# Bio-behavioral surveillance surveys among prisoners

# in Georgia

(Tbilisi, Kutaisi, 2008)

## **Study report**

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**Curatio International Foundation** 

Tanadgoma Center for Information and Counseling on Reproductive Health

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## **Acronyms:**

AIDS Acquired Immunodeficiency Syndrome

BSS Behavior Surveillance Survey

ELISA Enzyme-Linked Immunosorbent Assay

HIV Human Immunodeficiency Virus

IDU Intravenous Drug User

PCR Polymerase Chain Reaction

SPSS Statistical Package for Social Sciences

SRS Simple random sampling

STI Sexually Transmitted Infection

VCT Voluntary Counseling and Testing on HIV

WHO World Health Organization

#### **Definitions**

**Anonymous testing** – testing where no names are taken but results are linked to a number that only the participant knows.

**Regular condom use** – using condoms at every sexual intercourse: either vaginal, oral or anal.

**Divorced** – a person who has officially terminated the contract of marriage.

**High risk behavior** — any behavior that exposes the person, or persons, to the risk of being infected with STIs/HIV/AIDS, or to transmit those infections to another person (i.e. having multiple sexual partners without regular condom use; using non sterile shared needles by injecting drug users).

**Regular Sexual Partner** – the spouse/lover/person whom the respondent cohabitates with.

**Separated** – a person who does not cohabitate and has broken the relationship with her/his spouse without having officially terminated the legal status of marriage.

**Vertical Transmission** – transmission of HIV from mother to child during pregnancy, labor or through breastfeeding.

### **Executive Summary**

By 2008 there were 22 000 prisoners in the Georgian penitentiary system. Georgia has one of the highest prisoners to population ratios in the world. The main reason for imprisonment in Georgia is drug-related crime. The majority of prisoners are arrested for repeated use of drugs or for keeping them in small amounts. Despite the fact that conditions in prisons have improved recently, still the situation remains very hard.

Prisons are in some way endemic areas for diseases such as tuberculosis, HIV infection, and hepatitis B and C. According to various data, risk behaviors such as sharing syringes, needles and other injecting equipment are widespread in prisons. Testing for blood-borne infections in prisons started in 2005. Before that similar services were not available in prisons so there is no information about prevalence of these diseases. During the last few years the situation has changed positively and more and more prisoners are covered by testing.

The overall goal of the survey was to study social-demographic features of the prisoners, high risk behaviors, knowledge on STI/HIV/AIDS and prevalence of HIV infection in the penitentiary system.

The survey was conducted from 30 October - 20 November, 2008. The survey is a result of joint and coordinated efforts of governmental and non governmental organizations. The administration of penitentiary system was actively involved in the planning of this survey. Prison medical staff was involved in recruitment of participants. Their professionalism and the trust demonstrated toward them by prisoners were the key factors for mobilizing the participants without delay or complication.

Though "Tanadgoma" and the penitentiary department have been collaborating for a long time, this survey is the next stage which will help us make researches in the future on a regular basis and to get a real picture about the situation in prisons.

The Simple Random Sampling method was chosen for forming the sample for the survey. For detecting the size of the sample 2 kinds of approach were used:

- Statistic program EPI info (population size-22 000, expected frequency of the factor under study - app. 15%, error - -5%, confidence level - 95%, sample size -200 persons).
- On the other hand, multilevel method recommended by WHO was used (expected frequency of the factor under study - app. 0.15, error-0.05, confidence level -1.96, response of participants-0.9, design effect-1, sample size-212 persons).

We have to mention that in both cases similar data were obtained and the final sample size was 210 persons.

#### **Demographic and Social Characteristics**

The study was carried out in 3 penitentiary institutions of the Penitentiary Department of the Ministry of Justice: Prison #1 (Tbilisi), the penitentiary institution #5 of strict and common regime for women and underage persons (Tbilisi) and prison #2 (Kutaisi).

In prison #1 121 prisoners were investigated, in prison #5 - 20, in prison #2 - 70. The number of the respondents from each prison is equal to the ratio of the total number of prisoners in these prisons to all inmates in all penitentiary institutions. 191 respondents were males (90, 5%) and 20 were females (9.5%)<sup>1</sup>.

The average age of respondents was 31.15 (st. deviation-8.66). The youngest respondent was 18 and the oldest was 71. There was no statistically significant difference between male and female average ages.

The main group of respondents (105 inmates, 49.7%) was the prisoners of 18-39 years, 67 persons (31.8%) were 30-40 years old and the remaining 39 respondents (18.5%) were 40 years old and older.

The majority of respondents (143 - 67.8%) had secondary education. In second place are respondents with higher education (52 - 24.6%), then – persons without any education or only primary education (11 - 5.2%), then - incomplete higher education (5 - 2.4%).

In terms of ethnicity, 184 (87.2%) respondents were Georgians, 8 (3.8%) - Armenians, 6 (2.8%) - Kurds and 5 (2.4%) - Azeri.

Marital Status: More than a half of the male respondents 102 (53.4%) were married, 13 (6.8%) were divorced. Only 9 (45%) female prisoners were married and the same number was divorced. This difference was statistically significant and indicates a higher rate of divorce among women than in men (p < 0.001).

Among the survey participants 15 persons (7.1%) were IDPs: 14 males and 1 female.

Average duration of imprisonment was 2.9 years. There was no statistically significant difference of imprisonment duration between male and female prisoners.

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<sup>&</sup>lt;sup>1</sup> In sample size the number of women prisoners corresponds to the percentage rate of women in all prison population.

#### HIV/AIDS knowledge, attitude, opinions

The majority of the respondents (83.4%) mentioned that they had heard about HIV/AIDS. When disaggregated by sex, all female respondents reported that they had heard about HIV/AIDS, and 35 (18.3%) male respondents mentioned that they had not heard about HIV infection.

90.3 % of the respondents indicated that unprotected sex leads to the spread of HIV infection. 84.7 % of respondents answered the question about needle/syringe sharing correctly, however, there was quite a low correct answer rate (20.5%) regarding risks connected to injecting equipment sharing. Also, there was a low awareness rate regarding the risks of untested blood transfusion and vertical transmission.

The following answers were received to the question regarding mother-to-child transmission: 107 (60.8%) prisoners indicated that this is possible and 38 (21.6%) - that this way of transmission is impossible. Statistical analysis showed that women gave more correct answers (85%) than men (57.7%).

The respondents revealed a high awareness rate regarding HIV infection testing. 124 (70.5%) prisoners answered correctly the question "How is HIV/AIDS diagnosed?". We have to mention that all women prisoners gave correct answers (special blood test), while among men the percentage of correct answers was 66.7%. This difference was statistically confirmed and indicates that the female population was more informed about this issue (P< 0.002).

The majority of respondents thought that HIV can not be completely cured. 24 (13.6%) thought that it is possible and 9 (5.1%) respondents did not have an answer to this question.

81.1 % of respondents knew that correct condom use is a protection against HIV infection. Approximately the same number of prisoners knew that single use of syringes/needles and cosmetic/hairdresser equipment is absolutely necessary for prevention of HIV infection. The number of prisoners who thought that having one faithful sexual partner is a preventive measure against HIV infection was quite low (11.8%).

To the question if they had ever been tested for HIV 57 (32.4%) prisoners gave positive answers. Among them 72 % (41/57) mentioned that they had been tested in prisons.

For the majority of the prisoners, especially for men, HIV testing was done in penitentiary system: 75% (36/48) of men and 55.6% (5/9) of women. This indicates the accessibility of services in the penitentiary system.

Among the prisoners who had been tested in the penitentiary system (in total 41 prisoners) only 22 (53.7%) knew the result of this testing. Almost half of them (46.3%) did not know their results. This probably happened due to prisoners' migration inside the penitentiary system, which could possibly hinder delivering the results to them.

In total, the respondents revealed quite a high awareness level regarding HIV infection, though they often gave the answers which reveal that there still is a stigma among prisoners towards HIV positive persons. 68.2 % of prisoners thought that HIV positive prisoner should be isolated from others, 23.3 % of prisoners stated that they would end all contact with a HIV positive prisoner.

HIV/AIDS knowledge, attitude, and stigmatization level did not correlate with sex, gender, marital status, level of education or history of injecting drug use. On the other hand, the level of knowledge about HIV was related with stigma and stereotypes. This correlation was statistically confirmed. High level of knowledge (P = 0.05) caused a low level of stereotypes (P = 0.039).

#### STI knowledge, attitude, opinions

181 (85.8 %) of respondents had heard about STIs. 161 (94.7%)were men and 20 were women (100%).

Syphilis, gonorrhea and trichomoniasis were mentioned frequently as sexually transmitted infections by both men and women.

The level of knowledge increased from younger age groups to older ones in both men and women.

As for general STI symptoms, the respondents listed the following symptoms: Genital discharge, rash and burning during urination.

When asked about STI symptoms typical for men, the respondents listed the following symptoms: genital discharge -60.2%, rash -21.5%, burning/pain during urination -32%.

Regarding STI symptoms among women, the respondents listed the following symptoms: genital discharge -16.7%, rash -7.25%, burning/pain during urination -7.8%. It should be mentioned that such a low level of knowledge on STI symptoms in general was due to the male prison population. The same indicators in males are as follows: genital discharge -13.0%, rash -3.7%, burning/pain during urination -5.6%. The difference is statistically verified (P < 0.001).

The distribution of STI knowledge by age groups indicated a higher level of knowledge in the group of prisoners who were 40 or more years of age, compared to the younger age groups, but this difference was not statistically significant.

Out of 140 respondents 14 (10.0%) (12 males and 2 females) report that they had had STI symptoms during the last year. Among them 5 males and 2 females took STI tests. 2 males and 1 female had taken these tests during the last year, one male and one female - during the last 6 months, 2 males - during the last 3 months. 2 males and 2 females knew their test results, and for 3 males their test results are unknown.

80.5% (124/154) of male prisoners and 50.0% (9/18) of female respondents thought that they did not need STI testing. 22.2% of women and 5.2% of men thought that in the penitentiary system there are proper conditions for testing.

Out of 14 prisoners that had STI symptoms 8 did not undergo any treatment. Lack of proper conditions was listed as the factor which prevented treatment in penitentiary system by 7 prisoners (5%). It is worth mentioning that all the prisoners who needed treatment and did not undergo the treatment were males.

#### Sexual behavior, relationship with sexual partners, condom use

It is worth mentioning that during the last few years the penitentiary department did not allow the prisoners to have long-term visits, so prisoners are not allowed to meet in private any person from outside, including family members or sexual partners. That's why the number of prisoners who had sexual relationships in the penitentiary system was extremely low. Only 3 male prisoners had had sexual contacts during their imprisonment.

3 prisoners had sexual contact during the last 6 months. 2 of them had heterosexual contacts and 1 – homosexual contacts. 1 prisoner had homosexual contacts once a month; the other 2 heterosexual prisoners had sexual contacts several times per month. During heterosexual contacts the prisoners used condoms occasionally, during homosexual contacts - almost never. During the last vaginal contact a condom was not used. Condom use was always negotiated with the partner. The initiator of condom use was the prisoner himself. It has to be mentioned that the sexual partner of the homosexual prisoner was an IDU.

#### **Drug Use**

69.7 % (147) of prisoners answered positively to the question if they had ever taken drugs (injecting or non injecting drugs). 71.7% of male prisoners and 50% of female prisoners had used some drugs in their lives.

Prisoners of both sexes have used injecting as well as non injecting drugs. The average time for use of injecting drugs was 8.16 years (st. deviation -6.1), for men -8.1 and for women -9.3 years.

13 (6.2%) persons from the sample population mentioned that they had taken drugs during the last 6 months. 9 out of them were males and 4 - females. 11 out of them used injecting drugs, one - non injecting drugs. Survey data reveal that 2.8% (CI 1% - 4.6%) of prisoners were using injecting drugs in the penitentiary system.

#### Sharing needles and other injecting equipment

60 respondents, which represents 58,8% of all injecting drug user respondents and 28.4 % of all sample, had used a previously used needle or syringe.

The practice of sharing needles and other injecting stuff is equally distributed in men and women inmates. 17 male respondents indicated that at their last sharing practice the number of people who shared needles or other injecting items was 2 or more. The average group of IDUs who shared the needles consisted of 3.2 persons.

The majority of IDUs who shared needles cleaned the needle/syringe only with water; only 3 of them used some disinfection solutions. Among females only 2 cleaned the syringe "sometimes", one of them with water, the other with disinfection solution.

#### **Additional risks**

51.2% (108/211) of the respondents have done a tattoo in penitentiary institutions. 68 out of them indicated that they did this with a needle which was previously used by others.
6.3% (12/191) of male respondents mentioned that for medical reasons they had used a needle/syringe which was used previously. There are no such facts reported among female prisoners.

The practice of doing tattoos including using non sterile needles was quite common among men and women as well. In terms of alcohol, 50 % of women prisoners used alcohol, while among men only 5.2 % did. The difference was statistically significant (P< 0.001).

#### Sources of information

The most important source of information about HIV/AIDS and STIs for the majority of the respondents (60.7%) was TV. 73 (34%) of respondents indicated special leaflets, 18.6% - magazines and newspapers, 19.5% - other prisoners.

After receiving the information 96 (45.5%) of the respondents changed their risk behavior, among them 89 (47.6%) men and 7 (35%) women. The main share of behavior changing was not sharing needles and other injecting equipment (28/100). 2 female prisoners indicated that they did not use somebody else's cosmetic tools (scissors etc.).

As the most reliable source of information the majority of prisoners listed TV, special leaflets, and medical professionals. The male respondents preferred to receive information from TV (28.7%), magazines and newspapers (24.5%), NGOs (21.3%), special leaflets (18.6%) and medical professionals (12.2%). For female prisoners priorities are special leaflets (35.0%) and medical professionals (35.0%), then TV (20.0%) and NGOs (10.0%).

#### Recommendations

- Analysis of demographic data of the respondents underlines the high level of divorces among female inmates. It is likely they are without any social or financial support after the termination of their imprisonment. Preparation for their social adaptation and reintegration into society once their confinement is over must be initiated during their imprisonment. It is advisable to prepare and implement teaching courses which would provide inmates with independent income after getting discharged. Some projects are being carried out in this direction currently; however, such activities must be expanded and carried out continuously.
- Representatives from the penitentiary system and nongovernmental sector who implement educational activities must take into consideration the deficit in inmates' awareness to the risks of HIV/AIDS and STI transmission through shared injecting equipment. When working with the female population, vertical modes of transmission must be emphasized, especially the possibility of HIV transmission through breastfeeding. Accordingly, it is desirable to elaborate a specific Behavior Change Communication strategy, tailored to the target population and based on their needs. This strategy should consider, first of all, creation of special educational materials and their distribution within the penitentiary system.
- HIV testing is more or less accessible within the penitentiary system, but a significant
  problem arises regarding inmates' notification about test results. It is essential to
  create and introduce a unified registration system, giving the opportunity to provide
  prison inmates with the test result in a timely manner even if they change their
  penal location. The same principles of anonymity and confidentiality must be kept.

- Activities targeting raising awareness on HIV/AIDS among prison inmates must be enhanced to the maximal extent. Study results demonstrate that raising awareness is directly linked with decreasing stigma and discrimination.
- In addition to access to HIV testing within penitentiary institutions, opportunities for other STI testing is low. Certain attention must be paid to this issue in terms of proper technical equipping of local medical units, which would provide prison inmates with the opportunity to get tested for STIs. It is advisable to establish regular counseling practices by certified venerologists, as well.
- It is essential to increase access to disposable injecting equipment in order to
  decrease sharing practices of syringes/needles and injecting accessories. Practices of
  sharing razors, using contaminated needles for tattooing, and sharing
  hairdressing/cosmetic accessories are common and this must be taken into
  consideration as well. It is advisable to provide prison inmates with these items of
  personal hygiene.
- Since the television was cited by the respondents as one of the most reliable sources of information, special TV messages addressing the inmate population should be broadcast during informational and social broadcasts. It is essential to strengthen non-governmental organizations inside the penitentiary institutions. Moreover, it is important to prepare and include local medical staff into HIV/AIDS and STI prevention efforts, since they are acknowledged by prison inmates among the most reliable sources of information regarding these issues.
- Although HIV testing within penitentiary institutions is more or less accessible, it is advisable to expand it further. So, it is very important to launch the VCT centers on sites. Several such centers are already established under the framework of the Global Fund supported project. These centers provide the opportunity for early detection of HIV cases in the future. At the same time, it is essential to ensure general access to disposable injecting materials in order to minimize risky practices such as sharing syringes/needles and other injecting accessories.

#### Introduction

By 2008 there were 22 000 prisoners in the Georgian penitentiary system. Among them 21 450 were males and 550 were females. 230 prisoners were in the special juvenile prison. In Georgia the number of prisoners per 100 000 population is 500. Georgia has one of the highest prisoners to population ratios in the world. In total, there are 18 institutions under the penitentiary system of Georgia. Among them there are 2 institutions of medical profile.

The main reason for imprisonment in Georgia is drug-related crime. The majority of prisoners are arrested for repeated use of drugs or for keeping them in small amounts. Some prisoners continue using drugs even during imprisonment. This is connected with the increased drug use related risk behaviors, which leads to spread of HIV infection and other socially dangerous diseases.

#### Conditions in penitentiary system

Despite the fact that conditions in prisons have improved recently, still the situation remains very hard. The penitentiary system is not able to provide prisoners with the minimal space which is required by Georgian law. The reason for that is excessive number of prisoners.

Overloading the prisons has been particularly visible during the last 4-5 years. During the last 10 years the number of prisoners has increased about 2.5 times. Despite the fact that a few new prisons have been opened it's still impossible to provide enough space for prisoners because of the dramatic increase of their number. Living conditions are even more difficult in so-called "colony" type institutions where there is an extremely high density of inmates living in "barracks". In summertime part of prisoners are living outside in primitively built shelters. In such conditions the risk of spreading socially dangerous diseases is extremely high. Of particular concern is a very high index of tuberculosis. The situation regarding blood-borne infections such as HIV and viral hepatitis is also quite worrying. Overloaded prisons represent very good ground for spreading such infections. Along with this, access to single-use medical materials and hygiene items is low. Inmates often share shaving items and practice tattooing with non-sterile instruments.

During the last decade the Georgian penitentiary system has undergone important changes. Before 2003 the prisons in Georgia were mostly organized as Soviet "colony type" institutions where all inmates could easily move inside the prison territory. They had almost unrestricted ability to contact each other. The criminal authorities were actively involved in prison management; they were running prisons in coordination with prison administration.

In these conditions there was no control on traffic of restricted items in and out of prisons. Drugs could easily leak inside prisons. Sharing injecting equipment was very common. Along with this, there were unprotected sexual contacts (both homo- and heterosexual) which are risk behaviors for spreading HIV. In that period FSWs' (female sex workers) visits to inmates were quite frequent and condom use was very low.

In 1998 WHO experts declared HIV prevention in prisons as a priority<sup>2</sup>. Right after this the NGO sector became very active in terms of launching HIV/AIDS and STIs prevention and harm reduction programs in prisons.

Although prisoners were not allowed to keep needles and syringes, NGOs were given the capability of needle and syringe distribution and donation. This meant that these needles were donated to the prison's local medical posts and were used for medical reasons as well as for harm reduction purposes, which implies minimizing the harm caused by illegal drug use through the distribution of new injecting equipment. In "open" type prisons it was possible to have discussions and consultations with the inmates in friendly and unconstrained environments which resulted in effective educational meetings.

Since 2003 the situation has been gradually changing. New reform led to transformation of the majority of "open" type prisons to "semi-open" or "closed" type institutions. This transformation had a positive effect in terms traffic control of illegal items, especially drugs, into prisons. This was a positive moment, but the access to single-use injecting items was also restricted.

At the end of 2005 an internal regulation, according to which the inmates are banned to keep any syringe/needle, was fully activated. Now, if a needle is found on the prisoner, he/she can be the subject of administrative penalty or even more strict punishment. As a result we have the situation where small amounts of drugs can get inside prisons but accessibility of injecting materials is completely restricted.

#### Prevalence of infectious diseases in the penitentiary system

Prisons are in some way endemic areas for diseases such as tuberculosis, HIV infection, and hepatitis B and C. High prevalence of blood-borne infections is highly related to unfavorable conditions in prisons. Overloading prisons leads to the easy spread of these diseases.

According to various data, risk behaviors such as sharing syringes, needles and other

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<sup>&</sup>lt;sup>2</sup> Wouter de Jong – UNAIDS consultant in Central and Eastern Europe. "Injecting Drug Use and HIV in Georgia". Data of Express Evaluation Mission in Tbilisi and Batumi. January 13 – 23, 1998.

injecting equipment are widespread in prisons. According to data obtained by the association "Tanadgoma", approximately 11% of prisoners have used injecting drugs in the penitentiary system. The same or even more dramatic data exist in Europe and in American developed or developing countries where the use of injecting drugs varies from 10 to 48 %. The situation is also difficult in female prisons where the same indicator varies from 30 to 60 %3. All these factors led to a wider spread of blood-borne infections in prisons compared to the general population.

Testing for blood-borne infections in prisons started in 2005. Before that similar services were not available in prisons so there is no information about prevalence of these diseases. During the last few years the situation has changed positively and more and more prisoners are covered by testing. Here we have to mention the positive role of the penitentiary department administration. They do not block NGO activities in prisons and expressed a positive attitude towards health protection programs. This helped us to survey the spread of HIV infection and viral hepatitis among prisoners in several prisons.

Table 1: The spread of blood transmitted diseases in Georgian prisons, 2006 – 2008<sup>4</sup>

Prevalence of Blood transmitted	Years		
diseases	2006	2007	2008
New cases of HIV infection	8/1000	9/1000	17/1000
Prevalence of HIV infection*	29/10 000	31/10 000	34/10 000
Prevalence of Hepatitis C	52.6%	55.4%	60.8%
Prevalence of Hepatitis B	7.3%	4.3%	9.0%

<sup>\*</sup> calculated from total number of prisoners

It has to be mentioned that these data outnumber 10 times the similar data in general population.

The similar results were given from other comparable researches done in Georgia: According to the research carried out in May 2004 by the Institute on Drug Addiction, funded by SCAD project, 41 % out of 250 prisoners admitted the use of drugs in the penitentiary system. Half of drug user prisoners reported having shared needles and/or injecting equipment<sup>5</sup>.

Similar data were obtained from research implemented by the Institute of Dermatology and Venereal Diseases in the framework of the project "Prevention and epidemiological safety of socially dangerous diseases". According to this research, 44.7% of prisoners (1314/2940) used opium type drugs.

<sup>&</sup>lt;sup>3</sup> Lancet Infect Dis 2009; 9: 57–66

<sup>&</sup>lt;sup>4</sup> Center for Information and Counseling on Reproductive Health "Tanadgoma", Annual Report, 2008

<sup>&</sup>lt;sup>5</sup> "Drug Situation in Georgia", Annual Report, 2004; Southern Caucasus Anti Drug Program

According to all mentioned above, it is extremely important to monitor the risk behaviors related to drug abuse and unprotected sex, as well as to establish an epidemiological control on blood-borne infections. This is essential for public health purposes to improve the health situation in prisons and in the whole country as well.

#### **Methods**

#### **Sampling Procedure**

Simple Random Sampling (SRS) Method was used for forming the study sample. It is well known that such approach requires the existence of precise data on a target population. Since such data exist and are available within the penitentiary system, Simple Random Sampling Method was selected for this survey. An advantage of this method is that it guarantees low risk of selection bias and, therefore, provides a highly representative sample. Moreover, data retrieved from statistical analysis of the results in studies using SRS may be easily extrapolated. There were three institutions assigned by the Department for the study sites: Prison #1, High and General Security Institution # 5 for Female and Underage Inmates, and Prison #2. This female institution was selected in order to guarantee the adequate participation of female inmates in the survey. Furthermore, these three institutions were defined as the survey sites since they proved to have basically required material and technical background, which is essential for these types of surveys. After final selection of institutions the sample size was defined.

Two different approaches were set in order to define the sample size:

The first approach was based on the statistical software EPI info (population size – 22 000, expected frequency of the factor under study – approximately 15%, error 5%, confidence level – 95%, the sample size approximately – 200 persons);

The second approach was based on the multistage formula recommended by WHO (expected frequency of the factor under study - approximately 0.15, error 0.05, confidence level - 1.96, response rate - 0.9, design effect - 1, the sample size - 212 persons)<sup>6</sup>.

It must be emphasized that both approaches led to similar results, so the final sample size was 210 persons.

#### Measurements

The Survey Instrument

The survey instrument used for the presented research was a questionnaire provided in the manual Behavioral Surveillance Surveys: Guidelines for Repeated Behavioral Surveys in

<sup>&</sup>lt;sup>6</sup> n=Z\*(P\*(1-P))\*Deff/MOE<sup>2</sup>\*ERR Z-Level of Confidence Measure; P-Baseline Level of Indicator; Deff-Design Effect; MOE-Margin of Error; ERR-Expected Response Rate.

Populations at Risk for HIV by Family Health International (FHI). This tool was used in several countries for the studies of risky sexual and sexuality-related behaviors. Interviews were conducted by the representatives of Tanadgoma, who already had experience in conducting such surveys. Five interviewers carried out the interviewing process.

#### **Biomarker testing**

HIV antibodies were tested using two-step enzyme-linked immunosorbent assay (ELISA). In the case when the sample showed the reaction on the first-step of ELISA (Genescreen Plus HIV Ag-AB, Bio-rad), it was tested repeatedly using the new ELISA kit. The sample was considered positive in case if one out from two tests showed the reaction. All samples unresponsive to HIV antibody testing on its first step were considered negative.

Confirmation for the samples tested positive on HIV antibodies was carried out using Western Blot (HIV Blot, Genelabs).

The blood samples were tested on Syphilis antibodies using test kits for spirochete antigen reaction of hemagglutination (TPHA, Omega Diagnostics).

#### **Ethical Issues**

Researchers were cognizant of the fact that the study participants - prison inmates – were at some risk in the case of identification of the respondent, especially in connection to illegal behaviors such as drug use inside the penitentiary institution. Therefore, the survey was designed to provide maximal confidentiality; all interviews were carried out strictly face-to-face. Several ethical issues were taken into consideration:

- Participation in the survey was voluntary and the study participants were free to withdraw at any time.
- No names were registered. All documentation was anonymous and linked only by a study number.
- Staff conducting the survey was trained in discussing sensitive issues and protecting participants' confidentiality and human rights.
- Recruitment of participants was done initially by NGO "Tanadgoma" Central and Kutaisi branch representatives, who already worked with the population, as well as by medical staff from the penitentiary institutions.

Research protocol was approved by the ethical committee of the HIV/AIDS Patients' Support Foundation. The survey was carried out in collaboration with the Center for Infectious

Diseases, AIDS and Clinical Immunology, which is entitled by the state as a leading institution in the field of HIV/AIDS investigation and treatment.

#### **Recruitment and Interviewing of the Study Participants**

Representatives of medical services from the penitentiary department were involved in recruiting the study participants. They actually represented local medical staff holding positions of medical doctors and nurses. They received numbers for identification of study participants, and then they mobilized the inmates for the survey.

Particular subjects for the study were defined by the random number frames according to the numbers predefined beforehand. In case of refusal by the inmate, the next person in the list was chosen and offered participation.

Involving local medical staff into the recruitment process was conditioned by the trust of inmates towards them. This factor facilitated the mobilization of the study participants. On the other hand, medical staff within the penitentiary institutions is legitimate and, therefore, is actually unrestricted in proper communication with inmates. This was acknowledged as one more advantage in facilitating the study subjects' recruitment.

#### Data processing and analysis

SPSS 15<sup>th</sup> version was used for developing the database. The variable labels, descriptive part and the values were set in accordance with the related components within questionnaire. After data from the questionnaires was entered into the database, 10% of all questionnaires were revised in order to make sure the data was correct. Then, the base cleaning was carried out following the logical conversion of the questionnaire, and the base was tested on data accuracy and full value. Recordings were checked up with cross tabulation, which was used for identification of incorrect measures within output from the same respondent. In case the error occurred, that data underwent the correction. If a particular variable was missing the case became excluded from further analysis.

The methods of descriptive statistics were mostly used during the data processing.

Confidence Interval (CI) for the division and proportion was calculated using the method described by Kirkwood and Sterne<sup>7</sup>. In case of categorical variables Pearson Chi-square was used for value comparison and detecting the differences that were statistically significant,

<sup>&</sup>lt;sup>7</sup> Kirkwood B.R and Sterne J.A.C (2003) Essential Medical statistics, second edition. Eds. Blackwell Science; pp 238-239

and Fischer exact modification as well, if needed (when in more than 20% of cells expected frequency was less than 5). In the case of variables set to a continuous scale the same parameters were calculated using Student's T-test. Logistical regression was used for the statement of dependences between the variables.

**Table 2: Summary of indicators** 

Table 2: Summary of indicators				
Core indicators	Total N=211	Male N=191	Female N=20	
Demographic Characteristics	11-211	14-131	11-20	
Median age	30.0	29.0	34.5	
Level of education				
Secondary	67.8% (143/211)	68.6% (131/191)	60.0% (12/20)	
Marital Status				
Married	52.6% (111/211)	53.4% (102/191)	45.0% (9/20)	
Divorced	10.4% (22/211)	6.8% (13/191)	45.0% (9/20)	
Never been married	36.0% (76/211)	39.3% (75/191)	5.0% (1/20)	
HIV/AIDS knowledge, attitude, opinions				
Have heard on HIV/AIDS	83.4% (176/211)	81.7% (156/191)	100% (20/20)	
HIV/AIDS transmission (selected)				
Unprotected sexual intercourse	90.3% (159/176)	89.7% (140/156)	95.0% (19/20)	
Transfusing the unverified blood	40.3% (71/176)	39.7% (62/156)	45.0% (9/20)	
Using the shared syringe	84.7% (149/176)	84.6% (132/156)	85.0% (17/20)	
Using the shared injecting accessories	20.5% (36/176)	21.2% (33/156)	15.0% (3/20)	
Shared razor	21.6% (38/176)	21.8% (34/156)	20.0% (4/20)	
Tattooing using non sterilized needle	9.7% (17/176)	7.7% (12/156)	25.0% (5/20)	
HIV/AIDS prevention				
By regular use of condoms	81.1% (137/169)	79.2% (118/149)	95.0% (19/20)	
Having one faithful partner	11.8% (20/169)	10.7% (16/149)	20.0% (4/20)	
Using individual syringes/needles and other	70.20/ (12.4/1.00)	00 50/ /120/140\	70.00/ (14/20)	
medical devices	79.3% (134/169)	80.5% (120/149)	70.0% (14/20)	
HIV Testing				
Have been tested for HIV	32.4% (57/176)	30.8% (48/156)	45.0% (9/20)	
Have been tested for HIV while being in	71.9% (41/57)	750/ (26/40)	EE 60/ /E/O\	
prison	71.9% (41/57)	75% (36/48)	55.6% (5/9)	
Last testing on HIV/AIDS				
One year ago	80.7% (46/57)	81.3% (39/48)	78.8% (7/9)	
Within the last 12 months	5.3% (3/57)	4.2% (2/48)	11.1% (1/9)	
Within the last 6 months	10.5% (6/57)	12.5% (6/48)	-	
Within the last 3 months	3.5% (2/57)	2.1% (1/48)	11.1% (1/9)	
Have been notified on test results	66.7% (38/57)	68.7% (33/48)	55.5% (5/9)	
Drug Use				
Have taken any drugs within last 6 months	8.8% (13/211)	6.6% (9/191)	40% (4/20)	
Have taken Injecting drugs	91.7% (11/12)	100% (8/8)	75% (3/4)	
Drug use frequency within last 6 months				
Several times per week	33.3% (4/12)	37.5% (3/8)	25% (1/4)	
Once per week	8.3% (1/12)	12.5% (1/8)	-	
2-3 times per month	25% (3/12)	37.5% (3/8)	-	
Once per month or even seldom	25% (3/12)	12.5% (1/8)	50% (2/4)	
Have got administrative fine due to the	37.2% (35/94)	37.2% (35/94)	_	
drug use	37.270 (33/34)	37.270 (33/34)		
Have been set to the interim detention cell	44% (44/100)	43.6% (41/94)	50% (3/6)	
due to the drug use	7770 (7 <b>7</b> ) 100)	75.070 (71/57)	3070 (3/0)	
Have been incarcerated due to the drug	34.3% (34/99)	33.3% (31/93)	50% (3/6)	
use				
Have used drugs within the regular group	22.2% (6/27)	20.8% (5/24)	33.3% (1/3)	
Sharing needles/syringes and other				
injecting equipment		=======================================	==	
Have ever used shared syringe	58.8% (60/102)	58.9% (56/95)	57.1% (4/7)	
Have used shared syringes within last 6	3.3% (2/60)	3.6% (2/56)	0% (0/4)	
months	(=, 00)	- 3 (=, 50)	\- ( - / - /	
Have used shared syringe taking the drug	36.7% (22/60)	39.3% (22/56)	0% (0/4)	
last time	\ \	(,,	(-/ -/	
Have given somebody his/her used syringe	20.6% (21/102)	22.1% (21/95)	0% (0/7)	
taking the drug last time				
Have used shared injecting accessories	54.9% (56/102)	55.8% (53/95)	42.9% (3/7)	

taking the drug last time			
Main sources of information on HIV/STIs:			
Television	60.7% (128/211)	60.2% (115/191)	65% (13/20)
Newspapers, magazines	30.8% (65/211)	28.8% (55/191)	50% (10/20)
Booklets	34.6% (73/211)	33% (63/191)	50% (10/20)
Penitentiary system staff	0.9% (2/211)	0.5% (1/191)	5% (1/20)
Never get the information	6.2% (13/211)	6.8% (13/191)	=
Biomarker			
HIV cases	3/211		
HIV Prevalence on 1000 Inmates, 95%CI	14.2 (4.6 - 44.1)		
Syphilis cases	11/211		
Lifetime Syphilis Prevalence on 1000 Inmates, 95%CI	52.1 (28.9 - 94.1)		

#### Results

#### **Portrait of a Male Prison Inmate**

Prisoner K., 30 years of age, Georgian by nationality, married, has a wife and a child; has received secondary education. K. has spent more than three years in prison. He possesses certain information regarding HIV/AIDS - is aware on modes of transmission. For instance, he knows that unprotected sex and shared syringes/needles may lead to the infection. He thinks tattooing is safe in this regard, as well as shared injecting accessories. Just recently he learned that HIV may be transmitted through the vertical mode.

He knows that HIV test is made by special blood analysis, though he is not sure of it. He thinks condoms may protect from HIV infection, and underlines the importance of using his own clean syringes, however, he does not believe in the preventive effect of having one faithful partner.

K. has done HIV testing. He did it in prison, approximately one year ago. Earlier he thought that HIV testing was not necessary, still later he underwent it. He was not notified about his test result. He has knowledge on basic ways of HIV prevention. He thinks infected inmates must be isolated, although he would not end all contacts with an infected inmate and would maintain relations with such a person.

Along with information on HIV/AIDS, he possesses certain information on other STIs. He has heard of diseases such as syphilis, gonorrhea, and trichomoniasis. When asked to list STI symptoms he names discharge and rash. However, K. has no idea how STIs are manifested in women. He was never tested for STIs, as he thinks it is not necessary.

Since being imprisoned he had not had heterosexual relations due to restrictions on longterm conjugal visits.

He used to take drugs before imprisonment. He took first non-injecting, and then injecting drugs as well. He has never taken drugs in prison, but says injecting drugs are available for a certain population of prison inmates. In the past, he got an administrative fine for drug use. And he had been in the pre-trial detention due to the same reason. While taking injecting drugs, he often did it using shared syringes within an IDU group involving about 3 members.

He made a tattoo during his imprisonment; the needle was used by several persons. He often uses shared razors. Once, being sick, he had to use a syringe that was used by another person before.

For K. the main sources of information on STIs and HIV/AIDS are television and articles published in magazines. Sometimes prison inmates speak to each other about these issues as well. He also gets information from booklets distributed by non-governmental organizations.

After getting information on HIV/AIDS his risky behavior slightly changed. He uses condoms more frequently, and tries to refrain from using shared syringes. He acknowledges massmedia, NGO representatives and medical staff as reliable sources of information regarding STIs and HIV/AIDS.

#### Portrait of a Female Prison Inmate

Prisoner M., 34 years of age, has received secondary education and is Georgian by nationality. She was married before, but after imprisonment she divorced. She has spent two years in prison.

She possesses certain knowledge on HIV; she knows that unprotected sex and shared syringes are risky in this regard. She knows that tattooing might be also dangerous. She is aware of the vertical mode of HIV transmission, although information regarding mother to child transmission through breastfeeding was new for her. She believes HIV testing is possible just by special blood analysis.

M. knows HIV prevention is possible through regular condom use, as well as regular use of new disposable needles and syringes. At the same time, she doubts the preventive effect of having one faithful sexual partner.

She was tested for HIV while in prison, though she was never notified about her test result.

M. has correct knowledge on the basic modes of HIV transmission and knows that a HIV infected person might have no signs of disease. At the same time she has some doubts that HIV is not transmitted by mosquito bites. She says it is better to isolate HIV infected inmates, but thinks she would continue relations with a HIV infected inmate.

She possesses certain information regarding STIs. She can name diseases such as syphilis, gonorrhea and mycotic infections. She defines discharge, rash and itching as STI symptoms and mentions that these symptoms may be demonstrated in both men and women. She never was tested for STIs, as thinks she does not need this. She has not had sexual intercourse since her imprisonment.

M. used drugs, both non-injecting and injecting ones. In the past she had been in a pre-trial detention cell due to drug use. When taking injecting drugs, she used shared syringes, but almost always cleaned it beforehand, usually by water rinsing.

She got a tattoo while imprisoned Time after time she uses shared razors. For some time she has consumed alcohol quite regularly, approximately once per month.

Mass-media is reported by M. as the main informational source regarding HIV/STIs. She read about these infections from special booklets as well. After getting information she changed her behavior of risk, particularly regarding use of shared syringes and cosmetic accessories (i.e. scissors). According to M., reliable sources of information regarding HIV/AIDS and STIs are mass-media, special booklets and medical staff.

#### **Demographic and Social Characteristics**

The study was done in 3 penitentiary institutions of the Penitentiary Department of the Ministry of Justice: Prison #1 (Tbilisi), the penitentiary institution #5 of strict and common regime for women and underage persons (Tbilisi) and the prison #2 (Kutaisi).

In prison #1 121 prisoners took part in the survey, in prison #5 - 20 prisoners, and in prison #2 - 70 prisoners. Out of all respondents 191 were males (90.5%) and 20 - females (9.5%).

The mean age of respondents is 31.15 (St. deviation-8.66). The youngest respondent is 18 and the oldest – 71 years of age. There was no statistically significant difference between male and female average ages.

Distribution by the age groups give us the following picture: the main group of respondents 105(49.8%) are the prisoners of 18-30 years of age; 67 persons (31.8%) are 30-40 years old, the rest 39 respondents (18.5%) were 40 years of age and older (Figure 1).

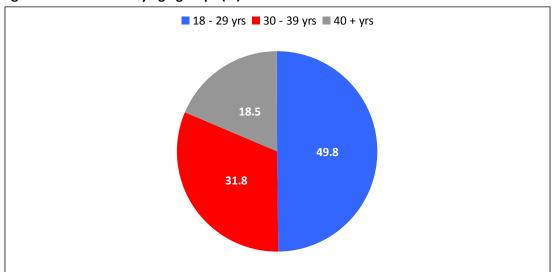


Figure 1: Distribution by age groups (%) n=211

There is no statistically significant difference of distribution by age groups between male and female groups.

In terms of education received by the inmates the situation is following: the majority of respondents 143(67.8%) has secondary education; 52 persons (24.6%) - higher education, 5 (2.4%) - incomplete higher education; and 11(5.2%) - without any education or only primary education.

Distribution of educational level by sex of respondents reveals that there are more persons with higher education among women (35%) than among men (23.6%). The percentage of persons with secondary education gives approximately the same picture: 60% in women and 68.6% in men.

Distribution of respondents by ethnicity is as follows: 184 (87.2%) respondents are Georgians, 8 (3.8%) - Armenians, 6 (2.8%) - Kurds, 5 (2.4%) - Azeri.

Among women 70 % are ethnical Georgians, and the rest - Russians, Ossetians, Azeri and other.

Analysis of marital status demonstrates that more than half of the male respondents 102(53.4%) are married, 13 (6.8%) are divorced. The same indicator for women is different: only 9 (45%) female prisoners are married and the same number is divorced. This difference is statistically significant and indicates higher rate of divorce cases among women than in men (Fisher's exact test Chi-square 14.3 df -1 P < 0.001). This fact can be explained by high stigmatization of women prisoners. Imprisonment is very big obstacle for women to maintain their families. Among male prisoners there is quite low level of divorces and this can be explained by less stigmatization of male prisoners in the society (Figure 2).

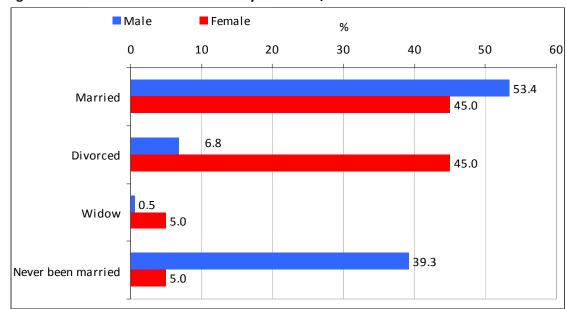


Figure 2: Distribution of marital status by sex n=191/20

Out of all respondents 15 (7.1%) are IDPs: 14 males and 1 female.

Average duration of imprisonment is 2.9 years (st. deviation is 2.46). There is no statistically significant difference of imprisonment between male and female prisoners (Table 3).

**Table 3: Duration of imprisonment** 

Years	Total N=211	Male N=191	Female N=20
Average	2.84 (2.25)	2.91 (2.33)	2.16 (2.00)
Min-Max	0.08 -16	0.08 -16	0.25 - 8
St. Deviation	2.41	2.46	1.62

#### HIV/AIDS knowledge, attitude, opinions

The majority of the respondents (83.4%) report that they have heard about HIV/AIDS. Disaggregating these data by sex, all female respondents have heard about HIV/AIDS, and out of the male respondents 35 (18.3%) have not heard about HIV infection. Further analysis considers those 176 prisoners, who answered positively abovementioned question.

In general, most of prisoners are informed about the ways of HIV transmission. 90.3 % of respondents indicate that unprotected sex leads to is risky in terms of HIV transmission. 84.7% of respondents answer correctly the question about sharing needles, however there is quite low awareness rate (20.5%) regarding risks of sharing other injecting equipment. Also there is low awareness rate regarding the risks of unsafe blood transfusion, only 40.3 % of respondents mentioned this way of HIV transmission. It is worth mentioning that there is very low knowledge regarding vertical transmission of HIV infection. Correct answers were given only by 5.7 % of respondents. Female prisoners are better informed about vertical

transmission than male prisoners (15 % of female and 4.5% of male prisoners gave correct answers).

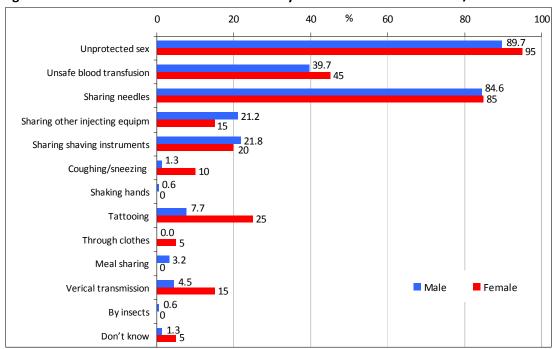


Figure 3: Distribution of correct answers on ways of HIV transmission n=156/20

Generally female respondents give correct answers more often than male respondents, but statistically significant difference was found regarding use of non sterile instruments for tattooing (Fisher's exact test Chi-square 16.086, df - 1, P = 0.029). It has to be mentioned that interviewer did not read the possible answers to respondents. 3.4 % of respondents gave answers about HIV transmission which were not considered by questionnaire, such as transmission through saliva or contact with mucous membranes, or sharing toothbrushes. Detailed description of level of knowledge on HIV transmission is presented in Annex 1.

When asked about possibility of mother-to-child HIV transmission, the following answers were received: 107 (60.8%) prisoners indicate that that is possible and 38 (21.6%) - that this is impossible. It is important to notice that 31 (19.9%) of male respondents have not given the answer to this question. Statistical analysis showed that women give correct answers more frequently than men, but this difference is not statistically significant.

The following answers were obtained regarding the vertical transmission: 56.1% (60/107) of respondents think that vertical transmission of HIV infection is possible during pregnancy, 43.9% (47/107) - during labor and 22.4% (24/107) - during breastfeeding. 18.7% of respondents did not give answers. In total, 107 respondents gave answers on this question (Figure 4).

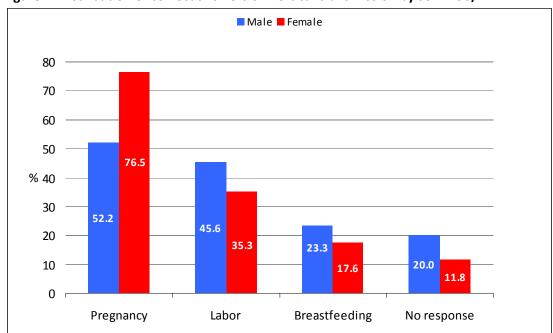


Figure 4: Distribution of correct answers on vertical transmission by sex n=90/17

76.5 % of female respondents mention the possibility of HIV transmission during pregnancy, while only 52.2% of male respondents think that this way of transmission is possible. But male respondent are more informed about 2 other ways of vertical transmission. Only 10 respondents gave correct answers about all 3 kinds of vertical transmission, 8 out of them were men and 2 - women.

The respondents revealed high knowledge regarding HIV diagnosis. 124 (70.5%) prisoners answered correctly the question "How is HIV/AIDS diagnosed?". The rest 29.5 % gave wrong answers (such as external examination, etc) or did not have an answer. We have to mention that all women prisoners gave correct answers (special blood test), while out of men correct answers were given by 66.7%. This difference is statistically significant and indicates that female prison population is more informed about this issue (Pearson Chi-square 9.46, df -1; P < 0.002).

Men and female respondents answer this question with similar accuracy. Percentage of correct answers is higher among men (82.1% men and 75% women), but this difference is not statistically significant.

169 respondents answered questions about HIV prevention methods. 81.1 % of respondents know that correct condom use protects from HIV infection. Approximately the same numbers of prisoners know that single use of syringes/needles and cosmetic equipment is necessary for prevention of HIV infection. Quite low (11.8%) is the number of prisoners who

think that having one faithful sexual partner prevents HIV infection. There is no statistically significant difference between answers of male and female respondents (Figure 5).

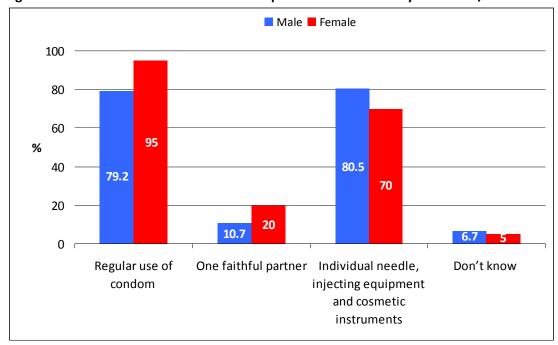


Figure 5: Distribution of answers about HIV prevention methods by sex n=149/20

7 % of respondents think that HIV prevention is possible by keeping appropriate hygiene, avoiding contacts with HIV infected people, avoiding sharing meals with HIV positive people. Only one person mentioned necessity of HIV positive people's isolation. All 3 ways of prevention were mentioned by 11 respondents. Among them 7 were males and 4 - women. 57 (32.4%) prisoners gave positive answer to the question, whether they have been tested on HIV. Among them 71.9 % (41/57) mentioned that they were tested in prisons (Figure 6).

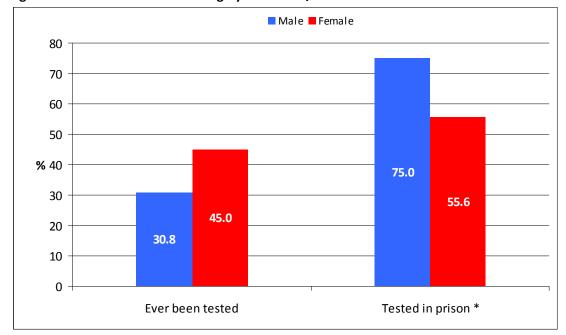


Figure 6: Distribution of HIV testing by sex n=156/20

\* The percentage is calculated from tested respondents

For majority of the prisoners, especially for men, HIV testing was done in penitentiary system. This indicates to accessibility of HIV testing services in penitentiary system.

Among 57 prisoners who had been tested 46 (80.7%) of respondents were tested more than 1 year before, 3 (5.3%) - during the last 12 months, 6 (10.5%) - during the last 6 months, 2 (3.5%) – during the last 3 months.

120 prisoners have not taken HIV tests. Most of them (63.3%) think that they do not need HIV testing. 28 (23.4%) have not thought about necessity of testing. The reasons of not taking HIV test is equally distributed between men and women.

Among the prisoners who have taken HIV test in penitentiary system (41 prisoners in total) only 22 (53.7%) know results of their testing. Out of them 21 (58.3%) are men and 1 (2%) is a woman. Almost half out of them (46.3%) did not know their results. The probable reason for this could be prisoners' migration inside the penitentiary system, which hinders delivering answers to them.

176 prisoners answered the questions' block on HIV prevention and transmission; another block of questions were dedicated to HIV-related stigma and discrimination. In general, the respondents revealed quite high awareness on HIV infection, but still there is high percentage of answers which indicate existence of stigma towards HIV infected persons among prisoners. 68.2% (120/176) of prisoners think that HIV positive prisoner should be

isolated from others; 23.3 % (41/176) of prisoners think that they would quit all the contacts with HIV positive prisoner. There is no statistically significant difference between male and female answers (Figure 7).

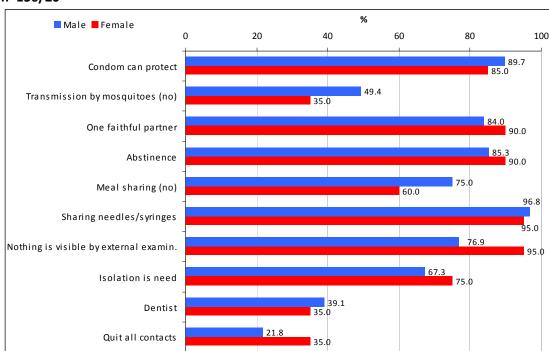


Figure 7: Distribution of answers regarding social and medical aspects of HIV infection n=156/20

After the analyzing the block of questions B12 (see Annex 2) new variables have been obtained. These variables describe respondents level of knowledge about HIV medical issues (B12. 1/3/4/6/7), existing stereotypes (B12. 2/5) and HIV related stigma (B12. 8/10). These variables underwent regression analysis in order to estimate correlations with sex, age groups and other parameters.

Statistical analysis shows that HIV/AIDS knowledge, attitude, stigmatization level is not correlated with sex, gender, marital status, level of education and history of injecting drug use. On the other hand, the level of knowledge on HIV is connected with stigma and stereotypes. This correlation is statistically significant. High awareness level leads to low rate of stigma (Binary logistic regression; B = -0.729; Wald -3.753; df -1; P = 0.05) and stereotypes (B = -1.1999; Wald -4.249; df -1; P = 0.039).

(Detailed descriptive statistics for each variable distributed by sex and age groups is presented in Annex 1).

#### STI knowledge, attitude, opinions

181 (85.8%) of respondents have heard about STIs. Out of them 161 (84.3% of all male respondents) are men and 20 (100% of all female respondents) – women. The further calculation has been done according to these numbers.

According to the survey, syphilis, gonorrhea and trichomoniasis are sexually transmitted infections that are most familiar to both men and women. 77.9% (141/181) of respondents mention that they have some information about syphilis, 85.6% (155/181) and 34.3% (62/181) mention the same regarding gonorrhea and trichomoniasis, respectively. 35% (7/20) of women and 10,6% (17/161) of men have some information about yeast infection.

The level of knowledge on STIs increases from younger age group to older group and this tendency is evident in both men and women groups. Detailed descriptive statistics see in Annex 1.

As for the STI symptoms among men the respondents listed the following: genital discharge -60.2%, rash -21.5%, burning during urination -32%. When considering knowledge on STI symptoms distributed by sex, the difference is small and not statistically significant. As for distribution by age groups, knowledge is increasing in the age group of inmates of 40 years and older.

Regarding STI symptoms in women the respondents listed: genital discharge -16.7%, rash -7.8%, burning/pain during urination -7.25%, Such low level of knowledge is caused by low rate of correct answers among male population. The same indicators in males are following: genital discharge -13.0% (21/161), rash -3.7% (6/161), burning/pain during urination-5.6%(9/161). The difference between men and women is statistically significant (Fisher's exact test Chi-square 19.82, df -1, P < 0.001) (Figure 8).

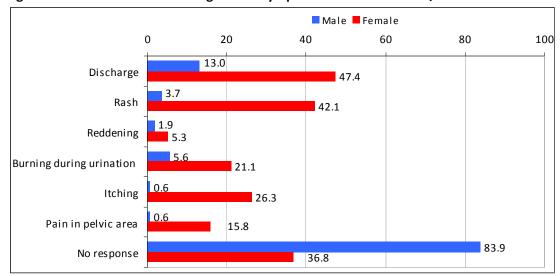


Figure 8: Distribution of knowledge of STI symptoms in women n=161/19

The distribution by age groups indicates higher level of knowledge in the group of prisoners who are 40 or above 40, but this difference is not statistically significant.

Out of 140 respondents 14 (10.0%) (12 males and 2 females) mention that they have had STI symptoms during the last year. Among them 5 males and 2 females had taken STI tests. 2 males and 1 female have taken these tests during the last year, one male and one female - during the last 6 months, 2 males- during the last 3 months. 2 males and 2 females got their test results, for 3 males their test results are unknown.

80.5% (124/154) of male prisoners and 50.0% (9/18) of females think that they do not need STI testing. 22.2% of women and 5.2% of men think that in penitentiary system there are no proper conditions for testing .

9 prisoners took the course of treatment, 6 out of them are men and 3 - women. In 7 cases the treatment was prescribed by the doctor, in one case the prisoner applied self-treatment advised by his friend.

5% (7/140) of prisoners indicate that there is lack of proper conditions for STI treatment in penitentiary system. All of them are men.

During the last year 14 prisoners (out of 140) have had STI symptoms. Out of them 10 answered the question: "What measures did you take after the revealing of STI symptoms?". 6 of them referred to the doctor, 4 of them did not refer to the specialist. It is worth mentioning that all the prisoners who needed treatment and did not undergo the treatment are men. This might indicate that the treatment process is organized better in women prisons. One of the reasons also could be higher knowledge and awareness rate regarding

STI issues among women. After manifestation of STI symptoms both women referred to treatment while only 4 men (50%) did the same and 2 men (25%) - applied self-treatment, the rest 2 men (25%) did not take any kind of treatment.

#### Sexual behavior, relationship with sexual partners, condom use

It should be mentioned that during the last few years penitentiary department did not allow the prisoners to have long term visits, so the prisoners are not allowed to meet in private any person from outside, including family members or sexual partner. That's why the number of prisoners who report having sexual relationship in penitentiary system is extremely low. The prisoners who mention that they have had sexual contacts recently are "newly" imprisoned. The period of their imprisonment is less than 6 months. Only 3 male prisoners have had sexual contacts in prison conditions, during the last 6 months: 2 out of them - hetero and 1 – homosexual contacts. 1 prisoner has had homosexual contact once a month; two heterosexual prisoners have had sexual contacts a few times per month. During heterosexual contacts the prisoners used condoms occasionally, during homosexual contacts - almost never.

During the last vaginal contact condom was not used. Condom use always is negotiated with partner. The initiator of condom use is the prisoner himself. It has to be mentioned that the sexual partner of the homosexual prisoner is IDU.

#### Drug use

69.7 % (147/211) of prisoners answered positively to the question about having ever taken drugs (both injecting and non-injecting). 71.7% of male and 50% of female prisoners have used some kind of drugs in their lives (Figure 9).

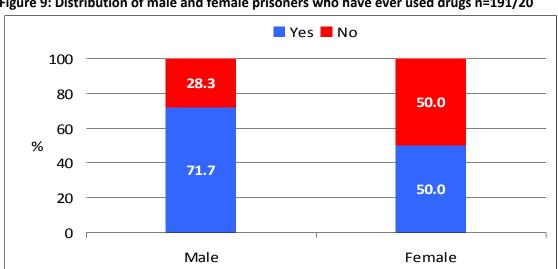


Figure 9: Distribution of male and female prisoners who have ever used drugs n=191/20

147 prisoners who had used drugs were asked which type drugs they had been using - injecting or non-injecting. Approximately 70% of men have used injecting drugs. The prisoners of both sexes, males and females have been using injecting drugs as well as non-injecting ones. If we take into account the whole sample, 49.7% (95/191) of men and 35% (7/20) of women have used injecting drugs during their lives. The average duration of injecting drug use is 8.16 years (st. deviation-6.1); for men - 8.1 and for females - 9.3 years. Minimal duration of drug use is 4 months, maximum - 25 years.

13 (6.2%) respondents mention that they have taken drugs during the last 6 months. out of them 9 are males and 4 - females. 11 of them have used injecting drugs, 2 – non-injecting. If we take into consideration the fact that some of prisoners have been imprisoned for less than 6 months, it is possible that they have used injecting drugs before their imprisonment. After analyzing this we received the following picture: 6 prisoners (3 males and 3 females) indicated the use of injecting drugs and 1 female prisoner - use of non-injecting drugs. From this we can conclude that 2.8% (95% CI 1.3% - 6.3%) of prisoners are using injecting drugs in penitentiary system. During the last 6 months frequency of using injecting drugs is 2-3 times per month. 2 representatives of this group report using injecting drugs in a regular group, 2 other representatives - in irregular groups. 2 respondents answered the question about the size of injecting drug users group. The group size was 2 persons in one case and 5 persons - in the second case.

Administrative and other types of penalties for drug using are as follows (Figure 10).

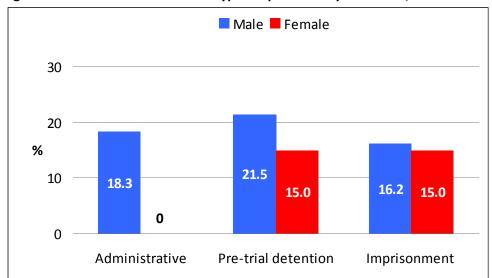


Figure 10: Distribution of different types of penalties by sex n=191/20

From Figure 10 it is obvious that 18.3 % of male inmates have been subjects of administrative penalties, 21.5 % have been in pre-trial detention and 16.2 % are currently imprisoned for drug use. The imprisonment rate in women is 15 %; No administrative penalties have been reported among them.

### Sharing needles and other injecting equipment

60 respondents out of those 102, that reported having used injecting drugs, (58.8% of all injecting drug users and 28.4 % of all survey sample) say that they have used needles/syringes previously used by others. Only 2 prisoners (1.96% of all drug users) have shared needles during the last 6 months. As for the last injecting case, 21.6 % of respondents indicate the fact of sharing needles or other injecting items (Figure 11).

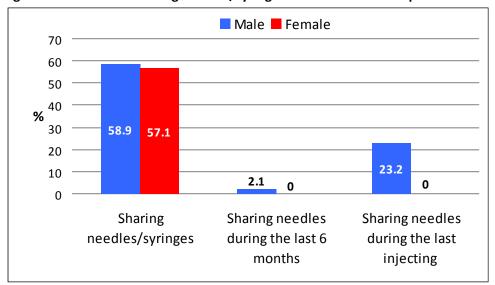


Figure 11: Practice of sharing needles/syringes in male and female prisoners n=95/7

The practice of sharing needles and other injecting equipment is equally distributed in men and women inmates, however, during the last 6 months 2 males have used sharing needles which is 2.1%. But since these persons have been imprisoned for the last few months, it might be that they have shared needles outside the prison before their imprisonment.

At their last injection 17 male respondents indicate that the number of people in the injecting group was 2 or more. The average group of IDUs who share the needles consist of 3.2 persons. From the same respondents 1 person indicated sharing of needles with permanent sexual partner and another person - with occasional sexual partner.

The majority 51.5% (49/95) of male IDUs having the practice of sharing needles report "cleaning" the needle/syringes before use. 49 out of them use water for "cleaning" and only

2 of them use some disinfection solutions. Among females only 2 "clean" the syringe sometimes, one of them with water, another - with disinfected solution.

During their last practice 20.6 % (21/102) of prisoners admit the fact of sharing needles with others and 56 (57.1%) - the fact of sharing other injecting equipment.

It is worth mentioning that to the question F8 (question about the availability of getting new injecting equipment) 57.6 % of respondents give positive answer. It is obvious that the respondents mean the accessibility of getting sterile needles in general and not particularly in prisons. So the given data do not describe the real situation in prisons and can not be regarded as findings and used in recommendations.

### **Additional risks**

51.2% (108/211) of the respondents have made tattoos in penitentiary system. 68 of them indicate they have done tattoo with the needle which was previously used by others.
6.3%(12/191) of male respondents mention that for medical reasons they have used the needle/syringe which was used previously. It is important that 7 out of them are not IDUs and the practice of sharing needles among them can be explained by low accessibility of injecting tools in penitentiary system (Figure 12).

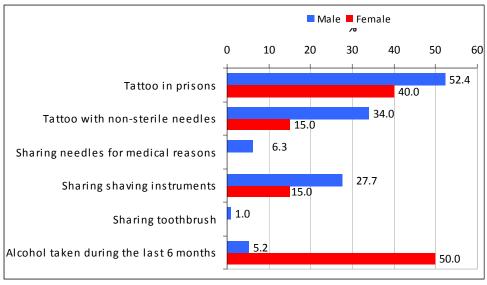


Figure 12: Additional behavior risks n=191/20

From Figure 12 it is clear that the practice of tattooing, including using non-sterile needles is quite common among both men and women. The same situation is regarding shaving instruments. In terms of alcohol, 50 % of women prisoners use alcohol, while only 5.2 % of men prisoners report the same. The difference is statistically significant (Fisher exact test Chi-square 37.00 df - 1, P < 0.001).

Male inmates report using alcohol mainly once a week and females – once a month of even less.

### **Sources of Information**

Major sources of information about HIV/AIDS and STIs for the majority of the respondents (60.7%) is TV. 73 (34%) of respondents indicate special leaflets, 18.6%-magazines and newspapers, 19.5% - other prisoners.

After receiving the information 96 (45.5%) of the respondents report having changed their risk behavior, out of these 89 were males (47.6% of total male group) and 7 - women (35% of total female group).

The main share of changed behavior goes to quitting sharing needles and other injecting equipment (28/100). 2 (10%) female prisoners indicate that they do not use somebody else's cosmetic tools (scissor etc.).

TV, special leaflets, medical professionals are listed by the respondents as the most reliable sources of information. The male respondents prefer to receive information from TV (28.7%), magazines and newspapers (24.5%), NGOs (21.3%), special leaflets 18.6%) and medical professionals (12.2%). For female prisoners priorities are special leaflets (35.0%) and medical professionals (35.0%), then TV (20.0%) and NGOs (10.0%) (Figure 13).

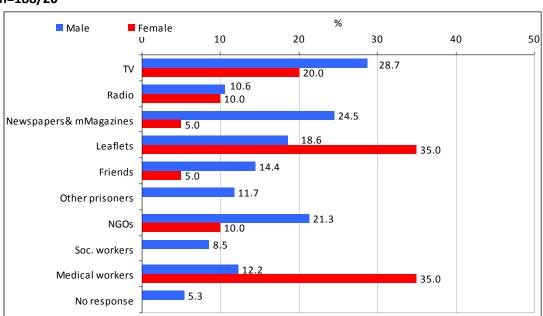


Figure 13: Distribution of reliable sources of information regarding HIV/AIDS and STIs n=188/20

The distribution of these variables by age groups you can see in Annex 1.

### The results of HIV and syphilis testing

11 (5.35%) blood samples turned out positive by TPHA testing. As TPHA is positive in both active and recovered phases of syphilis, we can not say that all these cases are active syphilis. We can talk only about lifetime prevalence. This indicator is higher in women than in men but this difference is nor statistically significant. Also there is no confirmed correlation between prevalence of syphilis and other demographic and age parameters. So, it is clear that syphilis lifetime prevalence is between 29-94 per 1000 prisoners (CI 95% 18.9 - 94.1).

3 prisoners turned out to be HIV infected; 1 is female and 2 - males. ELISA and Western Blot testing methods have been used. All 3 cases are newly registered. According to these data there would be 14.2 HIV infected prisoner per 1000 prisoners (CI 95%; 9.9 - 56.9). 2 other males were suspicious for HIV infection; these cases still need to be confirmed. So they have been excluded from further analysis.

### **Conclusions**

General goal of the survey was to study social-demographic characteristics of the prisoners, high risk behaviors, knowledge on STI/HIV/AIDS and prevalence of HIV infection in penitentiary system.

The study was carried out in 3 penitentiary institutions of the Penitentiary Department of the Ministry of Justice including the prison for women. Sample size was identified as 211 persons: 191 males and 20 females.

### **Conclusions on Demographic and Social Characteristics**

Main findings: The average age of respondents is 31.15. The majority of respondents have secondary education. The majority of respondents are ethnically Georgians. More than a half of the male respondents 102 (53.4%) are married and 13 (6.8%) are divorced. While only 9 (45%) female prisoners are married and the same number of divorced females. The statistical difference between these features is statistically significant and indicates higher level of divorces among female prisoners than in males (P<0,001).

Interpretation: The high rate of divorces among women prisoners can be explained by high stigmatization of women prisoners. Imprisonment is very big obstacle for women to maintain their families. Among male prisoners there is quite low rate of divorces and that can be explained by less stigmatization of male prisoners in the society. Male imprisonment is somehow acceptable for society; some groups in society even regard them (male prisoners) positively or with some respect. While in terms of women there is no such attitude and female imprisonment is regarded only in negative perspective. That's why for a woman who becomes a prisoner it's extremely difficult to keep the family.

### Conclusions on HIV/AIDS knowledge, attitude, opinions

**Main findings:** The majority of the respondents (83.4%) have heard about HIV/AIDS. There is quite high awareness about the risks of unprotected sex and sharing needles. At the same time there is quite low awareness regarding risks of sharing other injecting equipment and vertical transmission. Women prisoners are better informed about vertical transmission (15% vs. 4.5%).

70.5 % of respondents correctly identify the HIV diagnostic methods (special blood test). Women inmates are informed better regarding this issue. 81.1 % of respondents knew that correct condom use protects from HIV infection. Approximately the same number of prisoners knows that single use of syringes/needles and cosmetic equipment is necessary for

prevention of HIV infection. Quite low (11.8%) is the number of prisoners who think that having one faithful sexual partner prevents HIV infection.

Interpretation: Received results indicate to quite high awareness about HIV/AIDS issues. However there is quite low level of knowledge about vertical transmission which can be explained by low awareness in general population regarding this particular way of transmission. Also low level of knowledge about the importance of having one faithful sexual partner should be emphasized. For the interpretation of this issue the qualitative research could be planned.

### **Conclusions on HIV testing**

Main findings: 57 (32.4%) of participants have taken HIV tests. Among them 71.9 % (41/57) mention that they have been tested in prisons. Small part of respondents indicates that they did not know if HIV testing was available in penitentiary system. From this we can conclude that HIV testing is quite accessible in penitentiary system. Almost half of those prisoners who have taken HIV tests (46.3%) do not know test results.

**Interpretation:** The majority of prisoners have been tested in prisons, which indicates that HIV testing is quite accessible in penitentiary system. The fact that almost half of those prisoners who have taken HIV tests do not know test results can be explained by prisoners migration inside the penitentiary system; this hinders delivering the test results to them.

Conclusions on Block of questions about HIV prevention, ways of transmission, HIV related stigma/discrimination and stereotypes

**Main findings:** 176 (83.4%) of respondents gave answers to the questions about stigma and discrimination. The level of their knowledge is quite high: 62.5 % of respondents answer correctly to all the questions about HIV transmission and prevention. However, 68.2% (120/176) of the respondents think that HIV positive prisoner should be isolated from others and 23.3 % (41/176) of prisoners think that they would quit all the contacts with HIV positive prisoner.

It is worth mentioning that HIV/AIDS knowledge, attitude, stigmatization level is not correlated with sex, gender, marital status, level of education and history of injecting drug use. On the other hand, the HIV related awareness level is connected with stigma and stereotypes. This correlation is statistically significant. High level of knowledge causes low level of stigma (P = 0.05) and stereotypes (P = 0.039).

**Interpretation:** From the results it is obvious that high level of knowledge is connected with low level of stigma and stereotypes. This also coincides with other researches which show that high awareness decreases stigma and discrimination. Increasing the knowledge among general population and in marginal groups is one of the main components of HIV/AIDS campaigns and is effectively used for reducing HIV/AIDS related stigma/discrimination.

### Conclusion on STI knowledge, attitude, opinions

**Main findings:** 85.8 % of respondents have heard about STIs. Syphilis, gonorrhea and trichomoniasis were mentioned more frequently as sexually transmitted infections both by men and by women. It is worth mentioning that there is lower level of knowledge among male prisoners regarding STI symptoms in females (symptoms which can be noticed in women) than in women prisoners. This difference is statistically significant (P < 0.001).

14 prisoners have had STI symptoms during the last year. 8 prisoners have not been treated. 5% (7/140) of prisoners consider the absence of proper conditions as the main factor which prevents them from appropriate treatment. All the prisoners who need treatment and have not undergone it are men. The cases of self-treatment are reported in men too.

**Interpretation:** There is very low rate of STI testing comparing to HIV resting. Some of the prisoners think that there are no proper conditions for testing in penitentiary system. HIV infection is more "privileged" than other STIs. STI testing is less available for most of prisoners. Probably the reason for that are technical problems because so-called simple rapid tests are not available there.

Low rate of referring to the doctor and high rates of self-treatment in men shows that probably the treatment process is organized better in women prisons. One of the reasons also could be higher knowledge and awareness among women regarding STI issues, which leads to increased responsibility among women prisoners in terms of STIs.

### Conclusions on Drug use, sharing needles/syringes and/or other injecting equipment

Main findings: 69.7% (147.211) of prisoners admit the fact of using drugs. Approximately 70% (102/147) of drug users admit the fact of using injecting drugs. Taking into consideration the fact of the last use of drugs and the period of imprisonment we can conclude that 2.8% (95% CI 1.3% - 6.3%) of prisoners are using injecting drugs in penitentiary system.

60 respondents, which is 58.8% (60/102) of all injecting drug users mention that they have used previously used needle or syringe. The practice of sharing needles and other injecting

equipment is equally widespread in men and women. The majority of IDUs having the practice of sharing needles "clean" the injecting equipment, but they "clean" them only with water.

**Interpretation:** According to these data, we can assume that in Georgian penitentiary system there are from 10 to 46 injecting drug users per 1000 prisoners. So, big number of IDUs along with deficiency of single use injecting medical materials creates favorable conditions for spreading the practice of sharing needles and other injecting equipment and, consequently, for high prevalence of HIV infection and other blood-borne diseases.

#### **Conclusions on Additional risks**

**Major findings:** Quite popular risk behaviors among prisoners are tattooing - 51.2%(108/211), sharing needles for medical reasons - 5.7% (12/211), alcohol use - 9.5%(20/211). It is worth mentioning that women use alcohol more regularly (50%) than men prisoners (5.2%).

**Interpretation:** Sharing needles for medical reasons can be explained by very low accessibility of single use injecting stuff. Very high rate of alcohol use among women prisoners is the fact which is very difficult to interpret. Especially if we take into account the fact that penetration of restricted materials or substances in prisons is strictly controlled. Less probable is also the possibility of making home-brew drinks in prisons, as it requires very high level of conspiracy.

### **Conclusions on Sources of information**

**Major findings:** The majority of the respondents (60.7%) name TV and media as main sources of information about HIV/AIDS and STIs. Also, they list special leaflets and other prisoners.

After receiving the information more than half of the respondents report changing their risk behavior. They have quit sharing needles and other injecting equipment (28%). Female prisoners indicate that they have reduced using somebody else's cosmetic tools.

As the most reliable sources of information the majority of prisoners list TV, special leaflets, medical professionals. And, along with these, NGO representatives are also named as reliable source of information.

**Interpretation:** TV is recognized as the most reliable source of information by prisoners, which can be explained by easy access to TV programs. Access to printed media is a bit restricted as it penetrates prisons from outside. Medical professionals and NGO

representatives are also named as reliable sources of information. They are not considered as representatives of penitentiary system by prisoners and that could be a reason for high trust to them.

### Conclusion on the results of HIV and syphilis testing

**Major findings:** Testing results have shown high prevalence of these infections in penitentiary system, especially in terms of HIV infection. Lifetime syphilis is 10% for female prisoners and 4.7% - for male prisoners. 3 prisoners turned out to be HIV infected: 1 is female and 2 - males. ELISA and Western Blot testing methods have been used. All 3 cases are newly registered.

**Interpretation:** According to these data there would be 14.2 HIV infected prisoners per 1000 (CI 95%; 9.9 - 56.9). The similar data for general population is 0,5 HIV infected persons per 1000 population. So, in penitentiary system the prevalence of HIV infection is 28 times higher than in general population.

Based on this, we can conclude that penitentiary system in Georgia has been established as zone of high prevalence of HIV and other blood-borne infections. If we take into account the fact that the number of annual interchange of prisoners in penitentiary system is more than few thousands, we can conclude that these infections can easily spread to the general population. This becomes the problem not only for penitentiary system as such, but for public health and society as well.

### Recommendations

- Analysis of demographic data of the respondents underlines the high level of
  divorces among female inmates. It is likely they stay without any social or financial
  support after termination of their imprisonment. Preparation for their social
  adaptation and reintegration into the society after their confinement is over must be
  initiated within penitentiary places. It is advisable having prepared and implemented
  the teaching courses, which would provide inmates with independent income after
  getting discharged. Some projects are being carried out in this direction currently;
  however, such activities must be expanded and carried out continuously.
- Both representatives from penitentiary system and nongovernmental sector, implementing educational activities, must take into consideration the deficit in inmate's awareness on the risks of HIV/AIDS and STI transmission through shared injecting equipment. When working with female population, vertical modes of transmission must be emphasized, especially the possibility of HIV transmission through breastfeeding. Accordingly, it is desirable to elaborate specific Behavior Change Communication strategy, tailored to the target population and based on their needs. This strategy should consider, first of all, elaboration of special educational materials and their distribution within the penitentiary institutions.
- HIV testing is more or less accessible within the penitentiary system, but significant
  problem arises regarding inmates' notification about the test results. It is essential
  to create and introduce the unified registration system, giving the opportunity to
  provide prison inmates with the test result timely, even if they change their penal
  destination. At the same principles of anonymity and confidentiality must be kept.
- Activities targeting awareness raising on HIV/AIDS among prison inmates must be enhanced to the maximal extent. Study results demonstrate raising awareness to be directly linked with decreasing stigma and discrimination.
- Along with the access to HIV testing within penitentiary institutions, opportunities of
  getting tested on other STIs are low. Certain attention must be paid to this issue in
  terms of proper technical equipping of local medical units, which would provide
  prison inmates with the opportunity to get tested on STIs. It is advisable to establish
  regular counseling practices by certified venerologists as well.

- It is essential to increase access to disposable injecting equipment, in order to
  decrease sharing practices of the syringes/needles and injecting accessories.
   Practices of sharing the razors, using contaminated needles for tattooing, and
  sharing hairdressing/cosmetic accessories are common and this must be taken into
  consideration as well. It is advisable to provide prison inmates with these items of
  personal hygiene.
- Since the television was cited by the respondents as one of the most reliable sources of information, special TV messages addressing inmate population should be broadcasted during informational and social broadcasts. It is essential to strengthen non-governmental organizations inside the penitentiary institutions. Moreover, it is important to prepare and include local medical staff into HIV/AIDS and STI prevention efforts, since they are acknowledged by prison inmates among the most reliable sources of information regarding these issues.
- Although HIV testing within penitentiary institutions is more or less accessible, it is advisable to expand it further. So, it is very important to launch the VCT centers on sites. Several such centers are already established under the frames of the Global Fund supported project. These centers provide the opportunity for early detection of HIV cases in the future. However, at the same time, it is essential to ensure general access to the disposable injecting materials, in order to minimize risky practices, such as sharing the syringes/needles and other injecting accessories.

### **Annex 1: Data tables**

**Table 4: Demographic and Social Characteristics** 

rable 4. Demographic and Social	Total	Male	Female
Core indicators	N=211	N=191	N=20
Location of interview			
Prison #1	57.3% (121)		
Prison #2 (Females)	9.5% (20)		
Prison #3	33.2% (70)		
Demographic Characteristics			
Median age	30.0	29.0	34.5
Mean age	31.15	30.89	33.65
Min-Max	(18 –71)	(18 –71)	(19 – 52)
St. Deviation	8.66	8.54	9.73
Nationality			
Georgian	87.2% (184/211)	89.0% (170/191)	70.0% (14/20)
Russian	1.4% (3/211)	0.5% (1/191)	10.0% (2/20)
Armenian	3.8% (8/211)	4.2% (8/191)	-
Azerbaijanian	2.4% (5/211)	1.6% (3/191)	10.0% (2/20)
Kurd	2.8% (6/211)	3.1% (6/191)	-
Osset	0.9% (2/211)	0.5% (1/191)	5.0% (1/20)
Other	1.4% (3/211)	1.0% (2/191)	5.0% (1/20)
Level of Education			
None	1.4% (3/211)	1.6% (3/191)	-
Primary 1-4 grades	3.8% (8/211)	4.2% (8/191)	-
Secondary	67.8% (143/211)	68.6% (131/191)	60.0% (12/20)
Incomplete higher	2.4% (5/211)	2.1% (4/191)	5.0% (1/20)
Higher	24.6% (52/211)	23.6% (45/191)	35.0% (7/20)
Marital Status			
Married	52.6% (111/211)	53.4% (102/191)	45.0% (9/20)
Divorced	10.4% (22/211)	6.8% (13/191)	45.0% (9/20)
Widow/er	0.9% (2)	0.5 % (1)	0.5 % (1)
Never been married	36.0% (76/211)	39.3% (75/191)	5.0% (1/20)
Internally Displaced Person			
Yes	7.1 % (15/211)	7.3% (14/191)	5.0% (1/20)
Duration of imprisonment (Years)			
Median	2.25	2.33	2.00
Mean	2.84	2.91	2.16
Min-Max	0.08 - 16	0.08 - 16	0.25 - 8
St. Deviation	2.41	2.46	1.62

Table 5: HIV/AIDS Knowledge, Attitude, Opinions

			Ma	ale		
HIV/AIDS Knowledge	Total		Age groups			Female
HIV/AIDS Knowledge		18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Aware of HIV/AIDS	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Have you heard on HIV/AIDS (Yes)	83.4% (176)	84.5% (82)	75.0% (48)	86.7% (26)	81.7% (156)	100% (20)
How HIV/AIDS is transmitted	(N=176)	(N=82)	(N=48)	(N=26)	(N=156)	(N=20)
Unprotected sexual intercourse	90.3% (159)	89.0% (73)	89.6% (43)	92.3% (24)	89.7% (140)	95.0% (19)
Transfusing the unverified blood	40.3% (71)	39.0% (32)	43.8% (21)	34.6% (9)	39.7% (62)	45.0% (9)
Using the shared syringe	84.7% (149)	79.3% (65)	93.8% (45)	84.6% (22)	84.6% (132)	85.0% (17)
Using the shared injecting accessories	20.5% (36)	13.4% (11)	35.4% (17)	19.2% (5)	21.2% (33)	15.0% (3)
Shared razor	21.6% (38)	24.4% (20)	22.9% (11)	11.5% (3)	21.8% (34)	20.0% (4)
Coughing/sneezing	2.3% (4)	1.2% (1)	-	3.8% (1)	1.3% (2)	10.0% (2)
Handshaking	0.6% (1)	1.2% (1)	-		0.6% (1)	-
Fattooing using non sterile needle	9.7% (17)	6.1% (5)	8.3% (4)	11.5% (3)	7.7% (12)	25.0% (5)
Eating with infected person	2.8% (5)	3.7% (3)	4.2% (2)	-	3.2% (5)	-
Wearing the other's clothes	0.6% (1)	-	-	-	-	5.0% (1)
Mother-to-child	5.7% (10)	3.7% (3)	2.4% (2)	7.7% (2)	4.5% (7)	15.0% (3)
Through the insect/animal bite	0.6% (1)	-	-	3.8% (1)	0.6% (1)	-
Have no information	1.7% (3)	2.4% (2)	-	-	1.3% (2)	5.0% (1)
Can mother transmit HIV to her child	(N=176)	(N=82)	(N=48)	(N=26)	(N=156)	(N=20)
Yes	60.8% (107)	57.3% (47)	58.3% (28)	57.7% (15)	57.7% (90)	85.0% (17)
Which mode can mother transmit HIV	(NL 107)	/NL 47\	/NL 20\	(NL 45)	(NL 00)	/N. 47\
to her child	(N=107)	(N=47)	(N=28)	(N=15)	(N=90)	(N=17)
During pregnancy	56.1% (60)	55.3% (26)	35.7% (10)	73.3% (11)	52.2% (47)	76.5% (13)
During delivery	43.9% (47)	48.9% (23)	46.4% (13)	33.3% (5)	45.6% (42)	35.3% (6)
During breastfeeding	22.4% (24)	17.0% (8)	35.7% (10)	20.0% (3)	23.3% (21)	17.6% (3)
No answer	18.7% (20)	17.0% (8)	25.0% (7)	20.0% (3)	20.0% (18)	11.8% (2)
How AIDS can be diagnosed	(N=176)	(N=82)	(N=48)	(N=26)	(N=156)	(N=20)
By special blood testing	70.5% (124)	61.0% (50)	81.3% (39)	57.7% (15)	66.7% (104)	100.0% (20)
By external observation	4.0% (7)	4.9% (4)	4.2% (2)	3.8% (1)	4.5% (7)	-
Do not know	19.9% (35)	25.6% (21)	8.3% (4)	38.5% (10)	22.4% (35)	-
Other	5.7% (10)	8.5% (7)	6.3% (3)	-	6.4% (10)	
Do you think it is possible to be cured from HIV/AIDS	(N=176)	(N=82)	(N=48)	(N=26)	(N=156)	(N=20)
Impossible	81.3% (143)	84.1% (69)	83.3% (40)	73.1% (19)	82.1% (128)	75.0% (15)
In some cases possible	4.5% (8)	2.4% (2)	4.2% (2)	3.8% (1)	3.2% (5)	15.0% (3)

			M	ale		
LIIV/AIDS Knowledge	Total	Age groups			Total Male	Female
HIV/AIDS Knowledge		18-29	30-39	40+	I otal iviale	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Rather possible	9.1% (16)	7.3% (6)	6.3% (3)	19.2% (5)	9.0% (14)	10.0% (2)
Do not know	5.1% (9)	6.1% (5)	6.3% (3)	3.8% (1)	5.8% (9)	-
How AIDS can be prevented	(N=169)	(N=77)	(N=47)	(N=25)	(N=149)	(N=20)
By regular use of condoms	81.1% (137)	76.6% (59)	85.1% (40)	76.0% (19)	79.2% (118)	95.0% (19)
Having the only one faithful partner	11.8% (20)	11.7% (9)	8.5% (4)	12.0% (3)	10.7% (16)	20.0% (4)
Using individual syringes/needles and other medical devices	79.3% (134)	77.9% (60)	87.2% (41)	76.0% (19)	80.5% (120)	70.0% (14)
Do not know	6.5% (11)	7.8% (6)	4.3% (2)	8.0% (2)	6.7% (10)	5.0% (1)
Have you undergone HIV testing	(N=176)	(N=82)	(N=48)	(N=26)	(N=156)	(N=20)
Yes	32.4% (57)	39.6% (19)	43.7% (21)	16.6% (8)	30.8% (48)	45.0% (9)
Have you undergone HIV testing while being in prison	(N=57)	(N=19)	(N=21)	(N=8)	(N=48)	(N=9)
Yes	71.9% (41)	84.2% (16)	66.7% (14)	75.0% (6)	75.0% (36)	55.6% (5)
When did you make your last testing on HIV/AIDS	(N=57)	(N=19)	(N=21)	(N=8)	(N=48)	(N=9)
One year ago	80.7% (46)	63.2% (12)	95.2% (20)	87.5% (7)	81.3% (39)	78.8% (7)
Within last 12 months	5.3% (3)	5.3% (1)	-	12.5% (1)	4.2% (2)	11.1% (1)
Within last 6 months	10.5% (6)	26.3% (5)	4.8% (1)	-	12.5% (6)	-
Within last 3 months	3.5% (2)	5.3% (1)	-	-	2.1% (1)	11.1% (1)
Have you been notified on your test results	(N=57)	(N=19)	(N=21)	(N=8)	(N=48)	(N=9)
Yes	66.7% (38)	64.4% (13)	74.4% (15)	62.5% (5)	68.7% (33)	55.5% (5)
In case you did not make the testing, what was the reason	(N=120)	(N=63)	(N=28)	(N=18)	(N=109)	(N=11)
I did not know it was available	4.2% (5)	4.8% (3)	3.6% (1)	-	3.7% (4)	9.1% (1)
do not need it, I know I am healthy	63.3% (76)	50.8% (32)	75% (21)	88.9% (16)	63.3% (69)	63.7% (7)
did not get it in mind	19.2% (23)	31.7% (20)	-	5.6% (1)	19.3% (21)	18.2% (2)
am afraid of the result, it is better not to know	1.7% (2)	1.6% (1)	-	-	0.9% (1)	9.1% (1)
I do not want somebody gets informed	5.8% (7)	9.5% (6)	3.6% (1)	-	6.4% (7)	
I did not think on it	4.2% (5)	1.6% (1)	14.3% (4)	-	4.6% (5)	
No answer	1.7% (2)	-	3.6% (1)	5.6% (1)	1.8% (2)	
Your opinion:	(N=176)	(N=82)	(N=48)	(N=26)	(N=156)	(N=20)
Does regular condom use prevent from HIV	89.2% (157)	90.2% (74)	91.7% (44)	84.6% (22)	89.7% (140)	85% (17)

HIV/AIDS Knowledge			M	ale		
	Total		Age groups			Female
		18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Can human become infected through the insect bite (No)	47.7% (84)	47.6% (39)	50.0% (24)	53.8% (14)	49.4% (77)	35.0% (7)
Can it be prevented having the faithful partner	84.7% (149)	85.4% (70)	83.3% (40)	80.8% (21)	84% (131)	90.0% (18)
Can it be prevented getting abstained	85.8% (151)	87.8% (72)	83.3% (40)	80.8% (21)	85.3% (133)	90.0% (18)
Is it possible getting infected using the	73.3% (129)	73.2% (60)	77.1% (37)	76.9% (20)	75.0% (117)	60.0% (12)
shared utensils (No)		, ,				
Is it possible getting infected using contaminated syringe/needle	97.2% (171)	96.3% (79)	95.8% (46)	100% (26)	96.8% (151)	95.0% (19)
May infected person show no signs of disease	79% (139)	76.8% (63)	81.3% (39)	69.2% (18)	76.9% (120)	95.0% (19)
Has infected inmate to be isolated	68.2% (120)	68.3% (56)	66.7% (32)	65.4% (17)	67.3% (105)	75.0% (15)
Would you go to the dentist who has served HIV infected person	38.6% (68)	43.9% (36)	33.3% (16)	34.6% (9)	39.1% (61)	35.0% (7)
Would you withdraw from the contacts with HIV positive inmate	23.3% (41)	23.2% (19)	14.6% (7)	30.8% (8)	21.8% (34)	35.0% (7)

Table 6: STI Knowledge, Attitude, Opinions

Table 6: 511 Knowledge, Attitude,	•		Ma	ale		
CTI Vacualedas	Total		Age groups		Total Mala	Female
STI Knowledge		18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Have you heard on STIs	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Yes	85.8% (181)	47.2% (76)	36.6% (59)	16.1% (26)	84.3% (161)	100% (20)
Please, specify all STIs you have ever heard about	(N=181)	(N=76)	(N=59)	(N=26)	(N=161)	(N=20)
Syphilis	77.9% (141)	69.7% (53)	81.4% (48)	88.5% (23)	77.0% (124)	85.0% (17)
Gonorrhea	85.6% (155)	85.5% (65)	91.5% (54)	96.2% (25)	89.4% (144)	55.0% (11)
Trichomoniasis	34.3% (62)	27.6% (21)	35.6% (21)	57.7% (15)	35.4% (57)	25.0% (5)
Chlamydia	2.2% (4)	1.3% (1)	1.7% (1)	3.8% (1)	1.9% (3)	5.0% (1)
Mycotic infections	13.3% (24)	10.5% (8)	10.2% (6)	11.5% (3)	10.6% (17)	35.0% (7)
Herpes	1.7% (3)	2.6% (2)	1.7% (1)	0% (0)	1.9% (3)	-
Genital warts	19.9% (36)	28.9% (22)	15.3% (9)	3.8% (1)	19.9% (32)	20.0% (4)
HIV/AIDS	14.9% (27)	23.7% (18)	6.8% (4)	7.7% (2)	14.9% (24)	15.0% (3)
No answer	0.6% (1)	-	-	-	-	5.0% (1)
Please specify the STI symptoms in men	(N=181)	(N=76)	(N=59)	(N=26)	(N=161)	(N=20)
Discharge	60.2% (109)	57.9% (44)	67.8% (40)	65.4% (17)	62.7% (101)	40.0% (8)
Rash	21.5% (39)	18.4% (14)	22% (13)	19.2% (5)	19.9% (32)	35.0% (7)
Redness	4.4% (8)	5.3% (4)	1.7% (1)	7.7% (2)	4.3% (7)	5.0% (1)
Burning when urinating	32% (58)	30.3% (23)	44.1% (26)	15.4% (4)	32.9% (53)	25.0% (5)
Itching	9.9% (18)	5.3% (4)	8.5% (5)	23.1% (6)	9.3% (15)	15.0% (3)
Low abdominal pain	3.9% (7)	2.6% (2)	-	3.8% (1)	1.9% (3)	20.0% (4)
Other	2.8% (5)	3.9% (3)	1.7% (1)	3.8% (1)	3.1% (5)	-
No answer	29.3% (53)	31.6% (24)	25.4% (15)	26.9% (7)	28.6% (46)	35.0% (7)
Please specify the STI symptoms in women	(N=180)	(N=76)	(N=59)	(N=26)	(N=161)	(N=19)
Discharge	16.7% (30)	18.4% (14)	5.1% (3)	15.4% (4)	13% (21)	47.4% (9)
Rash	7.8% (14)	5.3% (4)	-	7.7% (2)	3.7% (6)	42.1% (8)
Redness	2.2% (4)	1.3% (1)	1.7% (1)	3.8% (1)	1.9% (3)	5.3% (1)
Burning when urinating	7.2% (13)	9.2% (7)	1.7% (1)	3.8% (1)	5.6% (9)	21.1% (4)
Itching	3.3% (6)	-	-	3.8% (1)	0.6% (1)	26.3% (5)
Low abdominal pain	2.2% (4)	-	1.7% (1)	-	0.6% (1)	15.8% (3)
No answer	78.9% (142)	77.6% (59)	91.5% (54)	84.6% (22)	83.9% (135)	36.8% (7)
Have you suffered from STI symptoms	(N=140)	(N=58)	(N=43)	(N=21)	(N=122)	(N=18)

			M	ale			
STI Knowledge	Total	Age groups			Total Male	Female	
311 Kilowieuge		18-29	30-39	40+	Total Iviale		
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
within last year							
Yes	10.0% (14)	6.9% (4)	11.6% (5)	14.2% (3)	9.8% (12)	11.1% (2)	
Have you undergone testing on STIs within last 1 year	(N=179)	(N=76)	(N=57)	(N=26)	(N=159)	(N=20)	
Yes	3.9% (7)	2.6% (2)	3.5% (2)	3.8% (1)	3.2% (5)	10.0% (2)	
When did you make your last test	(N=7)	(N=2)	(N=2)	(N=1)	(N=5)	(N=2)	
Within one year	42.9% (3)	50.0% (1)	50.0% (1)	100.0% (1)	40.0% (2)	50.0% (1)	
Within last 6 months	28.6% (2)	-	50.0% (1)	-	20.0% (1)	50.0% (1)	
Within last 3 months	28.6% (2)	50.0% (1)	-	-	40.0% (2)	-	
Have you been notified on your test results	(N=7)	(N=2)	(N=2)	-	(N=5)	(N=2)	
Yes	4/7	1/2	1/2	-	2/5	2/2	
Why did not you make your testing on STIs	(N=172)	(N=73)	(N=57)	(N=24)	(N=154)	(N=18)	
did not know it was available	4.1% (7)	6.8% (5)	1.8% (1)	-	3.9% (6)	5.6% (1)	
do not need it, I know I am healthy	77.3% (133)	75.3% (55)	82.5% (47)	91.7% (22)	80.5% (124)	50% (9)	
did not get it in mind	7.6% (13)	6.8% (5)	7% (4)	4.2% (1)	6.5% (10)	16.7% (3)	
am afraid of the result, it is better not to know	1.7% (3)	1.4% (1)	1.8% (1)	-	1.3% (2)	5.6% (1)	
I do not want somebody gets informed	0.6% (1)	-	1.8% (1)	-	0.6% (1)	-	
did not think on it	1.2% (2)	-	1.8% (1)	4.2% (1)	1.3% (2)	-	
Have no resource	7% (12)	9.6% (7)	1.8% (1)	-	5.2% (8)	22.2% (4)	
No answer	0.6% (1)	-	1.8% (1)	-	0.6% (1)	-	
Have you received treatment for STI within last year	(N=174)	(N=75)	(N=55)	(N=24)	(N=154)	(N=20)	
(Yes)	5.2% (9)	4.0% (3)	3.6% (2)	4.2% (1)	3.9% (6)	15.0% (3)	
Who did administer you treatment	(N=8)	(N=2)	(N=2)	(N=1)	(N=5)	(N=3)	
The doctor	87.5% (7)	100% (2)	100% (2)	-	80% (4)	100% (3)	
The other inmate	12.5% (1)	=	-	100% (1)	20% (1)	-	
n case you did not receive treatment, what was the reason	(N=140)	(N=61)	(N=45)	(N=17)	(N=123)	(N=17)	
did not know whom to apply to	-	-	-	-	-	-	
have no need	88.6% (124)	90.2% (55)	86.7% (39)	94.1% (16)	89.4% (110)	82.4% (14)	
I did not get it in mind	2.9% (4)	-	4.4% (2)	-	1.6% (2)	11.8% (2)	
Here it is impossible	5% (7)	6.6% (4)	4.4% (2)	5.9% (1)	5.7% (7)	-	

STI Knowledge	Total		Age groups			Female
STI Knowledge		18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
I do not want somebody gets informed	0.7% (1)	-	2.2% (1)	-	0.8% (1)	-
I did not think on it	0.7% (1)	1.6% (1)	-	-	0.8% (1)	-
No answer	2.1% (3)	1.6% (1)	2.2% (1)	-	1.6% (2)	5.9% (1)
How did you act when you get the STI symptoms	(N=10)	(N=3)	(N=3)	(N=2)	(N=8)	(N=2)
I applied to doctor	60% (6)	66.7% (2)	33.3% (1)	50% (1)	50% (4)	100% (2)
I applied to self-treatment	20% (2)	-	66.7% (2)	-	25% (2)	-
I did no actions	20% (2)	33.3% (1)	-	50% (1)	25% (2)	-

Table 7: Drug use history

Table 7: Drug use history			M	ale		
	Total		Age groups			Female
Drug using behavior		18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Have you ever taken the drugs	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Yes	69.7% (147)	76.3% (74)	68.8% (44)	63.3% (19)	71.7% (137)	50.0% (10)
If yes, which type of drugs have you taken	(N=147)	(N=74)	(N=44)	(N=19)	(N=137)	(N=10)
Injecting	69.4% (102)	62.2% (46)	77.3% (34)	78.9% (15)	69.3% (95)	70.0% (7)
Non-injecting	62.6% (92)	64.9% (48)	56.8% (25)	52.6% (10)	60.6% (83)	90.0% (9)
Have you taken any drugs within last 6 months	(N=147)	(N=74)	(N=44)	(N=19)	(N=137)	(N=10)
Yes	8.8% (13)	5.4% (4)	11.4% (5)	-	6.6% (9)	40.0% (4)
If yes, which type of drugs have you taken	(N=12)	(N=3)	(N=5)	(N=0)	(N=8)	(N=4)
Injecting	91.7% (11)	100.0% (3)	100.0% (5)	-	100.0% (8)	75.0% (3)
Non-injecting	16.7% (2)	-	20.0% (1)	-	12.5% (1)	25.0% (1)
How often have you taken the drugs within last 6 months	(N=12)	(N=3)	(N=5)	(N=0)	(N=8)	(N=4)
Several times per week	33.3% (4)	33.3% (1)	40.0% (2)	-	37.5% (3)	25.0% (1)
Once per week	8.3% (1)	33.3% (1)	-	-	12.5% (1)	-
2-3 times per month	25.0% (3)	33.3% (1)	40.0% (2)	-	37.5% (3)	-
Once per month or even seldom	25.0% (3)	-	20.0% (1)	-	12.5% (1)	50.0% (2)
No answer	8.3% (1)	-	-	-	-	25.0% (1)
Have you got administrative fine due to the drug use	(N=94)	(N=46)	(N=34)	(N=14)	(N=94)	(N=0)
Yes	37.2% (35)	26.1% (12)	50.0% (17)	42.9% (6)	37.2% (35)	-
Have you been set to the interim detention cell due to the drug use	(N=100)	(N=46)	(N=34)	(N=14)	(N=94)	(N=6)
Yes	44.0% (44)	37.0% (17)	50.0% (17)	50.0% (7)	43.6% (41)	50.0% (3)
Have you been incarcerated due to the drug use	(N=99)	(N=45)	(N=34)	(N=14)	(N=93)	(N=6)
Yes	34.3% (34)	26.7% (12)	35.3% (12)	50.0% (7)	33.3% (31)	50.0% (3)
Drug use within the regular group	(N=27)	(N=6)	(N=16)	(N=0)	(N=24)	(N=3)
Yes	22.2% (6)	16.7% (1)	25% (4)	-	20.8% (5)	33.3% (1)
Duration of Injecting Drug Use in years	(N=102)				(N=95)	(N=7)
Median	7.0				7.0	6.3

	Total		Age groups		Total Mala	Female
Drug using behavior		18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Mean	8.2				8.1	9.3
Min-Max	0.33 -25				0.33 -25	0.83 -24
St. Deviation	6.1				5.9	8.8
Sizes of regular IDU group	(N=102)				(N=95)	(N=7)
Median	3.0				3.0	2.0
Mean	3.0				3.4	2.0
Min-Max	1 - 5				1-5	2
St. Deviation	1.4				1.4	-

Table 8: Sharing needles and other injecting equipment

			Ma	ale		
Needle sharing practices	Total		Age groups		Total Male	Female
Needle sharing practices		18-29	30-39	40+	Total Iviale	
	(N=102)	(N=46)	(N=34)	(N=15)	(N=95)	(N=7)
Have you ever used shared syringe	(N=102)	(N=46)	(N=34)	(N=15)	(N=95)	(N=7)
Yes	58.8% (60)	65.2% (30)	52.9% (18)	53.3% (8)	58.9% (56)	57.1% (4)
Have you used shared syringes within last 6 months	(N=60)	(N=30)	(N=18)	-	(N=56)	(N=4)
Yes	3.3% (2)	6.7% (2)	5.6% (1)	-	3.6% (2)	0%
Have you used shared syringe taking the drug last time	(N=60)	(N=30)	(N=18)	(N=8)	(N=56)	(N=4)
Yes	36.7% (22)	43.3% (13)	38.9% (7)	25.0% (2)	39.3% (22)	0%
Did you use shared syringes/needles with following persons	(N=60)	(N=30)	(N=18)	(N=8)	(N=56)	(N=4)
Regular sexual partner	1.7% (1)	3.3% (1)	-	-	1.8% (1)	-
Occasional sexual partner	1.7% (1)	3.3% (1)	-	-	1.8% (1)	-
Somebody from IDU group	25.0% (15)	33.3% (10)	22.2% (4)	12.5% (1)	26.8% (15)	-
No answer	13.3% (8)	10.0%3 ()	16.7% (3)	25.0% (2)	14.3% (8)	-
Do you scour used syringes	(N=60)	(N=30)	(N=18)	(N=8)	(N=56)	(N=4)
Always	75% (45)	73.3% (22)	88.9% (16)	87.5% (7)	80.4% (45)	-
Sometimes	11.7% (7)	10.0% (3)	11.1% (2)	-	8.9% (5)	50.0% (2)
Once	-		=	ı	=	-
lever	6.7% (4)	10.0% (3)	=	12.5% (1)	7.1% (4)	-
Do not remember	1.7% (1)	3.3% (1)	-	-	1.8% (1)	-
lo answer	1.7% (1)	3.3% (1)	-	-	1.8% (1)	-
How do you scour used syringes	(N=52)	(N=25)	(N=18)	(N=7)	(N=50)	(N=2)
By water	92.6% (50)	92% (23)	94.4% (17)	100.0% (7)	98.0% (47)	50.0% (1)
By disinfectant	5.7% (3)	4.0% (1)	5.6% (1)	-	4.0% (2)	50.0% (1)
No answer	1.9% (1)	4.0% (1)	-	=	2.0% (1)	-
Other	1.9% (1)	-	-	-	-	-
Have you given somebody your used yringe taking the drug last time	(N=102)	(N=46)	(N=34)	(N=15)	(N=95)	(N=7)
'es	20.6% (21)	23.9% (11)	20.6% (7)	20.0% (3)	22.1% (21)	0%
Have you used shared injecting accessories taking the drug last time	(N=102)	(N=46)	(N=34)	(N=15)	(N=95)	(N=7)
Yes	54.9% (56)	52.2% (24)	58.8% (20)	60.0% (9)	55.8% (53)	42.9% (3)
How many persons get used shared	(N=102)				(N=95)	(N=7)

No allo chavina prosticos	Total		Age groups	e groups —		Female
Needle sharing practices	_	18-29	30-39	40+	Total Male	
	(N=102)	(N=46)	(N=34)	(N=15)	(N=95)	(N=7)
syringes/needles						
Median	3.0				3.0	-
Mean	3.2				3.2	-
Min-Max	2 - 6				2 - 6	-
St. Deviation	1.25				1.25	-

Table 9: Additional risk behavior

Table 9: Additional risk behavior			M	ale			
	Total		Age groups		Female		
Additional risks		18-29	30-39	40+	Total Male		
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Have you got tattoo in prison	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Yes	51.2% (108)	62.9% (61)	50.0% (32)	23.3% (7)	52.4% (100)	40.0% (8)	
Have you made tattoo using the needles that were used by the others	(N=108)	(N=61)	(N=32)	(N=7)	(N=100)	(N=8)	
Yes	63.0% (68)	60.7% (37)	68.8% (22)	85.7% (6)	65% (65)	37.5% (3)	
Have you used shared syringes for treatment purposes	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Yes	5.7% (12)	7.2% (7)	4.7% (3)	6.7% (2)	6.3% (12)	0%	
Have you used razors that were used by the others	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Yes	26.5% (56)	32.0% (31)	23.4% (15)	23.3% (7)	27.7% (53)	15.0% (3)	
Have you used tooth brushes that were used by the others	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Yes	0.9% (2)	1.0% (1)	1.6% (1)	-	1.0% (2)	0%	
Have you taken alcohol within last 6 months	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Yes	9.5% (20)	4.1% (4)	7.8% (5)	3.3% (1)	5.2% (10)	50.0% (10)	
How often do you take alcohol	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)	
Several times per week	0.5% (1)	1.0% (1)	-	-	0.5% (1)	-	
Once per week	2.4% (5)	1.0% (1)	4.7% (3)	-	2.1% (4)	5.0% (1)	
2-3 times per month	0.9% (2)	0% (0)	-	6.7% (2)	1.0% (2)	-	
Once per month or even seldom	5.2% (11)	2.1% (2)	-	-	1.0% (2)	45.0% (9)	

**Table 10: Sources of Information** 

		Male				
Sources of Information	Total		Age groups			Female
Sources of information		18-29 30-39		40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Where from did you get the information on HIV/STIs	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Television	60.7% (128)	51.5% (50)	71.9% (46)	63.3% (19)	60.2% (115)	65% (13)
Radio	14.7% (31)	12.4% (12)	23.4% (15)	13.3% (4)	16.2% (31)	-
Newspapers, magazines	30.8% (65)	22.7% (22)	34.4% (22)	36.7% (11)	28.8% (55)	50.0% (10)
Booklets	34.6% (73)	35.1% (34)	26.6% (17)	40.0% (12)	33% (63)	50.0% (10)
Friends, relatives	18.5% (39)	21.6% (21)	21.9% (14)	3.3% (1)	18.8% (36)	15.0% (3)
Other inmates	19.4% (41)	23.7% (23)	20.3% (13)	16.7% (5)	21.5% (41)	-
NGOs	6.6% (14)	7.2% (7)	6.3% (4)	6.7% (2)	6.8% (13)	5.0% (1)
Penitentiary system staff	0.5% (1)	-	-	3.3% (1)	0.5% (1)	-
Never get the information	6.2% (13)	8.2% (8)	4.7% (3)	6.7% (2)	6.8% (13)	-
Have you changed your behavior after getting the information	(N=207)	(N=96)	(N=61)	(N=30)	(N=187)	(N=20)
Yes	46.4% (96)	51.0% (49)	44.3% (27)	43.3% (13)	47.6% (89)	35.0% (7)
How your behavior was changed	(N=100)	(N=50)	(N=30)	(N=13)	(N=93)	(N=7)
I use condoms more often	16.0% (16)	25.0% (7)	35.3% (6)	42.9% (3)	17.2% (16)	-
I use condoms regularly	6.0% (6)	14.3% (4)	11.8% (2)	-	6.5% (6)	-
I got tested on STIs	1.0% (1)	-	5.9% (1)	-	1.1% (1)	-
I got tested on HIV	4.0% (4)	10.7% (3)	5.9% (1)	14.3% (1)	4.3% (4)	-
got appointed to doctor	2.0% (2)	7.1% (2)	5.9% (1)	-	2.2% (2)	-
I got the treatment	-	-	-	-	-	-
I do not use the other's syringes	28.0% (28)	46.4% (13)	47.1% (8)	38.5% (5)	28.0% (26)	28.6% (2)
get abstained from sex	1.0% (1)	3.6% (1)	-	-	1.1% (1)	-
I do not use the other's scissors	4.0% (4)	4.0% (2)			2.2% (2)	28.6% (2)
Other	47.0% (47)	48.0% (24)	50.0% (15)	38.5% (5)	47.3% (44)	42.9% (3)
No answer	3.0% (3)	10.7% (3)	-	-	3.2% (3)	-
Which informational source is the most reliable to you	(N=208)	(N=97)	(N=61)	(N=30)	(N=188)	(N=20)
Television	27.9% (58)	20.6% (20)	39.3% (24)	33.3% (10)	28.7% (54)	20.0% (4)
Radio	10.6% (22)	10.3% (10)	13.1% (8)	6.7% (2)	10.6% (20)	10.0% (2)
Newspapers, magazines	22.6% (47)	22.7% (22)	21.3% (13)	36.7% (11)	24.5% (46)	5.0% (1)
Booklets	20.2% (42)	25.8% (25)	9.8% (6)	13.3% (4)	18.6% (35)	35.0% (7)
Friends, relatives	13.5% (28)	11.3% (11)	21.3% (13)	10.0% (3)	14.4% (27)	5.0% (1)

Sources of Information	Total		Age groups			Female
Sources of information	_	18-29	30-39	40+	Total Male	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Other inmates	10.6% (22)	16.5% (16)	4.9% (3)	10.0% (3)	11.7% (22)	-
NGOs	20.2% (42)	25.8% (25)	9.8% (6)	30.0% (9)	21.3% (40)	10.0% (2)
Penitentiary system staff	7.7% (16)	8.2% (8)	4.9% (3)	16.7% (5)	8.5% (16)	-
Medical staff	14.4% (30)	13.4% (13)	13.1% (8)	6.7% (2)	12.2% (23)	35.0% (7)

Table 11: Prevalence of Syphilis (Lifetime)

Biomarker	Total		Age groups		Total Male	Female
Diomarkei		18-29	30-39	40+	Total Iviale	
	(N=211)	(N=97)	(N=64)	(N=30)	(N=191)	(N=20)
Cases	11	4	5	•	9	2
Lifetime Syphilis Prevalence on 1000 Inmates, 95% CI	52.1 (28.9 – 94.1)	41.2 (10.5 – 109.3)	78.1 (32.5 – 187.7)	-	47.1 (24.5 – 90.6)	100.0 (25.0 – 399.9)

**Table 12: Prevalence of HIV** 

Biomarker	Total	Age groups		
biomarker		18-29	30-39	40+
	(N=211)	(N=105)	(N=67)	(N=39)
Cases	3	2	-	1
HIV Prevalence on 1000 Inmates, 95% CI	14.2 (4.6 – 44.1)	19.0 (4.83 – 76.2)	-	25.6 (3.6 – 182.0)

### **Annex 2: Survey Questionnaire**



The Global Fund Project "Expanding HIV/AIDS prevention, Treatment, Care and Support Activities" (Project N-GEO-607-G06-H)



**I Program Lot** 



"Establishment of Evidence Base for National HIV/AIDS Program by Strengthening of HIV/AIDS Surveillance System in the Country"

### HIV/STI Risk Related Behavior Surveillance Survey with Biomarker Component

(in Penitentiary System)

Questionnaire #	
(Note to Interviewer) Introduction: Good day, m	y name is I am going to
ask you several questions. All your answ	vers are completely confidential. Your
	orm and never be used with regards to the
	ot obliged to answer the questions you are
	terview any time you like. We appreciate
your participation into the survey and y	
, can pantion mile and can rey and ,	
Respondent ID	
Date: Interviewer:	
Interview Date and Start up time: / / Date //	
interview bate and start up time.	Time //
(Signature of Interviewer, confirming verbal consent gained	from the Respondent)
Codes of Results:	
codes of Results:	
Accomplished	1
Unaccomplished	2
Rejected	3
Other (specify)	
Venues for the Interview:	
Prison #1 (Tbilisi)	1
Penitentiary Institution #5 (Tbilisi)	2
Prison #2 (Kutaisi)	3

### A. Social-Demographic Features of the Respondent

### A1.1 What is your age? /\_\_\_\_/ Years of age No answer A1.2 Your date of birth (if needed, compare to A1.1) /-----/ Day Month Year No answer 99 A2. Which education did you gain (read) 1 Primary (1-4 grades) 2 Secondary (school, college, prof. school) 3 Incomplete higher education 4 Higher education 5 99 No answer A3. What is your nationality? Georgian 1 2 Russian Armenian 3 Jew 4 Azerbaijanian 5 Ukrainian 6 Kurd 7 Osset 8 Greek 9 No answer 99 Other (specify) A4. What is your marital status? (read) Married 1 Divorced/separated 2 3 Widow(er) Never been married 4 No answer 99 Other (specify) A5. Are you Internally Displaced Person? Yes 1 No 2 No answer 99 A6. For how long are you set to imprisonment? ----- (Write down date and highlight the period) (Day, Week, Month, Year)

### B. Knowledge, relations, thoughts regarding HIV/AIDS

B1. Have you heard on HIV/AIDS?	
Yes No (proceed to C1)	1 2
(Note to Interviewer: I the respondent have not, please explo Human Immunodeficiency Virus causing chronic progressive clinically manifested stage of it')	
B2. How HIV/AIDS is transmitted from one person to oth the shortlist; match the answer gained from respondent	
Unprotected sexual intercourse	1
Transfusing the unverified blood	2
Using the shared syringe	3
Using the shared injecting accessories	4
Shared razor	5
Coughing/sneezing	6
Handshaking	7
Tattooing using non sterile needle	8
Eating with infected person	9
Wearing the other's clothes	10
Mother-to-child	11
Through the insect/animal bite	
Have no information/find it difficult to answer Other (specify)	12
B3. Can mother transmit HIV to her child?	
Yes	1
No (proceed to B5)	2
No answer	3
B4. If Yes, which mode can mother transmit HIV to her ch the shortlist; match the answer gained from respondent	
During pregnancy	1
During delivery	2
During breastfeeding	3
No answer	99
Other	
B5. How AIDS can be diagnosed?	
By special blood testing	1
By testing the swabs or	2
By external observation	3
Do not know	4

B6. Do you think it is possible to be cured from HIV/AIDS?

Other

Impossible 1

Rather possible Do not know	3
Other (specify) / /	
B7. How do you think AIDS can be prevented? (Note to Interviewe match the answer gained from respondent to the listed alternative	
By regular use of condoms	1
Having the only one faithful partner Using individual syringes/needles and other sterile medical or cosmetological devices	2
Do not know	4
No answer Other (specify) / /	99
B8. Have you personally undergone HIV/AIDS testing?	
Yes	1
No (proceed to B11)	2
No answer	3
B8.1 Have you undergone HIV/AIDS testing while being in prison?	
Yes	1
No No answer	2 3
B9. When did you make your last testing on HIV/AIDS?	3
bs. When did you make your last testing on my/AiDs:	
One year ago	1
Within last 12 months Within last 6 months	2 3
Within last 3 months	4
Do not remember	5
No answer	99
Other (specify) / /	
B10. We are not going to ask you to tell us, but have you been no	tified on your test results?
Yes	1
No No answer	2 3
	3
(After this question proceed to B12)	
B11. In case you did not make the testing, what was the reason? ( read the shortlist; match the answer gained from respondent to the	
I did not know it was available	1
I do not need it, I know I am healthy	2
I did not get it in mind	3
I am afraid of the result, it is better not to know	4
I do not want somebody gets informed I did not think on it	5 6
	-

In some cases possible

99

### B12. Please tell us your opinion: (Read, denote appropriate answer for each option specified)

Opt	ions	Yes	No	I do not know
1.	Does regular condom use prevent from HIV?	1	2	3
2.	Can human become infected through the insect bite?	1	2	3
3.	Can HIV be prevented having the one faithful healthy partner?	1	2	3
4.	Can HIV be prevented getting abstained from sex?	1	2	3
5.	Is it possible getting infected using the shared utensils with HIV infected person while eating?	1	2	3
6.	Is it possible getting infected using contaminated syringe/needle?	1	2	3
7.	May infected person show no signs of disease?	1	2	3
8.	Has infected inmate to be isolated?	1	2	3
9.	Would you go appointed to the doctor (eg. dentist) who has served HIV infected person previously?	1	2	3
10.	Would you withdraw from the contacts with HIV positive inmate?	1	2	3

## C. Knowledge, relations, thoughts regarding Sexually Transmitted Infections

### C1. Have you heard on STIs?

Yes	1
No	2
No answer	3

(Note to Interviewer: I the respondent have not, please explain the meaning of the Sexually Transmitted Infections — 'Infectious diseases, which main mode of transmission is unprotected sexual intercourse')

# C2. If Yes, please specify all STIs (Venereal diseases) you have ever heard about (Note to Interviewer: do not read the shortlist; match the answer gained from respondent to the listed alternative)

Combilia and to a	4
Syphilis, or Lues	1
Gonorrhea, or Tripper	2
Trichomoniasis	3
Chlamydia	4
Mycotic infections	5
Herpes	6
Genital warts	7
HIV/AIDS	8
No answer	99
Other (specify) / /	

C3.1 Please specify the external STI features (symptoms) in men (Note of the shortlist; match the answer gained from respondent to the receive the answers as much as possible)	
Discharge	1

Discharge	1
Rash	2
Redness	3
Burning when urinating	4
Itching	5
Low abdominal pain	6
No answer (proceed to C5)	99
Other (specify) /	/

# C3.2 Please specify the external STI features (symptoms) in women (Note to Interviewer: do not read the shortlist; match the answer gained from respondent to the listed alternative, try to receive the answers as much as possible)

Discharge	1
Rash	2
Redness	3
Burning when urinating	4
Itching	5
Low abdominal pain	6
No answer (proceed to C5)	99
Other (specify) / /	

### C4. Have you suffered from STI features (symptoms) within last year?

Yes	1
No	2
No answer	99

### C5. Have you undergone testing on STIs within last year?

Yes		1
No	(proceed to C8)	2
No an	nswer (proceed to C8)	99

### C6. If yes, when did you make your last test?

Within one year		1
Within last 6 months		2
Within last 3 months		3
Do not remember		4
No answer		99
Other (specify) /	/	

### C7. We are not going to ask you tell us, but have you been notified on your test result?

Yes	1
No	2
No answer	99

(After this question proceed to C9)

### C8. If so, why did not you make your testing on STIs? (Multiple answers possible) I did not know it was available I do not need it, I know I am healthy 2 I did not get it in mind 3 I am afraid of the result, it is better not to know 4 I do not want somebody gets informed 5 I did not think on it 6 99 No answer Other (specify) / C9. Have you received treatment for STI within last year? Yes 1 2 No (proceed to C11) No answer 99 C10. If yes, who did administer you treatment? (After this question proceed to C12) The doctor 1 2 The other inmate 3 Friend/Acquaintance (non-professional) 4 By own initiative No answer 99 Other (specify) / (Proceed to C12) C11. In case you did not receive treatment, what was the reason? (Multiple answers possible) I did not know whom to apply to 1 2 I have no need 3 I did not get it in mind Here it is impossible 4 I do not want somebody gets informed 5 I did not think on it 6 No answer 99 / Other (specify) / (Note to Interviewer: ask next question in case, if the respondent suffered from STI signs - look at C4) C12. How did you act when you get the STI symptoms? (Note to Interviewer: do not read the shortlist; match the answer gained from respondent to the listed alternative) I applied to doctor 1 I applied to self-treatment 2 3 I withdrew from sexual contacts or started use condom I have informed my partner(s) 4 I did no actions 5 99 No answer / Other (specify) /

### D. Sexual Behavior, Sexual Relations, the Condom Use

### D1. Did you have sexual intercourse within last six months?

Yes		1
No	(proceed to E1)	2
No a	inswer	3

## D2. Which type of sexual intercourses and how often have you encountered within that period (last six months)?

	D2.1	D2.2
	Homosexual intercourse	Heterosexual intercourse
Several times per week	1	1
Once per week	2	2
Several times per month	3	3
Once per month	4	4
Several times in six months	5	5
Once in six months	6	6
Did not have at all	7	7
No answer	99	99

### D3. Which sexual partner did you have the sexual intercourse within last six months? (Multiple answers possible)

Regular male partner	1
Occasional male partner	2
Regular female partner	3
Occasional female partner	4
No answer	99

### D4. Do you use the condom having occasional sexual intercourse?

res, always (proceed to D6)	1
Yes, sometimes (proceed to D6)	2
No	3
No answer	99

## D5. In case you do not, what is the reason you do not use the condoms? (Multiple answers possible)

I forget it	1
The partner refuses	2
Due to less pleasure	3
I trust to my partner	4
Condom is unavailable	5
It often brakes, that is meaningless to use it	6
I feel embarrassment to offer it to my partner	7
No answer	99
Other (specify) / /	

### D6. Which sexual intercourse do you use the condoms for? (Multiple answers possible)

Having vaginal sexual intercourse	1
Having oral sexual intercourse	2
Having anal sexual intercourse	3

Having any sexual intercourse  No answer  Other (specify) / /	4 99	
D7. (In case the answers to 2.1 and 3 are applicable) If intercourse with the mail partner, did you use the cond	•	
Yes No Do not remember No answer	1 2 3 99	
D8. (In case the answers to 2.2 and 3 are applicable) If intercourse with the female partner, did you use the co		
Yes No Do not remember No answer  D9. Do you take an agreement with your occasional pa	1 2 3 99 rtner in advance regarding the condom	
use?		
Always Sometimes Never Find it difficult to answer No answer Other (specify) / /	1 2 3 4 99	
D10. Who mostly gets the initiative to use the condom	having sexual intercourse?	
By own initiative By partner's initiative By mutual consent No answer Other (specify) / /	1 2 3 99	
(in case the answers to 3 are applicable regarding sexual intercourses with regular partner).		
Next questions address your regular sexual partner.		
D11. Did you have sexual intercourse with your regula	r partner within last six months?	
Yes No (proceed to D14) No answer	1 2 99	
D12. Did you use the condom having last sexual intercourse with your regular partner?		
Yes No Do not remember No answer	1 2 88 99	

D13. In case you did not, what was the reason, why did either you, or you condom then? ( do not read, match the answers gained to the listed closic	•
It was unavailable/ I did not have it Partner refused I do not like it I do not think it is necessary I did not think of it	1 2 3 4 5
No answer	99
Other (specify) / / D14. To your best knowledge, is your regular sexual partner injecting drug	g user?
Yes	1
No	2
Do not know	3
No answer Other (specify) / /	99
E. Drug Use	
E1. Have you ever taken the drugs?	
Yes	1
No (proceed to G1)	2
No answer	99
E2. If yes, which type of drugs have you taken? (Multiple answers possible	e)
Injecting (IV or IM shot)	1
Non-injecting (smoking, drinking, inhaling) (proceed to G1)	2
No answer (proceed to G1) Other (specify) / /	99
E3. For how long are you being injecting drug user? (It is possible to specif months, or both years and months)	y solely years, or
/ Years/ Months/	
Other (specify)	
E4. Have you taken any drugs within last 6 months?	
Yes	1
No (proceed to F7)	2
No answer (proceed to F7)	99
E5. If yes, which type of drugs have you taken? (Multiple answers possible	e)
Injecting (IV or IM shot)	1
Non-injecting (smoking, drinking, inhaling)	2
No answer	99
Other (specify) / /	

E6. How often have you taken the drugs within last 6 months?

Several times per week	1		
Once per week	2		
2-3 times per month Once per month or even seldom	3 4		
No answer	99		
E7. Have you got administrative fine (penalty) due to the drug use			
27. Thave you got duministrative line (penalty) due to the drug use	outside the prison.		
Yes	1		
No No answer	2		
No answer	99		
E8. Have you been set to the interim detention cell due to the drug	use?		
Yes	1		
No	2		
No answer	99		
E9. Have you been incarcerated due to the drug use?			
Yes	1		
No	2		
No answer	99		
E10. Taking in mind merely last six months, when taking the drugs, together with the same injecting drug users within the regular group	•		
Yes	1		
No	2		
No answer	99		
E11. How many injecting drug users are gathered in your regular gro	up?		
(specify the exact numb	er)		
No answer	99		
F. Dunction of Charity the Conjugate and other Injury	ation - Faurines and		
F. Practice of Sharing the Syringes and other Inje			
F1. Have you ever used syringe that was used previously by the other.	ner person?		
Yes	1		
No (proceed to F7)	2		
No answer	99		
F1. 1 Have you used shared syringes/needles within last 6 months?			
Yes	1		
No	2		
No answer	99		
F2. Please remember, have you used shared syringe/needle taking	F2. Please remember, have you used shared syringe/needle taking the drug last time?		
	the drug last time?		
Yes	the drug last time?		
Yes No (proceed to F5)	-		

syringes/needles?	
(specify the number	er)
No answer	99
F4. Did you ever use shared syringes/needles with fanswers possible)	following persons? (read the list, multiple
Your regular sexual partner	1
Occasional unknown sexual partner	2
Somebody from IDU group	3
No answer	99
Other (specify) / /	
F5. Do you always scour used syringes (read?)	
Always	1
Sometimes	2
Once	3
Never (proceed to F7)	4
Do not remember	5
No answer	99
F6. If so, how do you scour used syringes? (Read, mu	Iltiple answers possible)
By water	1
By disinfectant	2
By spittle	3
Burning needle over the flame	4
No answer	99
Other (specify) / /	
F7. Have you given somebody your used syringe tal	king the drug last time?
Yes	1
No	2
Do not remember	3
No answer	99
F8. Can you get new unused syringes and needles a	s soon as you need it?
Yes	1
No	2
No answer	99
The district	33
F9. Have you used shared injecting accessories - the wool/filter or water - taking the drug last time?	e bottle, spoon, boiling can/vessel/flask,
Yes	1
No	2
Do not remember	3
No answer	99

F3. If there were much of you, how do you guess, how many would use shared

### **G.** Additional Risks

G1. Have you got tattoo in prison?	
Yes	1
No (proceed to G3)	2
No answer	99
G2. Have you made tattoo using the needles that were used by the others?	
Yes	1
No	2
Do not remember	3
No answer	99
G3. Have you used shared syringes for treatment purposes while being in pris	son?
Yes	1
No	2
Do not remember	3
No answer	99
G4. Have you used razors that were used by the others while being in prison?	
Yes	1
No	2
Do not remember	3
No answer	99
G5. Have you used tooth brushes that were used by the others while being in	prison?
Yes	1
No	2
Do not remember	3
No answer	99
G6. Have you taken alcohol within last 6 months?	
Yes	1
No (proceed to H1)	2
No answer (proceed to H1)	99
G7. How often did you take alcohol within last 6 months, including beer and beverages?	low-alcohol
Several times per week	1
Once per week	2
2-3 times per month	3

### H. Source of information

Once per month or even seldom

No answer

4

99

### H1. Where from did you get the information on HIV/STIs?

Television		1
Radio		2
Newspapers, magazines		3
Special booklets		4
Friends, relatives		5
Other inmates		6
NGO representatives		7
Penitentiary system staff		8
Never get the information		9
No answer		99
Other (specify) /	/	

### H2. Have you changed your behavior after getting the information?

Yes	1
No (proceed to H4)	2
No answer	99

### H3. How your behavior was changed? (Multiple answers possible)

I use condoms more often	1
I use condoms regularly	2
I got tested on STIs	3
I got tested on HIV	4
I got appointed to doctor	5
I got the treatment	6
No answer	99
Other (specify) /	/

### H4. Which informational source is the most reliable to you? (Multiple answers possible)

Television	1
Radio	2
Newspapers, magazines	3
Special booklets	4
Friends, relatives	5
Other inmates	6
NGO representatives	7
Penitentiary system staff	8
No answer	99
Other (specify) / /	

# Q1. You did help us a lot. When this survey ends, our organization will plan the projects that would be beneficial for everyone. In case we need your interview then, would you please agree to let us have your time again?

Yes	1
No	2
No answer	99

Thank the respondent for collaboration and say goodbye.

Interested in Indifferent Calm Excited		1 2 3 4
The time of interview ending /	_/	
The questionnaire must be kept until the	project closure.	
Quality control of the interview was assi	ured by	
1 Position	2	_ Organization
Signature		

Q2. During the interview respondent was: