



TRAC SUMMARY REPORT PSI DASHBOARD

CENTRAL ASIAN REPUBLICS (2010): HIV AND TB TRaC STUDY EVALUATING RISK BEHAVIORS ASSOCIATED WITH HIV TRANSMISSION AND UTILIZATION OF HIV PREVENTION AND HIV/TB CO-INFECTION PREVENTION AMONG IDUS

ROUND ONE

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Bottom Line Health Impact * Private Sector Speed and Efficiency * Decentralization, Innovation,
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Central Asia Republics (2010): HIV and TB TRaC study evaluating risk behaviors associated with HIV transmission and utilization of HIV prevention and HIV/TB co-infection prevention among IDUs in Almaty, Karaganda, Osh, Chu, and Dushanbe. First Round.

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ACRONYMS

ANOVA	Analysis of variance
MARPs	Most at-risk populations
MDR-TB	Multidrug-resistant TB
MSM	Men who have sex with men
PSI	Population Services International
RDS	Respondent-driven 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.

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 CARs 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 behaviours 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 The study population for this tracking survey was IDUs in Kazakhstan, Kyrgyzstan and Tajikistan aged 18 and above who were active IDUs (ever injected heroin, the last injection was within the past month, have been injecting drugs at least 6 months, but less than 10 years). IDUs were recruited through respondent-driven sampling (RDS), which is a chain-referral procedure whereby samples are selected from social networks of IDUs. A total sample size of 1454 IDUs was surveyed. 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 ratio of involvement in the behavior of interest 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 sharing injecting equipment highlights that:
 - (1) Risky sharing behaviour is highest among IDUs in Kazakhstan and lowest in Kyrgyzstan's targeted districts. However, 86% of IDUs in Tajikistan were helped by someone when they were first injected, and 77-78% were helped in the other two countries. A greater percentage of IDUs in Tajikistan reported being helped by a drug seller or stranger for their first injection, while IDUs in the other two countries were more likely to know the person who helped them at first injection. Injection rates seem much higher in Tajikistan compared to the other two

- countries; in fact mean frequency of injection in the last 12 months is almost twice as high.
- (2) Over half of IDUs in Tajikistan and Kazakhstan had been to a detox center but only 16% of IDUs in Kyrgyzstan could say the same. IDUs in Kyrgyzstan were also much more likely to say they had never received any type of treatment. At the same time, 70% of IDUs said health care workers would treat them differently if they knew the IDU was an injector; these numbers were 55% in Tajikistan and 54% in Kazakhstan.
 - (3) Perceived availability of new needles and syringes is high, but not from the person who sells the drugs to IDUs. Knowledge about the risk of getting HIV through needle sharing is highest in Kazakhstan, which is interesting given that these IDUs exhibited more shared behaviour (see point #1). Intention to share injecting equipment was slightly lower in Kazakhstan compared to the other republics. Perceived risk of getting HIV was also lowest in Kazakhstan.
- The monitoring table on consistent condom use and VCT highlights that:
 - (1) Consistent condom use with regular partners is low, at 16%, and does not vary widely between countries.
 - (2) Consistent condom use with casual partners is 46% overall, and slightly higher in Kyrgyzstan and lower in Tajikistan.
 - (3) Consistent condom use with commercial partners is 63% overall, and slightly higher in Kyrgyzstan and lower in Tajikistan.
 - (4) 41% of IDUs got an HIV test and results in the last 12 months, but there was quite a disparity given that 53% of IDUs got the results in Kyrgyzstan and less than 36% of IDUs said the same in the other two republics.
 - (5) Twenty-five percent have had sex in exchange for money, but 40% did so in Tajikistan and around only 20% had done so in the other two republics. Circumcision is much more widely practiced in Tajikistan (91%) compared to Kyrgyzstan (66%) and Kazakhstan (41%).
 - (6) Perceived availability of VCT services is slightly higher in Kyrgyzstan compared to the other two countries. On the scale construct for intention to get tested, slightly more than the median of 2.5 agreed (2.7) but this was higher in Kyrgyzstan and Tajikistan and lower in Kazakhstan.
 - The monitoring table on TB testing and treatment highlights that:
 - (1) Forty-one percent of IDUs had been tested for TB and received results in the last 12 months. 53% of IDUs in Kyrgyzstan said they had been tested and got the results, but only 32% of IDUs in Tajikistan and 35% of IDUs in Kazakhstan said the same.
 - (2) IDUs in Kyrgyzstan appear to be less likely to encourage others to get tested for TB, and do not consider themselves to be at risk of TB compared to IDUs in the other two republics.
 - (3) IDUs in Kyrgyzstan and Kazakhstan were very likely to know where a TB testing facility was (around 85-90%) but only 70% in Tajikistan knew of such a facility.
 - (4) Of the IDUs who were tested, 15% said they were positive. This ranged from a low of 6.3% in Kazakhstan to as high as 28% in Tajikistan.
 - (5) Knowledge about TB tended to be lower in Tajikistan.
 - The monitoring table on exposure highlights that:

- (1) Thirty-nine percent of IDUs had interacted with an outreach or peer educator at least once in the last 12 months. This figure was 65% in Tajikistan, 42% in Kyrgyzstan and only 14% in Kazakhstan.
 - (2) At the same time, the mean number of contacts in the last 12 months was 14.4. These numbers were 9.2, 18.8, and 15.3 in Tajikistan, Kyrgyzstan, and Kazakhstan, respectively.
 - (3) IDUs in Tajikistan were much more likely to have gotten free condoms in the last 12 months. They were also more likely to have been to an HIV or TB educational session.
 - (4) In general, exposure is substantially lower in Kazakhstan and highest in Tajikistan.
- The results of segmentation analysis on *Sharing needles and/or Injecting equipment* indicate that:
 - (1) The strongest determinants of not sharing needles are having positive social norms about not sharing and also intending to not share needles/syringes in the future.
 - (2) Also influential is that IDUs are more likely to not share if they know where to find new syringes or needles and say it is convenient for them to carry new needles/syringes.
 - The results of segmentation analysis on *Being tested for HIV* indicate that:
 - (1) IDUs are more likely to have been tested in the past 12 months if they knew where to get VCT services, have positive social norms about VCT services, and have high knowledge about HIV transmission.
 - (2) The longer an IDU has been injecting, the more likely the IDU was to be tested for HIV. Non-married IDUs were less likely to have been tested for HIV compared to those who were married or cohabiting. Also, IDUs in Karaganda, Chu, and Osh were more likely to have been tested compared to IDUs in Dushanbe. There is no significant difference between IDUs in Dushanbe and Almaty.
 - The results of segmentation analysis on *Being tested for TB* indicate that:
 - (1) IDUs are more likely to have been tested in the past 12 months if they knew where to get a TB test, have positive social norms about TB testing, and have high knowledge about TB symptoms. IDUs with positive beliefs were also more likely to be tested.
 - (2) IDUs were slightly more likely to have been tested for TB if they were older; the mean age for those who were tested was 34 while the mean for those who were not tested was 32.
 - (3) There are significant differences across cities. IDUs in Karaganda were 8.84 times more likely to have been tested compared to those in Dushanbe. IDUs in Osh, Chu, and Almaty were four, two and a half, and three times more likely to be tested compared to IDUs in Dushanbe ($p < .001$).

Programmatic Recommendations

Sharing Injecting Equipment

- The program should seek to increase positive social norms/practices revolving around injecting practices (both needle and equipment sharing) while among a group of IDU friends. This could be accomplished both through counseling and

minisession, but particular emphasis should be placed on peer-to-peer messages/positive modeling.

- Messaging about sharing needles should also focus on the risks associated with sharing injecting equipment since injecting equipment sharing rates were generally higher than needle.

Voluntary Counseling and Testing

- The program should seek to increase knowledge of the availability of VCT testing facilities among IDUs through peer-to-peer outreach, minisessions, 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 stigmas/discriminations about the types of people at risk for HIV and who are tested for HIV.

TB Testing

- The program should seek to improve perceptions/knowledge of TB testing availability among IDUs through peer-to-peer outreach, minisessions, 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 both IDUs and their family members.

Monitoring Table 1
Sharing Injecting Equipment among IDUs in Central Asia, 2010
Risk Group: Injecting Drug Users in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)
Behavior: Sharing Injecting Equipment

INDICATORS	Total March/ 2010 N=1454	Tajikistan March/ 2010 N=431	Kyrgyzstan March/ 2010 N= 520	Kazakhstan March/ 2010 N=503
BEHAVIOR/USE				
INJECTING BEHAVIOR	%	%	%	%
Injected with a syringe with mixed drugs that had been used by another person in the last 6 months	41.2	53.6	18.5	54.1
Gave used needle to another person at last injection ☹	21.7	23.0	17.9	24.5
Used a needle that had been used by another at last injection ☹	20.3	24.6	16.4	20.7
Shared needle at last injection	26.6	29.5	21.7	29.2
Shared injecting equipment (spoon, cup, cotton, filter, rinsing water) at last injection ☹	34.3	34.1	23.2	39.8
Shared water or solution for mixing drugs in the last 6 months	51.3	56.2	36.4	62.6
Share injecting equipment (spoon, cup, cotton, filter, rinse water etc.) and/or needles/syringes at last injection	39.7	40.6	34.4	44.3
INJECTING-RELATED RISK BEHAVIORS				
Mean number of years injecting	4.9	4.6	5.1	4.9
Mean age of first injection	25.5	25.8	28.0	22.6
Was helped by someone when first injected	80.1	85.6	78.9	76.5
Was helped by <i>friend</i> when first injected	56.0	48.0	58.8	60.8
Was helped by <i>acquaintance</i> when first injected	28.0	25.7	28.8	29.4
Was helped by <i>partner (boyfriend/girlfriend)</i> when first injected	6.3	6.5	5.4	7.0
Was helped by <i>drug seller</i> when first injected	4.8	10.8	3.2	0.8
Was helped by <i>sibling</i> when first injected	4.1	8.9	2.2	1.6
Last injection was today	34.9	58.9	21.7	28.0
Last injection was in last 7 days (including today)	80.9	87.2	76.7	79.9
Heroin is the substance s/he most frequently injects	91.5	94.4	94.8	85.7
Mean frequency of injecting in last 12 months	457.6	726.2	326.5	394.2
Frequency of injections has reduced in last 6 months	27.3	22.7	31.7	26.6
Usually injects outside of house (bar/club, stairs, street)	19.7	25.5	21.4	13.1
Usually injects alone	43.1	41.4	55.2	32.1
Mean number of times per month uses own needle more than once	1.8	2.6	1.2	1.8
Has ever shared needles with a sexual partner (mean number of times in last month)	11.1 (3.5)	11.8 (4.6)	8.1 (1.5)	13.7 (3.9)
Has ever shared needles with a drug seller (mean number of times in last month)	1.1 (2.3)	1.2 (4.6)	1.2 (1.3)	1.0 (1.2)
Has ever shared needles with a relative (mean number of times in last month)	2.9 (4.4)	3.3 (4.6)	2.1 (1.0)	3.4 (6.5)
Has ever shared needles with a friend (mean number of times in last month)	34.7 (3.8)	39.9 (4.0)	17.9 (2.1)	47.5 (4.2)
Has ever shared needles with 'somebody I don't know' (mean number of times in last month)	5.0 (2.3)	3.9 (1.7)	3.7 (1.4)	7.4 (3.1)
Usually makes injections themselves	85.5	89.1	85.4	82.5
Helped someone to inject for the first time in the last 6 months (mean number of people injected in the last 6 months)	14.3 (1.9)	19.0 (1.6)	9.4 (1.9)	15.3 (2.2)

Injected in the presence of non-injecting drug users or non-users in the last 6 months	21.7	25.8	12.3	28.0
Talked with non-injecting drug users or non-users about the benefits of injecting drugs	22.3	21.8	14.6	30.6
Number of times cleaned/disinfected needles that had already been used (by you or another person) before using them for injection in last month	3.5	7.0	1.1	2.9
Preferred syringe size 2 mL	61.8	61.3	53.5	70.8
Most used method for cleaning/disinfecting needles – <i>water</i>	49.8	76.3	27.5	52.9
Always keeps a spare new needle in case a drugstore or syringe exchange station is closed when making a new injection	34.7	29.7	50.2	22.9
Has ever participated in blood-filling (after injecting draw blood into syringe to collect remaining drugs and then re-injecting)	61.6	60.8	37.1	87.4
Has suffered from overdose in last year	26.9	34.1	23.7	24.1
Has witnessed someone suffering from an overdose in the last year	50.1	45.0	56.0	48.5
Has seen someone die because of an overdose in the last year	25.1	25.1	24.6	25.5
Has heard of naloxone for treating overdose	30.4	46.4	31.0	16.3
Has been arrested for drug-related crimes – such as using, possessing, buying or selling drugs	46.9	53.9	38.3	50.1
UTILIZATION OF MEDICAL SERVICES				
Knows where to seek drug detoxification and rehabilitation treatment services ☺	69.2	76.0	56.2	77.3
Knows where to seek substitution therapy services	39.5	37.6	47.1	33.1
Would use substitution services if they were available	50.4	73.1	40.8	43.8
Has ever been treated at detoxification treatment service	40.2	54.1	15.8	50.3
Has ever been treated at a rehabilitation treatment service	33.2	35.5	31.0	33.4
Has ever been treated with substitution therapy	7.3	11.3	10.6	2.2
Has never received any type of treatment	29.3	12.5	47.3	26.0
Health care providers will treat me differently if they know I inject drugs ☺	59.9	55.0	69.4	54.1
OPPORTUNITY				
Availability				
There are pharmacies within 500 meters from the place where I usually inject where I can get new syringes or needles	3.24	3.23	3.22	3.26
I can always find a new needle or syringe of the needed size whenever I am ready to make an injection	3.35	3.06	3.56	3.38
I know about the existence of syringe exchange stations where I can get new needles and syringes	3.01	3.11	3.12	2.82
I can get new needles/syringes from the person who is selling me drugs	1.98	2.02	2.27	1.64
Social norms				
<i>Social norms for injecting practices among friends (scaled construct)</i>	2.9	2.7	3.1	2.8
ABILITY				
Knowledge				
<i>Knowledge of HIV/AIDS risk for injecting behavior (index) (high level of knowledge)</i>	86.4	85.2	82.1	92.1
Using shared needle even once increases risk of HIV	94.2	92.2	92.1	98.2
Lending needles increases HIV risk	91.4	91.0	87.9	95.4
Not using another persons equipment reduces risk of HIV	83.4	81.9	78.9	89.5
<i>Knowledge regarding Overdose (symptoms and treatment) (index) (high level of knowledge)</i>	56.7	67.3	52.7	51.9
If someone is suffering from an overdose they should be put in a tub of cold water	54.2	38.5	55.4	66.4
A person's lips turn blue when suffering from overdose	91.9	93.7	86.5	95.8

Naloxone should be used for myself and others when suffering from overdose	60.7	70.8	58.9	54.1
<i>Knowledge of HIV transmission routes (index) (incorrect) (high level of knowledge) ☼</i>	79.3	85.4	74.0	79.5
<i>Knowledge of HIV transmission routes (correct knowledge) (high level of knowledge) ☼</i>	89.3	91.0	84.4	93.0
Self-Efficacy				
<i>Self-efficacy about drug use (scale construct)</i>	3.2	3.0	3.3	3.2
I can reduce or stop my drug use ☼	77.6	74.4	80.8	76.9
I can refuse to share needles with others ☼	72.9	65.2	76.0	76.3
MOTIVATION				
Intention				
<i>Intentions to share injecting equipment (scale construct)</i>	3.1	3.0	3.3	2.9
Threat perception				
<i>Threat of HIV infection (scale construct)</i>	3.5	3.4	3.5	3.4
I am at risk for HIV ☼	58.6	72.2	60.6	44.9

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 item

Monitoring Table 2

Consistent condom use, sexual risk behaviors and VCT utilization among IDUs in Central Asia, 2010

Risk Group: Injecting Drug Users in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)

Behavior: Consistent condom use and VCT

INDICATORS	Total March/ 2010 N=1454	Tajikistan March/ 2010 N=431	Kyrgyzstan March/ 2010 N= 520	Kazakhstan March/ 2010 N=503
BEHAVIOR/USE	%	%	%	%
SEXUAL BEHAVIOR				
Had regular partner				
Always used condom for sex (vaginal or anal) with regular partners ☺	16.1	16.4	17.6	14.4
Always used a condom for oral sex with regular partners	7.0	4.6	5.9	8.7
Had casual partner				
Always used a condom for sex (vaginal or anal) with casual partners ☺	46.2	38.9	56.7	42.5
Always used a condom for oral sex with casual partners	23.0	11.1	38.8	21.5
Had commercial partner				
Always used a condom for sex (vaginal or anal) with commercial partners ☺	63.1	54.9	74.3	67.7
Always used a condom or oral sex with commercial partners	30.5	20.5	39.4	34.8
VOLUNTARY COUNSELING AND TESTING				
Had an HIV test and got results in last 12 months (V104 & 106) ☺	40.5	32.0	52.5	35.4
BEHAVIOR RELATED TO SEXUAL HEALTH				
Ever had sexual intercourse	97.5	97.2	96.5	98.8
Mean age of first sex	17.0	18.0	17.0	16.2
Ever used a condom	86.0	81.3	83.1	92.8
Of those who ever used a condom, used condom at first sex	26.0	23.8	22.3	30.7
Of those who ever used a condom, used condom at last sex ☺	46.4	46.7	42.0	50.5
Of those who ever used a condom, correct use of condom at last sex	43.6	44.8	36.4	49.7
Mean number of regular partners in last 12 months	1.7	1.8	1.6	1.6
Mean number of casual partners in last 12 months	1.6	1.1	1.6	1.9
Mean number of commercial partners in last 12 months	0.5	1.1	.37	.21
Of those who have ever had sex, has had sex in exchange for money or other items	24.9	39.2	20.8	17.9
Circumcised (males only)	63.1	90.6	66.1	41.0
Of those who have ever had sex, has ever bought a condom (all)	68.5	64.4	57.3	82.9
Ever bought a condom (male) (N=1238)	69.9			
Ever bought a condom (female) (N=173)	58.3			
Has had or suspected having any STD or STI	9.0	16.9	6.6	4.8

in the past 12 months				
UTILIZATION OF MEDICAL SERVICES				
Knows where to get tested for HIV and receive pre- and post-test counseling ☺	85.7	83.6	87.7	85.4
Has ever been tested for HIV	51.4	41.2	61.7	49.4
Received test results	96.3	94.0	97.5	96.4
Of those tested, mean number of HIV tests in past 12 months	1.4	1.7	1.5	1.1
Got tested at an AIDS centre	54.3	61.6	38.2	69.7
Disclosed results from last test to someone	63.7	67.5	61.7	63.9
Received counseling at place of last test	64.9	84.5	66.7	49.4
Received counseling alone (and not in a couple)	92.4	92.9	90.5	95.1
Of those who were tested and received counseling - Heard about VCT services from an NGO	21.1	49.3	8.5	9.0
Of those who were tested and received counseling - Was referred to other services after VCT	31.3	51.8	22.7	22.1
Of those who were tested and received counseling - Very satisfied/somewhat satisfied with the counseling services received at last test	84.7	88.7	85.0	79.5
Of those who were tested and received counseling - Very satisfied/somewhat satisfied with the testing services received at last test	79.1	77.1	79.8	80.3
Of those who were tested and received counseling - Would return to this service site in the future	88.7	93.3	86.1	88.2
Of those who were tested and received counseling - Would recommend this counseling service to a friend ☺	89.7	97.1	84.8	89.8
Intends to get tested for HIV in the next 12 months	69.6	76.7	77.7	48.6
Of those reporting STI symptoms, has sought medical services for STI signs in the past 12 months	61.0	54.0	62.9	76.0
Mean number of times medical treatment sought for STIs or STDs in past 12 months (n=66)	1.9	1.5	2.6	1.6
OPPORTUNITY				
Availability				
VCT for HIV services are easily available	3.2	3.2	3.3	3.1
VCT for HIV services are available near where I leave	2.5	2.5	2.7	2.2
VCT services are available outside work hours	2.5	2.4	2.8	2.2
I know where I can go for voluntary counseling testing for HIV	3.3	3.3	3.4	3.2
Social norms for VCT testing	2.7	2.6	2.9	2.6
ABILITY				
Self-efficacy				
Self-efficacy regarding revealing HIV status to others (scaled construct)	3.0	2.6	3.2	3.1
Social support				
Social support for HIV testing (scaled construct)	2.9	3.0	3.1	2.6
Knowledge				
HIV/AIDS Knowledge of sexual risk (index)	86.5	85.2	82.1	92.1
MOTIVATION				
Belief				

<i>Beliefs about VCT testing and need (scaled construct) ☉</i>	2.6	2.7	2.6	2.5
Intention				
<i>Intentions to get tested (scaled construct)</i>	2.7	2.9	2.9	2.2

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
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6. ® - Reverse-coded item

Monitoring Table 3
TB testing and treatment in Central Asia, 2010
Risk Group: Injecting Drug Users in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)
Behavior: TB testing and treatment

INDICATORS	Total March/ 2010 N=1454	Tajikistan March/ 2010 N=431	Kyrgyzstan March/ 2010 N= 520	Kazakhstan March/ 2010 N=503
BEHAVIOR/USE	%	%	%	%
TB TESTING AND TREATMENT				
Has been tested for TB in last 12 months ☺	37.2	19.3	46.9	42.5
Has been tested for TB and received results in last 12 months ☺	40.5	32.0	52.5	35.4
Has received treatment for TB in last 12 months (Of those tested) ☺	15.2	25.6	18.2	7.9
Has completed TB treatment in last 12 months (Of those treated) (#)☺	82.2 (73)	73.4 (19)	87.5 (40)	78.6 (14)
TB TESTING AND TREATMENT RELATED BEHAVIOUR				
Would encourage family members or friends to test for TB if they were displaying symptoms ☺	86.2	86.6	78.9	93.3
Feels family members would provide support if treated for TB ☺	89.3	93.4	80.9	94.3
Could tell family members if had TB	89.4	90.1	82.5	95.5
Could tell friends if had TB ☺	78.6	68.6	76.9	87.4
Agrees that non-completion of TB treatment could result in more serious form of TB ☺	83.7	72.4	83.7	93.4
Considers self to be at risk of TB	42.6	43.0	38.6	46.5
UTILIZATION OF TB SERVICES				
Knows where the nearest available TB testing facility is ☺	82.9	69.8	90.2	86.7
Can access testing for TB and treatment when needed ☺	77.4	67.1	70.2	93.8
Feels one can get proper TB treatment if one has TB ☺	80.1	81.3	71.0	88.1
Of those tested for TB, tested positive (in last 12 months)	15.3	27.9	19.1	6.3
After testing was referred for further tests	21.9	36.6	23.1	15.0
Got tested for TB at polyclinic (of those tested)	44.6	39.0	39.9	52.1
Got tested at family medicine centre (of those tested)	4.1	3.7	7.8	0.0
Got tested for TB at hospital (of those tested)	11.0	9.8	17.7	3.8
Got tested for TB at a TB facility (of those tested)	34.4	41.5	28.0	39.0
OPPORTUNITY				
Availability				
Availability of TB testing (scale construct)	3.1	3.0	3.3	3.1
TB Meds are provided free of charge	54.0	54.0	39.0	69.8
Social norms				
Social norms of TB testing – willingness to test (scaled construct)	2.8	2.6	3.0	2.8
Social norms of TB testing – resistant to testing (scaled construct)	2.8	2.8	2.8	2.9

ABILITY				
Knowledge				
<i>Knowledge of TB transmission routes (index)</i>	54.3	53.8	51.0	58.3
☛				
TB is spread from one person to the other through coughing and spitting	93.5	93.0	88.3	99.2
TB is spread through the air	83.8	80.7	79.2	91.1
I can get TB by shaking hands ®	71.0	73.6	69.2	70.6
I can get TB by sharing food ®	31.3	32.3	30.8	31.0
I can get TB from raw milk from infected animal	71.7	66.1	71.4	76.9
<i>Knowledge of TB symptoms (3 correct symptoms known)</i>	64.4	58.2	66.5	67.6
TB can affect other parts of body, not only lungs	80.3	74.5	83.3	82.3
<i>Knowledge of TB risks (index)</i>	82.4	76.1	79.4	90.9
Everyone who is infected with TB bacteria will get sick ®	11.1	9.7	14.8	8.4
People with TB are more at risk for HIV ®	22.4	25.1	22.9	19.5
People with HIV are more at risk for TB	90.4	89.1	87.1	94.8
Anyone can get TB	88.9	88.4	83.1	95.2
Some people can get TB easier than others	86.2	78.9	84.2	94.6
<i>Knowledge of TB treatment (index)</i>	52.8	49.9	36.9	71.6
TB is curable with the right treatment ☛	83.7	83.1	75.6	92.6
TB is easier to cure in early stages	56.1	51.7	40.8	75.6
Untreated TB can cause death	95.9	96.3	94.2	97.4
TB is caused by germs called bacterium	81.0	76.1	83.3	82.9
If you have TB infection, you have to take medicine even if you don't feel sick	86.8	82.1	83.5	94.2
Self-efficacy				
<i>Self-efficacy for completing TB treatment (scaled construct)</i>	3.3	3.2	3.3	3.3
Social support				
<i>Social support for completing TB treatment – emotional support (scale construct)</i>	2.9	2.9	3.0	2.7
<i>Social support – functional support for TB testing and treatment adherence (information and access) (scale construct)</i>	3.1	3.1	3.2	3.1
I will not lose friends if they know I'm on TB treatment ☛	63.2	70.8	50.4	70.0
MOTIVATION				
Attitude				
<i>Attitudes towards the TB test (scale construct)</i>	3.2	3.1	3.3	3.2
Belief				
<i>Beliefs about TB testing (scale construct)</i>	2.4	2.5	2.3	2.5
Costs				
<i>Personal costs of getting TB test (scale construct)</i>	2.6	2.7	2.4	2.8
<i>Personal costs of being on TB treatment (scale construct)</i>	2.7	2.8	2.5	2.7
Intention				
<i>Intentions towards getting TB test (scale construct)</i>	3.0	3.0	3.3	2.7

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 item

Monitoring Table 4
Exposure to HIV & TB prevention programs Central Asia, 2010
Risk Group: Injecting Drug Users in Central Asia (Kazakhstan, Kyrgyzstan and Tajikistan)
Behavior: Exposure

INDICATORS	Total March/ 2010 N=1454	Tajikistan March/ 2010 N=431	Kyrgyzstan March/ 2010 N= 520	Kazakhstan March/ 2010 N=503
EXPOSURE TO HIV & TB PREVENTION PROGRAMS	%	%	%	%
Has interacted with an outreach/peer educator at least once in the last 12 months	38.9	65.4	41.7	13.5
Mean number of times had contact with outreach worker in last 12 months	14.4	9.2	18.8	15.3
Has received free condoms in the last 12 months	34.1	57.7	33.7	14.3
Received free condoms from an outreach worker/peer educator	84.8	94.0	75.3	76.1
Participated in an HIV educational session that lasted an hour or more in last 12 months	27.7	49.2	31.9	5.4
HIV educational session was conducted by an outreach worker/peer educator	84.6	91.8	76.5	76.9
Participated in TB educational session that lasted more than an hour in the last 12 months	22.0	38.0	28.1	2.2
TB educational session was conducted by an outreach worker/peer educator	80.4	92.5	67.1	81.8
Has received brochures on HIV/AIDS in last 12 months	41.8	69.6	47.1	13.0
Received brochures about HIV/AIDS from outreach worker/peer educator	78.2	93.2	59.8	79.7
Has received brochures on TB in last 12 months	31.5	46.1	41.7	8.6
Received brochures about TB from outreach worker/peer educator	75.0	90.3	61.8	72.1
Has received counseling on TB prevention and TB treatment from an outreach worker in the last 12 months	30.1	42.8	42.4	7.2
Participated in an organized educational event in the past 12 months	27.8	39.6	27.4	18.5
Participated in client management with a social worker	16.7	28.1	21.4	2.8

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 item

Segmentation Table 1
Behavioral Determinants of Tuberculosis Testing among IDUs in Central Asia
(Kazakhstan, Kyrgyzstan, and Tajikistan), 2010
Risk: Injecting drug users in Almaty, Karaganda (Kazakhstan), Osh, Chu
(Kyrgyzstan) and Dushanbe (Tajikistan) (N=1436)
Behavior: Tested for TB within the last 12 months and received the results

INDICATORS	Tested for TB N=527 36.7%	Not tested for TB N=909 63.3%	OR	Sig.
OPPORTUNITY				
Availability Availability of TB Testing (Scale)	3.27	3.01	2.70	***
Social Norm Social Norms for TB testing (Willingness to test) (Scale)	2.90	2.82	1.24	*
ABILITY				
Knowledge Knows 3 or more TB symptoms	70.9%	61.5%	1.68	**
High knowledge of the risk of TB transmission (vs Low) (3/4 question or better = High)	87.5%	80.3%	1.91	**
MOTIVATION				
Belief Beliefs about TB Testing (Scale)	2.57	2.36	1.43	***
Intention Intention to get tested for TB (Scale)	3.04	2.96	1.32	*
POPULATION CHARACTERISTICS				
Age 18 – 50 years old (mean)	34.09	31.79	1.04	***
Almaty (Dushanbe is Ref)	26.1	17.7	2.98	***
Karaganda (Dushanbe is Ref)	26.3	7.0	8.84	***
Chu (Dushanbe is Ref)	32.4	15.6	3.94	***
Osh (Dushanbe is Ref)	18.0	12.4	2.40	***

ns: not significant; *: p<.05; **: p<.01; ***: p<.001.

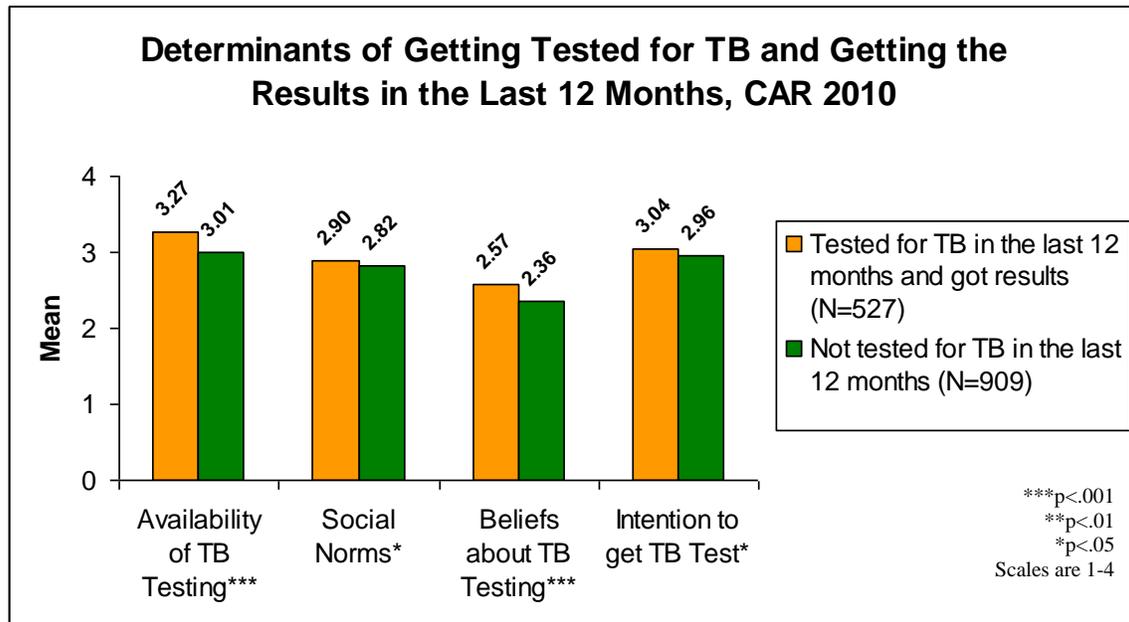
Mean scores are measured on Likert scale responses, ranging from 1(strongly disagree) to 4 (strongly agree)

Hosmer-Lemeshov goodness-of-fit= .946

Chi-square=545.532, (df=11), p<.001.

Cox R² = .316, Nagelkerke R² =.432

Figure 1



SEGMENTATION TABLE 2

Behavioral Determinants of Voluntary Counseling and Testing among IDUs in Central Asia (Kazakhstan, Kyrgyzstan, and Tajikistan)

Risk: Injecting drug users in Almaty, Karaganda (Kazakhstan), Chu, Osh (Kyrgyzstan) and Dushanbe (Tajikistan) (N=1408)

Behavior: Been tested for HIV within last 12 months and received the results

INDICATORS	Tested for HIV N=581 41.3%	Not tested HIV N=827 58.7%	OR	Sig.
OPPORTUNITY				
Availability I know where I can get voluntary testing and counseling for HIV (Scale)	3.48	3.13	2.25	***
Social Norm Social Norms for using VCT services (Scale)	2.81	2.62	1.65	***
ABILITY				
Knowledge <i>High Level of knowledge about incorrect routes of HIV transmission (79.0% in this sample)</i>	82.8%	76.4%	1.55	**
<i>High level of knowledge about HIV infection risk through sexual practices (93.8% in this sample)</i>	96.0%	92.3%	2.21	*
MOTIVATION				
Belief Belief about need for VCT testing (Scale)	2.70	2.51	1.26	**
POPULATION CHARACTERISTICS				
Marital Status Single man or woman (vs. all others) (37.4 % of this sample)	33.5%	40.1%	0.72	*
Number of years the person has been injecting	5.32	4.57	1.10	***
Almaty (Dushanbe is Ref)	21.5	20.9	1.09	NS
Karaganda (Dushanbe is Ref)	16.7	12.0	1.73	***
Chu (Dushanbe is Ref)	27.6	18.3	2.21	***
Osh (Dushanbe is Ref)	18.9	11.8	2.37	***

ns: not significant; *: p<.05; **: p<.01; ***: p<.001.

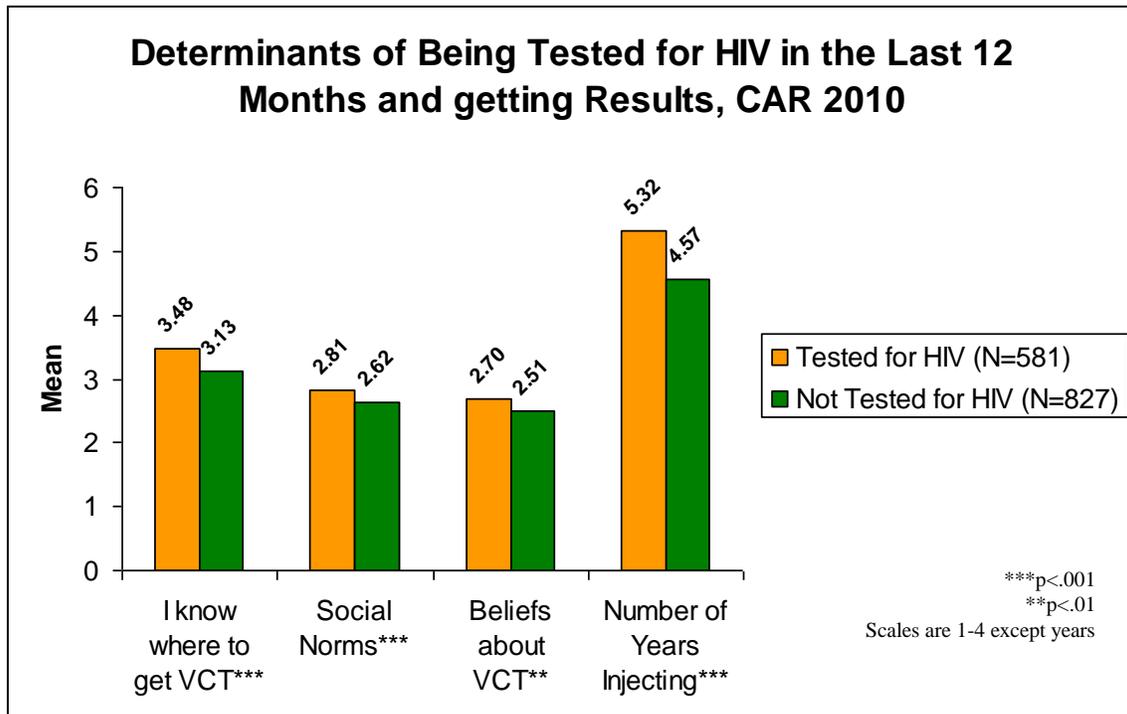
Mean scores are measured on Likert scale responses, ranging from 1(strongly disagree) to 4 (strongly agree)

Hosmer-Lemeshov goodness-of-fit = .744

Chi-square=326.713, (df=11), p<.001.

Cox R² = .207, Nagelkerke R² =.279

Figure 2



SEGMENTATION TABLE 3

Behavioral Determinants of needle and injection equipment sharing among IDUs in Central Asia (Kazakhstan, Kyrgyzstan, and Tajikistan)

Risk: Injecting drug users in Almaty, Karaganda (Kazakhstan), Chu, Osh (Kyrgyzstan) and Dushanbe (Tajikistan) (N=1421)

Behavior: Sharing needles and/or injecting equipment at last injection.

INDICATORS	Do not share needle/equipment N=858 60.4%	Share needle/equipment N=563 39.6%	OR	Sig.
OPPORTUNITY				
Availability I can always find a new syringe or needle of the needed size when I am ready to make an injection	3.41	3.3	1.24	**
Social Norm Social Norms around injecting drug use behavior (Scale)	2.96	2.78	1.96	***
MOTIVATION				
Intention Intentions for NOT sharing needles and equipment in the future (Scale)	3.17	2,92	1.87	***
It isn't convenient for me always to carry new needles/syringes with me ®	2.09	1.97	1.13	***
POPULATION CHARACTERISTICS				
Marital Status Single man or woman (vs. all others) (37.3 % of this sample)	35.0%	40.8%	.77	*

ns: not significant; *: p<.05; **: p<.01; ***: p<.001.

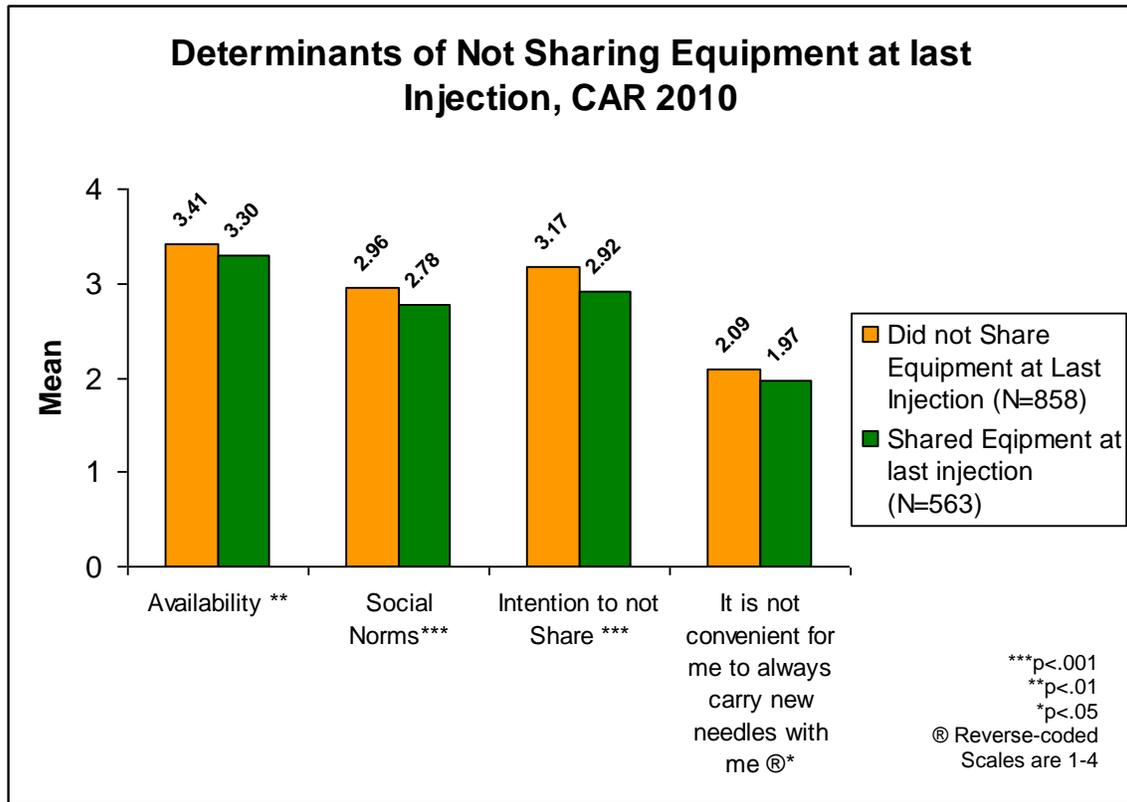
Hosmer-Lemeshov goodness-of-fit = ..263

Chi-square=217.430, (df=6), p<.001.

Cox R² = .142, Nagelkerke R² = .192

Scale values range from 1 to 4: 1 = totally disagree, 2 = disagree, 3 = agree, 4 = totally agree

Figure 3



POPULATION CHARACTERISTICS

POPULATION CHARACTERISTICS	Total March/ 2010 N=1454	Tajikistan March/ 2010 N=431	Kyrgyzstan March/ 2010 N= 520	Kazakhstan March/ 2010 N=503
Male (vs. Female)	86.7	79.1	86.4	93.6
Age	32.6	31.8	36.3	29.6
Has children	53.9	52.5	68.1	40.4
<i>Level of Education Attained</i>				
• Primary or less	11.5	22.8	9.0	4.8
• Secondary, but not tertiary	56.1	45.2	63.7	57.2
• Above secondary	32.4	32.0	27.3	38.1
<i>Marital Status</i>				
• Single/never married	37.2	35.9	25.6	50.4
• Not married/cohabiting	14.6	10.8	9.4	23.0
• Married/cohabiting	29.8	33.3	39.8	16.6
• Widowed/divorced/separated	18.4	20.0	25.2	10.0
<i>Nationality</i>				
• Kazakh	14.0	1.2	4.4	34.4
• Kyrgyz	8.6	1.0	22.3	0.6
• Uzbek	14.8	16.5	26.9	0.8
• Tajik	19.0	63.7	1.7	0.2
• Russian	35.7	15.1	35.6	52.8
• Other	7.9	2.4	9.0	11.2

<p><i>Intentions to share injecting equipment</i></p> <ol style="list-style-type: none"> 1. I might share or take someone else's needle/syringe the next time I make an injection ® 2. I am not going to share needles with another person in the future 3. I am not going to share spoons, cups, cotton, filters, and rinse water in the future 	<p>0.72</p>
<p><i>Attitude</i></p>	<p>No scale formed</p>
<p><i>Threat HIV infection</i></p> <ol style="list-style-type: none"> 1. I share needles I have a higher risk of getting HIV 2. If I share filters, rinse water, etc. I have a higher risk of getting HIV 3. Sharing needles and syringes even once increases ones risk of HIV infection 4. Sharing a syringe to prepare or divided drugs increases one's risk of being infected with HIV 	<p>0.73</p>
<p><i>Threat-Perceived Severity</i></p>	<p>No scale formed</p>

RELIABILITY ANALYSIS VCT AMONG IDUs IN CENTRAL ASIA 2010

Composite Variables	2010 (N=1454) Cronbach's Alpha
OPPORTUNITY	
<p><i>Availability</i></p> <p><i>Social norms for VCT testing</i></p> <ol style="list-style-type: none"> 1. People in my network believe getting tested form HIV regularly is important 2. People in my network often disclose their HIV status with their partners 3. People in my network are comfortable discussing getting tested for HIV with their close family 4. People in my network often discuss getting tested for HIV with their friends 5. People in my network disclose their HIV status to their friends 6. People in my network disclose their HIV status to their family 7. People in my network disclose their HIV status to their healthcare provider 	<p><i>No scale formed</i></p> <p>0.85</p>
ABILITY	
<p><i>Self-efficacy regarding revealing HIV status to others</i></p> <ol style="list-style-type: none"> 1. I am confident that I can reveal my status (positive or negative) to my regular partner 2. I am confident that I can reveal my status (positive or negative) to my causal partner 3. I am confident that I can reveal my status (positive or negative) to my family 4. I am confident that I can reveal my status (positive or negative) to peers 5. I am confident that I can reveal my status (positive or negative) to my health professional <p><i>Social support for HIV testing</i></p> <ol style="list-style-type: none"> 1. My family members encourage me to be tested for HIV 2. My health practitioner encourages me to get tested for HIV 3. My friends encourage me to be tested for HIV 4. My long-term partner supports my decision to get tested for HIV 5. I would encourage my partners (s) to get tested for HIV 6. I would encourage my friends to get tested for HIV <p><i>HIV/AIDS Knowledge sexual risk</i></p> <ol style="list-style-type: none"> 1. Having an STI (e.g. gonorrhoea, syphilis, etc.) can increase the likelihood of contracting HIV 2. Using condoms regularly reduces the risk of getting HIV 3. A couple who is faithful to each other reduces the risk of HIV 4. Unprotected sex can increase the risk of contracting HIV and STI <p><i>Beliefs about VCT testing</i></p> <ol style="list-style-type: none"> 1. Voluntary counseling and testing is only for HIV positive people ® 2. Voluntary counseling and testing is only for promiscuous people ® 3. I should only go for Voluntary Counseling and Testing when I am sick or ill ® 	<p>0.80</p> <p>0.89</p> <p>Index – no alpha required</p> <p>0.88</p>
MOTIVATION	
<p><i>Intention to get tested</i></p> <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 partners(s) in the next three months 3. I plan to get tested before I have sex with a new partner 4. I plan to get tested after I have sex with a new partner 5. I plan to get tested every year 	<p>0.87</p>

RELIABILITY ANALYSIS: TB TESTING AMONG IDUs IN CENTRAL ASIA 2010

Composite Variables	2010 (N=1454) Cronbach's Alpha
OPPORTUNITY	
<p><i>Availability of TB testing</i></p> <ol style="list-style-type: none"> 1. I know where the nearest TB testing facility is available 2. TB testing services are easily available 3. TB testing facility hours are convenient 4. I can get tested for TB at my local health facility 5. I know where the nearest TB treatment facility is available 6. TB treatment facility hours are convenient 7. TB treatment services are easily accessible in my local area 	0.93
<p><i>Social norms of TB testing – willingness to test</i></p> <ol style="list-style-type: none"> 1. My friends get tested for TB when they have symptoms 2. People in my network get tested for TB when they have symptoms 3. It is common for my friends to get tested for TB 4. It is common for people in my network to get tested for TB 	0.88
<p><i>Social norms of TB testing – resistance to testing</i></p> <ol style="list-style-type: none"> 1. People in my network don't get tested for TB ® 2. My friends don't get tested for TB ® 3. My friends wouldn't get tested even if they were unwell ® 4. People in my network wouldn't get tested even if they were unwell ® 	0.84
ABILITY	
<p><i>Self-efficacy for completing TB treatment</i></p> <ol style="list-style-type: none"> 1. I am confident I could successfully complete TB treatment 2. I am confident I could seek the advice required to complete TB treatment 3. I am confident I could follow instruction to complete treatment 	0.92
<p><i>Social support for TB testing and treatment – emotional support</i></p> <ol style="list-style-type: none"> 1. My family members encourage me to be tested for TB 2. People in my network encourage me to be tested for TB 3. My friends encourage me to be tested for TB 4. My partner would take me to be tested for TB 5. People in my network would encourage me to fully complete TB treatment 6. People in my network tell me about the importance of completing TB treatment 7. My friends would encourage me to fully complete TB treatment 8. My friends tell me about the importance of completing TB treatment 9. My partner would encourage me to complete TB treatment 10. My partner would tell me about the importance of completing TB treatment 	0.95
<p><i>Social support – functional support for TB testing and treatment adherence (information and access)</i></p> <ol style="list-style-type: none"> 1. My friends tell me where to go to get a TB test 2. My family tell me where to go to get a TB test 3. My partner tells me where to go for a TB test 4. My friend would go to Medical Center or TB clinic with me to get tested 5. My family would go to Medical Center or TB clinic with me to get tested 6. My partner would go to Medical Center or TB clinic with me to get tested 7. People in my network would go to the Medical Center or TB clinic with me to get tested 	0.94

<p>8. People in my network would help me get support for TB treatment if I needed it</p> <p>9. My family would help me get support for TB treatment if I needed it</p> <p>10. My friends would help me get support for TB treatment if I needed it</p> <p>11. My partner would help me get support for TB treatment if I needed it</p> <p><i>Knowledge of TB transmission routes</i></p> <p>1. TB is spread from one person to another through the air</p> <p>2. TB is spread from one person to the other through coughing and spitting</p> <p>3. I can get TB by shaking hands ®</p> <p>4. I can get TB by sharing food ®</p> <p>5. I can get TB from raw milk from infected animal</p> <p><i>Knowledge of TB risk</i></p> <p>1. Anyone can get TB</p> <p>2. Some people can get TB easier than others</p> <p>3. People with HIV are at more risk for TB</p> <p>4. People with TB are at more risk for HIV®</p> <p><i>Knowledge of TB treatment</i></p> <p>1. TB is curable with the right treatment</p> <p>2. TB is easier to cure in early stages</p> <p>3. TB Meds are provided free of charge</p> <p>4. If you have TB infection, you have to take medicine even if you don't feel sick</p> <p>5. If you stop treatment before completion, the dz can relapse into drug resistance</p> <p><i>Knowledge of TB symptoms (three correct symptoms named)</i></p> <p>1. Cough for two weeks or more</p> <p>2. Low grade fever</p> <p>3. Night hyperhidrosis</p> <p>4. Weakness/fatigue</p> <p>5. Appetite loss</p> <p>6. Weight loss</p> <p>7. Blood in sputum</p> <p>8. Chest pain</p>	<p>Index – no alpha required</p>
MOTIVATION	
<p><i>Attitudes towards the TB test</i></p> <p>1. Getting tested for TB is safe</p> <p>2. Getting tested for TB provides reliable results</p> <p>3. Getting tested for TB is easy</p>	<p>0.83</p>
<p><i>Beliefs about TB testing</i></p> <p>1. TB testing is only for sick people ®</p> <p>2. I don't need to get tested for TB ®</p> <p>3. I should only go for TB testing when I am sick or ill ®</p> <p>4. People like me don't need to get tested for TB ®</p>	<p>0.76</p>
<p><i>Personal costs of getting TB test</i></p> <p>1. Getting tested for TB could lead to problems at work ®</p> <p>2. Getting tested for TB could damage my relationship with my friends ®</p> <p>3. Getting tested for TB could damage my relationship with my family ®</p> <p>4. Getting tested for TB could damage my relationship with my network ®</p> <p>5. Getting tested for TB could damage my relationship with my partner ®</p>	<p>0.90</p>
<p><i>Personal costs of being on TB treatment</i></p> <p>1. I may lose friends if they know I am on TB treatment being on TB treatment could damage my relationship with my partner ®</p> <p>2. Being on TB treatment could damage my relationship with partner ®</p> <p>3. Being on TB treatment could damage my relationship with family ®</p> <p>4. Being on TB treatment could damage my relationship with my network ®</p> <p>5. I could lose my job if on TB treatment</p>	<p>0.89</p>
<p><i>Intentions towards getting TB test</i></p>	<p>0.77.</p>

<ol style="list-style-type: none">1. I plan to get tested for TB within the next three months2. I plan to get tested if I have TB symptoms3. I plan to get tested every year4. I plan to get tested for TB because I am at risk	
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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.

- **Tailor different services to IDUs with particular characteristics.** Younger IDUs and IDUs who have been injecting drugs for 5 years or less should particularly be encouraged to attend long-format sessions. According to the segmentation analyses, younger IDUs were less likely to have been tested for TB in the last 12 months and IDUs who have been injecting drugs for fewer years (average of 4.57 years) were less likely to have been tested for HIV in the last 12 months.
- **Focus all activities and materials on priority determinants.**
 - **HIV testing:** In order to increase the number of IDUs who get tested for HIV every 12 months, increase the number of IDUs who know where to go for VCT and decrease the number of IDUs who believe that VCT is only for people who are HIV positive, promiscuous, or sick.
 - **TB testing:** In order to increase the number of IDUs who get tested for TB every 12 months, increase their knowledge of TB symptoms and decrease the number of IDUs who believe that TB testing is “not for me” and only for people who are sick.
 - **Not sharing injecting equipment:** In order to decrease the number of IDUs who share injecting equipment, increase the perceived convenience of always carrying new needles and syringes and increase the social norms around not sharing injecting equipment.
 - **Condom use:** In order to increase the number of IDUs who report condom use at last sex, increase their risk perception towards having sex without condoms with non-marital and non-regular partners whom they “know well,” and who look healthy and seem safe.
- **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.
 - **Convenience of carrying needles and syringes:** Package needles and syringes to be distributed in a manner that makes the presence of the needles and syringes inconspicuous. Work with the local police and municipality leaders to prevent police harassment of IDUs carrying needles and syringes.
 - For the **other priority determinants**, spread the following specific messages through all IPC opportunities and IEC materials:

- *Beliefs about who needs to get tested for HIV:* Everyone makes poor choices at times; just one can put you at risk. Get tested to be certain about your HIV status. [1]¹
 - *Knowledge of TB symptoms:* Coughing? Sweating at night? No appetite? Don't wait for tomorrow, get tested for TB today. TB is curable when it is discovered in time. [2]
 - *Beliefs about who needs to get tested for TB:* TB can hide inside anyone – even you! Don't wait for the cough, get tested. [3]
 - *Social norms for sharing injecting equipment:* You wouldn't share a toothbrush with your friends. Why share your needle or injecting equipment? Protect yourself and your friends by using a new needle and your own equipment every time you inject. [4]
 - *Risk perception for having sex without condoms with non-marital and non-regular partners whom they know well, and who look healthy and seem safe:* Even a beautiful person can have an ugly disease. Use a condom every time. [5]
- **Only communicate a few messages per session or event.** Too many messages during one session can overwhelm the recipient and cause little to be remembered. The following table presents a suggestion for how to rotate the messages during the course of a year (with the first quarter beginning in January 2011). Each number refers to a message identified by numbers 1 through 5 in the section above.

Channel	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Mini-session	4 & 2/3	4 & 1	4 & 2/3	4 & 5
Long-format session	4 & 2/3	4 & 1	4 & 2/3	4 & 5
Edutainment events	TB Day – 2 & 3	Day Against Drugs – 4 & 1	(No major events)	World AIDS Day – 4 & 1 & 5
IEC materials	4 & 3	4 & 1	4 & 3	4 & 5
Escort (Topic of conversation during escort service)	4 & 3 or 1 (Opposite of what test they are going to)	4 & 3 or 1 (opposite of what test they are going to)	4 & 3 or 1 (opposite of what test they are going to)	4 & 3 or 1 (opposite of what test they are going to)

¹ Each message is identified with numbers 1 through 5 for the table below.

- **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 IDUs face-to-face, we should be attentive to the fact that there are IDUs who have received little or no education. In Tajikistan, 22.8% 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 9.0% and 4.8%, respectively.