - (3) SWs were less likely to use a condom if they consumed alcohol (OR=0.55). Thus, about 72% of those practicing safe sex reported using alcohol. The respective percentage for non-behaviors was 80.6%.
 - **The results of segmentation analysis on Being tested for HIV indicate that:**
 - (1) SWs are more likely to have been tested for HIV in the past 12 months if they knew where to get VCT services (OR = 1.67).
 - (2) SWs are more likely to have been tested for HIV if they are confident that they will get tested whenever required (OR = 2.16).
 - (3) SWs are more likely to have been tested for HIV if they had high knowledge of correct and incorrect ways of HIV transmission routes (OR=1.96).
 - (4) SWs, who have high risk perception are 1.62 times more likely to have been tested for HIV.

- (5) SWs, who intended to get tested, were 1.62 times more likely to have been tested during the last 12 months.

Programmatic Recommendations

Drug Use, Sharing Injecting Equipment and Use of Medical Services

- Although a small number of SWs use narcotic substances, including injecting drugs, the program should continue efforts in increasing positive practices revolving around drug injection (both needle and equipment sharing). This could be accomplished both through counseling and mini-sessions, but particular emphasis should be placed on peer-to-peer messages/positive modeling.
- The messaging should also emphasize consequences of alcohol consumption and programmatic interventions can be focused on increasing the availability and accessibility of SWs to drug related medical services (detoxiation, rehabilitation and substitution therapy).

Consistent condom use and STIs

- The program should seek to strengthen self-efficacy by focusing on the improvement of the SWs' skills in proper utilization of condoms and ability to negotiate for the use of condom with partners through role-plays, IPC, peer-to-peer outreach.
- The program should also focus on increasing the knowledge of HIV and STI through peer-to-peer outreach, sessions and mini-sessions, IEC, edutainment events. This will also promote the reduction of stigma/discrimination about the people at risk with HIV.
- The program should increase messaging about the need to seek treatment from professional STI services rather than practicing self-treatment.

Voluntary Counseling and Testing

- The program should seek to increase knowledge of the availability of VCT testing facilities among SWs through peer-to-peer outreach, mini-sessions, counseling and IPC materials (which contain printed, easy to use maps for VCT testing facilities).
- The program should focus on messaging that imparts the need for regular HIV testing among this high risk group and seeks to reduce stigma/discriminations about the people at risk for HIV and who are tested for HIV.
- VCT service utilization can be increased by continuing efforts to strengthen the referral system and improve the social escort.
- The program also needs to focus on improving the capacity of service providers (VCT consultants) and outreach workers.

TB Testing

- The program should seek to improve perceptions/knowledge of TB testing availability among SWs through peer-to-peer outreach, mini-sessions, counseling and IPC materials (which contain printed, easy to use maps for TB testing facilities).
- The program should increase messaging about the need for regular TB testings (including stigma and discrimination reduction) and knowledge about TB and TB systems among SWs.

MONITORING TABLE 1
Drug Use and Sharing of Injecting Equipment among Female Sex Workers, Central Asia, 2010
Risk Group: Female Sex Workers in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)
Behavior: Drug Use and Sharing Injecting Equipment

INDICATORS	Total April/ 2010 N=879	Tajikistan April/ 2010 N=261	Kyrgyzstan April/ 2010 N= 265	Kazakhstan April/ 2010 N=353
BEHAVIOR/USE				
DRUG USE BEHAVIOR	%	%	%	%
Has used <i>alcohol</i> during the last month (N=879)	75.2	86.1	70.5	70.6
Has used <i>club drugs</i> (ecstasy) during the last month (N=879)	1.6	2.7	1.9	0.6
Has used <i>marijuana</i> during the last month (N=879)	11.0	26.0	3.1	5.7
Has used <i>heroin</i> during the last month (N=879)	3.6	9.3	1.9	0.6
Has used <i>opium</i> during the last month (N=879)	0.2	0.8	0.0	0.0
Has ever injected drugs (N=879)	7.5	12.6	8.7	2.8
INJECTING BEHAVIORS	%	%	%	%
Used a needle that had been used by another at last injection ☹ (N=66) – DU	25.8	43.4	13.1	10.0
Shared injecting equipment (spoon, cup, cotton, filter, rinsing water) at last injection ☹ (N=66) – DU	19.4	13.8	26.1	20.0
INJECTING RELATED RISK BEHAVIOR	%	%	%	%
Mean age of first injection (years) (N=66) – DU	21.5	21.4	21.1	22.6
Was helped by someone when first injected (N=66) – DU	84.9	97.0	73.9	70.0
Was helped by a <i>friend</i> when first injected (N=66) – DU	30.4	12.5	64.7	28.6
Was helped by an <i>acquaintance</i> when first injected (N=66) – DU	21.4	15.6	29.4	28.6
Was helped by a <i>partner</i> when first injected (N=66) – DU	16.1	18.8	5.9	28.6
Was helped by a <i>drug seller</i> when first injected (N=66) – DU	32.1	53.1	0.0	14.3
Has sex in exchange of drugs (N=66) – DU (means)	2.41	2.0	2.5	3.4
Sells sex to support his/her drug use (N=66) – DU	62.7	66.7	75.0	30.0
UTILIZATION OF MEDICAL SERVICES (Of those who have ever injected drugs)	%	%	%	%
Knows where to seek drug detoxification and rehabilitation treatment services ☹ (N=66) – DU	54.7	29.0	73.9	90.0
Knows where to seek substitution therapy services (N=66) – DU	35.0	14.3	52.2	55.5
Would use substitution services if they were available (N=66) – DU	37.7	24.1	52.2	44.4
Has ever been treated at a detoxification treatment service (N=66) – DU	21.4	43.5	0.0	20.0
Has ever been treated at a rehabilitation treatment service (N=66) – DU	19.6	34.8	8.7	10.0

¹ Injecting Drug Users among SWs (DU) constituted 7.5% for all three countries, i.e. total N=66, where
 N in Kazakhstan = 10 N in Kyrgyzstan = 23 N in Tajikistan = 33

Has ever been treated with substitution therapy (N=66) – DU	10.7	4.5	17.4	10.0
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Note:

1. All proportions or means are adjusted for socio-demographic characteristics.
2. *: p<.05; **: p<.01; ***: p<.001; NS: not significant at p=.05
3. m - mean
4. ☉ - Logframe indicator
5. For the majority of OAM (Opportunity, Ability and Motivation) factors the scale of 1 through 4 is used, unless otherwise noted. In this scale: 1 is completely disagree, 2 – disagree, 3 – agree, and 4 – completely agree. Mean scores are presented. A mean score of below 2.5 indicates that the majority disagrees with the statement and a mean score of higher than 2.5 indicates that the majority agrees. A mean score of 2.5 indicates that overall respondents neither agree nor disagree with the statement.

MONITORING TABLE 2

Consistent Condom Use and Risky Sexual Behaviors among Female Sex Workers, Central Asia, 2010

Risk Group: Female Sex workers in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)

Behavior: Consistent Condom Use, Utilization of STI Services

INDICATORS	Total April/ 2010 N=879	Tajikistan April/ 2010 N=261	Kyrgyzstan April/ 2010 N= 265	Kazakhstan April/ 2010 N=353
BEHAVIOR/USE				
SEXUAL BEHAVIOR / CONDOM USE	%	%	%	%
Mean age of first sexual intercourse	17.5	17.7	17.4	17.5
Used a condom at first sex	16.8	9.0	11.4	26.8
Used a condom with last client ☺	78.3	56.5	86.0	88.4
Used a condom from start to finish with last client	70.2	32.2	84.2	85.7
Has ever bought condoms	69.6	67.1	47.2	88.4
Has ever received free condoms	91.9	94.8	86.4	94.1
Has heard of a female condom	43.9	34.1	68.7	32.6
Has ever used a female condom	6.0	5.4	9.9	3.7
Drank alcohol with last client	49.7	47.6	50.4	50.6
Uses lubricants when having sex with clients	31.5	7.0	31.3	46.8
Regular Partner				
Had at least one regular partner in the last 12 months	71.9	94.5	58.9	64.8
Mean (median) number of regular partners in the last 12 months	1.4 (1.0)	2.1 (2.0)	1.3 (1.0)	1.0 (1.0)
Always uses a condom with regular partners during sex	34.8	5.0	54.8	52.4
Always uses a condom with regular partners during oral sex	21.4	4.6	27.3	37.2
Non-Regular Partner				
Had at least one non-regular partner in the last 6 months	56.8	85.1	49.6	40.4
Mean (median) number of non-regular partners in the last 12 months	10.0 (2.0)	25.1 (14.0)	6.2 (0.0)	2.8 (0.0)
Always uses a condom with non-regular partners during sex	60.3	37.1	74.6	80.3
Always uses a condom with non-regular partners during oral sex	37.4	9.8	64.0	63.0
Commercial Partner				
Mean (median) number of commercial partners in the last 12 months	621.6 (600.0)	703.0 (740.0)	529.9 (594.0)	617.2 (600.0)
Always uses a condom with commercial partners during sex	85.9	69.1	90.9	94.4
Always uses a condom with commercial partners during oral sex	56.2	12.5	83.9	67.7
UTILIZATION OF MEDICAL SERVICES FOR STIs				
Knows where to seek medical help for STI treatment	90.4	88.1	88.7	93.5
Has had or suspected an STI in the last 12 months	40.7	68.8	24.2	33.0
Number of suspected STI episodes in the last 12 months (of those who had or suspected an STI)	2.9	2.9	3.6	2.5
Has sought medical services for signs of an STI (of those who had or suspected an STI)	86.1	88.3	81.3	85.8
Mean number of times sought treatment for an STI	2.4	2.5	2.4	2.2
Sought treatment from				
• government hospital/clinic	35.9	36.1	40.7	33.0
• pharmacy	13.4	13.2	5.6	18.0

• polyclinic	37.6	57.6	1.9	28.0
• family medical center	4.0	4.9	9.3	0.0
• private polyclinic	16.8	0.0	22.2	38.0
• self	7.1	11.8	7.4	0.0
• traditional healer	0.3	0.7	0.0	0.0
• friend	2.4	0.7	11.1	0.0
• another source (AIDS Center or NGO)	3.0	0.7	1.9	7.0
Very/somewhat satisfied with the STI services received	82.8	85.8	70.5	84.0
Would return for future services for STIs	91.6	97.0	81.4	88.7
OPPORTUNITY	Mean	Mean	Mean	Mean
Availability				
<i>Availability: Condoms (Scaled construct)</i>	3.5	3.2	3.4	3.7
Condoms are available within 10 minutes of where I hang out	3.4	3.0	3.4	3.7
Pharmacies near where I hang out always have condoms for sale	3.6	3.3	3.5	3.8
Condoms are easily available at all times of the day	3.5	3.4	3.4	3.8
I always have a condom with me	3.5	3.2	3.4	3.7
Free condoms are available when I need them	3.3	3.3	3.1	3.5
ABILITY	%	%	%	%
Knowledge				
<i>High knowledge of HIV-related issues (14-18 answered correctly) (Index) ☺</i>	68.0	46.0	75.1	79.0
<i>High knowledge of correct and incorrect HIV transmission routes (8 or more answered correctly) (Index) ☺</i>	56.3	28.4	66.4	69.4
<i>Has no misconceptions about incorrect HIV transmission routes (Index) ☺</i>	32.2	12.3	42.6	39.1
<i>Has no misconceptions about correct HIV transmission routes (Index) ☺</i>	57.8	59.4	43.0	67.7
I can get HIV from a single sexual act	80.6	75.1	87.6	79.3
Kissing transmits HIV ®	59.0	37.6	66.0	69.7
Hugging transmits HIV ®	77.8	70.5	80.8	81.0
Sharing food or utensils transmits HIV ®	52.5	26.1	62.3	64.6
HIV can be transmitted through vaginal fluid	85.7	95.8	81.1	81.6
HIV can be transmitted through semen	87.9	95.8	86.0	83.6
HIV can be transmitted through blood	89.1	89.3	94.7	84.7
HIV can be transmitted through breast milk	73.6	77.0	61.9	79.9
HIV can be transmitted through mosquitoes ®	50.2	21.1	64.9	60.6
HIV can be transmitted by using injection needles	84.3	80.8	90.9	81.9
Having an STI (e.g., gonorrhea, syphilis, etc.) can increase the likelihood of contracting HIV	79.8	69.7	89.4	79.9
An HIV test is the only way to tell if one has HIV	76.8	65.5	82.6	80.7
The risk of catching HIV can be reduced by regularly using condoms	78.8	70.9	81.1	83.0
The transmission of HIV from mother to baby can be prevented	67.1	58.2	74.0	68.6
The risk of contracting HIV can be reduced by always using clean needles and syringes	86.1	79.7	95.1	84.1
I feel at risk of contracting HIV ☺	71.1	69.0	75.5	69.4
Healthy looking persons can be infected with STI/HIV	79.2	59.4	95.5	81.6
Unprotected sex can increase the risk of contracting HIV and STIs	87.0	82.0	95.9	84.1
Social support	Mean	Mean	Mean	Mean
<i>Social support: Emotional social support for using condoms (Scaled construct)</i>	3.4	3.0	3.5	3.6
Local health workers encourage me to use condoms	3.7	3.6	3.6	3.8

My friends support my use of condoms	3.4	3.1	3.5	3.7
My sexual partners support my use of condoms	3.1	2.3	3.3	3.4
I encourage my peers to use condoms with their sexual partners ☹	3.4	2.9	3.4	3.7
Self-efficacy				
<i>Self-efficacy: Condom use competency and negotiation (Scaled construct)</i>	3.4	2.9	3.5	3.7
I can use a condom properly such that it does not break ☹	3.5	3.4	3.5	3.7
I can use a condom even if I have consumed (drank) alcohol	3.2	2.5	3.5	3.7
I can convince a partner that we use a condom	3.5	3.1	3.5	3.8
I can convince my partner that using condoms is an indication that I care about his/her health	3.5	3.1	3.5	3.8
I am able to deny sex with a partner who refuses to wear a condom	3.3	2.8	3.4	3.7
MOTIVATION	Mean	Mean	Mean	Mean
Attitudes				
<i>Attitudes: General attitudes towards condom use (Scaled construct)</i>	2.5	2.0	2.3	2.9
Using a condom reduces sexual pleasure ®	2.1	1.6	2.1	2.4
Condoms are messy ®	2.7	2.2	2.4	3.3
Using a condom ruins the mood during sex ®	2.6	2.1	2.4	3.0
Beliefs				
<i>Beliefs: Outcome expectations for condom use (Scaled construct)</i>	3.6	3.3	3.6	3.8
Condoms are effective in preventing sexually transmitted infections (STIs)	3.7	3.4	3.7	3.9
Condoms are effective in preventing HIV	3.7	3.3	3.7	3.9
If I use a condom consistently, it is unlikely that I will get infected with HIV or an STI	3.6	3.2	3.7	3.8
Using a condom is reliable for protection against HIV	3.5	3.2	3.6	3.7
I can prevent getting HIV or an STI by using a condom consistently with all partners	3.5	3.2	3.5	3.8
Intentions				
<i>Intentions: Future condom use (Scaled construct)</i>	3.5	3.2	3.5	3.8
I plan to use condoms consistently with my regular partners	3.3	2.8	3.5	3.5
I plan to use condoms consistently with my casual partners	3.7	3.5	3.6	3.9
I plan to use condoms consistently with people I have sex with in exchange for money	3.7	3.5	3.6	3.9
I plan to refuse to have sex with someone who will not use a condom	3.4	2.9	3.5	3.8
Locus of control				
<i>Locus of control: Internal (Scaled construct)</i>	3.5	3.0	3.5	3.8
I decide whether or not a condom is used with a sexual partner	3.5	3.1	3.5	3.8
I decide whether or not a condom is used with a commercial sex partner	3.5	3.1	3.5	3.8
I decide whether or not a condom is used with a regular partner	3.5	3.1	3.5	3.7
I decide whether or not a condom is used with a casual partner	3.4	2.8	3.5	3.8
<i>Locus of control: External (Scaled construct)</i>	3.2	3.0	3.0	3.5
It is my partner who decides whether we use a condom ®	3.2	3.0	3.0	3.5
I have no power to decide when to use a condom with my partner ®	3.2	3.0	3.0	3.5

Alcohol is to blame if I do not use a condom with a sexual partner ®	3.0	2.6	3.0	3.3
It is my client who decides if we are using a condom or not ®	3.3	3.1	3.0	3.6
I have no power to decide when to use a condom with my client ®	3.3	3.2	3.0	3.6

Note:

1. All proportions or means are adjusted for socio-demographic characteristics.
2. *: p<.05; **: p<.01; ***: p<.001; NS: not significant at p=.05
3. m - mean
4. 🗳️ - Logframe indicator
5. For the majority of OAM (Opportunity, Ability and Motivation) factors the scale of 1 through 4 is used, unless otherwise noted. In this scale: 1 is completely disagree, 2 – disagree, 3 – agree, and 4 – completely agree. Mean scores are presented. A mean score of below 2.5 indicates that the majority disagrees with the statement and a mean score of higher than 2.5 indicates that the majority agrees. A mean score of 2.5 indicates that overall respondents neither agree nor disagree with the statement.

MONITORING TABLE 3
VCT Utilization among Female Sex Workers, Central Asia, 2010
Risk Group: Female Sex workers in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)
Behavior: VCT Utilization

INDICATORS	Total April/ 2010 N=879	Tajikistan April/ 2010 N=261	Kyrgyzstan April/ 2010 N= 265	Kazakhstan April/ 2010 N=353
BEHAVIOR/USE				
UTILIZATION OF VCT SERVICES	%	%	%	%
<i>Knows where to get tested for HIV and receive pre- and post-test counseling</i> ☺	88.3	73.2	93.2	95.8
Has ever been tested for HIV	69.3	53.5	67.2	82.4
Has been tested for HIV within the last 12 months ☺	60.9	41.9	61.1	74.8
Has been tested in the last 12 months and received results ☺	59.8	40.8	60.8	73.1
Of those tested for HIV in the last 12 months, have received results ☺	98.1	97.3	99.4	97.7
Of those tested for HIV, the reason for getting tested:				
• Referred by outreach worker(s)	33.9	16.7	45.5	34.2
• Encouraged by health worker(s)	25.4	12.8	23.8	31.2
Of those tested for HIV, those who last got tested for HIV at an AIDS Center	47.8	22.6	42.6	61.2
Of those tested for HIV, disclosed results to someone	59.5	78.3	45.1	60.9
Of those tested for HIV, disclosed results to				
• a relative	26.4	29.9	21.9	26.8
• a partner	47.2	72.7	38.4	38.9
• friends	80.8	81.8	74.0	83.4
• a doctor	47.9	35.1	45.2	55.4
• a social worker	23.9	54.0	15.1	13.4
Of those tested for HIV, received counseling at last testing site	71.1	95.2	42.0	79.6
Of those who received counseling with HIV test, received				
• family planning counseling	9.4	0.9	16.2	11.6
• dual protection counseling	13.0	1.7	16.2	17.7
• HIV/AIDS counseling	79.3	93.1	77.9	72.8
• STI counseling	55.1	45.7	38.2	64.7
• male circumcision counseling	0.7	0.0	1.5	0.9
• PMTCT counseling	10.3	0.0	10.3	15.5
• TB counseling	6.7	0.0	23.5	5.2
• condom usage counseling	32.5	2.6	30.9	47.8
• multiple concurrent partnerships counseling	14.9	1.7	26.5	18.1
• positive living counseling	15.4	0.9	17.7	22.0
• AR treatment counseling	2.6	0.0	2.9	3.9
• OI treatment counseling	2.6	0.0	8.8	2.2
• psycho-social support counseling	12.5	3.5	33.8	10.8
Of those who received VCT, were referred to	30.5	16.5	23.6	39.9

other services after VCT				
Of those who received full VCT, were very satisfied/somewhat satisfied with the counseling services received at last test	91.2	95.9	89.9	89.1
Of those who received full VCT, would return to the service site in the future	95.5	92.9	94.1	97.3
Of those who received full VCT, would recommend this counseling service to a friend ☺	96.8	96.5	94.2	97.8
Plans to get tested for HIV in the next 12 months	84.1	52.1	93.9	97.4
OPPORTUNITY	Mean	Mean	Mean	Mean
Availability				
<i>Availability: VCT services (Scaled construct)</i>	3.3	2.7	3.4	3.6
VCT services for HIV are easily available	3.4	3.0	3.5	3.7
VCT services are available outside work hours	2.9	2.0	3.1	3.3
I know where I can go for voluntary counseling testing for HIV ☺	3.5	3.1	3.5	3.8
Social Norms				
<i>Social norms: HIV testing (Scaled construct)</i>	2.7	2.3	2.9	2.8
My friends believe getting tested for HIV regularly is important	3.5	3.0	3.7	3.6
People in my community often go get tested for HIV with their partners	2.2	1.9	2.6	2.0
People in my community often discuss getting tested for HIV with their partners	2.3	2.0	2.6	2.4
People in my community often discuss getting tested for HIV with their friends	3.0	2.8	2.9	3.3
<i>Social norms: Disclosing HIV status (Scaled construct)</i>	2.3	1.8	2.7	2.4
People in my network reveal their HIV status, even if they have tested positive	2.0	1.5	2.5	2.1
People in my network often disclose their HIV status with their partners	1.9	1.4	2.5	1.9
People in my community disclose their HIV status to their friends	2.5	1.7	2.9	2.7
People in my community disclose their HIV status to their family	2.0	1.6	2.5	1.8
People in my community disclose their HIV status to their healthcare provider	3.2	2.7	3.2	3.4
ABILITY	Mean	Mean	Mean	Mean
Self-efficacy	NA	NA	NA	NA
I am confident that I could reveal my status (positive or negative) to				
• my regular partner	2.4	2.0	2.6	2.4
• to my family	2.1	1.6	2.5	2.1
• to my health professional	3.3	2.8	3.4	3.5
Social support				
I am encouraged to be tested for HIV by				
• my family members	2.2	1.8	2.5	2.2
• my health practitioner	3.4	3.4	3.3	3.6
• my friends	2.9	2.7	2.9	3.1
My long-term partner supports my decision to get tested for HIV	2.7	2.2	2.7	3.0
MOTIVATION	Mean	Mean	Mean	Mean
Intentions				
<i>Intentions: HIV testing (Scaled construct)</i>	3.0	2.4	3.2	3.3

I plan to get tested for HIV within the next three months	3.3	2.6	3.4	3.7
I plan to get tested for HIV with my partner(s) in the next three months	2.4	1.9	2.7	2.5
I plan to get tested for HIV regularly	3.3	2.6	3.4	3.7
<i>Intention: Disclosing HIV status (Scaled construct)</i>	2.4	1.8	2.8	2.5
I plan to disclose my HIV status to				
• my partner(s)	2.1	1.4	2.6	2.1
• my family	2.0	1.6	2.5	1.9
• my healthcare provider	3.2	2.7	3.4	3.5
• my friends	2.2	1.4	2.8	2.3

Note:

1. All proportions or means are adjusted for socio-demographic characteristics.
2. *: p<.05; **: p<.01; ***: p<.001; NS: not significant at p=.05
3. m - mean
4. ☉ - Logframe indicator
5. For the majority of OAM (Opportunity, Ability and Motivation) factors the scale of 1 through 4 is used, unless otherwise noted. In this scale: 1 is completely disagree, 2 – disagree, 3 – agree, and 4 – completely agree. Mean scores are presented. A mean score of below 2.5 indicates that the majority disagrees with the statement and a mean score of higher than 2.5 indicates that the majority agrees. A mean score of 2.5 indicates that overall respondents neither agree nor disagree with the statement.

MONITORING TABLE 4
TB testing and treatment in Central Asia, 2010
Risk Group: Female Sex Workers in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)
Behavior: TB Testing and Treatment

INDICATORS	Total April/ 2010 N=879	Tajikistan April/ 2010 N=261	Kyrgyzstan April/ 2010 N= 265	Kazakhstan April/ 2010 N=353
BEHAVIOR/USE				
TB TESTING AND TREATMENT	%	%	%	%
Has been tested for TB in the last 12 months ☺	18.1	6.9	15.9	28.1
Has been tested for TB and received results in the last 12 months ☺	17.3	6.6	15.5	26.6
Tested positive in the last 12 months (Of those tested)	11.1	25.0	9.8	9.4
Has received treatment for TB in the last 12 months (Of those tested positive) ☺	70.6	50.0	75.0	77.8
Has completed TB treatment in the last 12 months (Of those treated) ☺	100	100	100	100
TB TESTING AND TREATMENT RELATED BEHAVIOUR	%	%	%	%
Would encourage family members or friends to test for TB if they were displaying symptoms ☺	84.8	93.2	70.5	90.7
Feels family members would provide support if s/he were treated for TB ☺	83.5	73.8	79.7	92.1
Could tell family members if s/he had TB ☺	76.3	68.1	71.4	85.6
Could tell partner and friends if s/he had TB ☺	48.9	38.2	51.2	54.1
Agrees that non-completion of TB treatment could result in a more serious form of TB ☺	68.8	46.0	83.0	75.1
Considers self to be at risk of TB ☺	34.2	29.0	29.5	41.1
UTILIZATION OF TB SERVICES	%	%	%	%
Knows where to seek TB testing ☺	67.5	40.6	79.3	77.9
Can access testing for TB and treatment when needed ☺	80.4	71.4	68.3	92.2
Feels s/he can get proper TB treatment if s/he has TB ☺	72.5	37.3	63.7	88.1
Was referred for further tests after testing (Of those tested)	11.5	23.5	9.5	10.3
Got tested for TB at polyclinic (Of those tested)	40.9	7.7	35.7	47.5
Got tested for TB at a family medicine centre (Of those tested)	4.5	0.0	14.3	1.0
Got tested for TB at a hospital (Of those tested)	14.9	7.7	7.1	19.2
Got tested for TB at a TB facility (Of those tested)	22.7	23.1	28.6	20.2
OPPORTUNITY	Mean	Mean	Mean	Mean
Availability				
TB Meds are provided free of charge	41.4	10.3	39.2	66.0
ABILITY	%	%	%	%
Knowledge				
Knowledge: TB transmission routes (Index) ☺	44.3	23.0	44.2	60.1
TB is spread from one person to the other through coughing and spitting	77.1	52.1	76.6	96.0

TB is spread through the air	70.7	49.8	65.7	89.8
I can get TB by shaking hands ®	62.0	35.6	72.8	73.4
I can get TB by sharing food ®	36.1	26.4	44.5	36.8
I can get TB from raw milk from an infected animal	61.9	52.1	60.0	70.5
Knowledge of TB symptoms (3 correct symptoms known) ☼	60.5	47.7	58.4	70.9
TB can affect other parts of body – not only lungs	71.2	42.9	84.9	81.9
<i>Knowledge: TB risks (Index) ☼</i>	67.2	36.4	73.2	85.6
Everyone who is infected with TB bacteria will get sick ®	13.9	16.9	14.7	11.1
People with TB are more at risk for HIV ®	20.7	38.7	18.9	8.8
People with HIV are more at risk for TB	75.0	36.4	88.3	93.5
Anyone can get TB	76.6	51.7	80.0	92.4
Some people can get TB easier than others	72.5	37.2	83.0	90.7
<i>Knowledge: TB treatment (Index) ☼</i>	41.3	6.5	42.6	66.0
TB is curable with the right treatment ☼	74.9	50.2	75.9	92.4
Untreated TB can cause death	82.4	59.8	86.8	95.8
TB is caused by germs called bacterium	67.5	44.8	72.5	80.5
If you have a TB infection, you have to take medicine even if you don't feel sick	82.1	47.5	96.6	96.9

Note:

1. All proportions or means are adjusted for socio-demographic characteristics.
2. *: p<.05; **: p<.01; ***: p<.001; NS: not significant at p=.05
3. m - mean
4. ☼ - Logframe indicator
5. For the majority of OAM (Opportunity, Ability and Motivation) factors the scale of 1 through 4 is used, unless otherwise noted. In this scale: 1 is completely disagree, 2 – disagree, 3 – agree, and 4 – completely agree. Mean scores are presented. A mean score of below 2.5 indicates that the majority disagrees with the statement and a mean score of higher than 2.5 indicates that the majority agrees. A mean score of 2.5 indicates that overall respondents neither agree nor disagree with the statement.
6. ® - Reverse-coded items. Scores for these items have been reversed so that a high score = positive/desired response. Wording of these items has not been reversed and they read as they were presented to the respondents. For knowledge-based items, the scores for items have been reversed where the item is factually incorrect so the % presented is those who knew the correct answer.

MONITORING TABLE 5

Exposure to HIV & TB Prevention Programs, Central Asia, 2010

Risk Group: Female Sex Workers in Central Asia (Kazakhstan, Kyrgyzstan, and Tajikistan)

Behavior: Exposure

INDICATORS	Total N=879	Tajikistan N=261	Kyrgyzstan N=265	Kazakhstan N=353
EXPOSURE TO HIV & TB PREVENTION PROGRAMS	%	%	%	%
Has interacted with an outreach worker/peer educator at least once in the last 12 months	72.2	64.9	69.6	78.8
Of those who had contact with an outreach worker/peer educator in the last 12 months, mean number of interactions	10.9	12.2	6.4	13.6
Received condoms for free in the last 12 months	75.7	76.5	66.0	82.4
Of those who received free condom(s) in the last 12 months, those who received free condom(s) from				
• an outreach worker/peer educator	89.7	85.6	91.9	90.7
• a health facility	13.0	11.4	8.1	16.9
• a friend	3.0	6.0	2.3	1.7
• another source (AIDS center, workplace, pimp)	1.0	0.0	2.3	0.7
Participated in HIV educational session(s) that lasted an hour or more in the last 12 months	40.0	37.2	38.0	43.5
Of those who participated in HIV educational session(s) in the last 12 months, those who participated in HIV session(s) conducted by				
• an outreach worker/peer educator	80.2	61.3	72.7	96.7
• a health provider	20.6	37.6	24.2	7.9
• a friend	1.5	1.1	2.0	1.3
• another source (Children protection center)	0.3	0.0	1.0	0.0
Participated in TB educational session(s) that lasted an hour or more in the last 12 months	15.0	14.2	16.2	14.6
Of those who participated in TB educational session(s) in the last 12 months, participated in TB session(s) conducted by				
• an outreach worker	75.0	67.7	62.8	90.2
• a health provider	24.2	29.4	32.6	13.7
• a friend	2.3	2.9	4.7	0.0
Received brochure(s) on HIV/AIDS in the last 12 months	61.8	50.6	57.0	73.7
Of those who received HIV/AIDS brochure(s), those who received HIV/AIDS brochure(s) from				
• an outreach worker/peer educator	86.0	83.8	80.8	90.0
• a health facility	15.3	18.0	17.9	12.7
• a friend	2.5	0.9	2.0	3.5
Received brochure(s) on TB in the last 12 months	18.2	10.7	22.6	20.5
Of those who received TB brochure(s) in the last 12 months, those who received brochure(s) from				
• an outreach worker	73.2	33.3	73.3	88.6

• a health facility	23.6	63.0	23.3	8.6
• a friend	3.2	3.7	3.3	2.9
Received counseling on TB prevention and treatment from an outreach worker in the last 12 months ☹	17.9	10.6	22.1	20.0
Participated in organized event(s) (IE event, party, disco, Ed game) in the last 12 months	21.4	18.7	21.7	23.1
Participated in client management with a social worker	16.4	12.1	16.7	19.0

Note:

1. All proportions or means are adjusted for socio-demographic characteristics.
2. *: p<.05; **: p<.01; ***: p<.001; NS: not significant at p=.05
3. m - mean
4. ☹ - Logframe indicator
5. For the majority of OAM (Opportunity, Ability and Motivation) factors the scale of 1 through 4 is used, unless otherwise noted. In this scale: 1 is completely disagree, 2 – disagree, 3 – agree, and 4 – completely agree. Mean scores are presented. A mean score of below 2.5 indicates that the majority disagrees with the statement and a mean score of higher than 2.5 indicates that the majority agrees. A mean score of 2.5 indicates that overall respondents neither agree nor disagree with the statement.

SEGMENTATION TABLE 1

Behavioral Determinants of Condom Usage among Sex Workers in Central Asia (Kazakhstan, Kyrgyzstan, and Tajikistan), 2010

Risk: Female Sex Workers in Almaty and Karaganda (Kazakhstan), Osh and Chu (Kyrgyzstan), Dushanbe and Kuylib (Tajikistan) (N=835)

Behavior: Used condom at last sex with client from the beginning to the end

INDICATORS	Condom Usage N=586 70.2%	Non-Usage N=249 29.8%	OR	Sig.
ABILITY				
Self-Efficacy Condom use competency and negotiation	3.53 (Mean)	3.29 (Mean)	2.81	***
Knowledge High knowledge of correct and incorrect HIV transmission routes (Knowledge Index)	63.5%	49.1%	2.30	**
POPULATION CHARACTERISTICS				
Drank alcohol in the last month	72.0%	80.6%	0.55	*

Note:

1. *: p<.05; **: p<.01; ***: p<.001
2. Mean scores are measured on Likert scale responses, ranging from 1 (strongly disagree) to 4 (strongly agree)
3. Hosmer-Lemeshov goodness-of-fit=.856
4. Chi-square=399.723, (df=61), p<.000
5. Cox R² = .38
6. Nagelkerke R² =.540

Figure 1 for SEGMENTATION TABLE 1

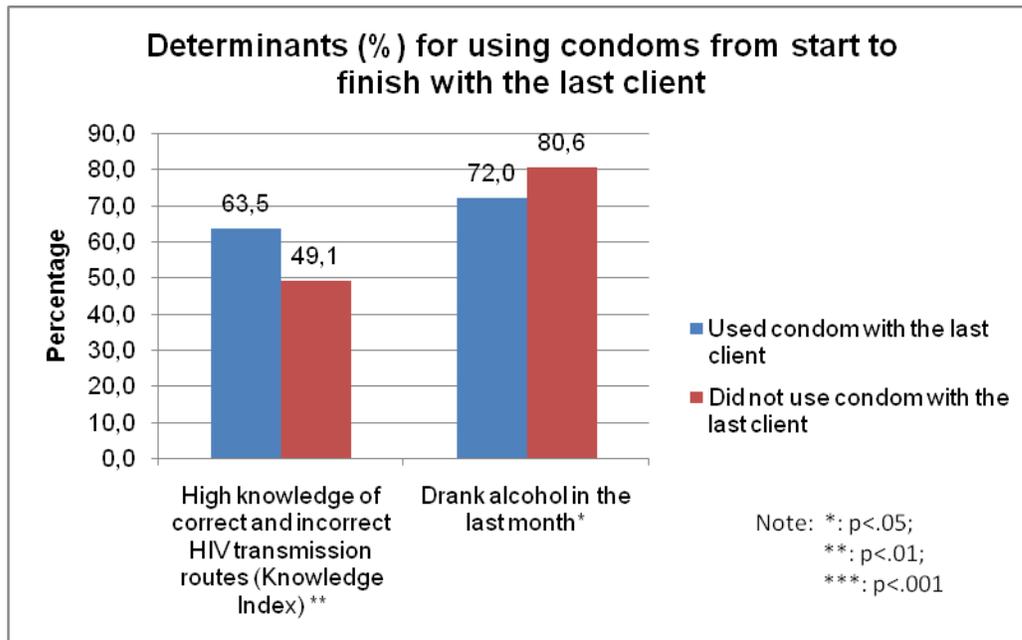
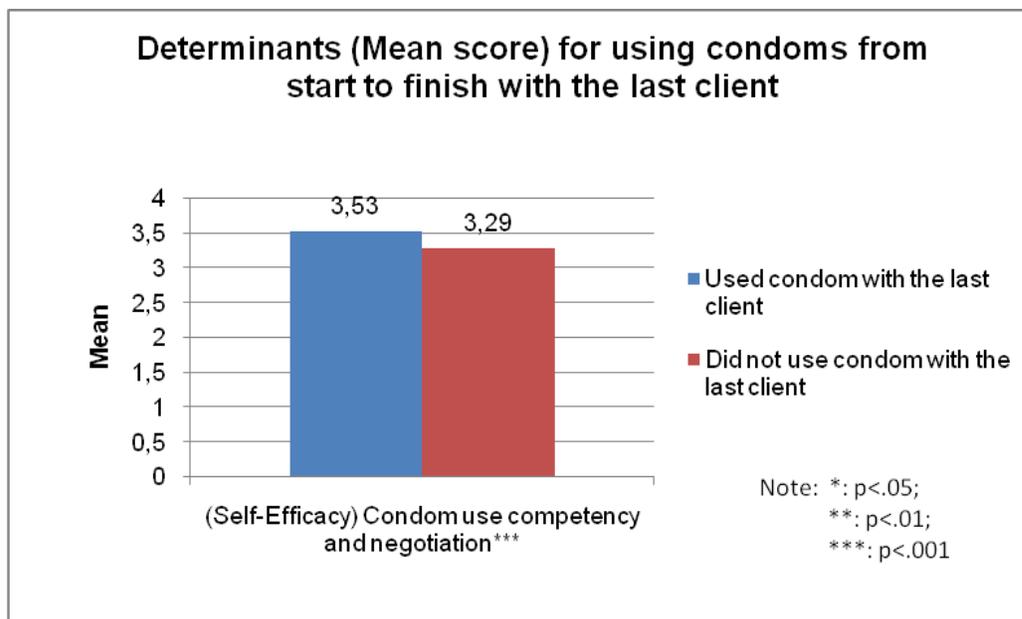


Figure 2 for SEGMENTATION TABLE 1



SEGMENTATION TABLE 2

Behavioral Determinants of Getting Tested for HIV and Receiving Results among Female Sex Workers in Central Asia (Kazakhstan, Kyrgyzstan, and Tajikistan), 2010

Risk: Female Sex Workers in Almaty and Karaganda (Kazakhstan), Osh and Chu (Kyrgyzstan), Dushanbe and Kuylab (Tajikistan) (N=853)

Behavior: Tested for HIV and Received Results in the Last 12 Months

INDICATORS	Tested and Received Results N=506 59.3%	Not Tested N=347 40.7%	OR	Sig.
OPPORTUNITY				
<i>Availability</i> VCT Availability (Scaled construct)	3.3 (Mean)	3.2 (Mean)	1.67	**
ABILITY				
<i>Self-Efficacy</i> I am confident that I could go and get tested for HIV if I needed to	3.7 (Mean)	3.5 (Mean)	2.16	***
<i>Knowledge</i> High knowledge of correct and incorrect HIV transmission routes (Knowledge Index)	62.0%	52.5%	1.96	**
I feel at risk of contracting HIV	72.5%	63.4%	1.62	*
MOTIVATION				
<i>Intention</i> Intention to get tested (Scaled construct)	3.1 (Mean)	2.9 (Mean)	1.6	**

Note:

1. *: p<.05; **: p<.01; ***: p<.001
2. Mean scores are measured on Likert scale responses, ranging from 1 (strongly disagree) to 4 (strongly agree)
3. Hosmer-Lemeshow goodness-of-fit= .401
4. Chi-square=324.791, (df=63), p<.000
5. Cox R² = .317
6. Negelkerke R² = .427

Figure 1 for SEGMENTATION TABLE 2

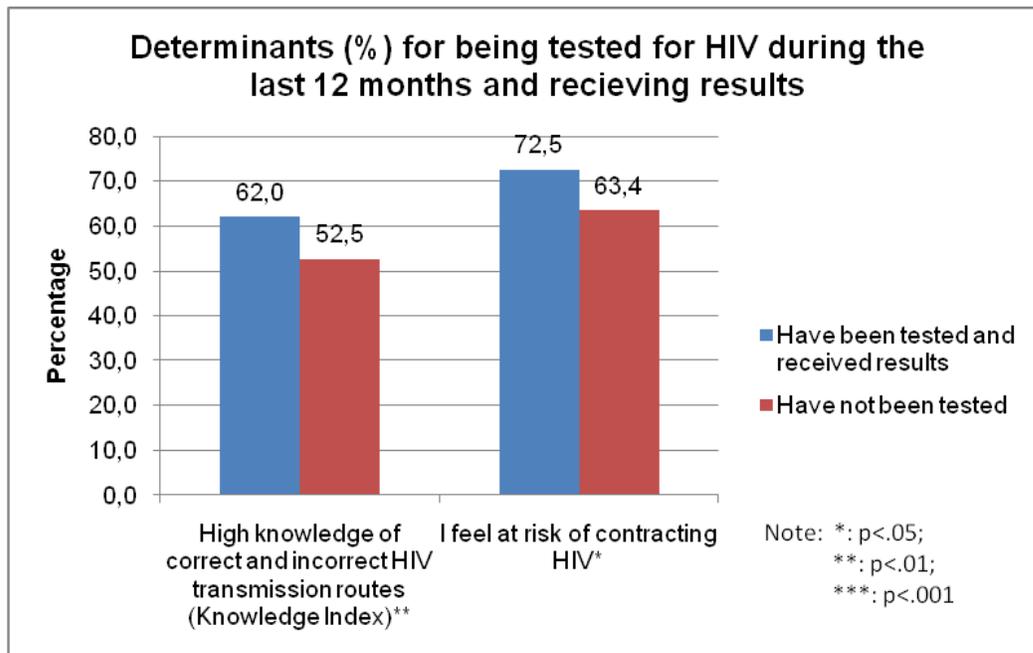
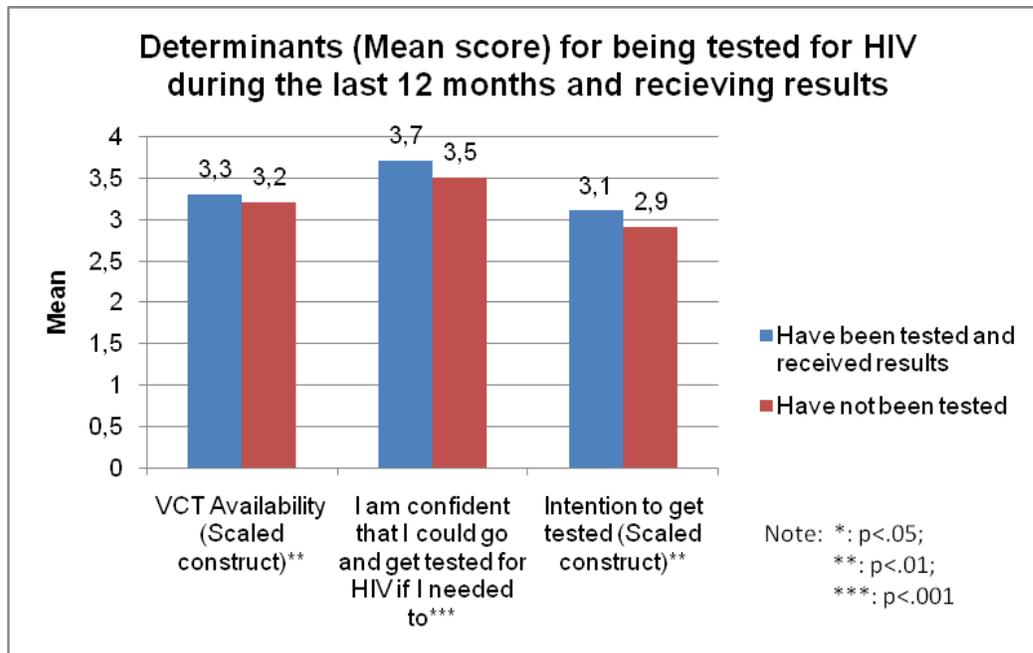


Figure 2 for SEGMENTATION TABLE 2



POPULATION CHARACTERISTICS

POPULATION CHARACTERISTICS	Total March/ 2010 N=879 %	Kazakhstan March/ 2010 N=353 %	Kyrgyzstan March/ 2010 N=265 %	Tajikistan March/ 2010 N=261 %
Age	27.1	25.2	28.2	28.5
Has children	56.2	44.0	65.0	63.6
<i>Level of Education Attained</i>				
• None	9.5	4.3	0.4	26.1
• Primary or less	21.3	13.7	14.9	38.2
• Secondary, but not tertiary	50.5	59.5	73.7	14.4
• Above secondary	18.7	22.5	11.0	21.4
<i>Marital Status</i>				
• Single/never married	43.9	57.6	21.9	48.2
• Not married/cohabiting	10.2	13.1	3.5	13.3
• Married/cohabiting	6.9	9.6	5.8	4.7
• Widowed/divorced/separated	38.9	19.7	68.8	33.7
<i>Nationality</i>				
• Kazakh	15.2	35.9	1.6	0.8
• Kyrgyz	16.7	11.4	40.6	0.0
• Uzbek	17.6	10.2	38.6	6.7
• Tajik	28.6	0.9	3.5	90.9
• Russian	16.2	30.6	12.2	0.8
• Other	5.7	11.1	3.5	0.8

RELIABILITY ANALYSIS: CONSISTENT CONDOM USE AMONG FEMALE SEX WORKERS (SWS), CENTRAL ASIA, 2010

COMPOSITE VARIABLE	2010 (N=879) Cronbach's Alpha
OPPORTUNITY	
<p><i>Availability: Condoms</i></p> <ol style="list-style-type: none"> 1. Condoms are available within 10 minutes of where I hang out 2. Pharmacies near where I hang out always have condoms for sale 3. Condoms are easily available at all times of the day 4. I always have a condom with me 5. Free condoms are available when I need them 	.693
<p><i>Social Norms: General Social Norms for Condom Use</i></p>	No scale formed
ABILITY	
<p><i>High Knowledge of HIV Transmission Routes (both correct and incorrect) (8/10 or better)</i></p> <ol style="list-style-type: none"> 1. I can get HIV from a single sex act 2. I can get HIV through kissing ® 3. I can get HIV through hugging ® 4. I can get HIV through sharing utensils or food with an infected person. 5. HIV can be transmitted through vaginal fluid 6. HIV can be transmitted through semen 7. HIV can be transmitted through blood 8. HIV can be transmitted through breast milk 9. HIV can be transmitted through mosquitos 10. HIV can be transmitted through breast milk 	Index (no reliability test)
<p><i>Social Support: Condom Use</i></p> <ol style="list-style-type: none"> 1. Local health workers encourage me to use condoms 2. My friends support my use of condoms 3. My sexual partners support my use of condoms 4. I encourage my peers to use condoms with their sexual partners 	.77
<p><i>Self-Efficacy: Condom Use Competency and Negotiation</i></p> <ol style="list-style-type: none"> 1. I can use a condom properly such that it does not break 2. I can use a condom even if I have consumed (drank) alcohol 3. I can convince a partner that we use a condom 4. I can convince my partner that using condoms is an indication that I care about his/her health 5. I am able to deny sex with a partner who refuses to wear a condom 	.80
MOTIVATION	
<p><i>Attitudes: General Attitudes towards Condom Use</i></p> <ol style="list-style-type: none"> 1. Using a condom reduces sexual pleasure ® 2. Condoms are messy ® 3. Using a condom ruins the mood during sex ® 	.77
<p><i>Attitudes: Appropriateness of Condom Use with Partners</i></p>	No scale formed
<p><i>Attitudes: Necessity of Condom Use with Partners</i></p>	No scale formed
<p><i>Beliefs: Outcome Expectations for Condom Use</i></p> <ol style="list-style-type: none"> 1. Condoms are effective in preventing sexually transmitted infections (STIs) 2. Condoms are effective in preventing HIV 3. If I use a condom consistently, it is unlikely that I will get infected with HIV or an STI 4. Using a condom is reliable for protection against HIV 5. I can prevent getting HIV or an STI by using a condom consistently with all 	.85

partners	
<i>Intentions: Future Condom Use</i>	
1. I plan to use condoms consistently with my regular partners	
2. I plan to use condoms consistently with my casual partners	
3. I plan to use condoms consistently with people I have sex with in exchange for money	.75
4. I plan to refuse to have sex with someone who will not use a condom	
<i>Locus of Control: Internal</i>	
1. I decide whether or not a condom is used with a sexual partner	
2. I decide whether or not a condom is used with a commercial sex partner	
3. I decide whether or not a condom is used with a regular partner	.87
4. I decide whether or not a condom is used with a casual partner	
<i>Locus of Control: External</i>	
1. It is my partner who decides whether we use a condom ®	
2. I have no power to decide when to use a condom with my partner ®	
3. Alcohol is to blame if I do not use a condom with a sexual partner ®	.93
4. It is my client who decides if we are using a condom or not ®	
5. I have no power to decide when to use a condom with my client ®	

Note:

1. ® - Reversed-coded items

**RELIABILITY ANALYSIS: VCT UTILIZATION AMONG FEMALE SEX WORKERS,
CENTRAL ASIA, 2010**

COMPOSITE VARIABLE	2010 (N=879) Cronbach's Alpha
OPPORTUNITY	
<i>Availability: VCT Services</i>	
<ol style="list-style-type: none"> 1. Voluntary counseling and testing for HIV is easily available 2. Voluntary counseling and testing services are available outside work hours 3. I know where I can go for voluntary counseling and testing for HIV 	.70
<i>Social Norms: Disclosing HIV Status</i>	
<ol style="list-style-type: none"> 1. People in my network reveal their HIV status, even if they have tested positive 2. People in my network often disclose their HIV status with their partners 3. People in my community disclose their HIV status to their friends 4. People in my community disclose their HIV status to their family 5. People in my community disclose their HIV status to their healthcare provider 	.77
<i>Social Norms: HIV Testing</i>	
<ol style="list-style-type: none"> 1. My friends believe getting tested for HIV regularly is important 2. People in my community often go get tested for HIV with their partners 3. People in my community often discuss getting tested for HIV with their partners 4. People in my community often discuss getting tested for HIV with their friends 	.696
ABILITY	
<i>Self-Efficacy: Confidence for Revealing Status</i>	
	<i>No scale formed</i>
<i>Self-Efficacy: General Self-Efficacy Regarding VCT</i>	
	<i>No scale formed</i>
<i>Social Support: Emotional Social Support for HIV Testing</i>	
	<i>No scale formed</i>
MOTIVATION	
<i>Intentions: HIV Testing</i>	
<ol style="list-style-type: none"> 1. I plan to get tested for HIV within the next three months 2. I plan to get tested for HIV with my partner(s) in the next three months 3. I plan to get tested for HIV regularly 	.71
<i>Intentions: Disclosing HIV Status</i>	
<ol style="list-style-type: none"> 1. I plan to disclose my HIV status to my partner(s) 2. I plan to disclose my HIV status to my family 3. I plan to disclose my HIV status to my healthcare provider 4. I plan to disclose my HIV status to my friends 	.75

Annex #1 Extended Programmatic Recommendations

The following are more specific programmatic recommendations that expand upon those provided in the main document. All recommendations are a result of careful analysis of the monitoring and segmentation data and developed together by research and program staff.

- **Focus all activities and materials on priority determinants.**
 - **Condom use:** In order to increase the number of SWs who report condom use from the beginning to the end at last sex, improve their self-efficacy in proper utilization of condoms and confidence in negotiating with their partners about condom use as well as increase their knowledge of correct and incorrect ways of HIV and STI transmission.
 - **HIV testing:** In order to increase the number of SWs who get tested for HIV every 12 months, increase the number of SWs who know where to go for VCT, strengthen their confidence to get tested when required, improve knowledge of correct and incorrect ways of HIV transmission, increase risk perception towards HIV contracting and promote the intention to get tested for HIV.
 - **Not sharing injecting equipment:** Although the drug consumption is comparatively low among SWs, the further decrease of those who share injecting equipment can be achieved through increasing positive practices revolving around drug injection and emphasizing the consequences of drug and alcohol consumption.

- **Address each priority determinant in the following manner:**
 - **Knowing where to go for VCT:** Place addresses for VCT sites on all IEC materials and make sure outreach workers point out the information to all clients. Special post cards listing VCT sites with their addresses and open hours could also be made.
 - **Intention to get tested for HIV.** Strengthening the referral system, improving the social escort and building the capacity of service providers can contribute to increasing the motivation among SWs to get tested for HIV.
 - **Self-efficacy in proper condom use and confidence to negotiate with partners:** The program should seek to strengthen self-efficacy through role-plays, counseling and peer-to-peer messages/positive modeling. Moreover, key messages can be printed on promotion materials (ex. cosmetic bags or travel brush and compact mirror, both with space for condoms).
 - For the **other priority determinants**, spread the following specific messages through all IPC opportunities and IEC materials:
 - **Knowledge of correct and incorrect HIV transmission routes:** You can protect yourself from HIV if...; Do not put yourself at risk! Even a single unprotected sex bears the risk of HIV transmission! HIV is transmitted through... HIV is not transmitted through

- *Condom use competency and negotiation:* Your health is in your hands... Protect yourself, your family and friends; Condom is both a protection and pleasure!
- *Intention to get tested for HIV:* To get tested for HIV is so simple! By testing for HIV today you ensure your health tomorrow!

- **Topics to cover for discussions:**

Condom negotiation [1a]:

- ✓ How do you convince a client to wear a condom?
- ✓ What arguments do you know to convince a client to wear a condom?
- ✓ Which works well?
- ✓ Etc.

Condom competence [1b]:

- ✓ What situations make it difficult to correctly put a condom on a client?
- ✓ Why it is important that a condom doesn't break?
- ✓ What could cause a condom to break?
- ✓ Why it is important to use condom from start to finish of the sexual intercourse?
- ✓ Etc.

Knowledge of HIV transmission routes [2]:

- ✓ What are the fluids that can transmit HIV?
- ✓ In what ways do these fluids get exchanged?
- ✓ In what ways are these fluids not exchanged?
- ✓ Etc.

Risky behaviors [3a]:

- ✓ What kind of behaviors increase your risk for HIV infection?
- ✓ Do alcohol/drugs affect these?
- ✓ Why might someone do this behavior?
- ✓ Are some behaviors more dangerous than others?

Risk people [3b]:

- ✓ Describe a person who you would not need to use a condom with (cards).
- ✓ Who do you need to use one with?
- ✓ Etc.

VCT experience [4]:

- ✓ Who needs to get tested for HIV?
- ✓ Where can one go to?
- ✓ Why is it important to know the status?
- ✓ What would be a reason to get tested for HIV?
- ✓ How do you know whether you have HIV?

- ✓ How often do you need to get tested?
 - ✓ Etc.
- **Only communicate a few topics/messages per session or event.** Too many topics/message during one session can overwhelm the recipient and cause little to be remembered. The following table presents a suggestion for how to rotate the topics/messages during the course of a year (with the first quarter beginning in January 2011). Each number refers to a topic (which cover above messages) identified by numbers 1 through 4 in the section above.

Channel	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Mini-session	2+4 (if she has not been tested) or (3a+1b) if she has been tested			
Long-format session	3b+4, 1a+1b+3a			
Edutainment events	1a+b	Alcohol and drugs	2+4	3a+b (World AIDS Day)
IEC materials	1. HIV/AIDS knowledge 2. VCT 3. STIs and condom use negotiation			
Escort (Topic of conversation during escort service)	1 & 2 or 4			

- **Create more than one activity per priority determinant for long-format sessions and mini-sessions.** Effective behavior change comes with repeated exposure to the same message conveyed through varied means. By having a number of activities for each topic, the same persons can repeatedly hear the same message, but in a fresh manner each time. Varying activities will also help prevent burn-out from the outreach workers.
- **Communicate all messages in a clear, concise, and simple manner.** When creating printed materials or interacting with SWs face-to-face, we should be attentive to the fact that there are SWs who have received little or no education. In Tajikistan, 38.2% of respondents have received only primary education or less. The proportion of respondents who have received only primary education or less was smaller but still substantial in Kyrgyzstan and Kazakhstan at 14.9% and 13.7%, respectively. Moreover, attention needs to be made on local languages spoken in each country, when publishing IEC materials.