# HIV risk and prevention behaviours among People Who Inject Drugs in six cities of Georgia

## Bio-behavioral surveillance survey in Tbilisi, Batumi, Zugdidi, Telavi, Gori, Kutaisi in 2012

**Study report**

**Prepared by:**

**Curatio International Foundation**

**Public Union Bemoni**

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The report was prepared by Dr. Ivdity Chikovani, Dr. Natia Shengelia, Nino Chkhaidze (CIF), Dr. Tamar Sirbiladze and Dr. Lela Tavzarashvili (Bemoni).

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## Acronyms

| | |
|---|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| AOR | Adjusted Odds Ratio |
| BSS | Behavioral Surveillance Survey |
| CI | Confidence Interval |
| CIF | Curatio International Foundation |
| CNS | Central Neural System |
| GARPR | Global AIDS Response Progress Report |
| GFATM | The Global Fund to Fight AIDS, Tuberculosis and Malaria |
| HIV | Human Immunodeficiency Virus |
| IDP | Internally Displaced Person |
| PWIDs | People Who Inject Drugs |
| FSU | Former Soviet Union |
| FSW | Female Sex Workers |
| NGO | Non-Government Organization |
| OR | Odds Ratio |
| RDS | Respondent Driven Sampling |
| RDSAT | Respondent Driven Sampling Analysis tool |
| SHIP | STI/HIV Prevention |
| SPSS | Statistical Package for the Social Sciences |
| STI | Sexually Transmitted Infection |
| TPHA | Treponema Pallidum Hemagglutination Assay |
| HCT | HIV Counseling and Testing |
| USAID | United States Agency for International development |
| WHO | World Health Organization |

## Definitions [1]

**High-risk behavior** – Any behavior that puts an individual or individuals at increased risk of contracting STIs/HIV or transmitting STIs/HIV to another individual (e.g., having multiple sex partners without using condoms consistently; sharing used non-sterile needles, syringes or other devices used to prepare the drug among PWIDs).

**CNS Depressant** - a category of drugs that affect the central nervous system by slowing down the activity of certain chemicals in the brain, which slows down the functioning of the body.

**CNS Stimulant** - any of several drugs that affect the central nervous system and speeds up the messages going from the brain to the body, produces excitation, alertness and wakefulness.

**Hallucinogen** - chemical substance which can distort perceptions to induce delusions or hallucinations.

**Antidepressant-** any of a class of substances that is used to counteract or treat depression.

**Narcotic drug** - a drug having the power to produce a state of sleep or drowsiness and to relieve pain with the potential of being dependence producing.

**Withdrawal** - Withdrawal describes a set of symptoms that can occur when a user cuts down, or stops the use of a particular drug. Withdrawal symptoms can range from mild to severe, and are different depending upon the drug from which the user is withdrawing.

**Detoxification** - the process by which a person who is dependent on a psychoactive substance ceases use, in such a way that minimizes the symptoms of withdrawal and risk of harm.

**Extreme need" with/without help** – this is a form of self-treatment used in Georgia among PWIDs that is similar to the practice referred to as "cold turkey"[2] in the US; that is, a complete self-termination of drug use. "Extreme need with help" is when a family member or friend assists the IDU with the complete self-termination of drug use.

[1] Methodology of Behavioral Surveillance Studies of key populations, 2010 (Georgian version). www.curatiofoundation.org

[2] "Cold turkey": term used when quitting drugs on one's own with no medical help. One of the symptoms of withdrawal is "goose flesh" (horripilation) and looks like a cold turkey

**Gathering place** – a setting where a group of PWIDs meet to inject drugs that may or may not involve the sharing of needle/syringes or injecting equipment. Also, this setting may change periodically.

**Sharing needles and/or injecting equipment** – Reusing needles, syringes or other injecting equipment with other PWIDs without properly sterilizing the equipment.

**"Switched drugs"** – this refers to the substitution of one drug for another. More often, drug substitution occurs when the usual drug injected is not available, or the IDU cannot afford it.

**Consistent condom use** – Use of condoms every time during sexual intercourse during a specified period of time

**Regular sex partner** – A spouse, live-in partner or sex partner the respondent do not live with, but have regular sexual contact. Regular sexual contact is defined as sexual relationship that lasts longer than one year, or less than one year with an intention to continue it.

**Occasional sex partner** – A sex partner which is not a regular sex partner and with whom the sex was not in exchange for material reward.

**Paid sex partner -** A sex partner with whom the sex was in exchange for money or drugs.

# Executive Summary

## Introduction

Georgia is among the countries with low HIV/AIDS prevalence but high potential for developing a widespread epidemic. From the early stage of HIV epidemic in Georgia injecting drug use was the major mode of transmission. However, for the last two years heterosexual transmission became prevailing route for HIV spread.

Current study represent the subsequent wave of Bio-Behavioral Surveys (Bio-BSS) undertaken in Georgia among People Who Inject Drugs (PWIDs) since 2002. Objective of Bio-BSS was to measure prevalence of HIV among PWIDs, provide measurements of key HIV risk behaviors and generate evidence for advocacy and policy-making. The study was implemented within the GFATM-funded project "Generate evidence base on progress in behavior modification among MARPs and effectiveness of preventive interventions, to inform policies and practice" by Curatio International Foundation (CIF), Public Union Bemoni and the National Center for Disease Control and Public Health.

## Methods

The Bio-BSS among PWIDs was conducted during 2012 using Respondent-Driven Sampling (RDS). The study locations were in six major cities of Georgia: Tbilisi, Gori, Telavi, Zugdidi, Batumi and Kutiasi. Inclusion criteria for participation in the study were: age 18 years and older; drug injection in the month prior the survey; being resident of a selected location and ability to complete interview in Georgian. Recruitment started with seeds and desired sample sizes were reached in all six locations. The study protocol and questionnaires were approved by the Ethics Review Committee. Face-to-face individual anonymous interviews were conducted by the trained interviewers. Biomarker component involved the analyses of blood specimens for HIV.

The study in all six locations recruited overall 1,791 eligible PWIDs including seeds. Data were analyzed in Respondent Driven Sampling Analyses Tool version 6.0 to produce adjusted population-based estimates with 95% CI. Combined sample from all six cities was analyzed in the SPSS to produce frequencies for all indicators, in addition bivariate and multivariate regressions of specific indicators were done.

## Results

Key findings from 2012 survey and comparisons with the 2009 survey data are given below.

### Socio-demographic characteristics

- There is no difference in socio-demographic characteristics of the PWIDs recruited in 2009 and 2012 studies. Study findings mainly illustrate PWIDs from the lower socio-economic ladder - more than half of PWIDs have monthly income of less than 300 GeL (180 USD).
- Median age of non-injection drug use initiation is 15-16 years and for the first drug injection is 18-20 years. There is no significant shift to any direction from 2009 with regards to drug use initiation age.

### Drug Scene and other contextual factors

- The most popular drugs for non-injecting consumption are cannabis (marijuana) and CNS depressants. CNS depressants are available at regular drug stores without prescription and are consumed by 70% of PWIDs.
- There is a significant change in the drug scene since 2009. Analysis of the combined samples shows emergence and wide use of desomorphine ("crocodile"), a homemade opioid-type drug, precursors of which could be obtained at a regular pharmacy. Experience from the neighboring countries shows massive shift to this drug after restrictions of heroin trafficking and increase of heroin price at black market. Desomprohine became a cheap substitute to opiate addicts mainly from low income group.
- The other notable change is drop of Heroine and Buprenorphine use. Increase of self-made amphetamine type drug use is also evident. There is diverse picture of drug use in different locations. High injection of heroine in Batumi, Zugdidi and Kutaisi could be linked to high rates if PWIDs mobility to Turkey for drug injection. Morphine injection has also increased and is mostly reported by Gori and Kutaisi PWIDs.
- Injection abroad increased significantly in all cities since 2009 reaching highest levels in Batumi, Zugdidi and Kutaisi. Increased mobility of PWIDs could be linked to the restricted drug policy in the country. PWIDs injected drugs mainly in Turkey, followed by Ukraine and Russia. Sharing of injection equipment is higher when injection takes place abroad and even those who practice safe injection in their home cities shift to risky behavior abroad.
- Since 2009 PWIDs who inject in the streets dropped from 15.2% to 2.2%, indicating that drug consumption became more hidden during latest years.
- Depending on the location from 9% to 24% were detained in administrative sentence because of drug use during last 12 months which is almost twice lower since 2009.

- Similar to 2009 survey access to sterile needle/syringes is high, almost all PWIDs could get them when needed.

### HIV knowledge and HIV testing practice

- There is significant improvement in knowledge on HIV transmission routes in all cities since 2009. National indicator on HIV knowledge varies from 79.2% to 95.9% by locations. Misconceptions about HIV transmission still exist among PWIDs that is reflective of a general tendency in the society.
- Knowledge about HIV testing possibilities is relatively good, however HIV testing practice is still low. Less than half were tested during their lifetime and very small proportion was tested during last 12 month (overall 14.7%), however there is almost three-fold increase since 2009.
- The worst HIV testing practice is observed among young PWIDs, those with primary/secondary education, poor HIV knowledge and risky injection behavior. This calls for targeted programmatic interventions for this high risk subgroup.

### Drug use behaviour

- The majority of the PWIDs consider themselves as drug addicted. Frequency of drug injection varies across the cities and is associated with the type of drug injected; highest rate of those who inject several times a day was found in Tbilisi and among dezomorphine injectors.
- Every second IDU is a member of regular injecting groups composed of about 4 people, which is similar to that found in 2009.
- After comparing with 2009 data it is evident that safe injecting behavior improved among PWIDs in all cities since 2009. Use of sterile injecting equipment varies from 78.4% in Batumi to 89% in Tbilisi.
- Needle-sharing practice at the last injection was mentioned in 3.1% - 8.7% cases, with the highest proportion among Batumi PWIDs. Those who had primary/secondary education, injected Heroine or “Jeff” last month, or injected abroad were more likely to share injecting equipment.
- Sharing of paraphernalia decreased significantly in all cities since 2009 indicating that PWIDs correctly identify risk of HIV transmission through this way.

### Sexual behavior

- High risk sexual behavior among PWIDs has not changed significantly since 2009. Condom use at last intercourse was under 40% for all cities. Those who are young, not married, reached by preventive program and knowledgeable about HIV preventive measures are more likely to use condom at last sex. Level of condom with regular sex partners is low and majority never used condoms at all.
- There is slight increase in condom use at last sexual contact with occasional partners from 2009. The rate differs from 37.5% (Kutaisi) to 68.3% (Zugdidi) meaning that occasional partners are still not perceived to be a source for HIV transmission. With paid partners condom use practice is higher.
- Similar to 2009 findings concurrent sexual relationship is common among married PWIDs. At least every six married PWID purchased sex during last year, with highest rate in Batumi. Twice more reported contact with occasional partner every second of which had unprotected sex.

### Access to and coverage of treatment and harm reduction interventions

- Access to drug treatment services is very low. The majority of PWIDs have never been treated against drug dependence. This could be explained by limited number of places where PWIDs can afford drug dependence treatment.
- Coverage with preventive interventions is generally low and varies across cities. Lowest coverage was found in Telavi and highest in Gori. One out of four PWID is reached by preventive program, estimated by awareness about HIV testing place and reception of at least one program commodities (injecting equipment, condom, educational material or qualified information) during last 12 months. From 2009 there is decrease in program reach in all cities with exception of Gori.
- Proportion of those who received full package of services from preventive programs is much lower in all location with exception of Gori, indicating that there is deficiency in coverage as well as quality of services. With this regard there is no improvement since 2009 in most of locations.
- Awareness about syringe exchange program varies across cities and is low with exception of Gori. Significantly less proportion actually benefited from this program.

### HIV prevalence

- Prevalence rates from Batumi and Zugdidi show that the HIV epidemic has reached a concentrated epidemic level in 2012. Population estimates in cities range from lowest 0.4% in Telavi to highest 9.1% in Zugdidi and there is increasing trend from previous years.

## Recommendations

Following recommendations are proposed to affectively address the problems, weaknesses and gaps revealed through the current study:

***Increasing IDU coverage and Strengthening outreach programmes and NGOs that work on drug demand reduction***

The survey identified substantial need for increasing coverage and quality of preventive, treatment and harm reduction services.

- Increase uptake of the HCT services, through increasing level of awareness among PWIDs and expanding field outreach activities.
- Improve quality of preventive program services though delivering comprehensive and standardized interventions.
- Consider targeting young PWIDs. Design specific programs with comprehensive package with involvement of young peer educators.
- Use of competence-enhancement approach to drug abuse prevention in schools. Contrary to the traditional antidrug education methods this approach proved to be effective in behavior change among youth.
- In order to prevent further spread of so called “pharmacy abuse” (consumption of psychotropic drugs as well as self-made drugs chemically manufactured from medicines that are sold in pharmacies), control on the pharmacy network should be strengthened and relevant regulations should be issued and applied.
- In preventive messages reemphasize risks associated with injection practices abroad (sharing of injecting equipment with other individuals).
- Design and implement drug-specific interventions primarily for self-made amphetamine-type stimulants and opiate users, who are characterized with higher risk behaviors.
- Given the widespread prevalence of sexual risk among PWIDs continue to promote condom distribution and reemphasize the necessity of consistent condom use with any sex partner. Condom distribution must be supplemented with other risk reduction education, including

building motivation and skills to use condoms, promoting HIV testing, and preventing drug use. There is a need to strengthen the sexual health services offered to PWIDs and family focused interventions.

- Strengthen and expand peer education activities. Educated PWIDs would communicate and negotiate safe practices to the peers leading to their behavior change.
- Strengthen and expand comprehensive drug prevention and treatment interventions that can reduce drug consumption as well as injection-related risky behaviors.
- Increase availability and affordability of rehabilitation and detoxification centers to PWIDs.
- Intensify preventive interventions in Zugdidi and Batumi where high HIV prevalence and risk behaviors create ground for further spread of infection and in Telavi, where preventive program coverage is one of the lowest in the country.

***Continue with surveillance***

- The next surveys among PWIDs using RDS should be carried out in these cities within next 2 years and possibly also in other cities where BSS is not yet conducted.
- Investigate environmental risk and enabling factors that influence behavior and thus provide insight into HIV prevention.

## Table 1: Summary of Core Indicators

| | TBILISI | | BATUMI | | ZUGDIDI | | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Key indicators | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| HIV testing during the last year | | | | | | | | | | | | |
| Received HIV test last year and know their results * | 12.5(8.5-17.0) | 60/358 | 13.3 (8.3-20.1) | 41/278 | 10.2(5.9-14.9) | 38/288 | 5.1 (2.1-8.9) | 23/289 | 23.4 (16.4-29.7) | 65/289 | 12.0 (7.2-18.6) | 36/289 |
| ≤ 24 | 4.6 (0-14.5) | 3/22 | 0.9 (0-3.3) | 1/35 | 1.8(0.1-4.4) | 4/33 | 8.2 (0-15.9) | 3/49 | 0 (0-0) | 1/23 | 0 (0- 0) | 0/17 |
| ≥ 25 | 13.2 (8.8-17.8) | 57/336 | 14.6 (9.1-22.2) | 40/243 | 11.1(6-16) | 34/255 | 4.8 (2.3-9.2) | 20/240 | 25.1 (17.2-31.6) | 64/266 | 13 (8- 20.1) | 36/272 |
| Infringement of the law due to drug use during last 12 months * | 20.9 (16.0-26.0) | 83/ 358 | 18.6 (12.7-24.8) | 47/278 | 17.8 (12.4-23.8) | 48/288 | 13.5 (8.8-18.9) | 48/289 | 10.5 (6.8-14.7) | 32/289 | 28.0 (21.0-36.2) | 83/289 |
| ≤ 24 | 27.6 (6.4-44.7) | 8/22 | 10.2 (0-26.4) | 3/35 | 19.2 (1.9-36.4) | 6/33 | 5.2 (0.8-11.8) | 43/49 | 8.6 (0-23.8) | 3/23 | 37.2 (5.4-68) | 6/17 |
| ≥ 25 | 20.5 (15.7-25.7) | 75/336 | 19.9 (13.3-26.2) | 44/243 | 17.4 (12.1-24.2) | 42/255 | 15.8 (9.8-21.9) | 42/240 | 10.9 (6.9-15.9) | 29/266 | 27.7 (21.6-35.9) | 77/272 |
| Used sterile needle/syringe/ other injecting equipment at last injection | | | | | | | | | | | | |
| Yes | 85.9(81.4-90.4) | 298/358 | 78.4 (71.8-85.1) | 219/278 | 87.8 (82.8-92.3) | 246/288 | 89.0 (84.6-92.9) | 240/289 | 88.0 (84.1-92.7) | 244/289 | 87.3 (82.4-92.5) | 248/289 |
| ≤ 24 | 83.9(87.0-100) | 19/22 | 60.9 (35.8-85.6) | 27/35 | 94.5 (88.0-99.3) | 29/33 | 89.8 (85.5-99.1) | 45/49 | 85.2 (72.8-100.0) | 21/23 | 95.1 (93.6-100) | 16/17 |
| ≥ 25 | 85.1 (80.8-90.0) | 279/336 | 81.6 (75.3-88.2) | 192/243 | 86.7 (81.3-92.0) | 217/255 | 87.8 (83.0-92.6) | 195/240 | 87.5(84.0-92.9) | 223/266 | 86.3 (81.4-91.8) | 232/272 |
| Safe injecting practice at last injection | | | | | | | | | | | | |
| IDUs with safe injection practice at last injection *[3] | 64.7 (58.7-70.6) | 235/358 | 62.2 (55.4-70.5) | 175/278 | 66.9 (59.2-74.4) | 184/288 | 68.8 (62-75.4) | 175/289 | 75.8 (70.6-82.3) | 211/289 | 76.6 (70.1-82.8) | 220/289 |
| ≤ 24 | 64.3 (35.6-89.3) | 13 /22 | 52.3 (28.6-75.3) | 20/35 | 74 (54.2-90.3) | 22/33 | 66.1 (52.2-83.8) | 30/49 | 66.6 (50.3-88.7) | 16/23 | 76.5 (45.9-100) | 14/17 |
| ≥ 25 | 64.8 (58.7-70.9) | 222 /336 | 65.3 (57.5-73.9) | 155/243 | 63.6 (56.8-73.8) | 162/255 | 68.1 (61.4-76.5) | 145/240 | 76.3 (70.7-83.2) | 195/266 | 76.2 (69.7-83) | 206/272 |
| Condom use at last intercourse | | | | | | | | | | | | |
| Used condom at last | 35.1 (28.8-42.3) | 117/333 | 28.3 (20.6-36.3) | 89/257 | 38.6 (30.3-46.3) | 105/262 | 32.0 (24.3-40.3) | 93/272 | 34.2 (26.8-42.7) | 93/261 | 29.0 (21.6-35) | 72/266 |

[3] not usage of needle/syringe previously used by somebody else or him/herself, not usage of needle/syringe left at a place of gathering, not usage of syringe prefilled by somebody else without his presence, not usage of syringe filled from previously used syringe, not usage of possibly contaminated shared equipment (container, cotton, filter, water), not usage of drug solution from shared container prepared without his presence.

| | TBILISI | | BATUMI | | ZUGDIDI | | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Key indicators | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| intercourse* | | | | | | | | | | | | |
| ≤ 24 | 60.3 (40.7-84.8) | 10/22 | 33.9 (17.5-57.9) | 13/35 | 52.8 (29.5-73.4) | 20/33 | 56.1 (25.8-70.8) | 26/45 | 63.2 (45.6-88.9) | 15/23 | 29.9 (2.3-66.1) | 4/17 |
| ≥ 25 | 34.0 (28.0-41.5) | 107/311 | 28.1 (18.6-36.1) | 76/222 | 38.1 (28.8-46.7) | 85/229 | 23.3 (16.2-31.7) | 67/227 | 30.5 (22.8-38.7) | 78/238 | 28.8(20.9-34.7) | 68/249 |
| Regular sex partner last 12 months | | | | | | | | | | | | |
| Used condom at last intercourse* | 25.5 (19.6-33.5) | 74/295 | 13.2 (7.2-21.2) | 30/188 | 23 (14.1- 32.6) | 42/205 | 20.5 (11.4-28.3) | 43/209 | 24.3 (18.4-32.9) | 61/230 | 24.3 (15.4-31.3) | 46/233 |
| ≤ 24 | 30.7 (25.5-68.5) | 6/20 | 15.2 (0-45.8) | 4/25 | 20.6 (0.1-50.5) | 6/23 | 57.9 (10.2-81.8) | 10/29 | 47.7 (29.6-80.9) | 11/20 | 56.1 (10.1- 85.2) | 5/17 |
| ≥ 25 | 24.9 (19.2-34.0) | 68/275 | 13.1 (6.0-20.0) | 26/163 | 20(11.6- 33.4) | 36/182 | 15.7 (8.5-23.9) | 33/180 | 21.4 (14.8-30.1) | 50/210 | 21 (12.2- 26.2) | 41/217 |
| Occasional sex partner (s) last 12 months | | | | | | | | | | | | |
| Used condom at last intercourse* | 63.1 (50.2-75.5) | 111/169 | 40.1 (31.5-58.0) | 68/146 | 68.3 (51.7-80) | 107/164 | 43.5 (30.9-57.9) | 86/178 | 63.9 (41.2-76.8) | 81/133 | 37.5 (24.6-49.2) | 65/155 |
| ≤ 24 | 74.4 (79.5-100) | 15/19 | 38.6 (25.4-81.0) | 15/27 | 51.8 (32.5-96.8) | 19/27 | 37.3 (9.8-69.1) | 24/37 | 72.4 (7.4-100) | 9/15 | 34.7 (0-84) | 4/12 |
| ≥ 25 | 60.3 (46.7-73.7) | 96/150 | 43.3 (29.7-61.4) | 53/119 | 69(49.3-82.8) | 88/137 | 38.3 (31.0-59.7) | 62/141 | 62.8 (35.4-78.5) | 72/118 | 36.8 (24.8- 49) | 61/143 |
| Paid sex partner(s) last 12 months | | | | | | | | | | | | |
| Used condom at last intercourse* | 94.0 (63.0-100) | 66/72 | 59.8 (--) | 83/111 | 77.1 (41.3-98.5) | 77/90 | 71.9 (58.5-89.0) | 87/113 | 83.3 (--) | 55/65 | 83.4 (69.0-97.4) | 67/80 |
| ≤ 24 | 79.0 (87.6-100) | 9/10 | 85.4 (4.8-100) | 15/17 | 49.4 (0-100) | 12/13 | 82.6 (8.9-100) | 18/20 | 70.1 (50.0-50.0) | 5/5 | 66.7 (0-50.0) | 6/7 |
| ≥ 25 | 77.4 (65.0-100) | 57/62 | 55.1(55.1-83.1) | 68/94 | 71.6 (72.6-99.8) | 65/77 | 62.2 (55.6-88.1) | 69/93 | 65.8 (--) | 49/60 | 84.1 (69.8-100) | 61/73 |
| HIV/AIDS awareness | | | | | | | | | | | | |
| IDUs correctly identifying ways of preventing and transmission of HIV infection (Answers correctly on 5 questions GARPR indictor)*4 | 42.1 (35.9–48.5) | 151/358 | 46.8 (39.1-54.3) | 113/278 | 55.8 (48.8-63) | 145/288 | 40.9 (33.0-48.9) | 107/289 | 45.7 (38.2-52.8) | 132/289 | 41.0 (34.1-48.0) | 115/289 |

[4] One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; no one can get HIV as a result of a mosquito's bite; no one can get HIV by taking food or drink with infected person .

| | TBILISI | | BATUMI | | ZUGDIDI | | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Key indicators | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| ≤ 24 | 31.2 (3.1–53.9) | 6/22 | 51.2 (22.4-68.9) | 12/35 | 32.6(10.8-52.1) | 7/33 | 25.3 (11.7-34.6) | 11/49 | 32.4 (9.6-52.6) | 6/23 | 40.4 (3.4-75.8) | 6/17 |
| ≥ 25 | 42.7 (36.4–49.3) | 145 /336 | 47.3 (38.7-55.2) | 101/243 | 58.3(50.3-65.6) | 138/255 | 46.8 (38.4-56.3) | 96/240 | 45.7 (38.2-53.3) | 126 /266 | 41 (34.1-48.4) | 109/272 |
| IDUs correctly identifying ways of preventing and transmission of HIV infection (National indictor -answers correctly on 7 questions)*[5] | 88.6 (84.9–92.1) | 311/358 | 79.2 (72.7-85.4) | 221/278 | 95.9 (92.9-98.3) | 272/288 | 83.6 (78.1-88.7) | 238/289 | 88.2 (83.7-92.2) | 253/289 | 88.1 (83.1-92.8) | 259/289 |
| ≤ 24 | 95.7 (91.2–99.4) | 18/22 | 69.4 (47.7-90.9) | 25/35 | 84.6 (65.5-98.6) | 27/33 | 86.0 (74.1-98.0) | 42/49 | 87.1 (75.5-100) | 20/23 | 90.9 (73.3-100) | 16/17 |
| ≥ 25 | 88.2 (84.1–91.8) | 293/336 | 80.2 (73.1-86.0) | 196/243 | 97.4 (94.2-99.3) | 245/255 | 83.6 (78.1-89.4) | 196/240 | 88.1 (83.8-92.4) | 233/266 | 87.5 (82.4-92.7) | 243/272 |
| Kind of medical treatment and assistance taken last 12 months* | | | | | | | | | | | | |
| Apply to a medical facility to get a special treatment because he/she is a drug user during last 12 months * | 3.7 (1.4-6.5) | 15/358 | 9.2 (5.0-14.8) | 23/278 | 5.8(2.2-10.1) | 18/288 | 1.0 (0.1-2.6) | 6/289 | 5.6 (2.3-9.4) | 21/289 | 4.1 (1.4-7.3) | 12/289 |
| ≤ 24 | 11.0 (0-29.3) | 2/22 | 7.4 (0-24.6) | 2/35 | 0 | 0/33 | 3.1 (0-8.1) | 1/49 | 0 | 0/23 | 0 (0) | 0/17 |
| ≥ 25 | 3.3 (1.3-5.8) | 13/336 | 9.8 (5.1-15.1) | 21/243 | 6.6(2.5-11.5) | 18/255 | 0.5 (0.1-1.0) | 5/240 | 6.2 (2.8-10.6) | 21/266 | 4.4 (1.5-7.9) | 12/272 |
| Survived "extreme need" with somebody else's help last 12 months * | 3.7 (1.4-6.5) | 15/358 | 9.2 (5.0-14.7) | 23/278 | 5.8(2.2-10.3) | 18/288 | 1.0 (0.1-2.5) | 6/289 | 5.6 (2.3-9.4) | 21/289 | 4.1 (1.5-7.4) | 12/289 |
| ≤ 24 | 11.0 (0-29.6) | 2/22 | 7.4 (0-24.4) | 2/35 | 0 | 0/33 | 3.1 (0-7.9) | 1/49 | 0 | 0/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 3.3 (1.3-5.8) | 13/336 | 9.8 (5.1-15.1) | 21/243 | 6.6(2.4-11.4) | 18/255 | 0.5 (0.1-1.0) | 5/240 | 6.2 (2.8-10.6) | 21/266 | 4.4 (1.5-7.8) | 12/272 |
| IDUs reached with prevention programs | | | | | | | | | | | | |
| Aware about HIV testing | 3.1 (1.2-5.5) | 14/358 | 2.3 (0.2-5.7) | 7/278 | 9.5(5-14.3) | 26/288 | 3.2 (1.1-6.0) | 15/289 | 34.9 (26.7-42.9) | 106/289 | 3.4 (1.2-6.1) | 15/289 |

[5] One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; one may be infected with HIV/AIDS by using a needle already used by someone else; one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water where might been touched needle already used by someone else; one may be infected with HIV/AIDS by taking solution from the shared container; drug users may protect themselves from HIV/AIDS by switching to non-injection drugs.

| | TBILISI | | BATUMI | | ZUGDIDI | | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Key indicators | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| possibilities and received sterile injecting equipment and condom last 12 months * | | | | | | | | | | | | |
| ≤ 24 | 0 | 0/22 | 1.8 (0-5.7) | 1/35 | 8.8 (0-20.5) | 2/33 | 0 | 0/49 | 15.4 (0.4-41.3) | 5/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 3.2 (1.2-5.8) | 14/336 | 2.5 (0.1-6.1) | 6/243 | 9.5 (4.9-14.9) | 24/255 | 4.5 (1.6-8.0) | 15/240 | 35.4 (26.7-43.5) | 101/266 | 3.6 (1.3-6.4) | 15/272 |
| Aware about HIV testing possibilities and received sterile injecting equipment or condom or brochures/pamphlets/booklet or qualified educational information last 12 months* | 23.6 (18.8-29.7) | 81/358 | 15.5 (9.5-21.9) | 45/278 | 22.3 (16.2-29.3) | 59/288 | 8.2 (4.9-12.2) | 44/289 | 45.3(36.3-53.6) | 140/289 | 20.5 (14.8-27.8) | 61/289 |
| ≤ 24 | 16.3 (0-39.0) | 4/22 | 2.8 (0-7.4) | 3/35 | 27(8-46.2) | 5/33 | 4.0 (0.3-9.0) | 5/49 | 11.2 (0.5-28.6) | 6/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 24.0 (19.0-30.3) | 77/336 | 17.0 (11.3-25.1) | 42/243 | 21.8 (15.5-29.3) | 54/255 | 9.1 (5.1-13.7) | 39/240 | 46.1 (36.3-54.7) | 134/266 | 21.6 (16.0-29.6) | 60/272 |
| Aware about HIV testing possibilities and received sterile injecting equipment and condom and brochures/ pamphlets/ booklet and qualified educational information last 12 months* | 2.7 (0.9-5) | 11/358 | 2.1 (0.1-5.4) | 5/278 | 6.6(2.9-10.6) | 20/288 | 1.6 (0.2-3.5) | 8/289 | 32.9 (25.0-40.4) | 100/289 | 2.6 (0.8-4.7) | 13/289 |
| ≤ 24 | 0 | 0/22 | 0 | 0/35 | 5.3 (0-19.3) | 1/33 | 0 | 0/49 | 15.3 (0.4-40.3) | 5/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 2.9(1-5.3) | 11/336 | 2.2 (0.1-5.9) | 5/243 | 6.3 (2.6-10.9) | 19/255 | 2.4 (0.5-5.1) | 8/240 | 33.3 (24.9-41.2) | 95/266 | 2.8 (0.8-5.1) | 13/272 |
| Received sterile injecting equipment last 12 months* | 3.5(1.5-6.1) | 19/358 | 7.3 (3.1-11.9) | 23/278 | 15.5 (9.8-21.4) | 47/288 | 4.8 (1.9-8.2) | 28/289 | 43.9 (34.6-53.2) | 140/289 | 6.7 (3.2-11.1) | 27/289 |
| ≤ 24 | 0 | 0/22 | 1.8 (0-5.6) | 1/35 | 13.9 (0-29.2) | 3/33 | 0 | 0/49 | 22.7 (2.6-49.9) | 6/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 3.7 (1.7-6.4) | 19/336 | 7.9 (3.0-12.8) | 22/243 | 16 (9.7-22.2) | 44/255 | 6.5 (2.6-11.1) | 28/240 | 45.8 (35.9-55.1) | 134/266 | 7.1 (3.5-11.8) | 27/272 |
| Received condoms last 12 months* | 13.2 (8.6-17.5) | 44/358 | 5.2 (1.8-9.4) | 17/278 | 11.2 (6.7-16.2) | 36/288 | 4.7 (1.9-7.4) | 25/289 | 36.7 (29.4-45.2) | 114/289 | 10.2 (5.8-16.4) | 33/289 |
| ≤ 24 | 17.2 (0-34.8) | 2/22 | 2.1 (0-6.3) | 2/35 | 16.5 (2-31) | 3/33 | 2.8 (0-6.9) | 3/49 | 9.7 (0-29.3) | 6/23 | 0 (0-0) | 1/17 |
| ≥ 25 | 13.0 (8.5-17.8) | 42/336 | 5.6 (1.7-10.2) | 15/243 | 11.6 (6.5-16.8) | 33/255 | 5.4 (2.3-9.1) | 22/240 | 37.1 (29.2-45.8) | 108/266 | 10.4(6-17.1) | 32/272 |
| Received brochures/ pamphlets/ booklet on | 23.6 (18.7-29.3) | 80/358 | 13.7 (8.5-20.1) | 42/278 | 15.5 (10.5-20.9) | 51/288 | 10.0 (6.0-14.7) | 49/289 | 44.1 (35.5-52.2) | 137/289 | 21.2 (15.2-28.0) | 67/289 |

| | TBILISI | | BATUMI | | ZUGDIDI | | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Key indicators | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| HIV/AIDS last 12 months* | | | | | | | | | | | | |
| ≤ 24 | 16.2 (0-38.8) | 4/22 | 2.9 (0-7.5) | 3/35 | 14 (0-29.9) | 2/33 | 8.8 (1.3-17.0) | 8/49 | 9.7 (0-27.6) | 6/23 | 2.5 (0-10.2) | 3/17 |
| ≥ 25 | 24.0 (19.0-30.0) | 76/336 | 14.9 (10.2-23.0) | 39/243 | 16.5 (10.6-22.1) | 49/255 | 10.2 (5.7-15.3) | 41/240 | 44.6 (35.8-53.2) | 131/266 | 22.7 (16.7-30.3) | 64/272 |
| Received qualified information on HIV/AIDS last 12 months | 17.2(12.1-22.3) | 49/358 | 11.2 (6.2-17.0) | 26/278 | 14.5 (9.6-19.9) | 42/288 | 5.4 (2.7-8.6) | 28/289 | 38.9 (29.4-46.7) | 122/289 | 11.3 (7.3-16.3) | 40/289 |
| ≤ 24 | 1.2 (0-0) | 1/22 | 0 | 0/35 | 19.3 (4.6-38.6) | 3/33 | 9.1 (1.5-17.5) | 3/49 | 10.6 (0.3-2.8) | 6/23 | 0 (0-0) | 1/17 |
| ≥ 25 | 18.0 (12.8-23.4) | 48/336 | 12.3 (6.7-18.4) | 26/243 | 14.3 (8.5-19.7) | 216/255 | 5.1 (2.4-8.6) | 25 /240 | 39.4 (29.4-47.4) | 116 /266 | 11.9 (8-17.9) | 39/272 |
| HIV infection | | | | | | | | | | | | |
| HIV prevalence * | 1.9 (0.5-3.8) | 7/358 | 5.6 (1.7-9.6) | 15/277 | 9.1 (4.7-16.9) | 17/274 | 0.4 (0-2.5) | 3/280 | 1.1 (0-2.8) | 5/284 | 2.1 (0.4-4.5) | 6/281 |
| ≤ 24 | 0 | 0/22 | 0 | 0/35 | 3.4 (0-10.1) | 2/32 | 0 | 0/48 | 0 | 0/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 2.0 (0.5-3.9) | 7/336 | 6.1 (1.8-10.5) | 15/243 | 9.3 (4.3-17.4) | 15/242 | 0.5 (0-3.2) | 3/232 | 1.2 (0-2.9) | 5/261 | 2.3 (0.4-4.8) | 6/264 |

*indicates National or Global AIDS Response Progress Report (former UNGASS) indicator

## Introduction

Georgia is among the countries with low HIV/AIDS prevalence but high potential for developing a widespread epidemic. The estimated prevalence of HIV among the adult population is 0.2%[6]. As of December 31, 2012 in total 3,559 HIV cases have been registered by the national HIV surveillance system[7]. The annual number of new cases grew from around a hundred during early 2000s to over five hundred in 2012. From the early stage of HIV epidemic in Georgia intravenous drug use was the major mode of transmission. However, for the last two years heterosexual transmission became prevailing route for HIV spread. According to the national HIV surveillance system HIV infections acquired through injecting drug use account for significant proportion of all HIV cases. In 2012, this route of transmission contributed to 42.9% of all newly registered cases.[7]

Current study represents a subsequent wave of Bio-BSS undertaken among PWIDs since 2002. In the years 2002-2007 Save the Children Georgia Country Office under the USAID funded STI/HIV Prevention (SHIP) project introduced a second generation surveillance in the country and conducted behavioral and biological surveillance studies (Bio-BSSs) among various key populations in three major cities of Georgia – Tbilisi, the capital city, Batumi (Adjara Autonomous Republic) and Kutaisi (Imereti region).

The GFATM-funded project "Establishment of evidence base for national HIV/AIDS program by strengthening of HIV/AIDS surveillance system in the country" implemented during 2008-2009 included next wave of the Bio-BSS among key populations. Injected Drug Users (PWIDs) were investigated in five major cities of Georgia and an addition study was conducted in Kutaisi in the frame of the USAID funded project.

Current study was implemented under the first phase of the GFATM-supported program: "Generate evidence base on progress in behavior modification among MARPs and effectiveness of preventive interventions, to inform policies and practice". Objective was to measure prevalence of HIV, provide measurements of key HIV risk behaviors among PWIDs in six major cities and generate evidence for advocacy and policy-making. The study was implemented by Curatio International Foundation (CIF) and partner organizations Bemoni Public Union and National Center for Disease Control and Public Health.

[6] UNAIDS, AIDSinfo, 2012. http://www.unaids.org/en/regionscountries/countries/georgia/
[7] National Center for Disease Control and Public Health, unpublished data.

# Methods

## Study design

PWIDs were studied in six different locations of Georgia: Tbilisi, Gori, Telavi, Zugdidi, Batumi and Kutaisi during February-Augast, 2012. The study employed a cross-sectional design and a Respondent-Driven Sampling (RDS) methodology.

The key indicator for sample size calculation was safe injection at last injection. On the basis of earlier survey (2009 Bio-BSS) baseline values of the indicator were 65.7% (Tbilisi), 51.6% (Batumi), 43.1% (Zugdidi), 39.3% (Telavi), 36.7% (Gori). The current survey aimed to detect 15% increase of the proportion at 95% significance level and the power of 90%. Design effect was estimated to be 2.0 based on the RDS design.

The Table 2 below presents the samples sizes for target population in different locations as suggested by the calculations.

**Table 2: Sample sizes of the target population (PWID)**

| Area | Sample size |
|---|---|
| Tbilisi | 350 |
| Gori | 280 |
| Telavi | 280 |
| Zugdidi | 280 |
| Batumi | 270 |
| Kutaisi | 280 |

Formative research was conducted prior to the survey to identify seeds, their network sizes and amount of incentives.

## Sampling procedure

In the last two decades a variety of sampling methods have been used to recruit drug users in order to collect risk behavior data. These include venue-based time and space sampling, targeted sampling and snowball sampling, which have a number of limitations.[8] RDS methodology was designed to overcome these limitations. RDS combines a modified form of chain-referral or snowball sampling with a mathematical system for weighting the sample to compensate for not having been drawn randomly. RDS is based on the premise that peers are better able than outreach workers and researchers to locate and recruit other members of a hidden population. It differs from traditional snowball sampling in three respects: the subjects are asked to recruit their peers into the study,

[8] Abdul-Quader, A. Heckathorn, DD. Effectiveness of Respondent-Driven Sampling for Recruiting Drug Users in New York City: Findings from a pilot study. Journal of Urban Health 2006

recruitment quotas (e.g., three recruits only), and a dual incentive system – the reward for being interviewed and a reward for recruiting others into the study. [9, 10]

RDS was used to recruit PWIDs in the six cities of Georgia. Inclusion criteria for participation in the study included the following: 1) age 18 years or older, 2) drug injection in the month prior the survey, 3) being resident of a selected location, 4) ability to understand and communicate in Georgian.

The first step was to recruit initial respondents, so-called "seed" participants. A diverse group of seeds (heterogeneous in age, gender, injection group affiliation and area of residence in a given location) were identified by the partner organization Public Union "Bemoni" which is a trusted and well-respected organization with long experience of working with the target population. Following eligibility assessment and provision of informed consent the seeds underwent behavioral (interviewing) and biological (blood withdrawal) components of the study. After completion they were given three uniquely coded non-replicable coupons to recruit three additional peers to participate in the study. Seeds were instructed how to refer other eligible PWIDs. Each coupon was printed with a serial number, study location and information on the monetary incentive. Those who came to the study site with a recruitment coupon and met the inclusion criteria were interviewed. These participants in turn received three coupons to recruit their peers in the study. Each participant was offered a financial incentive of 20 Gel (12.05 USD) and an additional incentive of 7 GeL (4.22 USD) for each eligible person they recruited. The level of monetary incentives was not regarded as high.

The data on the coupons given to participants were managed by the MS Excel based software specifically developed for the coupon tracking.[11]

To ensure that participants met the eligibility criteria, a verification procedure was followed in all study sites. The verification procedure conducted by an experienced addictionologist included a preliminary informal discussion regarding street names of drugs and prices, familiarity with drug preparation and injection techniques and a visual inspection for recent track marks.

Eligible respondents were assigned unique identification number and to overcome subject duplication other physical characteristics such as height, weight, scars, tattoos and some biometric measures were noted.

[9] Heckathorn, DD. Respondent driven sampling: A new approach to the study of hidden populations". Soc Probl. 1997;44:174-199 ; Heckathorn, DD. Respondent driven sampling, II. Deriving population estimate from chain referral samples of hidden populations. Soc probl. 2002;49:11-34

[10] Salaam Semaan, Jennifer Lauby and Jon Liebman. Street and Network Sampling in Evaluation Studies of HIV Risk Reduction Interventions. AIDS Rev 2002;4:213-223

[11] Author Hrvoje Fuchek, Iskorak, Zagreb, Croatia

All eligible respondents were asked six questions about the network size, specifically: “How many PWIDs do you know in your (city/region)?”, “Among those, how many do you know personally (you know them by name and they know yours)?”, “How many of those are above 18 years”?, “How many of those have injected drugs during last 1 month?”, “How many of those have you seen during last 1 month” and “How many of those (who are above 18 years, are PWIDs, have injected drugs during last 1 month) would you consider to recruit for the study?”.

Respondents who returned to receive incentive for recruitment were additionally asked about whether anyone refused to accept coupons and their characteristics.

### Recruitment results for PWIDs

The recruitment started with seeds in each of the six cities. The seeds were carefully selected to represent the demographic profile and socially and geographically diverse injecting networks of PWIDs in all six survey sites. Basic demographic characteristics are presented in the Table 3 below:

**Table 3: Basic demographic characteristics of the seeds**

| Basic characteristics of seeds | Tbilisi | Gori | Telavi | Zugdidi | Batumi | Kutaisi |
|---|---|---|---|---|---|---|
| **Age groups** | | | | | | |
| 18-24 | 2 | 1 | | | | 1 |
| 25-30 | 2 | 2 | 1 | | 3 | |
| 31-40 | 3 | 3 | 5 | 5 | 5 | 4 |
| 41+ | 1 | 3 | 3 | 3 | 1 | 4 |
| **Gender** | | | | | | |
| Male | 8 | 8 | 9 | 7 | 9 | 9 |
| Female | | 1 | | 1 | | 0 |
| **Level of Education completed** | | | | | | |
| Secondary or vocational school | 5 | 5 | 4 | 2 | 3 | 5 |
| Incomplete Higher | | 1 | | 1 | 1 | |
| Higher | 3 | 3 | 5 | 5 | 5 | 4 |
| **Marital status** | | | | | | |
| Married | 2 | 4 | 3 | 3 | 4 | 5 |
| Divorced/Separated for ever | 1 | 2 | 2 | 1 | 1 | 2 |
| Never been married | 5 | 3 | 4 | 4 | 4 | 2 |
| **Total** | **8** | **9** | **9** | **8** | **9** | **9** |

The desired sample sizes were reached in all six locations. The coupons were distributed until the sample size closely reached the desired level. In majority of locations the coupon distribution was stopped one day prior to the end of the field work.

Following verification procedure a number of potential participants were defined as non eligible for the study.

**Table 4: Recruitment information**

| Area | Number of waves | Total number of released coupons | Returned coupons | Eligible PWIDs recruited by seeds (no of seeds) | Ineligible potential participants | Refusals |
|---|---|---|---|---|---|---|
| Tbilisi | 8 | 984 | 391 | 350 (8) | 41 | |
| Gori | 8 | 747 | 323 | 280 (9) | 42 | 1 |
| Telavi | 9 | 783 | 295 | 280 (9) | 15 | |
| Zugdidi | 9 | 795 | 300 | 280 (8) | 20 | |
| Batumi | 9 | 729 | 302 | 270 (9) | 31 | 1 |
| Kutaisi | 9 | 819 | 310 | 280 (9) | 30 | |

All seeds in all survey locations accomplished waves from shortest two ( in Zugdidi, Kutaisi, Batumi) to longest nine (Tbilisi, Batumi).

## Measurements

The survey instrument used in the study was a standardized behavior questionnaire for PWIDs provided in the manual, Behavior Surveillance Surveys: Guidelines for Repeated Behavior Surveys in Populations at Risk for HIV, published by Family Health International.[12] The questionnaire with a slight modification had been applied in the previous six BSS studies undertaken in Georgia during 2002-2009 on bi-annual bases. In 2010 the methodology for BSS among high risk groups was standardized with participation of the country level experts. The methodology includes list of main indicators with its passports, standardized tools and data analyses tables.[13] For this exercise additional revisions were made to the questionnaire in order to make sure that all UNGASS (currently named as GARPR) and national indicators are captured by the study instrument. Georgian versions of male and female questionnaires were pre-tested.

Bemoni staff was selected as interviewers based on the following criteria: familiarity with the target population and previous experience in the similar studies. Interviewers refresh training was provided before the field implementation.

Biomarker component involved the analyses of blood specimens for HIV at National Center for Disease Control and Public Health. Genscreen Ultra HIV (BIO-RAD, France) test system was used for HIV screening. HIV positive samples were tested with Western Blot (Western Blot HIV Blot 2.2, MP Biomedicals) confirmatory test.

[12] http://gametlibrary.worldbank.org/pages/19_Surveys_surveillance_English.asp
[13] http://www.curatiofoundation.org (Georgian version)

The study protocol and questionnaires were approved by the Ethical Committee of the HIV/AIDS Patients Support Foundation (certificate # 579/680 of 26.12.2011). During the study design and field implementation the following ethical issues were taken into consideration:

- Participation in the survey was strictly voluntary. Participants were free to withdraw at any time and were informed that refusal or withdrawal would not affect services they would normally receive.
- Complete anonymity was ensured. No names or personal identifiers were recorded; all documentation was labeled only by a study number.
- The staff engaged in the study was trained in discussing sensitive issues and protecting participants' confidentiality and human rights.

Individuals identified as positive on HIV were offered counseling and referred to designated /facility for treatment.

### Data collection

Data collection period in all six locations was from February-August 2012. Data collection in each location took approximately two-three weeks. Interviews were provided at the fixed sites located in the center of each city. Tbilisi and Telavi sites were housed within Bemoni office, local syringe-exchange program office served as study site in Gori, while Tanadgoma (local NGO providing supporting services to high-risk population) offices were used for the study purposes in Zugdidi, Kutaisi and Batumi.

After registration the participants were brought to interviews rooms to maintain privacy. Face-to-face individual interviews were conducted in Georgian by the trained interviewers. Each interview lasted on average 25 minutes. Following completion of the behavioral component participants were asked to voluntarily provide a blood sample for the HIV testing. If a participant agreed a pre-test counseling was provided and 5 ml of blood was collected on site by a trained nurse. Blood samples were transported to the NCDC laboratory in Tbilisi. If transportation was not done the same day the samples were centrifuged and sera refrigerated at 4 to $8^0$C. The blood tests were anonymous-linked. Each IDU that volunteered to provide a blood specimen was given an identification number, which was recorded on the blood tube and the questionnaire. In addition the participant was given a card with the identification number and with the organization's telephone number and address. The testing results were reported back to study site within two weeks. The participants were asked to return with their identification card to receive their results. Post-test counseling was provided on site.

Internal quality control of the fieldwork was provided by Bemoni staff and external control – by CIF staff. Filled out questionnaires were checked for consistency and any identified problems were followed up with the interviewers.

### Data processing and analyses

Data entry and analyses took place at the CIF office. Data were entered into the SPSS software (version 18.0). Any discrepancies were resolved by examining frequencies and cross-tabs and checking logic of all variables in the datasets. Hard copies of the completed questionnaires were kept at the CIF office.

Respondent Driven Sampling Analyses Tool version 6.0.1 (RDSAT, Cornell University, 2004) software was used for analyses of RDS population estimates.

Frequencies, cross-tabulations, prevalence estimates were performed in the RDSAT. For some variables where the RDSAT was unable to produce valid population estimates analysis was done in the SPSS. Similarly means and medians were calculated by the SPSS as the RDSAT does not produce such estimates. In addition a combined sample of all six cities was analyzed in the SPSS and frequencies were calculated for all indicators. For specific indicators bivariate and multivariate analyses was performed to find out association between expose and outcome. Statistically significant associations (95% confidence intervals not crossing the value 1.00) were presented. Comparison of selected indicators was done using 2009 and 2012 datasets.

The RDSAT makes it possible to estimate characteristics of a broader network of IDU, based on a network data collected from the study sample. In our results tables (see Annex 1) the data are presented in two columns, the left column presents population estimates of a larger IDU network in a given location with 95% confidence intervals; the right column presents actual proportion of the sample. Frequencies calculated in the SPSS are marked with asterisk.

Network structures and recruitment patterns were analyzed by using a network visualization program NetDraw 2.081.

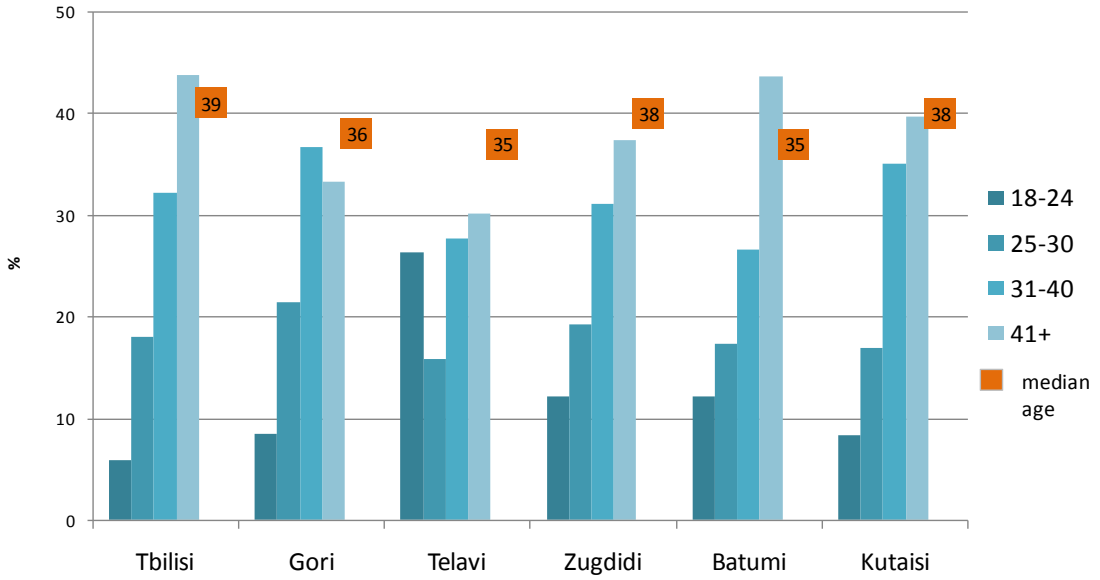
# Results

## Socio-Demographic Characteristics

### Age Distribution

The median age of PWIDs varies from 35 to 39 across all survey locations, with the highest proportion of respondents being in the 40+ age group; Exception is Gori, where the significant proportion (36.8%) of PWIDs represents the 31-40 age group. Only 5.9 % are less than 25 years old in Tbilisi, while this age group varies from 8.3% to 26.3% in other survey locations (with the highest proportion in Telavi).

**Figure 1: Distribution of PWIDs by age groups and median age**




Small proportion of young participants recruited in Tbilisi, Gori and Kutaisi samples may indicate that older and younger PWIDs do not network extensively between each other, and young PWIDs are more hidden compared to their older peers.

### Gender

Vast majority of PWIDs are male (more than 95%) and Georgians (more than 93%) across all six survey locations. From all 23 female PWIDs 12 where recruited in Gori sample. Disproportional gender representation could be explained by small number of female seeds and/or poor recruitment of female PWIDs due to low male/female interaction in the network or more hidden nature of female PWIDs.

### Education Level

The study show that the highest proportion of Tbilisi respondents has higher education; in other locations majority of PWIDs have secondary education. Very limited number of PWIDs reported

having primary and no education at the time of the survey (only three PWIDs have primary and one IDU no education out of entire sample of 1791 PWIDs).

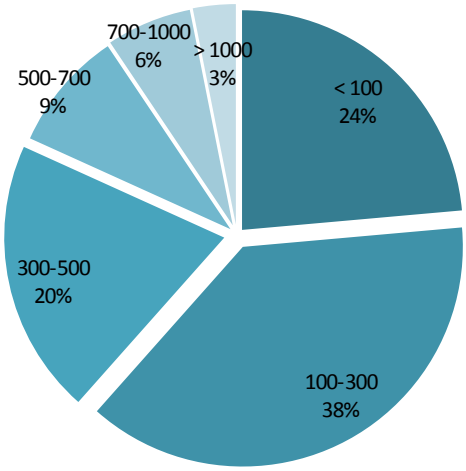
### Employment and Income

Majority of PWIDs are currently unemployed that varies from 57.4% in Zugdidi to 91.9% in Tbilisi. Few have permanent job: range from 3.4% to13.6% in Tbilisi and Zugdidi respectively. Highest proportion of students was found in Telavi (8.9%).

Throughout the cities on average every third IDU have monthly income in the range of 100-300 Gel.[14] In a combined sample about one fourth of IDU population has income less than 100 Gel, and few have monthly income higher than 500 Gel (18%) (see

Figure 2).

**Figure 2: Monthly income in GeL (combined sample)**




### Marital Status

Almost half of PWIDs are currently married, in Telavi, with the highest proportion of young PWIDs, 49% have never been married. Proportion of the respondents who live with a spouse vary from 37.9% (Telavi) to 49.3% (Gori), while proportion of those, who live with relatives/parents vary from 42.6% (Tbilisi) to 51.5% (Telavi). Survey reveal a very limited number of PWIDs living with a partner other than spouse (no more than 3.7% in Kutaisi). Proportion of divorced PWIDs reaches to 26.5% in Tbilisi, while in other sites this proportion is much lower.

As mentioned above very few females participated in the study. Those who participated have different marital status. Seven out of twelve female PWIDs in Gori are divorced, three of them are married, in Tbilisi out of six participants only three are currently married, while others are divorced, widower or never been married.

[14] 1 USD – 1.66 Gel (2012 average)

### Place of residence

Vast majority of PWIDs are city residents with less than 13.0% living in surrounding villages.

Small proportions of PWIDs are IDPs varying from 1.1% in Batumi to 10.8% in Zugdidi (the city bordering the conflict zone in Abkhazia).

### Contact with criminal justice settings

The survey investigated whether PWIDs were detained in administrative sentence or imprisoned because of their drug use at least once in the past 12 months in all six cities. The highest rate of administrative sentence was found in Kutaisi (24%), and the lowest in Gori (9%). No more than 15.9% (Zugdidi) of PWIDs were imprisoned before the trial because of drug consumption and lower proportion (varies from 1.2% Gori to 5.5% Kutaisi in 6 survey locations) were imprisoned.

### Alcohol consumption

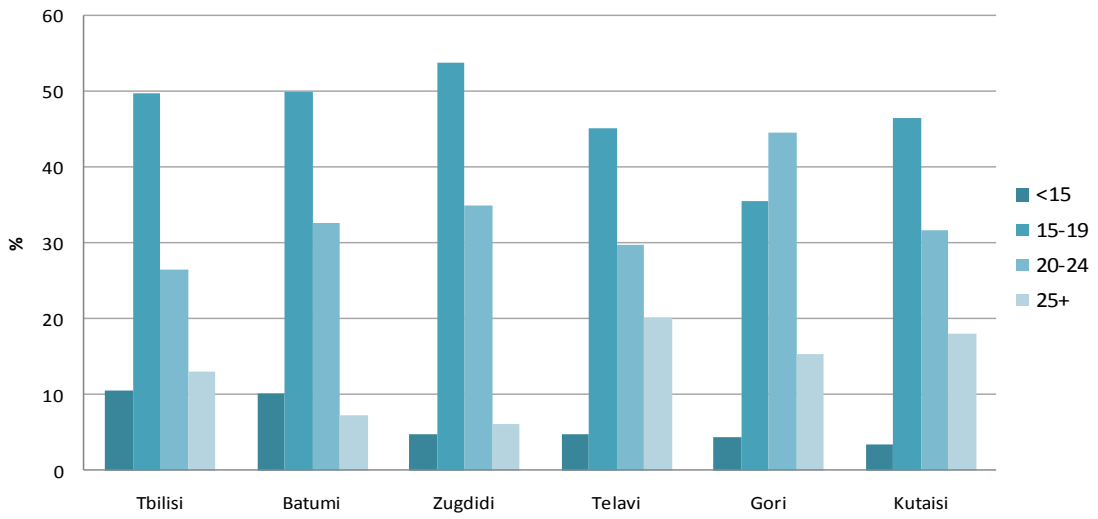
Frequent alcohol consumption (everyday of more than once a week during the last month) is mentioned in the range of 21.1% (Gori) to 36% (Telavi). Another 12.5% to 21% consume alcohol on average once a week.

## Drug Use History

Median age for starting any type of drug use (swallowing, smoking and/or injecting) is 15-16 years. It is notable that proportion of those, who started drug use under age of 15 years, is highest in Tbilisi 50.3%, and the lowest percentage is in Kutaisi 33.1%

As for drug injection experience, the median age ranges between 18 to 20 years. More than half of PWIDs in almost all locations first injected in their teen age (<19 years). One in ten IDU in Tbilisi and Batumi started injection before 15 years of age.

### Figure 3: Age when first injected drugs



Majority of the PWIDs consider themselves as drug addicted (from79.0% Telavi to 95.8% in Tbilisi and Batumi). Median duration of drug addiction ranges between 10 and 12 years (see Table 5). Even among those who inject drugs less than 2 years (70 PWIDs from the combined sample) almost every second (48.6%) consider themselves drug addicted.

**Table 5: Prevalence and median years of drug addiction**

| City | Thinks that is drug addicted % | Median years of drug addiction |
|---|---|---|
| Tbilisi | 95.8 | 12 |
| Gori | 91.7 | 10 |
| Telavi | 79.9 | 10 |
| Zugdidi | 92.0 | 12 |
| Batumi | 92.4 | 10 |
| Kutaisi | 95.8 | 10 |

Frequency of injection over the last month shows diverse practice in different survey sites. Noteworthy that Tbilisi is leading among those who reported injecting drug several times a day (10.6%). Significant association was found between desomorphine injection and frequency of drug use. In all cities frequency of drug injection is higher among desopmorphine users. In Tbilisi, Gori and Batumi, those who injected desomorphine during last month were twice more likely to inject several times a day compared to those who injected other drugs.

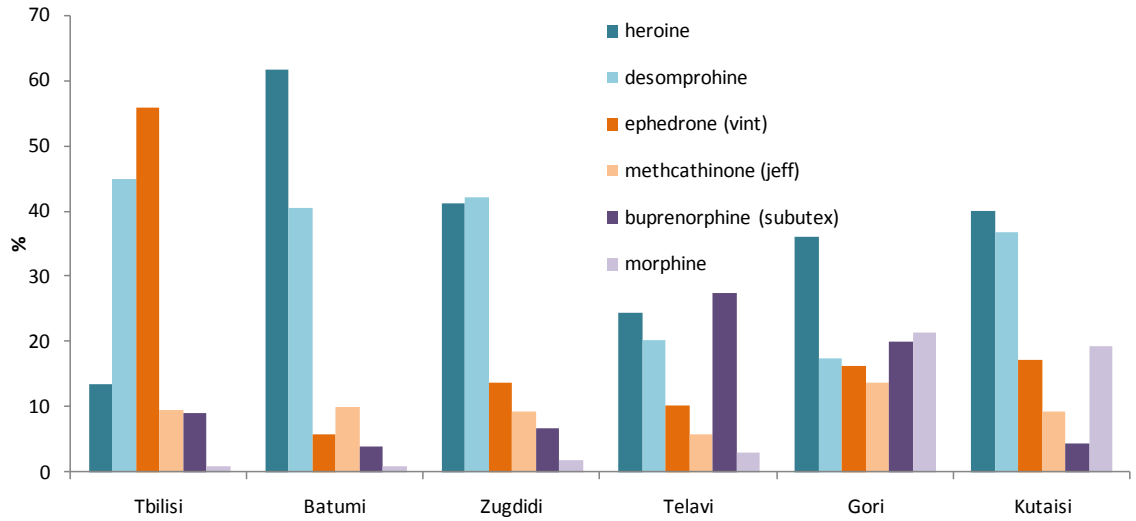
The majority of PWIDs (ranging from 46.1% in Batumi to 69.8% in Tbilisi) are members of a regular injecting group composed of about 4 people (mean number of people varies from 3.84 (Telavi) to 4.42 (Tbilisi)).

The study investigated types of drugs consumed and/or injected by PWIDs during the month preceding the survey. Among all PWIDs about 60% (1063) had consumed drug by non-injection route during previous month. The most popular drugs for non-injecting consumption are Hemp (marijuana) and CNS depressants. The CNS depressant drugs such as Baclosan[15], Lyrica[16] , Grimodin[17] and others were consumed by 69.9% of those who had taken drug by non-injecting route. These drugs are mostly used by representatives of the young age group: 64% of those aged 24 years and less reported consumption of at least one of these drugs during the previous month. More than one third of 1063 drug users had consumed tranquilizers; All above mentioned medications could be obtained at specialized drug stores normally with a prescription; however unrestricted access to these drugs is also a common practice.

[15] Baclosan (Baclofen) is miorelaxant use in the management of severe muscle spasticity
[16] Lyrica (Pregabalin) is an anti-epileptic, anticonvulsant normothymic drug
17 Grimodin (Gabapentin) is an anti-epileptic, anticonvulsant drug

Most frequently injected drugs among all PWIDs are Narcotic drugs, among which heroine and desomorphine ("crocodile") are mostly used. The latter is a homemade opium-type synthetic drug that recently appeared on the drug scene. Heroine injection varies from 13.6% in Tbilisi to highest 61.7% in Batumi. Subutex[18] (solely and/or in combination with other substances) is injected at highest in Telavi (27.4%). Amphetamine type stimulants Ephedrone (known and "Vint") is used by almost half of Tbilisi PWIDs and by less in other sites. Highest level of Methamphetamine ("Jeff") injection was noticed in Gori (13.7). Morphine injection, proportion of which, is quite low (no more than 0.9% in Batumi and 3% in Telavi), is outstandingly high among Gori (21.3%) and Kutaisi (19.2%) PWIDs.

**Figure 4: Types of drugs injected during last month**




There is a small difference in the average number of drug types injected in the last month, ranging from 1.31 drugs in Telavi to 1.72 drugs in Zugdidi.

### Drug use risk behavior

The majority of PWIDs in all cities shared used needles and/or syringes in their lifetime at least once, with the highest proportion in Zugdidi (76.4%).

Needle-sharing practice lowers significantly when it comes to the last injection varying from 3.1% to 8.7% with the highest proportion among Batumi PWIDs. Not more than 12.7% re-used injected equipment previously used by him or herself. Therefore those who used sterile injecting equipment composed from 78.4% PWIDs in Batumi to 89% in Tbilisi.

Very few PWIDs (no more than 3.7%) reported usage of syringe that was filled by somebody else at last injection. Combined sample from all six cities was analyzed to find association with the age and

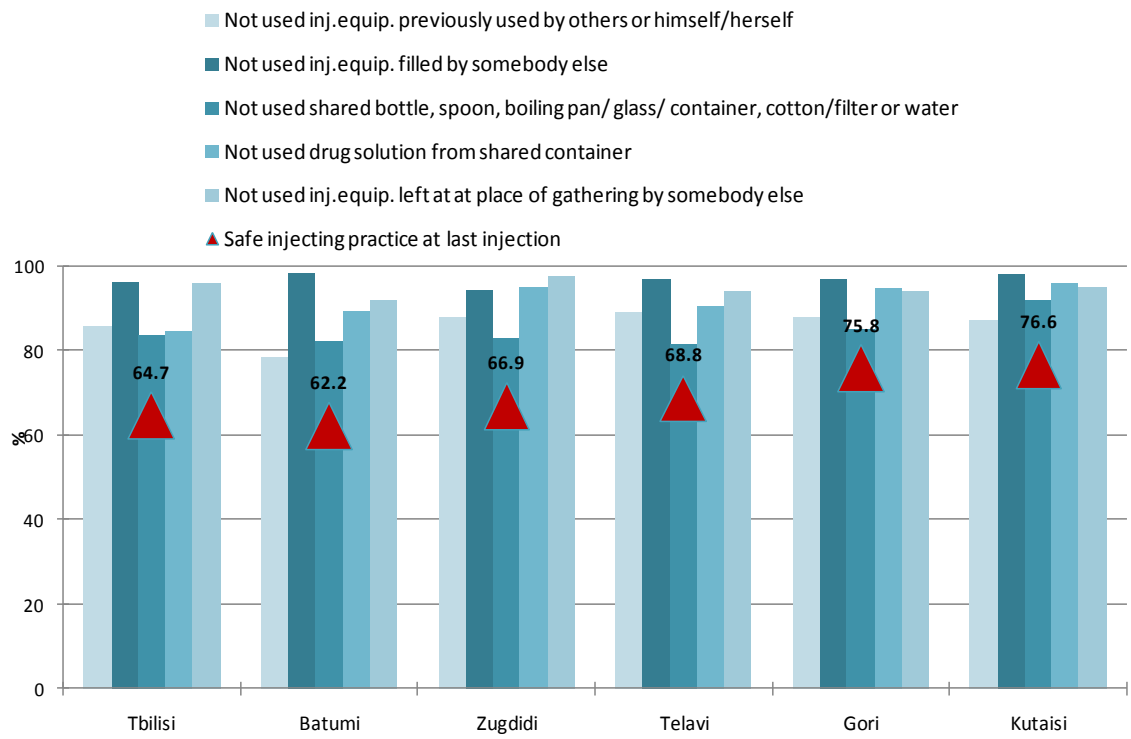
[18] Subutex (Buprenorphine) is used for treatment of opioid addiction. It is increasingly considered to be an alternative to methadone in the substitution programs for heroin addicts, and also in the treatment of cocaine addiction. These sublingual (under-the-tongue) buprenorphine tablets are crushed and injected

sharing practice. Although not statistically significant difference was found ($p$-0.1) PWIDs younger than 25 years of age have higher prevalence of needle/syringe sharing (16.2%) compared to their older counterparts (9.2%).

The study found that sharing of injection paraphernalia (bottle, spoon, boiling pan/glass/container, cotton/filter or water) at last injection ranges between 2.6% (Kutaisi) to 15.3% (Zugdidi). Tbilisi respondents are leading among those who used drug solution from the shared container at last injection (14.6%). Few proportion mentioned re-usage of injecting equipment left at a place of gathering (range 0.4%-4.0%).

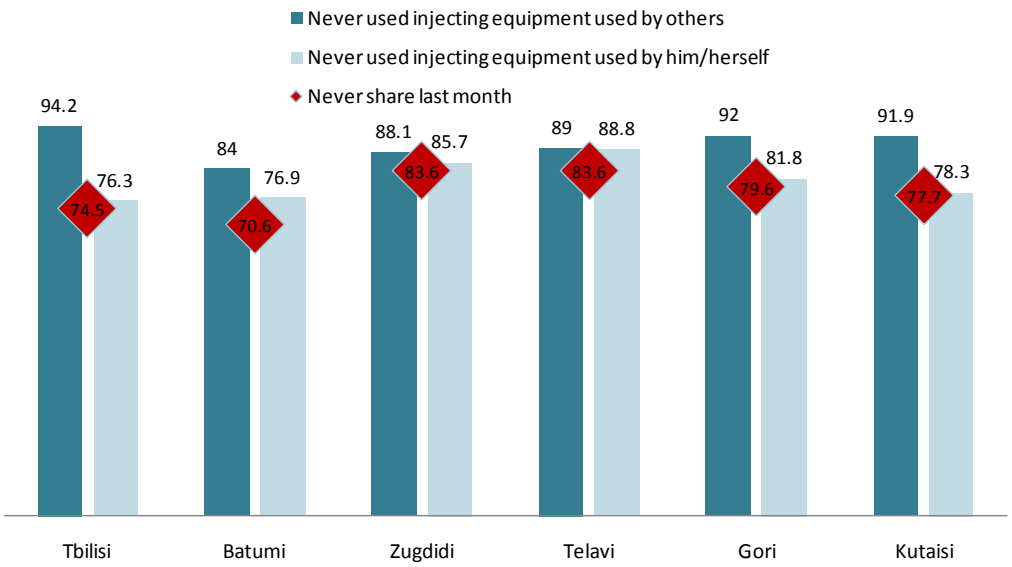
Safe injecting behavior at last injection was measured by a combination of different indicators such as: not usage of previously used injecting equipment by somebody else or him/herself, not usage of injecting equipment left at a place of gathering by somebody else, not usage of prefilled syringe by somebody else without his/her presence, not usage of shared equipment, not usage of drug solution from shared container. More than three quarters of Kutaisi PWIDs reported above mentioned safe injecting practice, with slightly decreasing rate in other locations, see Figure 5 below.

**Figure 5: Safe injection practices at last injection**




Injection related risk behaviors were investigated for the last month period preceding the survey. Majority of PWIDs responded that they did not use previously used injecting equipment by somebody else. Smaller proportion did not use needle/syringe used by him or herself.

**Figure 6: Sharing practice during last month injection**




Sharing of injection equipment at last injection was analyzed in a combined sample by type of drug injected at last time. In bivariate analyses Heroine and Jeff injections were significantly positively associated with sharing practice (respective odds ratios: OR 1.62 95% CI 1.01 – 2.52 and OR 2.28 95% CI 1.20 – 4.31), while "Vint" injection appeared to be negatively associated (OR 0.32 95% CI 0.15-0.90) with this risky behavior. PWIDs with a primary or secondary education were three times more likely to share injecting equipment (OR 2.96 95% CI 1.80 – 4.85) and those who injected abroad during last year had higher odds to practice unsafe injection at last occasion (OR 2.35 95% CI 1.55-3.58).

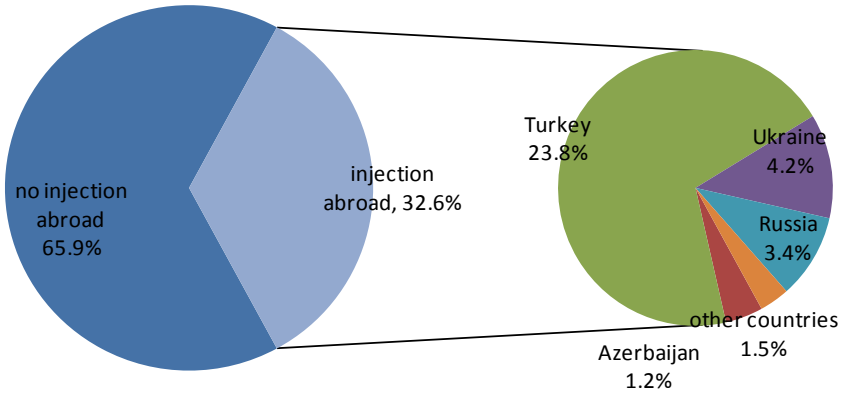
As expected, sharing of injecting paraphernalia other than needles and syringes is practiced among homemade drug users. Significant association was found among methamphetamine ("Jeff") users, risk of using paraphernalia is 3.5 fold high compared to other drug users (OR 3.52 95% CI 2.19 – 5.68). No significant difference was found among those who injected "Vint" and Desomorphine at last injection.

Mean number of partner with whom PWIDs share injecting equipment varies from 1.89 (Tbilisi) to 4.44 (Telavi). Majority of those who shared injecting equipment reported cleaning of needle/syringe by water (boiled or not boiled) before use.

Almost all respondents (lowest 96.5% in Telavi) reported that they can get new sterile needle/syringes when needed. Vast majority mentioned drug stores and less proportion - other PWIDs as a source for getting syringes. Syringe exchange program was named by a small proportion of PWIDs, with highest rate in Gori (36.8%) followed by Zugdidi (10.3%), while in other cities not more than 5% mentioned this source for getting sterile injecting equipment.

In general, proportion of PWIDs who injected drug outside the place of their permanent residence over the last 12 months, ranges between 33.2% in Tbilisi to 81.6% in Zugdidi. Lower proportion of PWIDs from Tbilisi reported drug injection in other cities of Georgia compared to other cities. Almost half of PWIDs in Zugdidi (48.3) and Batumi (47.1%) reported injecting drug outside the country. Main countries where PWIDs injected drugs during preceding 12 months are Turkey, followed by Ukraine and Russia.

**Figure 7: Countries of injection abroad during last 12 month (combined sample)**




In bivariate analysis heroine injection during last month was analyzed in relation to injection abroad, specifically injection in Turkey. It was found out that in all cities heroine injection was significantly associated with injection in Turkey.

**Table 6. Association between injection in Turkey and Heroine injection during last month**

| City | Odds of Heroine injection last month | 95% CI |
|---|---|---|
| Tbilisi | 3.89 | 1.25 -12.12 |
| Gori | 5.76 | 3.31 -10.0 |
| Telavi | 7.24 | 3.67 - 14.25 |
| Zugdidi | 4.30 | 2.50 - 7.39 |
| Batumi | 2.18 | 1.34 - 3.56 |
| Kutaisi | 2.06 | 1.21 - 3.49 |

Alarming is that injection risky behavior increases outside the place of residence. Almost every fifth among Zugdidi and Batumi PWIDs who injected abroad reported needle/syringe sharing practice.

Combined sample was analyzed to identify determinants of sharing practice abroad. Primary or secondary education was positively associated with this risk behavior, as well as sharing of injecting equipment during last month and injecting “Jeff”. In the multivariate analysis after adjusting for all

these factors only sharing last month remained positively associated. It is also notable that 13.6% of those who did not share injecting equipment during last month did so while injecting abroad that indicate that sharing is much influenced by a contextual factor.

About one in every six PWIDs in Batumi and Kutaisi reported overdose experience over the period of previous 12 months. Lower proportion was noticed in other locations.

Majority of PWIDs from all survey sites usually inject at the apartments, less proportion in the cars and very small proportion in the streets (2.2% from the combined sample).

Most prevalent practice of getting rid of the used needle/syringe, is throwing in the garbage with the cap. This proportion ranges from 38.0% to 60.2%.

### Knowledge of HIV/AIDS, testing practice and self-risk assessment

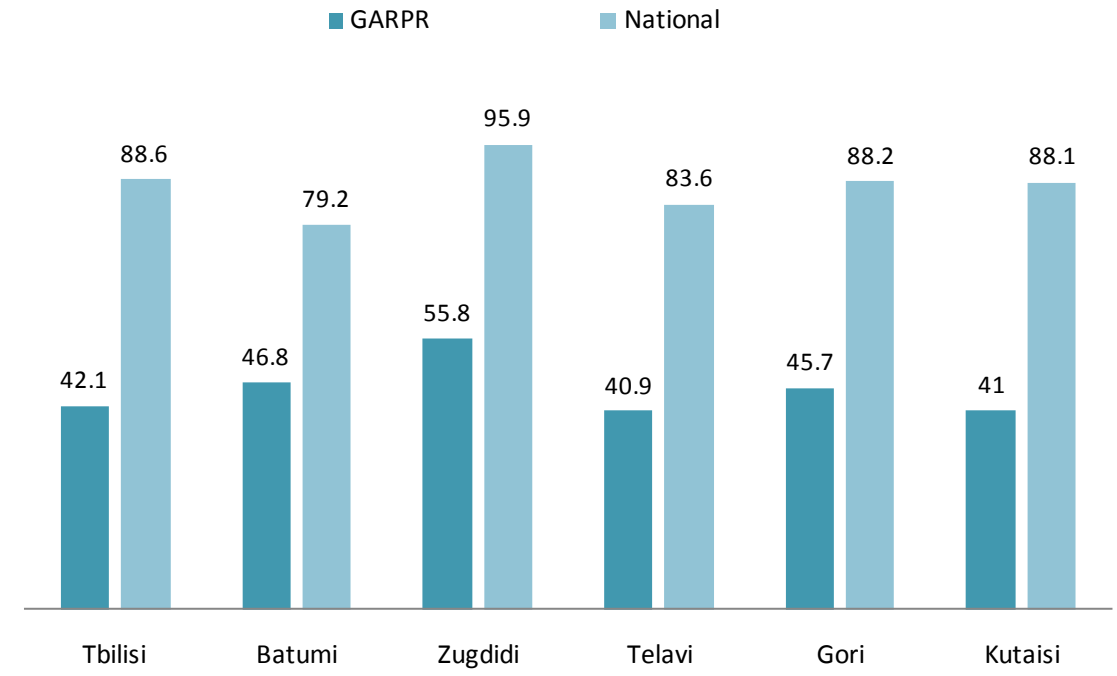
Almost all PWIDs across all six survey locations have heard about HIV/AIDS, only six PWIDs from Batumi (1), Telavi (4) and Gori (1) did now know about this disease.

Global AIDS Response Progress Report (former UNGASS) indicator on knowledge of HIV prevention and transmission and rejection of major misconception ranges from 40.9% (Telavi) to 55.8% (Zugdidi). Awareness about HIV transmission routs and preventive measures is high among PWIDs in all locations. Lowest proportion of PWIDs aware that a healthy looking person can have an HIV infection was found in Batumi (84.1%). Misconceptions about HIV transmission are still prevalent. Correct answer on no association of mosquito bite with the HIV transmission was given by less than half PWIDs in Tbilisi, Batumi, Zugdidi and Telavi. Relatively more are aware that the HIV cannot be transmitted by taking food or drink containing someone else's saliva.

National indicator[19] on HIV prevention and transmission ranges from 79.2% (Batumi) and 95.9% (Zugdidi). No statistically significant difference was found among knowledge level between young and older age groups, with exception of Zugdidi, where older PWIDs are more knowledgeable.

[19] Correct answers on following questions: One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; one may be infected with HIV/AIDS by using a needle already used by someone else; one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water where might been touched needle already used by someone else; one may be infected with HIV/AIDS by taking solution from the shared container; drug users may protect themselves from HIV/AIDS by switching to non-injection drugs

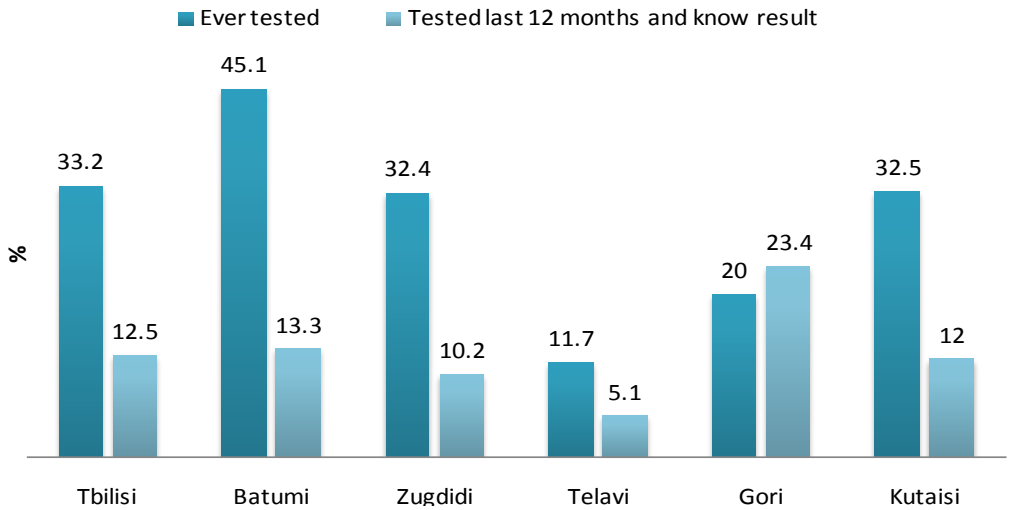
**Figure 8: Knowledge of HIV prevention and transmission and rejection of major misconception according to GARPR and National indicators**




Knowledge about HIV testing possibilities is relatively good. Majority is aware where to get HIV testing, however in Telavi only 62.1% answered positively on this question. At the same time HIV testing practice is still low. Overall less than half of PWIDs reported ever been tested during their lifetime (see Figure 9).

When time interval shortens to last 12 months the rate decreases further. Lowest proportions were found in Telavi (5.1%) and Zugdidi (10.5%), and highest in Gori (23.4%).

**Figure 9 PWIDs a) who had voluntary HIV test at least once in the past and b) who have received an HIV test in the last 12 months and know their results**



Using the combined sample from all six cities the HIV testing practice was analyzed by age groups, education, injection risk behavior, and knowledge on HIV prevention and transmission. As expected, those with secondary education, young PWIDs and those who are not knowledgeable on HIV prevention and transmission routs are less likely to be ever tested. Also PWIDs who reported sharing of injecting equipment during last month have 2.6 higher odds of never being tested that could be attributed to acknowledging this risk behavior that trigger HIV testing. After adjustment all these determinants remain significantly associated with non testing behavior (see Table 7).

**Table 7: Determinants of never being tested on HIV, multivariate analyses***

| Factors | Odds of not being tested for HIV (AOR) | 95% CI | *p* value |
|---|---|---|---|
| Age | | | |
| ≤ 24 years | 3.91 | 2.62-5.83 | < 0.001 |
| > 25 years | 1.0 | | |
| Education | | | |
| Primary or secondary | 1.46 | 1.20 - 1.77 | < 0.001 |
| Incomplete or complete higher | 1.0 | | |
| HIV knowledge[20] | | | |
| No | 1.57 | 1.16-2.12 | < 0.05 |
| Yes | 1.0 | | |
| Shared injecting equipment last month | | | |
| Yes | 2.27 | 1.60-3.23 | < 0.001 |
| No | 1.0 | | |

The vast majority of PWIDs (more than 88%) throughout all survey locations reported they will inform their sex and IDU partners if they were infected with HIV.

In all cities majority of PWIDs consider themselves at low or no risk with regard to HIV transmission, with exception of Zugdidi, where almost equal proportion consider themselves at high/medium or low/no risk.

**Table 8: HIV transmission risk perception ***

| | High or medium risk (%) | Low or No risk (%) |
|---|---|---|
| Tbilisi | 31.3 | 61.7 |
| Gori | 39.4 | 57.1 |
| Telavi | 30.8 | 64.0 |
| Zugdidi | 42.4 | 45.8 |
| Batumi | 35.3 | 54.7 |

* Analyses done in SPSS, adjusted for all listed variables

[20] Correct answers on following questions: One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; one may be infected with HIV/AIDS by using a needle already used by someone else; one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water where might been touched needle already used by someone else; one may be infected with HIV/AIDS by taking solution from the shared container; drug users may protect themselves from HIV/AIDS by switching to non-injection drugs.

* Analyses done in SPSS, percents do not add up to 100% because of missing values

| | High or medium risk (%) | Low or No risk (%) |
|---|---|---|
| Kutaisi | 38.1 | 59.5 |

## Sexual behavior

The section presents findings on PWIDs sexual behaviors with the last sexual partner and different types of partners. Regular sexual partners were defined as spouse or live-in partner or sex partner the respondent does not live with but have regular sexual contact. Regular sexual contact was defined as relationship that lasts longer than one year, or less than one year with an intention to continue it. Occasional sexual partners were defined as sex partner who is not a regular or paid partner, Paid sex partners were defined as those whom the respondent had sex in exchange for money or drugs.

Median age at the first sexual contact is 15-16 years. The majority of PWIDs (more than 86%) reported having sexual contact in the last year.

Condom use at last intercourse was under 40% for all cities with lowest rate in Batumi (28.3%). Bivariate analyses of the combined sample revealed that condom use at last sex is positively associated with the young age (OR 2.08 95% CI 1.52 – 2.85) and program reach[21] (OR 1.41 95% CI 1.13-1.77) and there is borderline association with HIV knowledge[22] (OR 1.34 95% CI 1.01 – 1.91). Those who are currently married are less likely to use condom at last sexual contact with any type of partner (OR 0.5 95% CI 0.41-0.62). No associations were found with the level of education and type of drug used during last month.

Majority of the PWIDs (from 68.3% in Telavi to 90.3% in Tbilisi) reported having regular sex partners. Most of them had one regular partner, although in Batumi and Zugdidi every third had two regular partners. Level of condom use with regular sex partners is low - less than one third used condom at last intercourse, with a lowest level in Batumi (13.1%) (see Figure 10).

Having occasional sex partners are reported by more than 40% across the cities, with 56.9% in Telavi. Mean number of occasional sex partners among those who had such partner ranges between 3.9 in Tbilisi to 5.0 in Telavi for the last 12 months period. Condom use practice at last sexual contact with occasional partner differs between cities: only 37.5% of PWIDs in Kutaisi did so, higher proportion was found in other cities, although not exceeding 68.3% (Zugdidi) . Respondents were asked about

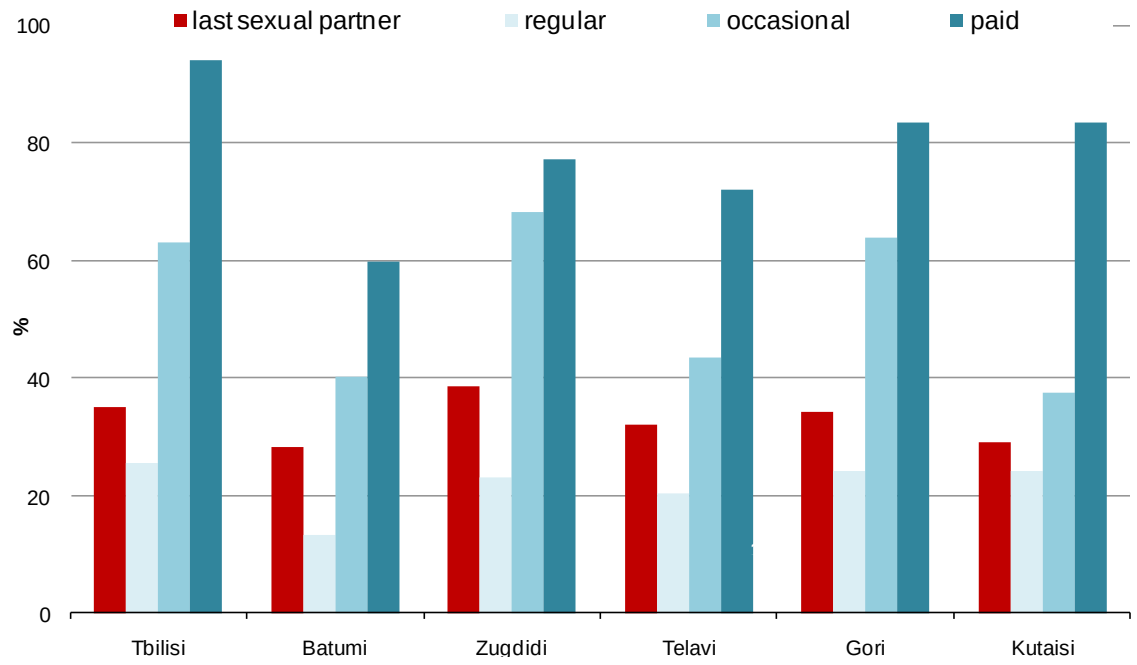
[21] Knows where to get HIV test and received at least one of the following during last 12 months: sterile injecting equipment, condom, leaflet/brochure on HIV/AIDS and qualified information on HIV/AIDS

[22] Correct answers on following questions: One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; one may be infected with HIV/AIDS by using a needle already used by someone else; one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water where might been touched needle already used by someone else; one may be infected with HIV/AIDS by taking solution from the shared container; drug users may protect themselves from HIV/AIDS by switching to non-injection drugs.

reasons for not using condoms. Most frequently mentioned reason was “did not think it is necessary”. The findings demonstrate a gap between knowledge and safe behavior. Vast majority of those who think that condom use was not necessary in a given occasion at the same time believe that consistent condom use can protect them against HIV transmission. This may indicate that occasional partners are not perceived to be at risk for HIV transmission.

Less than one third purchased sex during last year with a higher rate found in Telavi (30.1%). Mean number of paid sex partners ranges from lowest in Tbilisi (4.22) reaching 8.3 in Zugdidi. Condom use with the paid sex partners during last sexual intercourse is more frequent, although not satisfactorily high in all locations, only 60% and 71.9% of PWIDs in Batumi and Telavi used condom with paid partner, while majority did so in Tbilisi (94%).

**Figure 10: Condom use with last and different types of partners during last sexual intercourse**[23]




Similar pattern was observed when respondents were asked about consistency of condom use with different partners during last year. Majority never used condoms with regular sex partners. Unprotected sex is high with occasional partners, e.g. more than one third of Kutaisi PWIDs never used condom with occasional partner. During purchased sex such risky practice still exists, with highest rates found in Batumi (17.0%), Telavi and Gori (14.1% in both cities).

Sexual behavior was analyzed by marital status, which demonstrated that concurrent sexual partnerships are quite common. Proportion of married PWIDs who reported having paid for sex in the past year varies from 13.5% in Tbilisi to 23.6% in Batumi. About twice more married PWIDs

[23] N = those who had respective type of partner

reported having sexual contact with an occasional partner over the last 12 months (varying from 30.6% in Gori to 48.5% in Batumi).

Even among married PWIDs condom use with occasional partners is not a common practice. Among married PWIDs who reported having sexual contact with occasional partners around every second had unprotected sex, thus creating risk of HIV transmission through sexual contacts.

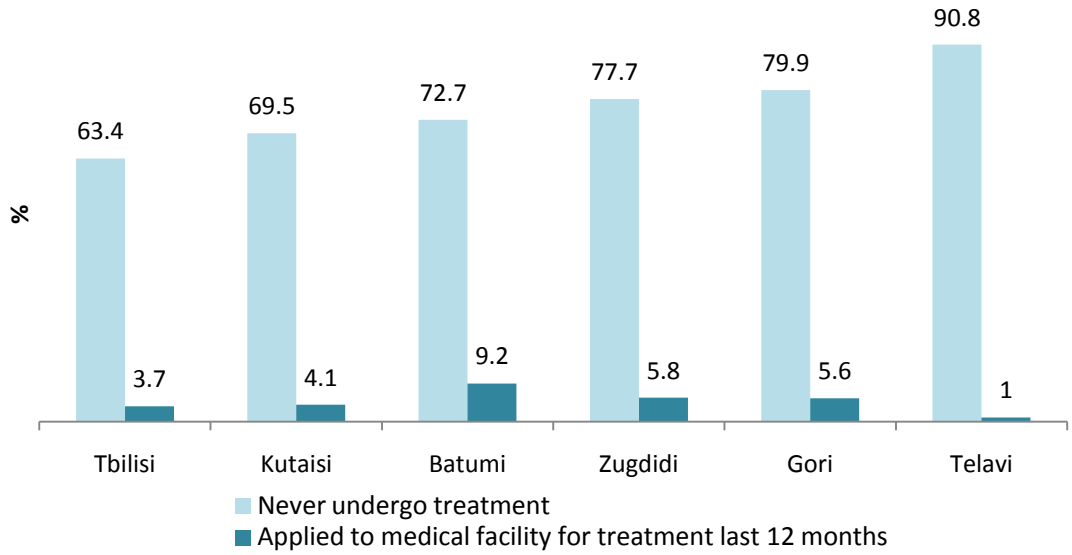
Among occasional sex partners from 6.0% (Telavi) to 16.5% (Kutaisi) are injecting drugs. Very few had IDU regular sex partner with highest proportion found in Tbilisi (4.6%), while about 20% of paid sex partners inject drugs in Telavi and Kutaisi. All this coupled with unprotected sex further increases risk of HIV infection spread among bridging and high risk population.

The study found very limited number of male PWIDs who reported ever having sex with male partner (in total 45 "yes" and 24 "no responses" out of 1769 interviewed male respondents). Only two reported having sex with male partner during last year.

### Exposure to drug treatment and HIV prevention programs, and social Influence

The majority of respondents have never been treated (range from 63.4% in Tbilisi to 90.8% in Telavi). Even among older age group (41 years and more) 65.7% from the aggregated sample did not undergo treatment. Very few applied to medical facility (specialized center) for drug dependence treatment during preceding 12 months.

**Figure 11: Use of drug dependence treatment at medical facility /specialized center**

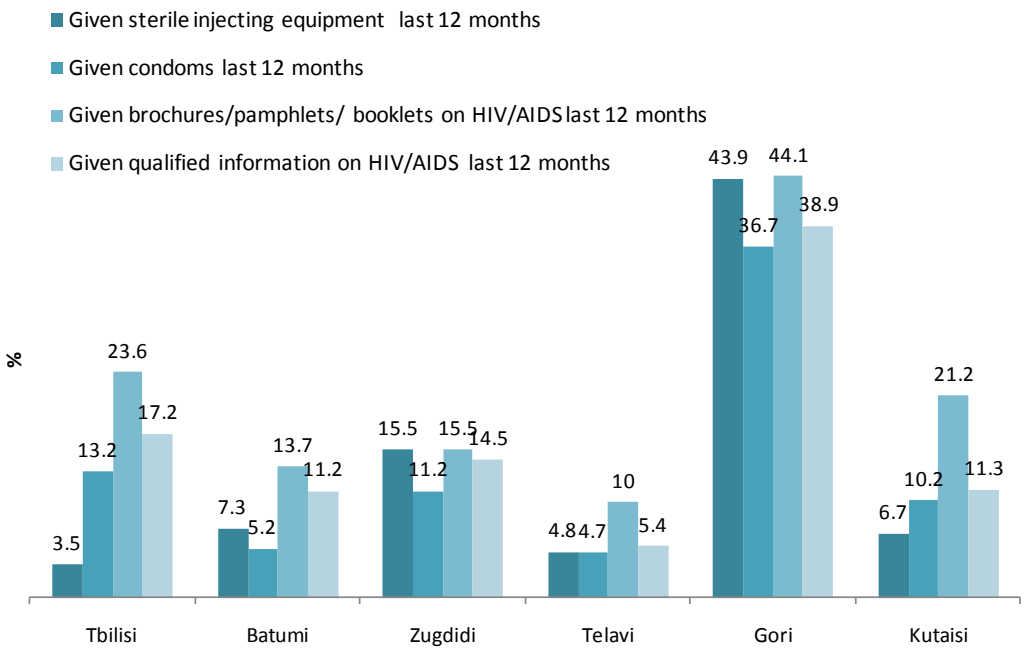



At least every fifth IDU survived "extreme need" without anybody else's help.

Coverage of preventive programs varies by cities. Harm reduction programs provide different interventions to PWIDs, among which is free HIV testing, distribution of injecting equipment, condoms, informational materials and risk-reduction counseling , It also worth to mention, that

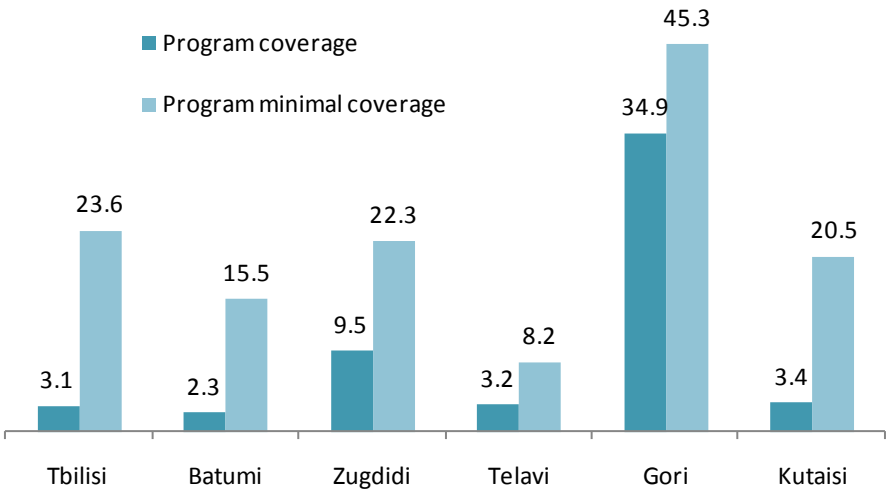
different programs provide different packages. According to the survey sterile injecting equipment was received by very small proportions of PWIDs in all cities, with exception of Gori, where 43.9% were given sterile needle/syringe during last 12 months. Gori is outstanding by highest coverage rates by all components, while Telavi shows lowest coverage compared to other cities (see Figure 12).

**Figure 12: PWIDs who were given sterile injecting equipment, condoms, IEC materials and qualified information on HIV/AIDS last 12 months**



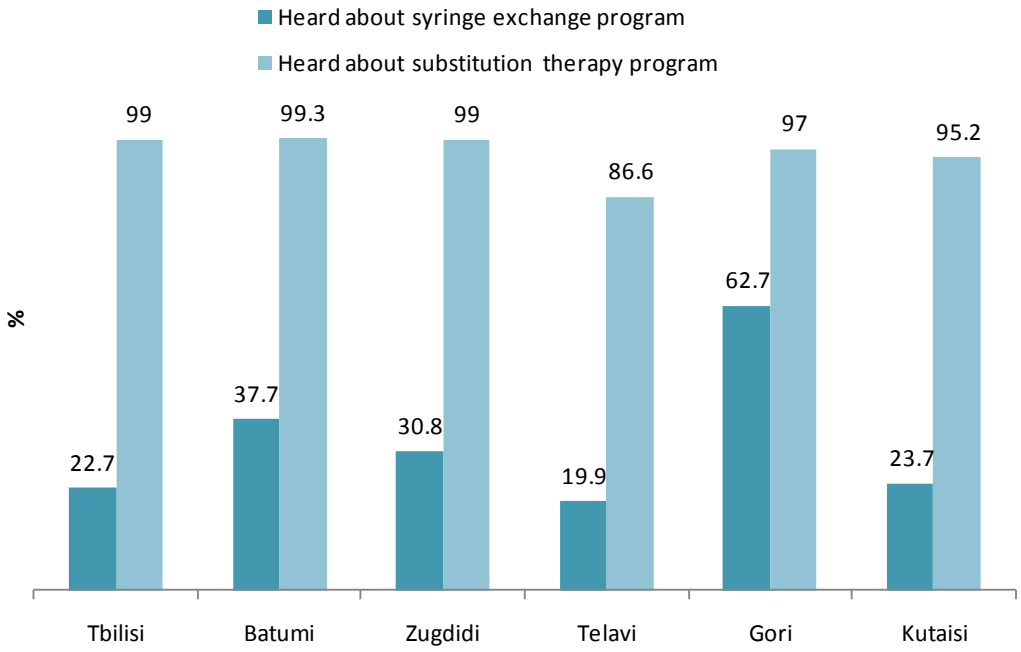

Preventive program coverage measured by awareness of HIV testing possibilities and reception of sterile injecting equipment and condoms during last 12 months is very low in all cities with exception of Gori. It is assumed that preventive program has reached its target audience if the person received at least one of the following program commodities: sterile injecting equipment, condom, brochure/leaflet/booklet on HIV/AIDS and qualified information on HIV. Therefore program minimal coverage is measured by awareness of HIV testing possibilities and reception of at least one of the listed above. In Telavi every twelfth IDU was reached by the program, while in Gori every second IDU was covered by the program interventions. Program full coverage is much lower and ranges between 2.3% (Batumi) to 34.9% (Gori) (see **Figure 13**).

**Figure 13: Preventive program coverage**




Proportion of PWIDs who have heard/seen/read information about syringe exchange program in the last 12 month varies from 19.9% in Telavi to in 37.7% (Batumi). In addition to limited spread of information, those who possessed this information from 16.9% (Tbilisi) to 39.7% (Kutaisi) actually benefited from this program. In Gori the rates are significantly higher. Substitution therapy program is much more well-known among PWIDs (see Figure 14 below).

**Figure 14: Awareness about syringe exchange and methadone substitution programs last 12 months**

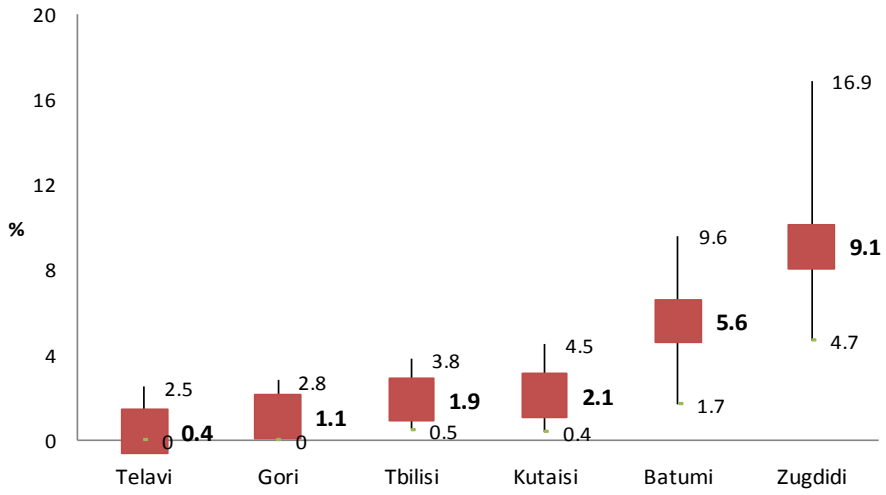


More than three-fourth of PWIDs reported they have no social influence to continue drug injection. Few mentioned needle partners' influence on continuing drug injection (from 3.8% to 17.5%). Friends and parents have major impact on PWIDs on quitting drug use.

### Prevalence of HIV

Population estimates for HIV prevalence in cities range from lowest 0.4% in Telavi to highest 9.1% in Zugdidi.

**Figure 15: HIV Prevalence rates with 95% CI**




All six cities aggregated sample was analyzed to find out prevalence rates among different age groups. HIV prevalence is higher among 31-40 and 41+ age groups. Two cases among 18-24 years old PWIDs most likely indicate new infections. Both these cases are from Zugdidi.

**Table 9: HIV prevalence by age groups (combined sample analyses)**

| Age groups | % | n/N |
|---|---|---|
| 18-24 | 1.1 | 2/175 |
| 25-30 | 1.5 | 5/333 |
| 31-40 | 3.6 | 22/617 |
| ≥41 | 3.9 | 24/619 |
| All ages | 3.0 | 53/1754 |

Risk injection and sexual behavior as well as testing practice were analyzed among all 53 infected individuals. On average every second HIV infected IDU did not use condom with last sexual partner and more than half with their regular partners. At least 39.6% are unaware of their status, since they have not been tested on HIV during their lifetime.

**Table 10: Risk behavior among HIV positive PWIDs (combined sample analyses)**

| Risk behavior | % | n/N |
|---|---|---|
| Injected with used injecting equipment last month | 13.2 | 7/53 |
| Injected with used injecting equipment at last injection | 9.4 | 5/53 |
| Did no use condom with last sex partner at last intercourse | 48.9 | 22/45 |
| Did no use condom with regular sex partner at last intercourse | 59.5 | 22/37 |
| Never tested | 39.6 | 21/53 |

In a bivariate analyses of the combined sample no association was found between HIV positivity and risk injection behavior (injection with used injection equipment last month and at last injection), type of drug injected during last month, injection abroad. However, in a Zugdidi sample HIV positivity was associated with recent sharing of needle/syringe. The HIV positives in Zugdidi were three times more likely to share injecting equipment during last month (OR 3.54 95% CI 1.57-10.85) and 6 times more at last injection (OR 6.42 95% CI 2.0-20.61).

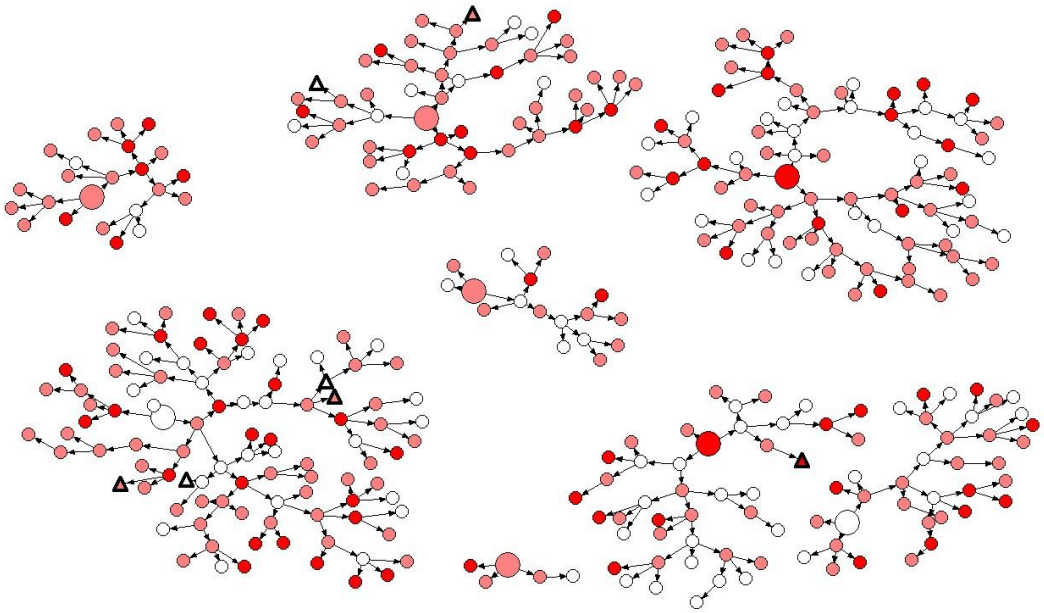
### Recruitment pattern by risk injection and sex behavior and HIV status

The figure below represents recruitment patterns of PWIDs by risk injection and sexual behavior and their HIV status. Double risk behavior was defined if the IDU engaged in risk injection at last drug injection (sharing of injecting equipment, paraphernalia or drug solution) and did not use condom with the last sexual partner. Single risk behavior was defined if the IDU practiced only one from the two risk behaviors.

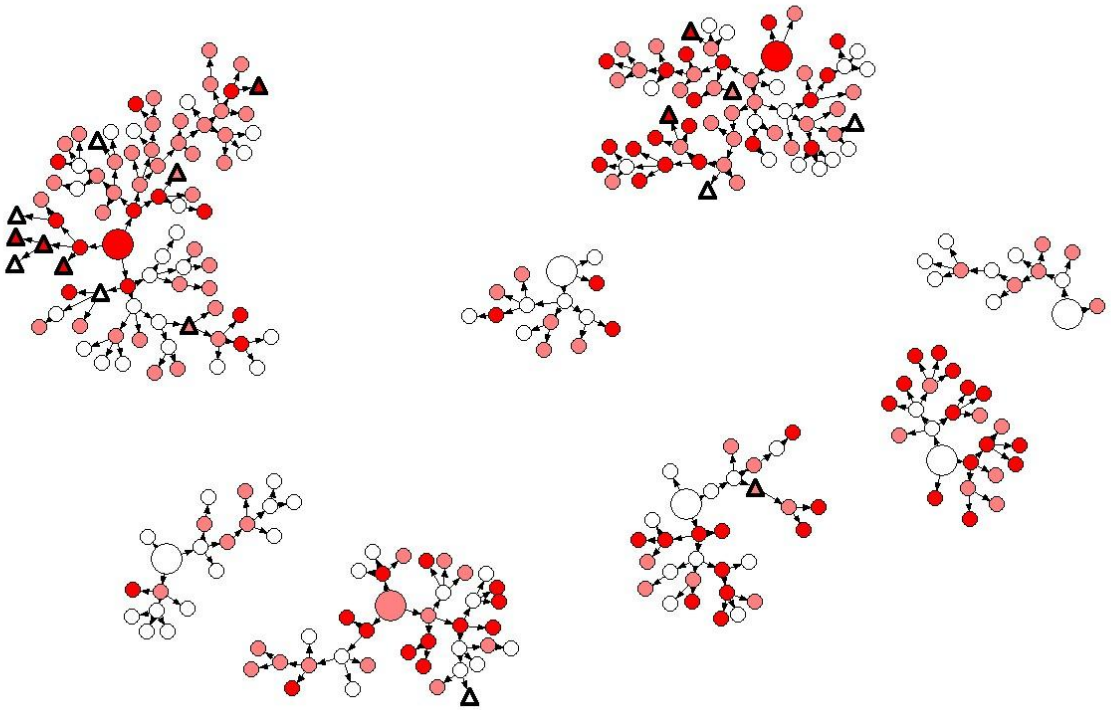
On the pictures below larger symbols represent seeds and smaller symbols represent subsequent recruited PWIDs:

- HIV negative with safe injection and sex behavior
- HIV negative with double risk behavior
- HIV negative with single risk behavior
- HIV positive with safe injection and sex behavior
- HIV positive with double risk behavior
- HIV positive with single risk behavior

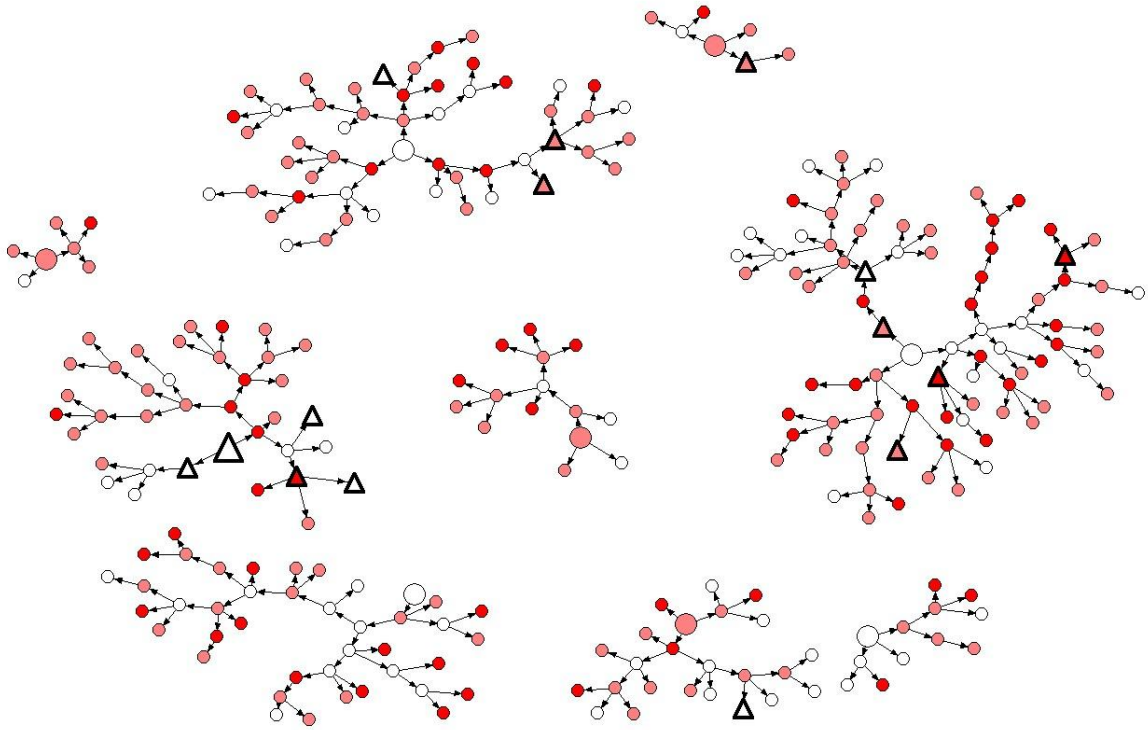
**Picture 1: Recruitment chain of Tbilisi PWIDs by risk injection and sexual behavior and HIV status**



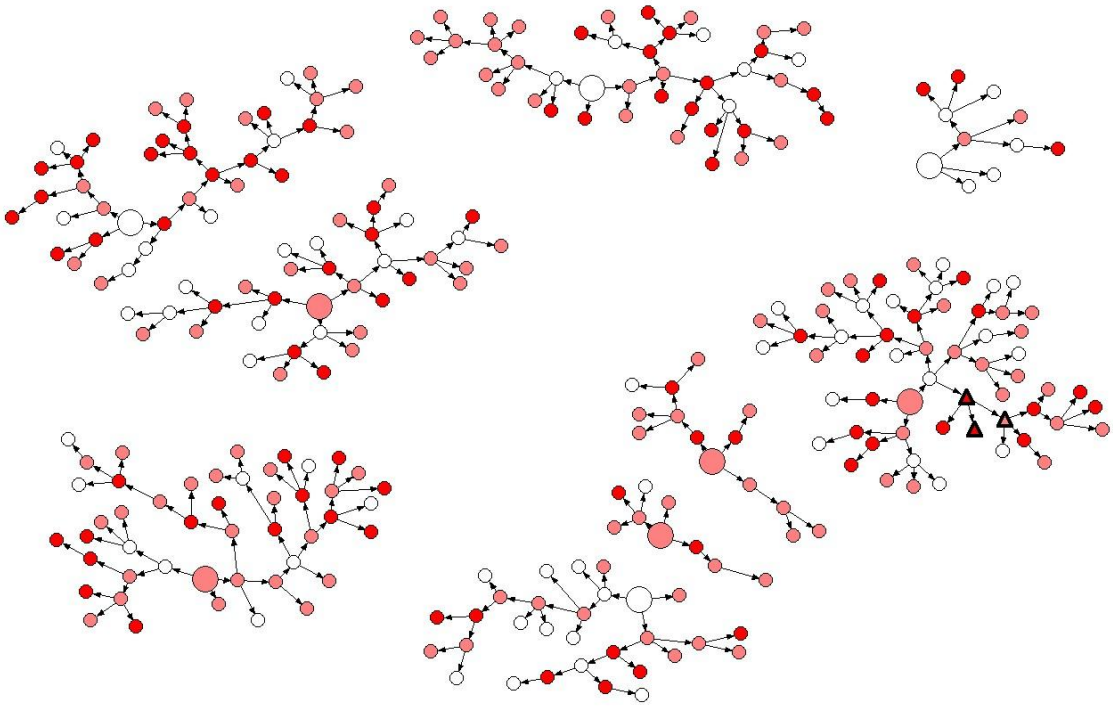
**Picture 2: Recruitment chain of Zugdidi PWIDs by risk injection and sexual behavior and HIV status**



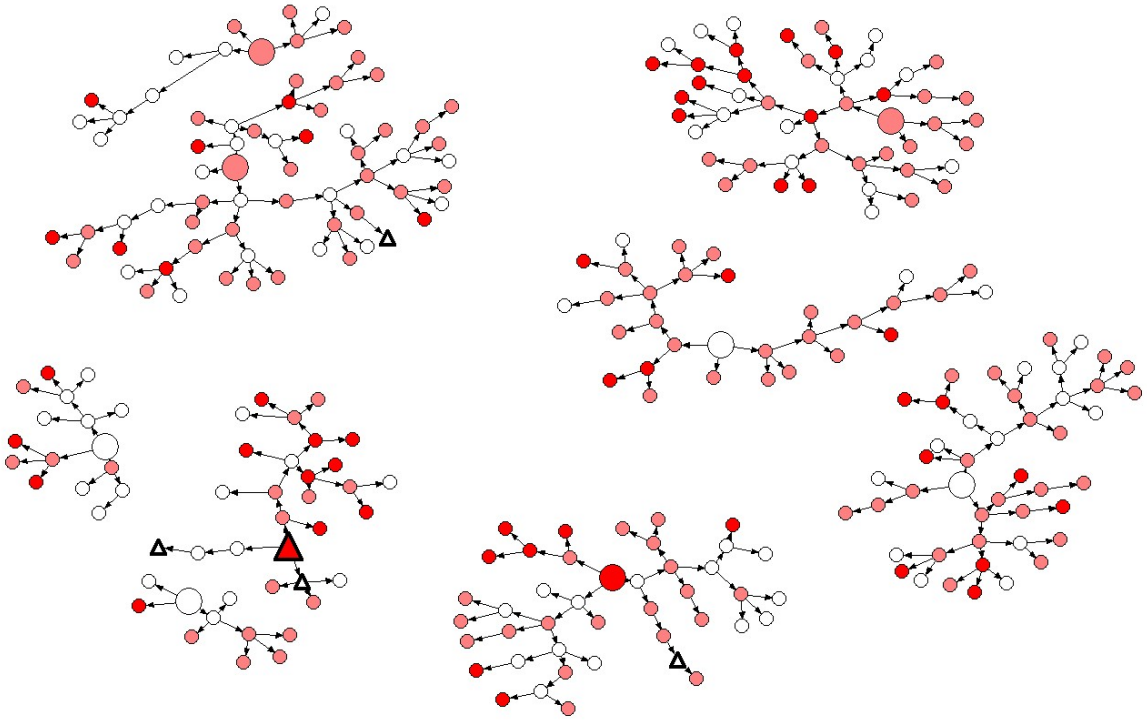
**Picture 3: Recruitment chain of Batumi PWIDs by risk injection and sexual behavior and HIV status**



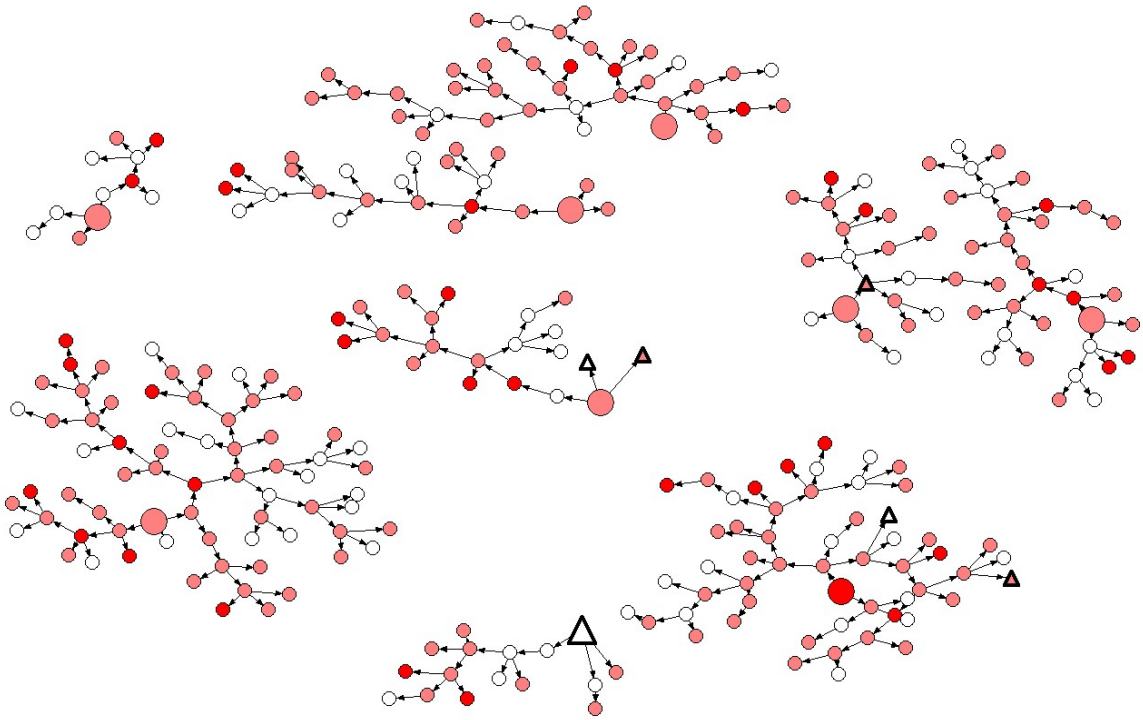
**Picture 4: Recruitment chain of Telavi PWIDs by risk injection and sexual behavior and HIV status**



**Picture 5: Recruitment chain of Gori PWIDs by risk injection and sexual behavior and HIV status**



**Picture 6: Recruitment chain of Kutaisi PWIDs by risk injection and sexual behavior and HIV status**



The figures illustrate that HIV positive individuals are engaged in risk behaviors that pose risk of HIV transmission to their injecting and sexual partners. Clustering of HIV positives already indicates existing risk. Also PWIDs with unsafe behavior have network with each other. Such mixed pattern can be effectively used for peer education. Those with safe practice after proper education could motivate their peers towards safer behavior.

## Study Limitations

The findings of the survey should be interpreted in the light of certain limitations:

**Sampling bias.** One advantage of the RDS method is that it is based on recruiting people from their networks, as it is impossible to make sampling frames of high-risk groups. However, there are several potential sources of error and bias in RDS. These include the influence of non-response bias, selection of seeds, and others. Although our original seeds were not as diverse as we intended them to be, a comparison of the seeds versus the final sample shows that RDS resulted in different characteristics of the final samples.

- For instance, in terms of demographic characteristics such as age groups Tbilisi seeds represent all sub-groups, however PWIDs less than 25 years of age formed only 5.9 % of the final sample; therefore, the small proportion of under -25 years age group in Tbilisi sample should be treated with caution.
- Study managed to recruit PWIDs mainly from the lower socio-economic ladder. Majority of the study participants had small monthly income and inject cheap home-made drugs, therefore the study incentives were attractive to them. On the other hand PWIDs who's position on the socio-economic ladder is high are not well represented in the survey.
- It is also possible that those PWIDs who knew their positive HIV status were less likely to participate in the survey.

**Population estimates.** RDS along with sampling implies a statistical inference to generate population estimates produced by the RDSAT software. There is much disagreement and confusion about ability of this software to generate representative data. There is concern that current inference methods do not reduce the RDS sample biases. Therefore, caution is required when interpreting findings based on the RDS method.

**Inclusion criteria.** Another study limitation is related to the inclusion criteria adopted. Due to the need of parental consent for enrollment of 15-17 years old individuals, this age group was not represented in the sample, especially in the light of the fact that one third of PWIDs started injecting drugs at the age under 18 years.

**Reporting bias.** As in any interview-based survey, it is possible that respondents may not have accurately answered some of the sensitive questions, or may have had difficulties in recalling information. Due to social stigma, some behaviors, such as condom use, drug injection or needle sharing, having same gender sex may be under-reported by respondents. Since all interviews were conducted in private places, the survey was anonymous and personal

identification details were not collected, it is expected that this might minimize reporting bias.

**Study site.** Recruitment of Gori participants was carried out at syringe exchange center, which unlike other sites, is the only organization providing low threshold services for PWIDs in this location.. This could create bias in inclusion of study participants, therefore Gori findings should be interpreted with caution.

**Limited gender distribution.** Disaggregated analysis by gender was not possible since there were only few female PWIDs recruited. The small numbers of women participating in the study may indicate that they are difficult to reach.

## Discussion

Overall, the Bio-BSS findings provide valuable data regarding the presence of HIV and risk behaviors among IDU population at increased risk of exposure to and transmission of HIV in Georgia. The first round of the Bio-BSS was carried out in 2002 in Tbilisi followed by subsequent rounds in 2004, 2006, 2007, 2008-09[24] and 2012 in increasing number of cities. Comparative analyses across the years, allows measuring changes and gives directions for future focus of preventive strategies.

Comparison of 2009 and 2012 surveys show that in four cities there is a slight increase in PWIDs' median age. The same median age is in Batumi and slightly low in Tbilisi. As for the first drug injection age there is almost no change between the two latest rounds of BSSs. This indicates that there is no significant shift to any direction from 2009 to 2012 with regards to age or drug initiation practice.

**Table 11: PWIDs median age and median age of first drug consumption and injection by years, 2009-2012**

| Median age | Year | Tbilisi | Gori | Telavi | Zugdidi | Batumi | Kutaisi |
|---|---|---|---|---|---|---|---|
| Age | 2009 | 40 | 34 | 32 | 34 | 35 | 35 |
| | 2012 | 39 | 36 | 35 | 38 | 35 | 38 |
| First non-injection drug consumption age | 2009 | 16 | 17 | 17 | 16 | 16 | 17 |
| | 2012 | 16 | 16 | 16 | 16 | 15 | 16 |
| First drug injection age | 2009 | 19 | 20 | 20 | 18 | 19 | 20 |
| | 2012 | 19 | 20 | 19 | 18 | 18 | 19 |

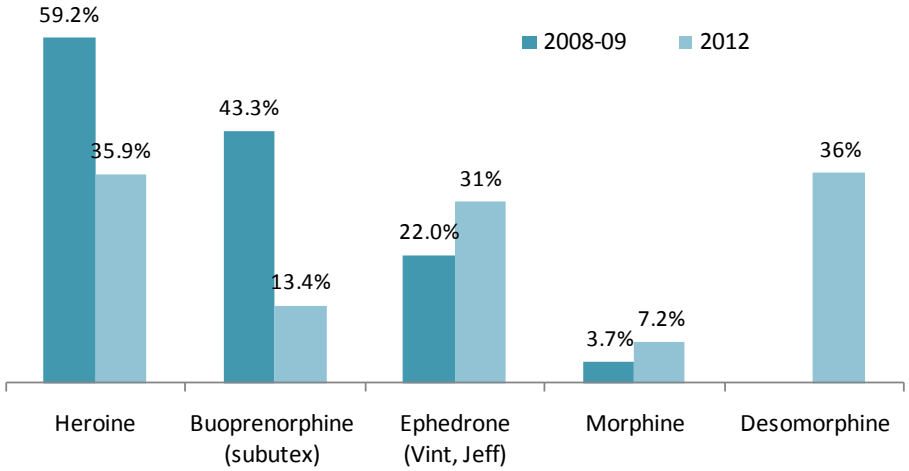
There is a significant change in the injected drug scene since 2009. Analysis of the combined samples shows emergence and wide use of desomorphine ("crocodile"). This is a homemade opiate based drug, ingredients of which could be obtained at a regular pharmacy. Cost of the ingredients to cook this drug is about 6-10 Gel (3.5-6 USD) per person. In our sample desomorphine users are characterized with frequent injections during a day and no association was found with income level. Desomorphine is now widely spread in Russia and presence of this drug is confirmed in European countries. It first appeared in the Russian market in 2003 as a "china white" and rapidly spread throughout the country following restrictions of heroin trafficking from Afghanistan that resulted in increased street prices on opiates. There was mass shift to "crocodile" due to accessibility and cheap ingredients for its preparation. In Russia, most codeine-based medicines used for "crocodile" preparation are available without prescription. [25]

[24] Bio-BSS Reports of the SHIP project (2002-2006 Tbilisi, 2004-2006 Batumi,2007- 2009 Kutaisi) and GF project (2009 Tbilisi, Batumi, Gori, Telavi, Zugdidi).

[25] Skowronek, R.; Celiński, R.; Chowaniec, C. A. (2012). "Crocodile" – new dangerous designer drug of abuse from the East". Clinical Toxicology 50 (4): 269. PMID 2238510

The other most notable change in drug scene suggested by the study is drop of Heroine and Buprenorphine use. Increase use of amphetamine type stimulants is also evident. Morphine injection has also increased and is mostly reported by Gori and Kutaisi PWIDs (see **Figure 16**).

**Figure 16: Type of drugs injected during last month by years, 2009-2012** [26]

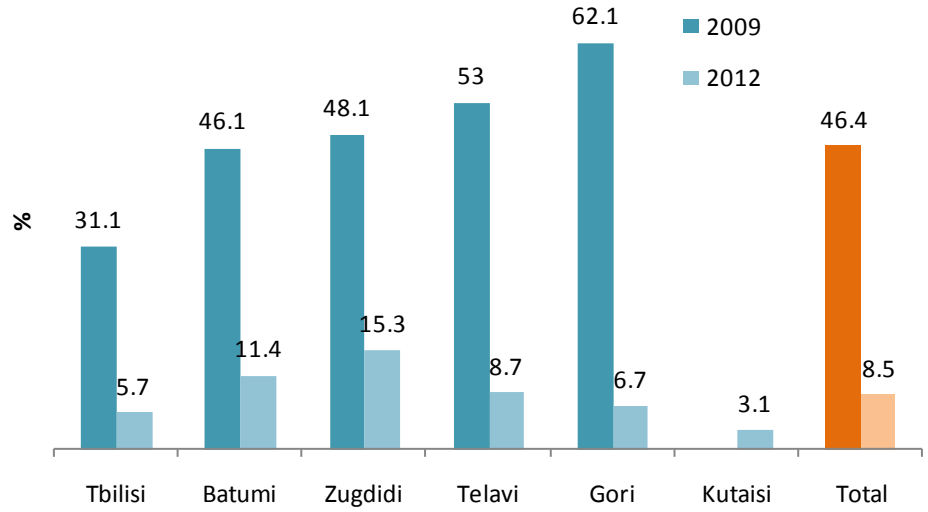



A positive change with regard to injecting equipment sharing is observed among PWIDs for the last 8-10 years. PWIDs who reported sharing of injecting equipment at last injection decreased more than ten-fold in Tbilisi from 2002 (15.3% to 0.8%) and almost three-fold in Batumi since 2004 (26.0% to 9.0%). No significant change was observed in Kutaisi since the first BSS in 2007 (3.5% to 2.8%).[27] In Zugdidi proportion of PWIDs sharing needle/syringe at last injection increased twice (from 3.4% to 7.5 %) since 2009 indicating the need to improve quality and coverage with preventive interventions in Zugdidi. Notable is an association found between this risky behavior and types of drug and injection abroad. Those who had primary/secondary education, injected Heroine and Jeff last month, and injected abroad were more likely to share injecting equipment.

Sharing of paraphernalia decreased significantly in all cities since 2009. It may indicate that PWIDs correctly identify risk of HIV transmission through paraphernalia. Paraphernalia sharing is associated with the type of drug injected, specifically “Jeff”, that is explained by the drug preparation technique.

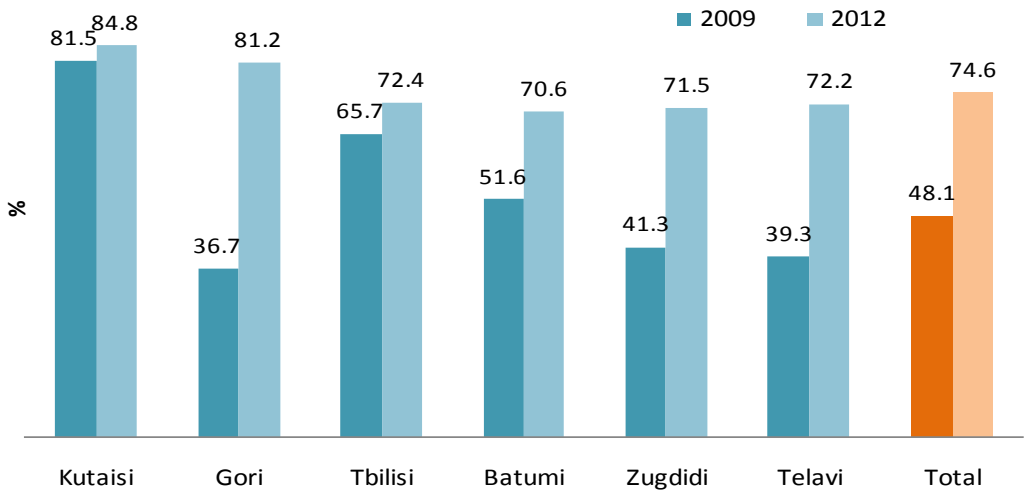
[26] Combined sample, unweighted data
[27] Data represent non-weighted frequencies

**Figure 17: Share paraphernalia at last injection by years, 2009-2012** [28]




As a result of improved practice towards injecting equipment and other paraphernalia use overall safe injection behavior improved in all cities. Safe injection at last injection is composed by the following indicators: not usage of previously used injecting equipment by somebody else or him/herself, not usage of injecting equipment left at a place of gathering by somebody else, not usage of prefilled syringe by somebody else without his/her presence, not usage of shared equipment, not usage of drug solution from shared container. With aim to make it comparable with the 2009 findings one indicator -use of previously self-used injecting equipment - is removed from this analysis (Figure 18). Increase of this protective behavior is statistically significant in all cities with exception of Kutaisi and Tbilisi ($p$<0.01).

**Figure 18: Safe injection at last injection by years, 2009-2012**[29]

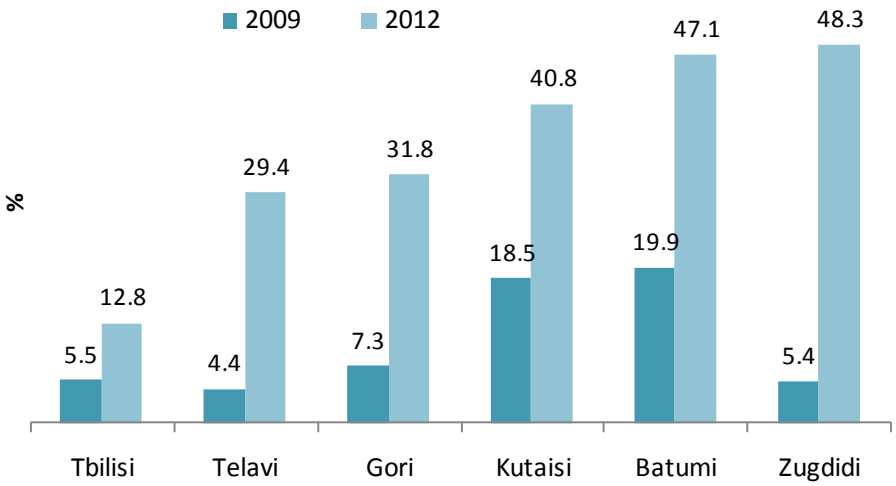



[28] City figures: weighted population estimates; Total: unweighted frequency from combined sample
[29] City figures: weighted population estimates; Total: unweighted frequency from combined sample

Injection abroad increased in all cities since 2009, particularly significant increase is observed in Zugdidi and Batumi (see Figure 19). High mobility of PWIDs could be explained by the anecdotal evidence that following restricted drug policy that resulted in a scarcity of illicit drugs in the country PWIDs tend to travel to the neighboring countries where illicit drugs are more accessible. This could be even easier to those living in close proximity to Turkey (western part of Georgia). Literature suggests that such mobility has a potential to disrupt social and physical networks of PWIDs, including relationship with new individuals, exposure to different social norms and unfamiliarity to injection supply sources.[30, 31]

In 2012 every fifth among Batumi and Zugdidi PWIDs who injected abroad shared injecting equipment there. Exposure to the social networks with different disease prevalence patterns has a potential for HIV transmission. Concerning is the finding that those who practice safe injection in their home cities shift to risky behavior when injection takes place outside their regular environment (other country, city). Current study did not investigate drug type injected abroad and timing of injection abroad within the last year. However logistic regression found higher odds of heroine injection during last month if PWIDs injected in Turkey. This may indicate that the drug users quite frequently travel to this country. This association also explains higher odds of sharing at last injection among those PWIDs who injected heroin.

**Figure 19: Injection abroad by years, 2009-2012**




[30] Rachlis B, Brouwer KC, Mills EJ, Hayes M, Kerr T, Hogg RS. Migration and Transmission of Bloodborne Infections Among Injection Drug Users: Understanding the Epidemiologic Bridge. Drug Alcohol Depend. 2007; 90:107–119.

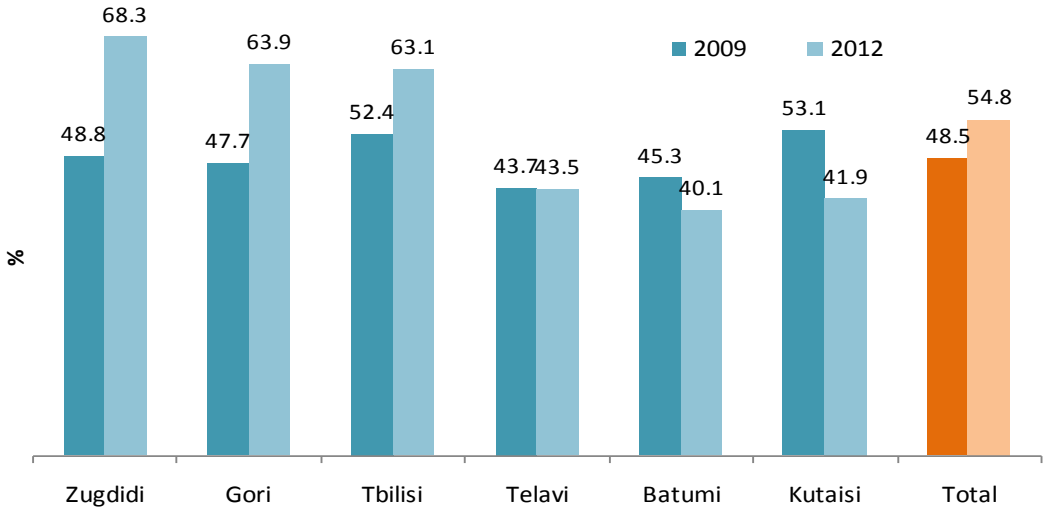
[31] Costenbader EC, Astone NM, Latkin CA. The Dynamics of Injection Drug Users' Personal Networks and HIV Risk Behaviors. Addiction. 2006; 101:1003–1013

Worth to mention that in all cities proportion of those who reported injection in the streets significantly dropped since 2009 (from 15.2% to 2.2%). This may indicate that IDU population became more hidden due to restricted drug policy.

Knowledge concerning HIV transmission is relatively good. Majority are aware that the main transmission risks are unsafe injection practices as well as unprotected sex with an infected person. On the other hand, misconceptions about HIV transmission still exists that may contribute to the stigmatization and discrimination of people living with HIV and AIDS. This might be reflective of stigma level among general population.

The study found high risk sexual behaviors among PWIDs. More than 40% in all cities reported having occasional partner and on average every third married IDU also had occasional partner. Comparison with the previous year Bio-BSS study findings indicates that overall there is slight increase of condom used with occasional partners, two cities (Zugdidi and Gori) demonstrated statistically significantly positive change ($p<0.05$), however other four cities showed no improvement or worsening of condom use behavior. This may indicate that occasional partners are still not perceived to be a source for HIV transmission by a big proportion of PWIDs.

**Figure 20: Condom use with occasional partners at last intercourse, 2009-2012**[32]



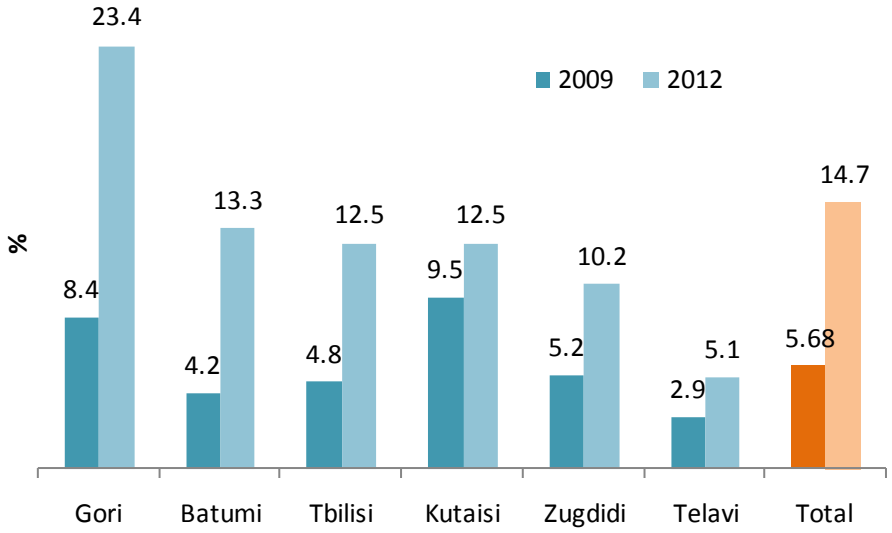

Despite high accessibility to confidential HIV testing every second PWIDs is still not tested on HIV during their lifetime. When compared to 2009 data ever testing proportion increased from 29.2% to 45.2% in the combined sample. Insufficient uptake of HCT services indicates that still large proportion of PWIDs is unaware of their HIV status, which increases risks for HIV transmission. The worst HIV testing experience was observed among young PWIDs, with primary/secondary education,

[32] City figures: weighted population estimates; Total: unweighted frequency from combined sample

with poor HIV knowledge and injecting equipment sharing practice during last month. This calls for targeting high risk young PWIDs with specific interventions.

As for the last year testing experience the indicator remains one of the low in the region.[33] Nevertheless, there is almost three fold increase since 2009, indicating that significant progress has been achieved by the preventive programs during last three years. Throughout cities no statistically significant change was observed in Kutaisi and Telavi (see **Figure 21**).

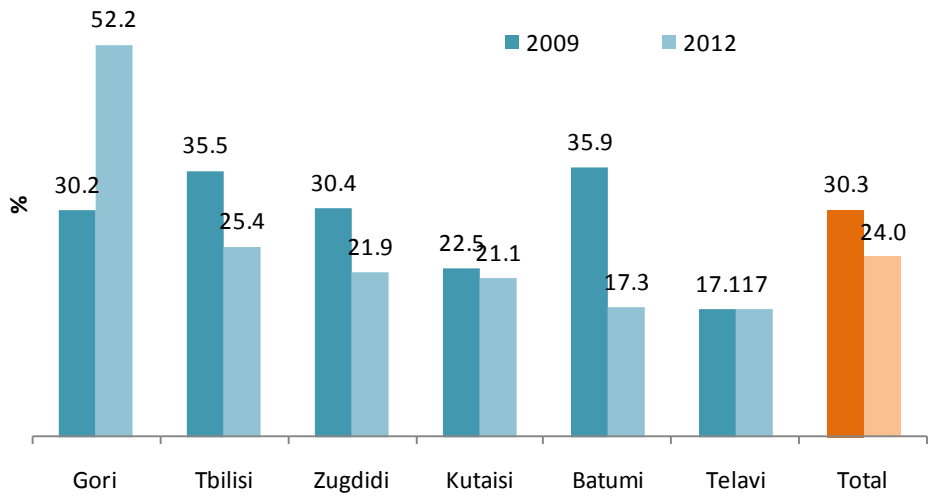
**Figure 21: Tested on HIV last year and know results, 2009-2012[34]**




The study reveals low coverage of PWIDs with preventive programs including needle exchange program. Awareness about syringe exchange program with exception of Gori is not satisfactory in all cities that could explain low utilization of this service. It is estimated that only one of four IDU is reached by preventive program in 2012. Among the cities only Gori shows positive change in this direction, while in Batumi there is two-fold decrease in the program reach (see **Figure 22**).

[33] "We can protect drug users from becoming infected with HIV". Context and progress of the global response to HIV among people who inject drugs, 2011. http://www.who.int/hiv/topics/idu/idu_monograph2011.pdf
[34] City figures: weighted population estimates; Total: unweighted frequency from combined sample

**Figure 22: Program minimal coverage (know where to get HIV test and received at least one of the following: sterile injecting equipment, condom, brochure/leaflet/booklet on HIV/AIDS or qualified information on HIV), 2009-2012[35]**



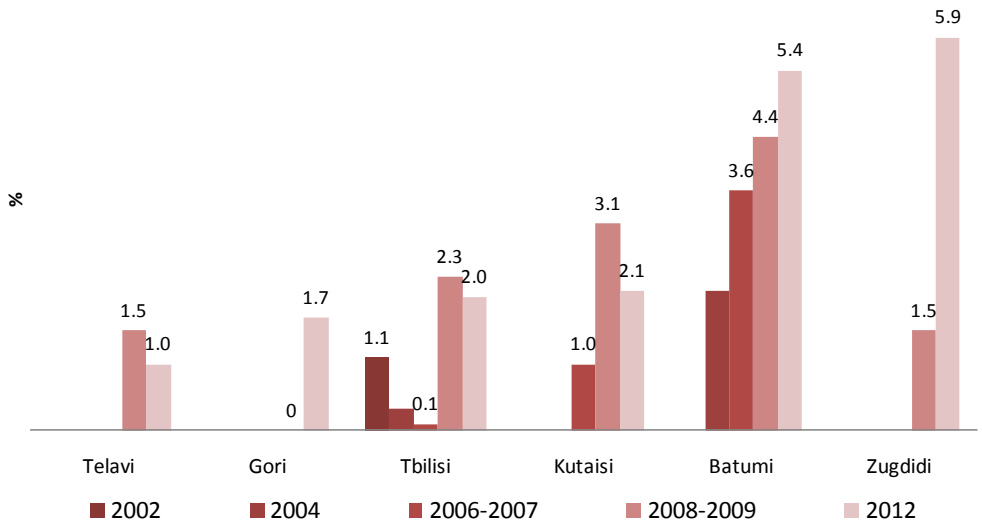

Another challenge is unequal coverage of PWIDs with preventive program benefits such as sterile injecting equipment, condoms, educational materials and qualified information on HIV/AIDS within cities. The most uneven picture is observed in Tbilisi, Batumi and Kutaisi. This is explained by reality that different program providers offer different packages to the target population.

Treatment services are not widely accessible to PWIDs. Very few could afford drug dependence treatment in 2011 and majority is not treated during their lifetime even among older age group. When needed in most of cases they rely on self or help of their peers, rather than on medical system.

The Figure 23 presents non-weighted HIV prevalence rates generated by the SPSS that allows comparison of data from the early studies.[36] There is an increasing trend across the cities. The statistically significant change is observed in Batumi and Zugdidi from the first to the latest BSS data. Prevalence rates from Batumi and Zugdidi show that the HIV epidemic has reached a concentrated epidemic level in 2012.

[35] City figures: weighted population estimates; Total: unweighted frequency from combined sample
[36] Up to 2008-09 Bio-BSS data were not analyzed in the RDSAT that generates weighted population estimates.

**Figure 23: Prevalence of HIV, 2002-2012**[37]




The combined dataset analysis of all six cities shows the HIV prevalence rate of 3.0% (95% CI 2.20 – 4.04). There is an increase, although not statistically significant from 2009 where the same six cities combined prevalence rate was 2.4% (95% CI 1.56 – 3.46).

The findings clearly indicate the critical need to intensify efforts among IDU population, especially in the regions and among young PWIDs. HIV epidemic is well-established in Zugdidi and Batumi, and remains at a relatively lower level in other cities. Alarming situation with regard to risky behaviors exist in Zugdidi and Batumi. Although declining but still prevalent high risk injection behaviors especially while injecting abroad make PWIDs vulnerable to HIV /AIDS. On the other hand high risk sexual behaviors increase bridging role of IDU population in possibility of HIV transmission to their sex partners. Successful implementation of preventive interventions in Gori may serve as lessons learned to intensify efforts in other locations as well.

[37] Nonweighted data

## Recommendations

Following recommendations are proposed to affectively address the problems, weaknesses and gaps revealed through the current study:

***Increasing IDU coverage and Strengthening outreach programmes and NGOs that work on drug demand reduction***

The survey identified substantial need for increasing coverage and quality of preventive, treatment and harm reduction services.

- Increase uptake of the HCT services, through increasing level of awareness among PWIDs and expanding field outreach activities.
- Improve quality of preventive program services though delivering comprehensive and standardized interventions.
- Consider targeting young PWIDs. Design specific programs with comprehensive package with involvement of young peer educators.
- Use of competence-enhancement approach to drug abuse prevention in schools. Contrary to the traditional antidrug education methods this approach proved to be effective in behavior change among youth.
- In order to prevent further spread of so called “pharmacy abuse” (consumption of psychotropic drugs as well as self-made drugs chemically manufactured from medicines that are sold in pharmacies), control on the pharmacy network should be strengthened and relevant regulations should be issued and applied.
- In preventive messages reemphasize risks associated with injection practices abroad (sharing of injecting equipment with individuals from other network).
- Design and implement drug-specific interventions primarily for self-made amphetamine-type stimulants and opiate users, who are characterized with higher risk behaviors. Reemphasize dangers associated with desomorphine injection.
- Given the widespread prevalence of sexual risk among PWIDs continue to promote condom distribution and reemphasize the necessity of consistent condom use with any sex partner. Condom distribution must be supplemented with other risk reduction education, including building motivation and skills to use condoms, promoting HIV testing, and preventing drug use. There is a need to strengthen the sexual health services offered to PWIDs and family focused interventions.

- Strengthen and expand peer education activities. Educated PWIDs would communicate and negotiate safe practices to the peers leading to their behavior change.
- Strengthen and expand comprehensive drug prevention and treatment interventions that can reduce drug consumption as well as injection-related risky behaviors.
- Increase availability and affordability of rehabilitation and detoxification centers to PWIDs.
- Intensify preventive interventions in Zugdidi and Batumi where high HIV prevalence and risk behaviors create ground for further spread of infection and in Telavi, where preventive program coverage is one of the lowest in the country.

***Continue with surveillance***

- The next surveys among PWIDs using RDS should be carried out in these cities within next 2 years and possibly also in other cities where BSS is not yet conducted.
- Investigate environmental risk and enabling factors that influence behavior and thus provide insight into HIV prevention.

## Annex 1: Data tables – Georgia (all six cities),Tbilisi, Batumi and Zugdidi

### Table 12: Socio - Demographic Characteristics

| Socio - Demographic Characteristics | GEORGIA % | GEORGIA N | TBILISI RDS population estimates, % (95% CI) | TBILISI n/N | BATUMI RDS population estimates, % (95% CI) | BATUMI n/N | ZUGDIDI RDS population estimates, % (95% CI) | ZUGDIDI n/N |
|---|---|---|---|---|---|---|---|---|
| Age | | | | | | | | |
| 18 - 24 | 10.0 | 1791 | 5.9 (2.6- 9.8) | 22/358 | 12.2 (6.8-19.6) | 35/278 | 12.1 (7.2-17.5) | 33/288 |
| 25 - 30 | 19.3 | 1791 | 18.1 (13- 24.1) | 62/358 | 17.3 (11.9-23.8) | 60/278 | 19.2 (12.8-26) | 55/288 |
| 31 - 40 | 35.1 | 1791 | 32.2 (26- 39.5) | 125/358 | 26.7 (18.9-34.3) | 90/278 | 31.1 (23.2-39.5) | 91/288 |
| 41 + | 35.7 | 1791 | 43.8 (35.8- 51.1) | 149/358 | 43.7 (33-53.7) | 93/278 | 37.4 (29-46.2) | 109/288 |
| Mean (min - max) | 37.24(18-77) | | 38.6 (19- 63) | | 36.71 (19-66) | | 37.25 (19-62) | |
| Median | 37.00 | | 39.00 | | 35.00 | | 38.00 | |
| Gender | | | | | | | | |
| Male | 98.7 | 1791 | 97.6 (95-99.7) | 352/358 | 99.9 (99.9-100) | 277/278 | 99.8 (99.4-100) | 285/288 |
| Female | 1.3 | 1791 | 2.4 (0.3-5) | 6/358 | 0.1 (0-0.1) | 1/278 | 0.2 (0-0.6) | 3/288 |
| Educational status | | | | | | | | |
| None | 0.1 | 1791 | -- | -- | 0(0-0.1) | 1/278 | -- | -- |
| Primary (1-4 class) | 0.2 | 1791 | -- | -- | 0.2(0-0.4) | 1/278 | -- | -- |
| Secondary or vocational school | 54.6 | 1791 | 37.5(30.9-44.3) | 141/358 | 51.8(42.4-60.1) | 163/278 | 56.2(49.1-63.8) | 167/288 |
| Incomplete Higher | 5.6 | 1791 | 1.6(0.7-2.8) | 12/358 | 10.8(5-16) | 14/278 | 7.6(3.6-11.9) | 17/288 |
| Higher | 39.5 | 1791 | 60.9(54.1-67.4) | 205/358 | 37.1 (31.3-45.8) | 99/278 | 35.9(29.2-42.7) | 103/288 |
| Refused to Answer | 0.1 | 1791 | -- | -- | -- | -- | 0.3(0-0.6) | 1/288 |
| Ethnicity | | | | | | | | |
| Georgian | 96.5 | 1791 | 96.2(93.5-98.5) | 348/358 | 95.7(92.6-98.2) | 261/278 | 98(96.7-100) | 284/288 |
| Other | 3.4 | 1791 | 3.8(1.5-6.5) | 10/358 | 4.3(1.8-7.4) | 17/278 | 0.1(0-0.1) | 2/288 |
| No response | 0.1 | 1791 | 0 | | 0 | | 1.9(0-3.3) | 2/288 |
| IDP status | | | | | | | | |
| Yes | 4.9 | 1791 | 8.2(3.9-13.3) | 25/358 | 1.4(0-3.5) | 3/278 | 8.2(4.5-12.6) | 31 /288 |
| No | 95.1 | 1791 | 91.8(86.7-96.1) | 333/358 | 98.6(96.5-100) | 275/278 | 91.8(87.4-95.5) | 257/288 |
| Employment | | | | | | | | |
| Pupil/student | 1.1 | 1791 | 0.3(0-0.6) | 3/358 | 0.1(0-0.3) | 2/278 | 0.6 (0-2) | 2/288 |

| Socio - Demographic Characteristics | GEORGIA % | N | TBILISI RDS population estimates, % (95% CI) | n/N | BATUMI RDS population estimates, % (95% CI) | n/N | ZUGDIDI RDS population estimates, % (95% CI) | n/N |
|---|---|---|---|---|---|---|---|---|
| Have a permanent job | 6.4 | 1791 | 3.4(1.1-5.1) | 13/358 | 5.7(2.8-10.3) | 20/278 | 13.6 (8.6-18.4) | 28/288 |
| Have a temporary job | 14.7 | 1791 | 3.5(1.6-5.5) | 14/358 | 18.3(11.9-25.7) | 37/278 | 24.7 (18.8-32.8) | 51/288 |
| Retired/disabled | 1.6 | 1791 | 1(0.2-2.1) | 5/358 | 5.3(1.8-9.9) | 9/278 | 3.6 (1.1-6.6) | 7/288 |
| Unemployed | 76.0 | 1791 | 91.9(89.5-95.1) | 323/358 | 70.5(61.5-77.6) | 210/278 | 57.4 (49.3-64.5) | 200/288 |
| Refused to answer | 0.1 | 1791 | | | | | | |
| Monthly income (Gel) | | | | | | | | |
| Less than 100 Gel | 23.6 | 1791 | 25.7(20-31.5) | 87/358 | 18.6(13.3-24.8) | 74/278 | 14.6(9.9-19) | 71/288 |
| From 100 up to 300 | 37.9 | 1791 | 42.5(36.2-49.1) | 162/358 | 36.4(28.5-42.8) | 101/278 | 33(25.9-38.9) | 90/288 |
| From 300 up to 500 | 20.2 | 1791 | 17.5(11.7-23.4) | 56/358 | 24.3(17-31.8) | 56/278 | 26.2(20.5-33) | 68/288 |
| From 500 up to 700 | 8.8 | 1791 | 6.7(3.9-10.2) | 27/358 | 11.9(7.1-18.5) | 25/278 | 11.3(7.2-16.7) | 25/288 |
| From 700 up to 1000 | 6.3 | 1791 | 5.5(2.9-8.7) | 18/358 | 6.4(2.5-11.1) | 12/278 | 9(5.3-13.4) | 22/288 |
| 1000 Gel and more | 3.1 | 1791 | 2.2(0.4-4.5) | 8/358 | 2.4(0.1-5.7) | 10/278 | 5.8(2.3-9.9) | 12/288 |
| No response | 0.1 | 1791 | 0 | | 0 | | 0 | |
| Marital status | | | | | | | | |
| Married | 44.2 | 1791 | 43.5 (36.9-50) | 156/358 | 41.7(33.1-49.9) | 115/278 | 42.4 (35.1-49.7) | 124/288 |
| Divorced/Separated | 18.5 | 1791 | 26.5 (20.8-31.9) | 94/358 | 17.6(11.7-24.6) | 48/278 | 13.2 (8.4-18) | 40/288 |
| Widower/widow | 1.3 | 1791 | 1.3 (0.1-2.2) | 4/358 | 1.2(0.1-3.2) | 5/278 | 1.9 (0-4.6) | 3/288 |
| Never been married | 36.0 | 1791 | 28.7(23.7-35.4) | 104/358 | 39.5(31.2-48.2) | 110/278 | 42.6 (34.8-50.7) | 121/288 |
| Living arrangements | | | | | | | | |
| With spouse | 43.2 | 1791 | 43.4 (36.9-50.1) | 156/358 | 41.6(33.4-49.8) | 111/278 | 40.8 (33.3-48.1) | 121/288 |
| With partner | 1.1 | 1791 | 0.7 (0.1-1.7) | 4/358 | 1.7(0-4.4) | 2/278 | 1.6 (0-3.7) | 3/288 |
| Single | 11.3 | 1791 | 11.1 (7.5-14.9) | 40/358 | 11.6(6.7-18.3) | 38/278 | 10.9 (6.3-15.9) | 31/288 |
| live with relative/parents | 43.6 | 1791 | 42.6 (36.3-48.9) | 153/358 | 44.8(36-53.5) | 124/278 | 46.7 (39-54.9) | 133/288 |
| Other | 0.7 | 1791 | 2.1 (0.3-4.9) | 4/358 | 0.2(0-0.5) | 2/278 | -- | |
| Refused to answer | 0.2 | 1791 | 0.1 (0-0.3) | 1/358 | 0.1(0-0.4) | 1/278 | -- | |
| Police and prison experience last 12 months | | | | | | | | |
| Infringement of the law due to drug use during last 12 months * | 19.0 | 1791 | 20.9 (16.0-26.0) | 83/ 358 | 18.6 (12.7-24.8) | 47/278 | 17.8 (12.4-23.8) | 48/288 |
| ≤ 24 | 17.9 | 179 | 27.6 (6.4-44.7) | 8/22 | 10.2 (0-26.4) | 3/35 | 19.2 (1.9-36.4) | 6/33 |

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Socio - Demographic Characteristics | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| ≥ 25 | 19.2 | 1612 | 20.5 (15.7-25.7) | 75/336 | 19.9 (13.3-26.2) | 44/243 | 17.4 (12.1-24.2) | 42/255 |
| Detained in administrative sentence | 15.7 | 1791 | 16.6 (12.1-20.6) | 69/358 | 15.2 (9.7-21.2) | 38/278 | 15.6 (10-20.7) | 38/288 |
| Imprisoned before trial | 9.1 | 1791 | 9(5.3-13.2) | 32/358 | 13.5 (7.8-18.7) | 24/278 | 15.9 (10.1-21.2) | 35/288 |
| Imprisoned | 3.2 | 1791 | 4.9 (2.3-8.1) | 19/358 | 4.1 (1-7.1) | 10/278 | 2.7 (0.2-4) | 6/288 |
| Alcohol consumption during the last month | | | | | | | | |
| Every day | 5.2 | 1791 | 6.4 | 23/358 | 9.0 | 25/278 | 6.3 | 18/288 |
| More than once a week | 26.7 | 1791 | 23.2 | 83/358 | 29.9 | 83/278 | 25.0 | 72/288 |
| Once a week | 14.3 | 1791 | 12.6 | 45/358 | 12.9 | 36/278 | 12.8 | 37/288 |
| Rare than once a week | 28.9 | 1791 | 29.3 | 105/358 | 20.1 | 56/278 | 34.7 | 100/288 |
| Never | 24.7 | 1791 | 28.5 | 102/358 | 28.1 | 78/278 | 20.5 | 59/288 |
| Refused to answer | 0.2 | 1791 | 0 | 0/358 | 0 | 0/278 | 0.7 | 2/289 |

## Table 13: Drug use history

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug use history | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Age when first used drug: | | | | | | | | |
| <15 | 43.8 | 1791 | 50.3 (44.1-57.0) | 170/358 | 49.4 (41.8-57.1) | 153/278 | 41.2 (34.1-48.4) | 129/288 |
| 15 – 19 | 45.6 | 1791 | 38.8 (32.4-45.1) | 152/358 | 43.1 (35.6-51.6) | 109/278 | 47 (39.3-54.9) | 128/288 |
| 20 – 24 | 8.1 | 1791 | 8.0 (4.7-11.7) | 26/358 | 6.9 (2.8-11.0) | 14/278 | 10.7 (6.5-15.5) | 25/288 |
| 25+ | 2.5 | 1791 | 2.9 (0.8-5.6) | 10/358 | 0.5 (0-1.3) | 2/278 | 1(0.2-2.1) | 6/288 |
| Mean (minimum - maximum) | 16.35(9-38) | | 16.26 (10-38) | | 15.58 (9-29) | | 16.38 (9-36) | |
| Median | 16.00 | | 16.00 | | 15.00 | | 16.00 | |
| Age when first injected drug | | | | | | | | |
| <15 | 7.4 | 1791 | 10.5 (6.6 -14.8) | 34/358 | 10.1 (6.0-15.7) | 32/278 | 4.9 (1.9-8.2) | 18/288 |
| 15 - 19 | 48.9 | 1791 | 49.9 (43.5-56.3) | 181/358 | 50.0 (42.0-58.2) | 148/278 | 53.9 (45.2-61.7) | 157/288 |
| 20 - 24 | 31.3 | 1791 | 26.5 (20.8- 32.6) | 92/358 | 32.6 (25.0-39.3) | 78/278 | 35 (27.5-43.5) | 94/288 |
| 25+ | 12.3 | 1791 | 13.1 (8.9-17.6) | 51/358 | 7.3 (3.0-12.3) | 20/278 | 6.2 (3.2-10.1) | 19/288 |
| Mean (minimum - maximum) | 19.73(12-50) | | 19.72 (14-40) | | 18.85 (13-36) | | 19.27(13-44) | |
| Median | 19.00 | | 18.50 | | 18.00 | | 18.00 | |
| Duration of injecting drug from first injection in years | | | | | | | | |
| Mean (minimum - maximum) | 17.50(0-52) | | 18.89 (1-46) | | 17.85 (1-48) | | 17.98 (0-45) | |
| Median | 17.00 | | 18.50 | | 16.50 | | 18.00 | |
| Thinks he/she is addicted on drug | | | | | | | | |
| I'm addicted | 91.5 | 1791 | 95(91.8-97.7) | 343/358 | 95.2(91.8-97.9) | 257/278 | 92.7(88.4-96.3) | 265/288 |
| I'm not / don't think I am addicted | 8.5 | 1791 | 5(2.3-8.2) | 15/358 | 4.8(2.1-8.2) | 21/278 | 7.3(3.7-11.6) | 23/288 |
| No Response | 0.1 | 1791 | 0 | | | | 0 | |
| Duration of drug addiction in years | | | | | | | | |
| Mean (minimum - maximum) | 12.84(0.5-42) | | 13.77 (1-40) | | 13.56(0.5-42) | | 13.72(0.5-42) | |
| Median | 11.00 | | 12.00 | | 10.00 | | 12.00 | |

## Table 14: Drug use risk behavior

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug use behavior | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Frequency of injecting drug use last month | | | | | | | | |
| Once a month | 14.1 | 1791 | 12.0 (7.7-16.4) | 41/358 | 13.1 (7.5-19.3) | 34/278 | 11.1 (6.8-15.8) | 30/288 |
| Several times a month | 38.2 | 1791 | 23.8 (17.9-29.6) | 69/358 | 39.7 (32.1-48.2) | 118/278 | 57.7 (50.9-64.9) | 157/288 |
| Once a week | 11.5 | 1791 | 13.2 (8.3-18.2) | 33/358 | 14.7 (9.2-20.6) | 38/278 | 9.6 (5.4-14.2) | 33/288 |
| Several times a week | 28.4 | 1791 | 33.8 (28.0-40.3) | 145/358 | 22.9 (16.4-29.5) | 69/278 | 19.7 (13.9-25.3) | 60/288 |
| Once a day | 2.9 | 1791 | 6.6 (4.0- 10.2) | 27/358 | 2.0 (0.1-4.4) | 6/278 | 1.4 (0-3.6) | 4/288 |
| Several times a day | 4.7 | 1791 | 10.6 (7.2- 14.6) | 43/358 | 7.6 (4.0-12.3) | 13/278 | 0.5 (0.1-1.1) | 4/288 |
| No Response | 0.1 | 1791 | -- | 0/358 | -- | 0/278 | -- | 0/358 |
| Member of regular injecting group | | | | | | | | |
| Yes | 60.6 | 1791 | 69.8 (63.6- 77.1) | 266/358 | 41.6 (33.6-50.3) | 133/278 | 50.1 (43.1-57) | 150/288 |
| Mean # of injecting group members | 4.13(1-30) | | 4.42 (1-15) | | 4.14 (1-15) | | 4.19 (2-30) | |
| Consumed drugs last month (drug groups) | | | | | | | | |
| CNS depressants | 74.8 | 1063 | 70.9 (64.5-80.5) | 186/259 | 88.6 (80.2-94.0) | 163/192 | 86.5 (79.3-94.9) | 143/173 |
| CNS stimulant | 1.8 | 1063 | 2.4 (0-5.8) | 3/259 | 3.0 (0.1-8.2) | 9/192 | --- | |
| Narcotic analgetics | 22.1 | 1063 | 45.5 (34.4-53.7) | 116/259 | 21.6 (9.7-33.0) | 36/192 | 17.7 (6-24.1) | 20/173 |
| Hallucinogens | 31.6 | 1063 | 21.4 (15.8- 31.4) | 71/259 | 16.8 (9.9-29.1) | 39/192 | 16.8 (8.2-25.5) | 54/173 |
| Antidepressants | 1.1 | 1063 | 0.8 (0-3.1) | 3/259 | 2.5 (0-6.2) | 3/192 | 0(--) | 1/173 |
| Mean # of drugs used | 1.88(1-6) | | 2.02 (1-6) | | 2.10 (1-6) | | 1.99 (1-5) | |
| Injected drugs last month (drug groups) | | | | | | | | |
| CNS depressants | 40.0 | 1791 | 19.2 (13.3-25.4) | 65/358 | 67.7 (59.6-75.7) | 173/278 | 44.2 (36.8-51.6) | 145/288 |
| CNS stimulant | 28.5 | 1791 | 60.7 (53.3-67.7) | 207/358 | 15.6 (9.6-22.2) | 47/278 | 19.5 (14.4-25.9) | 58/288 |
| Narcotic analgetics | 63.7 | 1791 | 56.0 (48.6-62.8) | 214/358 | 48.4 (39.6-56.8) | 161/278 | 65.1 (57.8-72.4) | 198/288 |
| Antidepressants | 7.3 | 1791 | 4.0 (2.0-6.3) | 17/358 | 12.1 (7.2-18.0) | 41/278 | 6 (3.2-9.1) | 35/288 |
| Combination | 1.5 | 1791 | 2.7 (1.3-4.5) | 15/358 | 0 | 0/278 | -- | |

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug use behavior | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Mean # of drugs injected | 1.55(1-6) | | 1.60 (1-5) | | 1.65 (1-6) | | 1.72 (1-6) | |
| Injected drugs last month (selected drugs) | | | | | | | | |
| Heroine | 35.9 | 1791 | 13.6 (8.3-19.4) | 48/358 | 61.7 (53.6-70.6) | 151/278 | 41.1 (33.7-48.3) | 132/288 |
| Buprenorphine (Subutex) | 13.4 | 1791 | 9.1 (5.5- 13.2) | 36/358 | 4.0 (0.1-4.9) | 4/278 | 6.7 (3.3-10.7) | 25/288 |
| Ephedrone (Vint) | 18.7 | 1791 | 55.7 (48.0-62.8) | 188/358 | 5.9 (2.4-9.8) | 15/278 | 13.8 (9.3-19.3) | 30/288 |
| Ephedrone (Jef) | 12.3 | 1791 | 9.5 (6.0-13.6) | 42/358 | 10.0 (5.3-15.1) | 34/278 | 9.2 (5.2-13.9) | 34/288 |
| Morphine | 7.2 | 1791 | 1.0 (0.3-1.8) | 7/358 | 0.9 (0.1-1.8) | 6/278 | 1.8 (0.2-4.3) | 7/288 |
| Dezomorphine | 36.0 | 1791 | 44.9 (37.1-51.9) | 173/358 | 40.4 (31.8-49.0) | 118/278 | 42 (34.2-49.8) | 127/288 |
| Ever shared used needle/syringe/other injecting equipment | | | | | | | | |
| Yes | 63.4 | 1791 | 56.5(50.3-62.8) | 195/358 | 73.1 (65.4-80.4) | 192/278 | 76.4 (69.8-82.2) | 208/288 |
| No | 34.4 | 1791 | 39.6 (33.4-46.2) | 150/358 | 24.7 (17.9-31.8) | 77/278 | 21.7 (15.9-28.4) | 74/288 |
| Don't know | 2.2 | 1791 | 3.8 (1.5-6.4) | 13/358 | 2.2 (0.4-4.6) | 9/278 | 1.9 (0.4-4) | 6/288 |
| Used sterile needle/syringe/ other injecting equipment at last injection | | | | | | | | |
| Yes | 83.5 | 1791 | 85.9(81.4-90.4) | 298/358 | 78.4 (71.8-85.1) | 219/278 | 87.8 (82.8-92.3) | 246/288 |
| No | 16.4 | 1791 | 14.0 (9.6-18.5) | 59/358 | 21.6 (14.9-28.2) | 59/278 | 12.2 (7.7-17.2) | 42/288 |
| Don't know | 0.2 | 1791 | 0.1 (0-0.3) | 1/358 | -- | -- | -- | -- |
| Used previously used by others needle/syringe/ other injecting equipment at last injection | | | | | | | | |
| Yes | 5.2 | 1791 | 0.8 (0-1.5) | 3/358 | 8.7 (4.7-13.1) | 25/278 | 7.5 (3.5-12.1) | 21/288 |
| No | 94.2 | 1791 | 98.0 (97.0-99.8) | 352/358 | 91.3 (86.9- 95.3) | 253/278 | 92.1 (87.4-96.3) | 266/288 |
| Don't know | 0.5 | 1791 | 1.2 (0-2.2) | 3/358 | -- | -- | 0.4 (0-1) | 1/288 |
| No Response | 0.1 | 1791 | -- | 0/358 | -- | 0/278 | -- | 0/288 |
| Used previously used by him/herself needle/syringe/ other injecting equipment at last injection | | | | | | | | |

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug use behavior | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Yes | 11.1 | 1791 | 12.6 (8.4-17.1) | 54/358 | 12.7 (7.5-18.2) | 34/278 | 5.5 (2.7-9) | 22/288 |
| No | 88.6 | 1791 | 87.2 (82.9-91.5) | 303/358 | 87.3 (81.8-92.5) | 244/278 | 94.5 (91-97.3) | 266/288 |
| Don't know | 0.2 | 1791 | 0.1 (0-0.3) | 1/358 | 0 | 0 | -- | -- |
| No Response | 0.1 | 1791 | -- | 0/358 | -- | 0/278 | -- | 0/288 |
| Used needle/syringe / other injecting equipment left at a place of gathering by somebody else at last injection | | | | | | | | |
| Yes | 2.2 | 1791 | 1.7 (0.3-3.4) | 7/358 | 0.4 (0-0.7) | 2/278 | 1 (0.1-1.6) | 5/288 |
| No | 93.9 | 1791 | 95.9 (93.5-98.2) | 342/358 | 91.8 (88.0-96.1) | 256/278 | 97.6 96.5-99.5) | 277/288 |
| Don't know | 0.2 | 1791 | 0.2 (0-0.4) | 1/358 | 7.8 (3.6-11.8) | 20/278 | -- | -- |
| No Response | 3.7 | 1791 | | | | | | |
| Used pre - filled syringe at last injection | | | | | | | | |
| Yes | 0.9 | 1791 | 0.3 (--) | 2/358 | 1.1 (0-3.2) | 2/278 | 3.7 (--) | 2/288 |
| No | 97.9 | 1791 | 96.2 (94.9-99.6) | 350/358 | 98.5 (96.2-99.9) | 273/278 | 94.4 (--) | 284/288 |
| Don't know | 1.2 | 1791 | 3.5 (0.3-5.1) | 6/358 | 0.4 (0-1.2) | 3/278 | 2 (0-2.1) | 2/288 |
| Used shared bottle, spoon, boiling pan/ glass/ container, cotton/filter or water at last injection | | | | | | | | |
| Yes | 8.5 | 1791 | 5.7 (3.0-8.8) | 25/358 | 11.4 (6.3-16.5) | 25/278 | 15.3 (9.7-22.4) | 33/288 |
| No | 85.5 | 1791 | 83.7 (78.5-88.4) | 303/358 | 82.2 (76.8-88.5) | 239/278 | 83 (75.8-88.9) | 248/288 |
| Don't know | 5.9 | 1791 | 10.6 (6.6-15.3) | 30/358 | 6.5 (2.5-10.5) | 14/278 | 1.7 (0.3-3.7) | 7/288 |
| Used solution from the shared container at last injection | | | | | | | | |
| Yes | 8.7 | 1791 | 14.6 (9.2-20.0) | 40/358 | 10.5 (6.1-15.5) | 26/278 | 4 (2-6.7) | 31/288 |
| No | 91.1 | 1791 | 84.6(79.3-90.2) | 317/358 | 89.5(84.5-93.9) | 252/278 | 95.1 (0.92.4-97.6) | 256/288 |
| Don't know | 0.3 | 1791 | 0.9 (0-1.8) | 1/358 | 0 | 0 | 0.9 (0-2) | 1/288 |
| Safe injecting practice at last injection | | | | | | | | |

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug use behavior | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| IDUs with safe injection practice at last injection *[38] | 67.0 | 1791 | 64.7 (58.7-70.6) | 235/358 | 62.2 (55.4-70.5) | 175/278 | 66.9 (59.2-74.4) | 184/288 |
| ≤ 24 | 64.2 | 179 | 64.3 (35.6-89.3) | 13 /22 | 52.3 (28.6-75.3) | 20/35 | 74 (54.2-90.3) | 22/33 |
| ≥ 25 | 67.3 | 1612 | 64.8 (58.7-70.9) | 222 /336 | 65.3 (57.5-73.9) | 155/243 | 63.6 (56.8-73.8) | 162/255 |
| IDUs with safe injection practice at last injection_2 (excludes self used syringe use)[39] | 74.6 | 1791 | 72.4 (66.3-78.3) | 270/358 | 70.6 (64-78.3) | 199/278 | 71.5 (64-78.8) | 200/288 |
| ≤ 24 | 66.5 | 179 | 64.8 (37.1-90.7) | 14/22 | 55 (34.6-79.6) | 21/35 | 74.7 (54.9-90.8) | 23/33 |
| ≥ 25 | 75.5 | 1612 | 73 (66.7-79) | 256/336 | 74.1 (66.6-81.8) | 178/243 | 68.8 (62.1-78.4) | 177/255 |
| Last month sterile injecting equipment use | | | | | | | | |
| Never used previously used injecting equipment by others or him/herself | 73.4 | 1791 | 74.5 (67.8-80.3) | 247/358 | 70.6 (63.1-78.0) | 188/278 | 83.6 (78.1-88.6) | 228/288 |
| Never used injecting equipment used by others | 88.9 | 1791 | 94.2 (92.9-97.6) | 336/358 | 84.0 (78.6-89.6) | 234/278 | 88.1 (84.1-94) | 255/288 |
| Never used injecting equipment used by him/herself | 76.8 | 1791 | 76.3 (70.5-82.3) | 252/358 | 76.9 (69.4-82.9) | 206/278 | 85.7 (83.7-92.1) | 239/288 |
| Last month injecting equipment shared with | | | | | | | | |
| Regular sexual partner | 0.4 | 474 | 10.6 (0-15.9) | 1/111 | 0 | 0/90 | -- | -- |
| Partner in sex whom you didn't know before | 0 | 474 | 0 | 0/111 | 0 | 0/90 | -- | -- |
| Drug - related friend | 23.0 | 474 | 6.3 (0-19.7) | 12/111 | 30.2 (14.1-52.6) | 22/90 | 100 | 26/60 |
| Drug trafficker | 0.2 | 474 | 0 | 1/111 | 0 | 0/90 | -- | |
| Stranger | 4.6 | 474 | 3.6 (0-14.8) | 2/111 | 16.7 (0-28.5) | 4/90 | 0 | 1/60 |

[38] not usage of needle/syringe previously used by somebody else or him/herself, not usage of needle/syringe left at a place of gathering, not usage of syringe prefilled by somebody else without his presence, not usage of syringe filled from previously used syringe, not usage of possibly contaminated shared equipment (container, cotton, filter, water), not usage of drug solution from shared container prepared without his presence.

[39] not usage of needle/syringe previously used by somebody else, not usage of needle/syringe left at a place of gathering, not usage of syringe prefilled by somebody else without his presence, not usage of shared equipment, not usage of drug solution from shared container prepared without his presence.

| Drug use behavior | GEORGIA % | N | TBILISI RDS population estimates, % (95% CI) | n/N | BATUMI RDS population estimates, % (95% CI) | n/N | ZUGDIDI RDS population estimates, % (95% CI) | n/N |
|---|---|---|---|---|---|---|---|---|
| Friend | 12.4 | 474 | 9.2 (0-26.0) | 6/111 | 17.4 (3.3-39.4) | 14/90 | 13.3 (0-39.7) | 5/60 |
| Number of injecting partners last month | | | | | | | | |
| Mean # of needle sharing partners among all *40 | 0.23 (0-25) | 1743 | 0.09 (0-5) | 353 | 0.31 (0-8) | 269 | 0.25 (0-10) | 286 |
| Mean # of needle sharing partners among those who shared last month | 2.63 (1-25) | 153 | 1.82 (1-5) | 17 | 2.40 (1-8) | 35 | 2.29(1-10) | 31 |
| Cleaning the needle/syringe before usage | | | | | | | | |
| Always | 71.0 | 476 | 68.2 (61.6-86.8) | 85/111 | 76.1 (56.4-84.7) | 55/90 | 74.7 (--) | 48/60 |
| Almost always | 1.7 | 476 | 0.4 (--) | 3/111 | 0 (0-0) | 1/90 | | |
| Sometimes | 2.3 | 476 | 0.2 (--) | 1/111 | 0 (--) | 3/90 | 2.7 (0-8.4) | 1/60 |
| Once | 0.6 | 476 | 0.3 (--) | 1/111 | -- | | | |
| Never | 6.7 | 476 | 1.0 (0-2.6) | 2/111 | 10.4 (0.6-28.2) | 10/90 | 1.5 (--) | 2/60 |
| Don't know | 0.4 | 476 | 1.3 (0-3.3) | 1/111 | 0 | | | |
| No Response | 17.2 | 476 | 28.6 (11.1-36.9) | 18/111 | 13.5 (6-28.9) | 21/90 | 7.2 (--) | 9/60 |
| Methods used to clean the used needle/syringe | | | | | | | | |
| Water (boiled and non - boiled) | 95.3 | 360 | 94.9 (92.2-100) | 82/90 | 74.9 (44.8-83.7) | 57/90 | 100 | 49/49 |
| Disinfecting solution and chlorine | 0 | 360 | 0 | | -- | -- | 0 | |
| Boiling the needles/syringes | 0 | 360 | 0 | | -- | -- | 0 | |
| Other | 8.1 | 360 | 4.4 (0-7.4) | 9/90 | 0(--) | 5/90 | 0 | 1/49 |
| Frequency of giving the used needle/ syringe to others last month | | | | | | | | |
| Always | 0.1 | 1791 | 0 | 0 | 0 | -- | -- | |
| Almost always | 0.3 | 1791 | 1.8 (0-3.7) | 2/358 | 0 | -- | -- | |
| Sometimes | 5.5 | 1791 | 2.6 (1.5-4.6) | 18/358 | 7.5 (4.2-11.4) | 26/278 | 6(1.7-7.6) | 15/288 |
| Once | 4.2 | 1791 | 3.4 (1.3-5.6) | 13/358 | 2.5 (0.8-5.0) | 11/278 | 2.7 (0.6-5.8) | 6/288 |

[40] Don't know and no response regarded as missing cases and not included in the analysis.

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug use behavior | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Never | 89.1 | 1791 | 91.0 (87.7-94.6) | 320/358 | 89.8 (85.5-93.7) | 240/278 | 90.7 (87.7-96) | 266/288 |
| Don't know | 0.8 | 1791 | 1.2 (0.1-2.7) | 5/358 | 0.1 (0-0.4) | 1/278 | 0.6 (0-2.1) | 1/288 |
| Getting of new and unused needle/syringe when needed | | | | | | | | |
| Yes | 97.2 | 1791 | 98.7 (98.1-100) | 356/358 | 90.9 (86.2-95.3) | 261/278 | 97.9 (95.3-99.8) | 284/288 |
| Place of getting/buying new (unused) needle/syringe | | | | | | | | |
| Drug store | 98.3 | 1741 | 98.8 (97.0-100) | 354/356 | 99.7 (99.5-100) | 260/261 | 99.3 (97.8-100) | 280/284 |
| Shop | 0.2 | 1741 | 0 | | 0.6 (0-1.7) | 1/261 | -- | |
| Hospital | 0.1 | 1741 | 0 | | 0 | | -- | |
| Family/Relatives | 3.4 | 1741 | 0.6 (0.1-1.1) | 5/356 | 1.3 (0.5-2.4) | 12/261 | 5.5 (2.8-8.9) | 23/284 |
| Sex partner | 0.2 | 1741 | 3.0 (0-3.9) | 3/356 | 0 | | -- | |
| Friends | 4.4 | 1741 | 3.1 (1.4-5.1) | 16/356 | 3.4 (1.5-6.3) | 22/261 | 4.5 (2.3-6.9) | 31/284 |
| Other injection drug user | 15.0 | 1741 | 16.3 (12.0-21.0) | 65/356 | 8.8 (5.1-12.7) | 47/261 | 9.8 (6.3-13.8) | 62/284 |
| Drug trafficker | 0.6 | 1741 | 0 (--) | 1/356 | 0.1 (0-0.2) | 2/261 | 0.2 (0-0.6) | 1/284 |
| Syringe exchange program | 12.3 | 1741 | 1.6 (0.5-3.2) | 12/356 | 5.1 (2.0-10.6) | 18/261 | 10.3 (6.3-14.8) | 42/284 |
| Injected in other locations in last 12 months | | | | | | | | |
| Other cities in Georgia | 45.2 | 1791 | 23.6 (17.7-29.5) | 86/358 | 40.3 (33.5-48.3) | 94/278 | 59.7 (52-67.3) | 173/288 |
| Countries of FSU | 9.0 | 1791 | 6.1 (3.2-9.3) | 21/358 | 9.5 (5.2-13.7) | 24/278 | 20.5 (14.3-27) | 58/288 |
| Other than Georgia and FSU countries | 27.6 | 1791 | 10.6 (6.1-15.7) | 28/358 | 51.9 (42.9-61.4) | 125/278 | 28.5 (22-35.6) | 94/288 |
| Used shared injecting equipment in other locations | | | | | | | | |
| Yes | 15.9 | 1145 | 17.5 (5.8-39.7) | 10/119 | 14.6 (6.1-26.9) | 32/173 | 16.5(10.7-26) | 42/235 |
| No | 79.5 | 1145 | 78.9 (57.8-90.8) | 102/119 | 75.7 (64.1-85.5) | 119/173 | 81.5 (73.2- 88.6) | 184/235 |
| Don't remember | 0.6 | 1145 | 2.2 (0-3.4) | 4/119 | 3.9 (0-6.9) | 4/173 | 0.1 (0-0.2) | 1/235 |
| No response | 3.7 | 1145 | | 3/119 | 5.7 (1.5-12.6) | 18/173 | - | 8/235 |
| Used shared injecting equipment abroad | | | | | | | | |
| Yes | 21.1 | 611 | 0 (--) | 8/46 | 18.2 (7.9-36.8) | 29/131 | 19.3 (9.8-36.4) | 30/139 |

| Drug use behavior | GEORGIA % | N | TBILISI RDS population estimates, % (95% CI) | n/N | BATUMI RDS population estimates, % (95% CI) | n/N | ZUGDIDI RDS population estimates, % (95% CI) | n/N |
|---|---|---|---|---|---|---|---|---|
| Overdoses experience last year | | | | | | | | |
| Yes | 13.6 | 1791 | 9.6 (6.2-13.5) | 37/358 | 13.7(8.8-19.3) | 36/278 | 16.5 (11.4-22) | 52/288 |
| Usual place of gathering to take drugs | | | | | | | | |
| (flat) | 81.6 | 1791 | 91 (87.4-94.5) | 332/358 | 82.9 (76.4-88.1) | 220/278 | 62.3 (55.9-68.7) | 198/288 |
| Method of throwing away used needle | | | | | | | | |
| (garbage bin) | 44.9 | 1791 | 42.7 (37-49.5) | 148/358 | 38.0 (32.0-48.5) | 120/278 | 52.1 (46.3-61.4) | 140/288 |

## Table 15: Sexual behavior

| Sexual history | GEORGIA % | N | TBILISI RDS population estimates, % (95% CI) | n/N | BATUMI RDS population estimates, % (95% CI) | n/N | ZUGDIDI RDS population estimates, % (95% CI) | n/N |
|---|---|---|---|---|---|---|---|---|
| Sexual behavior | | | | | | | | |
| Median age at first sexual contact | 16.00 | 1789 | 15.00 | | 15.00 | | 16.00 | |
| Had sex in the last 12 months | 92.2 | 1791 | 90.3 (85.6-94.5) | 333/358 | 89.1 (83.7-94.3) | 257/278 | 88.4 (82.5-93.7) | 262/288 |
| Condom use at last intercourse | | | | | | | | |
| Used condom at last intercourse* | 34.5 | 1651 | 35.1 (28.8-42.3) | 117/333 | 28.3 (20.6-36.3) | 89/257 | 38.6 (30.3-46.3) | 105/262 |
| ≤ 24 | 50.3 | 175 | 60.3 (40.7-84.8) | 10/22 | 33.9 (17.5-57.9) | 13/35 | 52.8 (29.5- 73.4) | 20/33 |
| ≥ 25 | 32.6 | 1476 | 34.0 (28.0-41.5) | 107/311 | 28.1 (18.6-36.1) | 76/222 | 38.1 (28.8-46.7) | 85/229 |
| Regular sex partner last 12 months | | | | | | | | |
| Had regular sex partner | 76.0 | 1790 | 81.7 (76.2-87.2) | 295/358 | 68.8 (61.8-76.4) | 188/278 | 70.5 (63.5- 77.2) | 205/287 |
| Mean (Minimum-Maximum) | 1.33 (1-10) | 1360 | 1.29 (1-4) | | 1.31 (1-8) | | 1.33 (1-4) | |
| Median | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Used condom at last intercourse* | 21.8 | 1360 | 25.5 (19.6-33.5) | 74/295 | 13.2 (7.2-21.2) | 30/188 | 23 (14.1- 32.6) | 42/205 |
| ≤ 24 | 31.6 | 133 | 30.7 (25.5-68.5) | 6/20 | 15.2 (0-45.8) | 4/25 | 20.6(0.1-50.5) | 6/23 |
| ≥ 25 | 20.7 | 1227 | 24.9 (19.2-34.0) | 68/275 | 13.1 (6.0-20.0) | 26/163 | 20(11.6- 33.4) | 36/182 |
| Occasional sex partner (s) last 12 months | | | | | | | | |

| Sexual history | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Had occasional sex partner last year | 52.8 | 1789 | 43.7 (36.6-51.3) | 169/358 | 41.7 (34.0-50.7) | 146/278 | 49.9 (42.6-57.5) | 164/287 |
| Mean (Minimum-Maximum) | 4.78 (1-30) | 929 | 3.96 (1-30) | | 5.34 (1-30) | | 5.62 (1-30) | |
| Median | 3.00 | | 2.00 | | 3.00 | | 4.00 | |
| Used condom at last intercourse* | 54.8 | 945 | 63.1 (50.2-75.5) | 111/169 | 40.1 (31.5-58.0) | 68/146 | 68.3 (51.7-80) | 107/164 |
| ≤ 24 | 62.8 | 137 | 74.4 (79.5-100) | 15/19 | 38.6 (25.4-81.0) | 15/27 | 51.8 (32.5-96.8) | 19/27 |
| ≥ 25 | 53.5 | 808 | 60.3 (46.7-73.7) | 96/150 | 43.3 (29.7-61.4) | 53/119 | 69(49.3-82.8) | 88/137 |
| Paid sex partner(s) last 12 months | | | | | | | | |
| Had paid sex partner last year | 29.7 | 1790 | 19.8 (14.3-25.8) | 72/358 | 30.0 (23.4-37.4) | 111/278 | 22.4 (16.2-27.4) | 90/287 |
| Mean (Minimum-Maximum) | 6.14(1-50) | 526 | 4.22 (1-30) | | 7.93 (1-30) | | 8.32 (1-50) | |
| Median | 3.00 | | 2.00 | | 5.00 | | 4.00 | |
| Used condom at last intercourse* | 81.7 | 531 | 94.0 (63.0-100) | 66/72 | 59.8 (--) | 83/111 | 77.1 (41.3-98.5) | 77/90 |
| ≤ 24 | 90.3 | 72 | 79.0 (87.6-100) | 9/10 | 85.4 (4.8-100) | 15/17 | 49.4 (0-100) | 12/13 |
| ≥ 25 | 80.4 | 459 | 77.4 (65.0-100) | 57/62 | 55.1(55.1-83.1) | 68/94 | 71.6 (72.6-99.8) | 65/77 |
| Married IDUs paid/occasional sex partners last 12 months | | | | | | | | |
| Had occasional sex partners last year | 43.5 | 791 | 34.3 (19.0-50.0) | 58/156 | 48.5 (29.1-76.4) | 47/115 | 40.6 (23-49.7) | 67/124 |
| Had paid sex partners last year | 21.9 | 791 | 13.5 (3.8-35.3) | 17/156 | 20.9 (8.7-30.8) | 31/115 | 23.6 (9.4-37.9) | 33/124 |
| Man had male sex partner | | | | | | | | |
| Ever had male sex partner | 2.5 | 1769 | 1.8 (0.2-6.2) | 4/352 | 0.6 (0-1.8) | 1/278 | 2.2 (0.3-4.6) | 5/286 |
| Had male sex partner last year | 0.1 | 1769 | 0.1 (0-0.2) | 1/352 | -- | -- | 0 | |
| Had paid male sex partner last year | | | | | | | 0 | |
| Reasons for not using condom at last intercourse with occasional partner | | | | | | | | |
| Don't like it | 29.9 | 421 | -- | -- | 12.7 (0-25.9) | 31/78 | -- | -- |
| Didn't think necessary | 48.2 | 421 | 66.4 (26.1-100) | 33/58 | 0 | 0 | 37 (0-100) | 29/55 |
| Frequency of using condom with regular partner last year | | | | | | | | |
| Always | 9.8 | 1360 | 12.1 (7.5-19.0) | 33/295 | 3.6 (1.1-6.5) | 13/188 | 13.2 (5.9-22.2) | 24/205 |
| Never | 67.1 | 1360 | 58.1 (49.6-66.0) | 174/295 | 80.6 (74.0-88.9) | 141/188 | 68.6 (59.6-77.8) | 148/205 |
| Frequency of using condom with occasional partner last year | | | | | | | | |

| Sexual history | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Always | 35.5 | 944 | 39.0 (26.9-55.1) | 73/169 | 28.0 (20.0-48.1) | 48/146 | 36 (19.7-49.5) | 59/164 |
| Never | 21.1 | 944 | 26.7 (13.1-44.8) | 26/169 | 20.8 (9.5-30.4) | 36/146 | 7.6 (1.7-15.9) | 19/164 |
| Frequency of using condom with paid for sex partner last year | | | | /102 | | | | |
| Always | 66.3 | 531 | 82.4 (59.1-100) | 61/72 | 46.5 (34.5-72.8) | 60/111 | 0 | 54/90 |
| Never | 8.1 | 531 | 0.8 (0-2.3) | 1/72 | 17.0 (2.9-18.9) | 12/111 | 0 | 5/90 |
| Anal sex practice last 12 months | | | | | | | | |
| Anal sex intercourse with any sexual partner last 12 months | 5.9 | 1790 | 4.3 (2.2–7.3) | 21/358 | 2.0 (0.4-4.2) | 10/278 | 4.7(1.9-8.1) | 14/287 |
| Condom use during anal sex intercourse | 37.7 | 106 | 65.7 (--) | 7/21 | ?? | ?? | 81.4(--) | 8/14 |
| Sex partner is IDU | | | | | | | | |
| Regular sex partner is an injecting drug user | 3.0 | 1360 | 4.6 (1.6–8.9) | 13/295 | 1.3 (0-3.9) | 4/188 | 0.2(--) | 3/205 |
| Occasional sex partner is an injecting drug user | 7.6 | 945 | 9.6 (1.6–15.3) | 18/165 | 8.0 (1.9-23.7) | 12/146 | 6.3(0.8-9.9) | 8/164 |
| Paid sex partner is an injecting drug user | 3.4 | 531 | 0 | 3/72 | 4.4 (0-18.1) | 6/111 | 2.2(0-14.9) | 4/90 |

### Table 16: Knowledge of HIV/AIDS and risk assessment

| Knowledge of HIV/AIDS | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| HIV/AIDS awareness | | | | | | | | |
| Yes | 99.7 | 1791 | 100 | 358/358 | 99.1 (97.1-100) | 277/278 | 100 | 288/288 |
| Knowledge of HIV infected, ill or died of AIDS | 48.9 | 1785 | 48.1 (41.9- 55.1) | 168/358 | 54.6 (45.8-53.5) | 174/277 | 55.3 (47.3-63) | 171/288 |
| One may reduce HIV risk by having one uninfected and reliable partner (yes) | 98.3 | 1791 | 99.7 (99.1-100) | 357/358 | 98.4 (97.1-99.6) | 270/278 | 98.7 (96.6-100) | 285/288 |
| One can reduce HIV risk if one properly uses condoms during every | 98.3 | 1791 | 99.3 (98.3- 99.9) | 354/358 | 97.1 (94.2-99.3) | 271/278 | 98 (95.6-100) | 284/288 |

| Knowledge of HIV/AIDS | GEORGIA % | N | TBILISI RDS population estimates, % (95% CI) | n/N | BATUMI RDS population estimates, % (95% CI) | n/N | ZUGDIDI RDS population estimates, % (95% CI) | n/N |
|---|---|---|---|---|---|---|---|---|
| sexual contact(yes) | | | | | | | | |
| healthy - looking person can have HIV (yes) | 92.5 | 1791 | 93.3 (89.9- 96.1) | 335/358 | 84.1 (78.1-89.6) | 240/278 | 96.5 (94-98.9) | 278/288 |
| One can get HIV as a result of a mosquito bite (no) | 48.7 | 1791 | 44 (37.9- 50.4) | 163/358 | 58.9 (51.4-65.7) | 153/278 | 57.1 (50-64.7) | 152/288 |
| One can get HIV by sharing meal with someone who is infected (no) | 80.9 | 1791 | 87.7 (83.9- 91.3) | 305/358 | 79.6 (73.3-85.2) | 207/278 | 83.4 (78.3-88.8) | 234/288 |
| One may be infected with HIV by using a needle/syringe already used by someone else (yes) | 99.2 | 1791 | 99.5 (98.6- 100) | 356/358 | 99.2 (97.8-100) | 276/278 | 98.3 (96.6-100) | 285/288 |
| One may be infected with HIV by using shared bottle, spoon, boiling pan/ glass/ container, cotton/filter or water (yes) | 97.4 | 1791 | 97.1 (95- 98.8) | 345/358 | 99 (97.9-100) | 275/278 | 98.7 (96.7-100) | 286/288 |
| One may be infected with HIV by using solution from the shared container which was prepared without his/her presence (yes) | 97.9 | 1791 | 96.5 (94.9- 99.1) | 350/358 | 97.6 (94.9-99.8) | 273/278 | 98.3 (96.1-100) | 285/288 |
| Drug users may protect themselves by switching to non - injection drugs (yes) | 97.4 | 1791 | 95.2 (--) | 343/358 | 99.3 (98.5-99.9) | 273/278 | 97.5 (94.9-99.4) | 281/288 |
| HIV/AIDS infected woman can transfer the virus to her fetus or baby (yes) | 68.6 | 1791 | 60 (53.3- 66.7) | 233/358 | 66.9 (59.7-74.2) | 190/278 | 52.1 (44-60.4) | 184/288 |
| IDUs correctly identifying ways of preventing and transmission of HIV infection (Answers correctly on 5 questions GARPR indictor)*41 | 42.6 | 1791 | 42.1 (35.9–48.5) | 151/358 | 46.8 (39.1-54.3) | 113/278 | 55.8 (48.8-63) | 145/288 |
| ≤ 24 | 26.8 | 179 | 31.2 (3.1–53.9) | 6/22 | 51.2 (22.4-68.9) | 12/35 | 32.6(10.8-52.1) | 7/33 |
| ≥ 25 | 44.4 | 1612 | 42.7 (36.4–49.3) | 145 /336 | 47.3 (38.7-55.2) | 101/243 | 58.3(50.3-65.6) | 138/255 |
| IDUs correctly identifying ways of preventing and transmission of HIV | 86.8 | 1791 | 88.6 (84.9–92.1) | 311/358 | 79.2 (72.7-85.4) | 221/278 | 95.9 (92.9-98.3) | 272/288 |

[41] One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; no one can get HIV as a result of a mosquito's bite; no one can get HIV by taking food or drink with infected person .

| Knowledge of HIV/AIDS | GEORGIA % | N | TBILISI RDS population estimates, % (95% CI) | n/N | BATUMI RDS population estimates, % (95% CI) | n/N | ZUGDIDI RDS population estimates, % (95% CI) | n/N |
|---|---|---|---|---|---|---|---|---|
| infection (Answers correctly on 7 questions National indictor)*[42] | | | | | | | | |
| ≤ 24 | 82.7 | 179 | 95.7 (91.2–99.4) | 18/22 | 69.4 (47.7-90.9) | 25/35 | 84.6 (65.5-98.6) | 27/33 |
| ≥ 25 | 87.2 | 1612 | 88.2 (84.1–91.8) | 293/336 | 80.2 (73.1-86.0) | 196/243 | 97.4 (94.2-99.3) | 245/255 |
| Knows possibility of confidential HIV testing in his/her city | | | | | | | | |
| Yes | 81.5 | 1791 | 94 (90.7- 96.9) | 341/358 | 78 (72.2-83.6) | 195/278 | 82.6 (77.2-87.7) | 222/288 |
| No | 18.5 | 1791 | 6 (3.1- 9.3) | 17/358 | 22 (16.4-27.8) | 83/278 | 17.4 (12.3-22.8) | 66/288 |
| No response | 0.1 | 1791 | -- | 0/358 | -- | 0/278 | -- | 0/288 |
| Knows where HIV testing can be done | | | | | | | | |
| Yes | 69.5 | 1791 | 76.6 (71.4–82.3) | 260/358 | 70.1 (63.0-76.8) | 167/278 | 82.9(76.3-88.2) | 211/288 |
| No | 30.4 | 1791 | 23.4 (17.7- 28.6) | 98/358 | 29.9 (23.2-37.0) | 111/278 | 17.1(11.8-23.7) | 77/288 |
| No response | 0.1 | 1791 | -- | 0/358 | -- | 0/278 | -- | 0/288 |
| Voluntary HIV testing | | | | | | | | |
| During the last year | 15.2 | 1791 | 12.8 (8.5-17.1) | 62/358 | 13.1 (8.7-20.4) | 41/278 | 10.5(6-15.5) | 40/288 |
| From one to two years period | 6.9 | 1791 | 5.6 (3.2-9.6) | 23/358 | 6.4 (2.1-10.8) | 15/278 | 10.6(6.5-15) | 25/288 |
| Two years ago | 22.7 | 1791 | 26.1 (20.8-33.6) | 86/358 | 24.1 (17.2-32.2) | 66/278 | 20.9(15.1-27.4) | 61/288 |
| Never been tested | 54.8 | 1791 | 55.6 (47.3-61.2) | 187/358 | 55.8 (46.0-63.8) | 154/278 | 57.8(50.9-64.9) | 159/288 |
| HIV testing during the last year | | | | | | | | |
| Received HIV test last year and know their results * | 14.7 | 1791 | 12.5(8.5-17.0) | 60/358 | 13.3 (8.3-20.1) | 41/278 | 10.2(5.9-14.9) | 38/288 |
| ≤ 24 | 6.7 | 179 | 4.6 (0-14.5) | 3/22 | 0.9 (0-3.3) | 1/35 | 1.8(0.1-4.4) | 4/33 |
| ≥ 25 | 15.6 | 1612 | 13.2 (8.8-17.8) | 57/336 | 14.6 (9.1-22.2) | 40/243 | 11.1(6-16) | 34/255 |
| Informing on HIV positive status | | | | | | | | |

[42] One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; one may be infected with HIV/AIDS by using a needle already used by someone else; one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water where might been touched needle already used by someone else; one may be infected with HIV/AIDS by taking solution from the shared container; drug users may protect themselves from HIV/AIDS by switching to non-injection drugs.

| Knowledge of HIV/AIDS | GEORGIA % | GEORGIA N | TBILISI RDS population estimates, % (95% CI) | TBILISI n/N | BATUMI RDS population estimates, % (95% CI) | BATUMI n/N | ZUGDIDI RDS population estimates, % (95% CI) | ZUGDIDI n/N |
|---|---|---|---|---|---|---|---|---|
| Informing sex partner on HIV positive status | 93.6 | 1791 | 93.1 (--) | 337/358 | 91.7 (87.1-96.0) | 255/278 | 94.8(91.7-97.8) | 273/288 |
| Informing IDU partner on HIV positive status | 95.9 | 1791 | 88.3(--) | 335/358 | 98.9 (97.4-99.9) | 270/278 | 97.1(94.9-99.4) | 281/288 |

### Table 17: Drug treatment and social influence

| Drug treatment and HIV/AID prevention | GEORGIA % | GEORGIA N | TBILISI RDS population estimates, % (95% CI) | TBILISI n/N | BATUMI RDS population estimates, % (95% CI) | BATUMI n/N | ZUGDIDI RDS population estimates, % (95% CI) | ZUGDIDI n/N |
|---|---|---|---|---|---|---|---|---|
| Drug treatment | | | | | | | | |
| Currently under medical treatment | 1.7 | 1791 | 0.1 (0-0.3) | 1/358 | 2.7 (0.4-6) | 8/278 | 2.6 (0.1-6.2) | 10/288 |
| Used to take a medical treatment during last 12 months, but now isn't treating | 3.6 | 1791 | 3.6 (1.3-6.6) | 14/358 | 6.5 (2.9-11.1) | 15/278 | 3.2 (0.7-6.4) | 8/288 |
| Never been treated | 72.9 | 1791 | 63.4 (57-69.4) | 234/358 | 72.7 (64.5-82.3) | 184/278 | 77.7 (71.1-83.7) | 209/288 |
| Kind of medical treatment and assistance taken last 12 months* | | | | | | | | |
| Apply to a medical facility to get a special treatment because he/she is a drug user during last 12 months * | 5.3 | 1791 | 3.7 (1.4-6.5) | 15/358 | 9.2 (5.0-14.8) | 23/278 | 5.8(2.2-10.1) | 18/288 |
| ≤ 24 | 2.8 | 179 | 11.0 (0-29.3) | 2/22 | 7.4 (0-24.6) | 2/35 | 0 | 0/33 |
| ≥ 25 | 5.6 | 1612 | 3.3 (1.3-5.8) | 13/336 | 9.8 (5.1-15.1) | 21/243 | 6.6(2.5-11.5) | 18/255 |
| Consultations at a health centers | 0 | 95 | 0 | 0/15 | 0 | 0/23 | 0 | 0/18 |
| Self - treatment groups | 0 | 95 | 0 | 0/15 | 0 | 0/23 | 0 | 0/18 |
| Detoxification with Methadone | 2.1 | 95 | 0 | 1/15 | 0 | 1/23 | 0 | 0/18 |
| Substitution with Methadone | 44.2 | 95 | 0 | 0/15 | 0 | 11/23 | 66.2 (33.3-100) | 12/18 |
| Detoxification with other drugs | 5.3 | 95 | 0 | 1/15 | 0 | 1/23 | 43.6 (0-66.7) | 1/18 |
| Detoxification without drugs | 46.3 | 95 | 100 | 12/15 | 100 | 11/23 | 0 | 5/18 |
| Psycho - social rehabilitation center | 6.3 | 95 | 0 | 2/15 | 0 | 1/23 | 0 | 1/18 |
| Other | 14.7 | 95 | 0 | 2/15 | 0 | 4/23 | 0 | 0/18 |
| Survived "extreme need" with somebody else's help last 12 months | 5.3 | 1791 | 3.7 (1.4-6.5) | 15/358 | 9.2 (5.0-14.7) | 23/278 | 5.8(2.2-10.3) | 18/288 |

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug treatment and HIV/AID prevention | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| * | | | | | | | | |
| ≤ 24 | 2.8 | 179 | 11.0 (0-29.6) | 2/22 | 7.4 (0-24.4) | 2/35 | 0 | 0/33 |
| ≥ 25 | 5.6 | 1612 | 3.3 (1.3-5.8) | 13/336 | 9.8 (5.1-15.1) | 21/243 | 6.6(2.4-11.4) | 18/255 |
| Survived "extreme need" without anybody's help last 12 months | 40.6 | 1791 | 42.3 (35.7-49.1) | 177/358 | 32.2 (24.6-38.4) | 110/278 | 24.3 (18.3-30.3) | 102/288 |
| IDUs reached with prevention programs | | | | | | | | |
| Aware about HIV testing possibilities and received sterile injecting equipment and condom last 12 months * | 10.2 | 1791 | 3.1(1.2-5.5) | 14/358 | 2.3 (0.2-5.7) | 7/278 | 9.5(5-14.3) | 26/288 |
| ≤ 24 | 4.5 | 179 | 0 | 0/22 | 1.8 (0-5.7) | 1/35 | 8.8 (0-20.5) | 2/33 |
| ≥ 25 | 10.9 | 1612 | 3.2 (1.2-5.8) | 14/336 | 2.5 (0.1-6.1) | 6/243 | 9.5 (4.9-14.9) | 24/255 |
| Aware about HIV testing possibilities and received sterile injecting equipment or condom or brochures/pamphlets/booklet or qualified educational information last 12 months* | 24.0 | 1791 | 23.6 (18.8-29.7) | 81/358 | 15.5 (9.5-21.9) | 45/278 | 22.3 (16.2-29.3) | 59/288 |
| ≤ 24 | 13.4 | 179 | 16.3 (0-39.0) | 4/22 | 2.8 (0-7.4) | 3/35 | 27(8-46.2) | 5/33 |
| ≥ 25 | 25.2 | 1612 | 24.0 (19.0-30.3) | 77/336 | 17.0 (11.3-25.1) | 42/243 | 21.8 (15.5-29.3) | 54/255 |
| Aware about HIV testing possibilities and received sterile injecting equipment and condom and brochures/pamphlets/ booklet and qualified educational information last 12 months* | 8.8 | 1791 | 2.7 (0.9-5) | 11/358 | 2.1 (0.1-5.4) | 5/278 | 6.6(2.9-10.6) | 20/288 |
| ≤ 24 | 3.4 | 179 | 0 | 0/22 | 0 | 0/35 | 5.3 (0-19.3) | 1/33 |
| ≥ 25 | 9.4 | 1612 | 2.9(1-5.3) | 11/336 | 2.2 (0.1-5.9) | 5/243 | 6.3 (2.6-10.9) | 19/255 |
| Received sterile injecting equipment last 12 months* | 16.0 | 1791 | 3.5(1.5-6.1) | 19/358 | 7.3 (3.1-11.9) | 23/278 | 15.5 (9.8-21.4) | 47/288 |
| ≤ 24 | 5.6 | 179 | 0 | 0/22 | 1.8 (0-5.6) | 1/35 | 13.9 (0-29.2) | 3/33 |
| ≥ 25 | 17.2 | 1612 | 3.7 (1.7-6.4) | 19/336 | 7.9 (3.0-12.8) | 22/243 | 16 (9.7-22.2) | 44/255 |
| Received condoms last 12 months* | 15.0 | | 13.2 (8.6-17.5) | 44/358 | 5.2 (1.8-9.4) | 17/278 | 11.2 (6.7-16.2) | 36/288 |

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|
| Drug treatment and HIV/AID prevention | % | N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| ≤ 24 | 9.5 | 179 | 17.2 (0-34.8) | 2/22 | 2.1 (0-6.3) | 2/35 | 16.5 (2-31) | 3/33 |
| ≥ 25 | 15.6 | 1612 | 13.0 (8.5-17.8) | 42/336 | 5.6 (1.7-10.2) | 15/243 | 11.6 (6.5-16.8) | 33/255 |
| Received brochures/pamphlets/ booklet on HIV/AIDS last 12 months* | 23.8 | 1791 | 23.6 (18.7-29.3) | 80/358 | 13.7 (8.5-20.1) | 42/278 | 15.5 (10.5-20.9) | 51/288 |
| ≤ 24 | 14.5 | 179 | 16.2 (0-38.8) | 4/22 | 2.9 (0-7.5) | 3/35 | 14 (0-29.9) | 2/33 |
| ≥ 25 | 24.8 | 1612 | 24.0 (19.0-30.0) | 76/336 | 14.9 (10.2-23.0) | 39/243 | 16.5 (10.6-22.1) | 49/255 |
| Received qualified information on HIV/AIDS last 12 months | 17.1 | 1791 | 17.2(12.1-22.3) | 49/358 | 11.2 (6.2-17.0) | 26/278 | 14.5 (9.6-19.9) | 42/288 |
| ≤ 24 | 7.8 | 179 | 1.2 (0-0) | 1/22 | 0 | 0/35 | 19.3 (4.6-38.6) | 3/33 |
| ≥ 25 | 18.2 | 1612 | 18.0 (12.8-23.4) | 48/336 | 12.3 (6.7-18.4) | 26/243 | 14.3 (8.5-19.7) | 216/255 |
| Heard information about syringe exchange program | 37.7 | 1791 | 22.7 (17-28.9) | 81/358 | 37.7 (30.3-45.5) | 122/278 | 30.8 (23.9-38.3) | 108/288 |
| Received sterile syringes from the program during the last 12 months | 38.5 | 675 | 16.9 (2.2-20.9) | 18/81 | 9.8 (0.1-19.2) | 19/122 | 49.5 (30.1-71.4) | 47/108 |
| Heard about substitution therapy program | 96.9 | 1791 | 99.0 (98.0-99.7) | 352/358 | 99.3 (98.4-99.9) | 273/278 | 99 (97.5-100) | 285/288 |
| Two persons with major influence on continuing drug use | | | | | | | | |
| No one | 84.1 | 1791 | 79.7(74.8-85) | 281/358 | 87 (81.3-92) | 240/278 | 96.2 (93.3-98.6) | 275/288 |
| Needle partner | 13.7 | 1791 | 17.5(12.8-22.3) | 67/358 | 9.1 (5.3-13.3) | 31/278 | 3.8 1.4-6.7) | 13/288 |
| Two persons with major influence on quitting drug use | | | | | | | | |
| Parents | 20.0 | 1791 | 22.6(17.1-28.1) | 89/358 | -- | -- | -- | -- |
| No one | 32.3 | 1791 | -- | -- | 44.9 (37.5-53.2) | 115/278 | 49.5 (43-56.5) | 136/288 |
| Friend | 20.4 | 1791 | 18.1(14.1-22.2) | 90/358 | 10.5 (6.4-16.1) | 41/278 | 8.1 (4.4-11.7) | 37/288 |

### Table 18: Prevalence of HIV

| | GEORGIA | | TBILISI | | BATUMI | | ZUGDIDI | |
|---|---|---|---|---|---|---|---|---|

| Biomarker | GEORGIA % | GEORGIA N | TBILISI RDS population estimates, % (95% CI) | TBILISI n/N | BATUMI RDS population estimates, % (95% CI) | BATUMI n/N | ZUGDIDI RDS population estimates, % (95% CI) | ZUGDIDI n/N |
|---|---|---|---|---|---|---|---|---|
| HIV infection | | | | | | | | |
| HIV prevalence * | 3.0 | 1744 | 1.9 (0.5-3.8) | 7/358 | 5.6 (1.7-9.6) | 15/277 | 9.1 (4.7-16.9) | 17/274 |
| ≤ 24 | 1.1 | 175 | 0 | 0/22 | 0 | 0/35 | 3.4 (0-10.1) | 2/32 |
| ≥ 25 | 3.3 | 1569 | 2.0 (0.5-3.9) | 7/336 | 6.1 (1.8-10.5) | 15/243 | 9.3 (4.3-17.4) | 15/242 |

## Annex 2: Data tables - Telavi, Gori and Kutaisi

### Table 19: Socio - Demographic Characteristics

| Socio - Demographic Characteristics | TELAVI RDS population estimates, % (95% CI) | TELAVI n/N | GORI RDS population estimates, % (95% CI) | GORI n/N | KUTAISI RDS population estimates, % (95% CI) | KUTAISI n/N |
|---|---|---|---|---|---|---|
| Age | | | | | | |
| 18 - 24 | 26.3 (18.8- 37.2) | 49/289 | 8.5 (4.3-13.7) | 23/289 | 8.3 (3.5-14.4) | 17/289 |
| 25 - 30 | 15.8 (9.8- 21.8) | 57/289 | 21.4 (15.2-27.6) | 60/289 | 16.9 (11.1-23.8) | 51/289 |
| 31 - 40 | 27.7 (19.2- 34.3) | 102/289 | 36.8 (30.1-45.6) | 114/289 | 35.1 (27.6-43.2) | 106/289 |
| 41 + | 30.2 (22.8-38.2) | 81/289 | 33.3 (2.4-4.13) | 92/289 | 39.7 (31.1-48.4) | 115/289 |
| Mean (minimum - maximum) | 35.34 (18-77) | | 36.46 (19-65) | | 38.69 (20-65) | |
| Median | 35.00 | | 36.00 | | 38.00 | |
| Gender | | | | | | |
| Male | 99.9 (99.7-100) | 288/289 | 95.3 (8.9-99.5) | 277/289 | 10043 | 289/289 |
| Female | 0.1 (0-0.3) | 1/289 | 4.7 (0.5-1.1) | 12/289 | 043 | 0/289 |
| Educational status | | | | | | |
| None | 0 | 0/289 | 0 | 0/289 | -- | -- |
| Primary (1-4 class) | 1.5(0-2.9) | 2/289 | 0 | 0/289 | -- | -- |
| Secondary or vocational school | 58.3 (49.8-66.8) | 171/289 | 57.7 (49.4-64.9) | 170/289 | 52.3 (44.1-60.5) | 166/289 |
| Incomplete Higher | 11.1 (4.9-19.3) | 20/289 | 11.7 (7.4-16.9) | 24/289 | 8.2 (3.5-13.9) | 14/289 |

[43] Estimates done in SPSS

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Higher | 29.1 (21.7-37.1) | 96/289 | 30.6 (23.8-38.3) | 95/289 | 39.4 (32-47.3) | 109/289 |
| Refused to Answer | 0 | 0/289 | 0 | 0/289 | | |
| Ethnicity | | | | | | |
| Georgian | 96.8 (93.8-98.9) | 280/289 | 93.2(89.8-96.3) | 268/289 | 99.8 (99.3-100) | 288/289 |
| Other | 3.2 (1.1-6.2) | 9/289 | 6.8(3.7-10.2) | 21/289 | 0.2 (0-0.7) | 1/289 |
| IDP status | | | | | | |
| Yes | 1.7 (0.1-4.1) | 7/289 | 3.9 (1.6-6.6) | 13/289 | 2 (0.6-3.9) | 9/289 |
| No | 98.3 (95.9-99.9) | 282/289 | 96.1 (93.4-98.4) | 276/289 | 98 (96.1-99.4) | 280/289 |
| Employment | | | | | | |
| Pupil/student | 8.9 (3.5-21.2) | 12/289 | 0 | 0/289 | 0.1 (0-0.3) | 1/289 |
| Have a permanent job | 10.2 (5.7-14.4) | 26/289 | 5.5 (2.5-8.7) | 19/289 | 2.6 (0.7-5) | 9/289 |
| Have a temporary job | 17.5 (11.7-22.9) | 49/289 | 27.8 (21.4-34.9) | 76/289 | 15.3 (10.2-21.1) | 37/289 |
| Retired/disabled | 5.3 (1-10.5) | 5/289 | 0.7 (0-1.7) | 3/289 | -- | -- |
| Unemployed | 58.1 (46.8-66.3) | 197/289 | 66 (58.8-73) | 191/289 | 81.2 (74.7-87.2) | 241/289 |
| Refused to answer | | | | | 0.8 (0-2.2) | 1/289 |
| Monthly income | | | | | | |
| Less than 100 Gel | 20.7(14.7-27.4) | 72/289 | 22.5(16.3-29.3) | 71/289 | 17.2(12.2-22.5) | 47/289 |
| From 100 up to 300 | 33.7(25.9-40.6) | 105/289 | 39.7(32.6-47.5) | 111/289 | 32.3(26.4-39.8) | 110/289 |
| From 300 up to 500 | 27.7(20.4-36.6) | 57/289 | 18.7(13.3-24.8) | 58/289 | 26(18.8-32.2) | 67/289 |
| From 500 up to 700 | 4.3(2-8.1) | 18/289 | 9.9(5.6-13.9) | 27/289 | 13.4(7.9-20.4) | 36/289 |
| From 700 up to 1000 | 10.4(5.6-14.8) | 25/289 | 7(3.4-11.2) | 16/289 | 6.7(3.2-10.4) | 19/289 |
| 1000 Gel and more | 3.1(1-5.6) | 10/289 | 2.2(0.4-4.5) | 6/289 | 4.4(1.7-7.4) | 10/289 |
| No response | 0.2(0-0.6) | 2/289 | | | | |
| Marital status | | | | | | |
| Married | 38.4 (31-47.1) | 101/289 | 52.4 (45.2-59.6) | 147/289 | 49(41.9-56.1) | 148/289 |
| Divorced/Separated | 12.2 (7.8-17) | 50/289 | 19.1 (12.5-26.3) | 54/289 | 14.7(10.2-19.8) | 46/289 |
| Widower/widow | 0.4 (0-0.9) | 2/289 | 2.6 (0.8-5.1) | 8/289 | 2.9(0-7.8) | 2/289 |
| Never been married | 49 (40.4-57) | 136/289 | 25.8 (19.8-32.2) | 80/289 | 33.4(25.8-40.8) | 93/289 |
| Living arrangements | | | | | | |
| With spouse | 37.9 (30.3-46.4) | 99/289 | 49.3 (43-57.4) | 143/289 | 48.3 (41.2-55.8) | 143/289 |
| With partner | 0.1 (0-0.3) | 1/289 | 1.1 (0.1-2.1) | 4/289 | 3.7 (0.5-8.2) | 6/289 |
| Single | 9.8 (6.1-14) | 32/289 | 10.4 (6.3-15.1) | 26/289 | 12.7(8-18) | 36/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| live with relative/parents | 51.5 (43.3-59.1) | 156/289 | 37.7 (30-44.8) | 112/289 | 35 (27.7-43.2) | 102/289 |
| Other | 0.7 (0-2.1) | 1/289 | 1.5 (0-2.5) | 3/289 | 0.2(0-0.4) | 2/289 |
| Refused to answer | 0 | 0/289 | 0.1 (0-0.1) | 1/289 | -- | -- |
| Police and prison experience last 12 months | | | | | | |
| Infringement of the law due to drug use during last 12 months * | 13.5 (8.8-18.9) | 48/289 | 10.5 (6.8-14.7) | 32/289 | 28.0 (21.0-36.2) | 83/289 |
| ≤ 24 | 5.2 (0.8-11.8) | 43/49 | 8.6 (0-23.8) | 3/23 | 37.2 (5.4-68) | 6/17 |
| ≥ 25 | 15.8 (9.8-21.9) | 42/240 | 10.9 (6.9-15.9) | 29/266 | 27.7 (21.6-35.9) | 77/272 |
| Detained in administrative sentence | 10.6 (6.8-14.9) | 39/289 | 9 (5.4-13) | 27/289 | 24(17.3-32.1) | 71/289 |
| Imprisoned before trial | 6.5 (3.2-10.4) | 21/289 | 3.9 (1.6-6.6) | 15/289 | 12.9(8.2-18.1) | 36/289 |
| Imprisoned | 2.1 (0.2-4.5) | 6/289 | 1.2 (0-3.1) | 4/289 | 5.5(2.3-9.2) | 13/289 |
| Alcohol consumption during the last month | | | | | | |
| Every day | 4.5 | 13/289 | 0.3 | 1/289 | 4.5 | 13/289 |
| More than once a week | 31.5 | 91/289 | 20.8 | 60/289 | 31.1 | 90/289 |
| Once a week | 21.1 | 61/289 | 12.5 | 36/289 | 14.2 | 41/289 |
| Rare than once a week | 26.3 | 76/289 | 37.0 | 107/289 | 25.3 | 73/289 |
| Never | 16.6 | 48/289 | 29.1 | 84/289 | 24.9 | 72/289 |
| Refused to answer | 0 | 0/289 | 0.3 | 1/289 | 0 | 0/289 |

### Table 20: Drug use history

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug use history | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Age when first used drug | | | | | | |
| <15 | 39.2 (31.8-47.3) | 113/289 | 37.6 (30.8-44.5) | 112/289 | 33.1 (26.3-40.3) | 108/289 |
| 15 – 19 | 44.5 (36.7-52.2) | 147/289 | 48.3 (41.1-55.4) | 138/289 | 53.8 (46.5-61.4) | 143/289 |
| 20 – 24 | 11.4 (6.2-17.3) | 19/289 | 11.2 (7.4-15.7) | 30/289 | 10.5 (5.7-15.7) | 31/289 |
| 25+ | 4.9 (1.6-8.5) | 10/289 | 2.9 (1.0-5.3) | 9/289 | 2.6 (0.6-5.1) | 7/289 |
| Mean (minimum - maximum) | 16.46 (11-38) | | 16.81 (11-32) | | 16.57 (11-35) | |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug use history | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Median | 16.00 | | 16.00 | | 16.00 | |
| Age when first injected drug | | | | | | |
| <15 | 4.9 (2.3-7.7) | 19/289 | 4.5 (2.1-7.7) | 15/289 | 3.5 (1.3-6.1) | 15/289 |
| 15 - 19 | 45.1 (36.4-54.1) | 132/289 | 35.5 (28.5-44.1) | 118/289 | 46.6 (39.5-54.3) | 140/289 |
| 20 - 24 | 29.8 (22.2-37.8) | 94/289 | 44.6 (36.7-51.6) | 113/289 | 31.7 (24.5-38.5) | 90/289 |
| 25+ | 20.2 (13.8-27.2) | 44/289 | 15.3 (10.2-20.4) | 43/289 | 18.1 (12.1-25.1) | 44/289 |
| Mean (minimum - maximum) | 20.22 (14-50) | | 20.34 (12-41) | | 19.97 (13-36) | |
| Median | 19.00 | | 20.00 | | 19.00 | |
| Duration of injecting drug from first injection in years | | | | | | |
| Mean (minimum - maximum) | 15.13 (0-52) | | 16.12(1-46) | | 18.71 (2-45) | |
| Median | 14.00 | | 16.00 | | 18.00 | |
| Duration of drug addiction in years | | | | | | |
| Mean (minimum - maximum) | 11.65(0.5-35) | | 13.72(0.5-42) | | 12.71(0.5-40) | |
| Median | 10.00 | | 12.00 | | 10.00 | |
| Thinks he/she is addicted on drug | | | | | | |
| I'm addicted | 75(68.3-81.8) | 231/289 | 89.2(84.5-93.6) | 265/289 | 94.3(89.2-98.2) | 277/289 |
| I'm not /don't think I am addicted | 24.9(18.1-31.6) | 57/289 | 10.8(6.4-15.5) | 24/289 | 5.7(1.8-10.8) | 12/289 |
| No Response | 0.1(0-0.3) | 1/289 | | | 0 | |

### Table 21: Drug use risk behavior

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug use behavior | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Frequency of injecting drug use last month | | | | | | |
| Once a month | 25.7 (19.8-33.1) | 73/289 | 11.9 (7.4-18.7) | 37/289 | 12.4 (7.6-19.4) | 38/289 |
| Several times a month | 52.2 (44.4-60.8) | 152/289 | 38.3 (30.7-44.8) | 96/289 | 39.6 (31.6-47.7) | 93/289 |
| Once a week | 12.0 (6.6-16.2) | 26/289 | 12.7 (8.0-18.2) | 38/289 | 9.8 (6.3-14.3) | 38/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug use behavior | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Several times a week | 9.1 (5.1-12.4) | 34/289 | 27.0 (20.8-34.0) | 97/289 | 31.5 (23.7-39.0) | 104/289 |
| Once a day | 0.7 (0-2.7) | 2/289 | 1.4 (0-3.6) | 4/289 | 5.0 (1.0-10.2) | 9/289 |
| Several times a day | 0.2 (0-0.7) | 2/289 | 6.0 (2.7-9.8) | 16/289 | 1.7 (0.2-4.1) | 7/289 |
| No response | -- | 0/289 | 2.6 (0-5.4) | 1/289 | -- | 0/289 |
| Member of regular injecting group | | | | | | |
| Yes | 51.4 (43.6-59.1) | 156/289 | 68.5 (62.2-75.1) | 204/289 | 52.9 (46.5-60.6) | 176/289 |
| Mean # of injecting group members | 3.84 (1-10) | | 3.95 (1-10) | | 4.11 (1-10) | |
| Consumed drugs last month (drug groups) | | | | | | |
| CNS depressants | 71.8(59.9-79.8) | 139/186 | 68.7 (53.6-79.9) | 85/141 | 75.8 (61.8-90.8) | 79/112 |
| CNS stimulant | 3.0 (0-8.6) | 5/186 | 0 | 0/141 | 5.0 (--) | 2/112 |
| Narcotic analgetics | 7.4 (3.1-14.0) | 15/186 | 21.7 (8.6-34.7) | 29/141 | 14.8 (3.6-28.2) | 19/112 |
| Hallucinogens | 40.0 (28.7-50.6) | 75/186 | 32.6 (22.0-48.9) | 57/141 | 27.0 (11.9-42.9) | 40/112 |
| Antidepressants | 4.5 (0-9.2) | 3/186 | 0(--) | 1/141 | 8.4 (0-15.4) | 1/112 |
| Mean # of drugs used | 1.90 (1-5) | | 1.43 (1-5) | | 1.58 (1-4) | |
| Injected drugs last month (drug groups) | | | | | | |
| CNS depressants | 31.3 (24.0-39.1) | 81/289 | 40.8 (33.5-47.5) | 85/289 | 40.8 (33.2-48.4) | 131/289 |
| CNS stimulant | 15.4 (9.0-22.4) | 43/289 | 28.3 (21.2-35.9) | 91/289 | 25.2 (17.5-33.1) | 65/289 |
| Narcotic analgetics | 69.4 (60.4-77.4) | 221/289 | 58.5 (51.0-65.8) | 161/289 | 58.1 (48.2-67.0) | 185 /289 |
| Antidepressants | 0.5 (0-1.1) | 3/289 | 3.8 (1.3-6.8) | 11/289 | 7.2 (3.1-12.4) | 23 /289 |
| Combination | 0.2 (0-0.5) | 2/289 | 0.8 (0.2-1.5) | 7/289 | 1.0 (0-2.6) | 3/289 |
| Mean # of drugs injected | 1.31 (1-4) | | 1.49 (1-4) | | 1.58 (1-4) | |
| Injected drugs last month (selected drugs) | | | | | | |
| Heroine | 24.4 (17.8-31.4) | 71/289 | 36.1 (28.6-43.6) | 112/289 | 40.1 (32.5-47.5) | 129/289 |
| Buprenorphine (Subutex) | 27.4 (19.7-35.2) | 92/289 | 20.0 (14.6-25.7) | 69/289 | 4.5 (1.8-7.6) | 14/289 |
| Ephedrone (Vint) | 10.3 (5-17.0) | 22/289 | 16.3 (10.6-22.5) | 44/289 | 17.2 (10.6-24.0) | 36/289 |
| Ephedrone (Jef) | 5.7 (2.4-9.7) | 22/289 | 13.7 (9.3-18.5) | 56/289 | 9.3 (5.8-13.4) | 32/289 |
| Morphine | 3.0 (0-8.2) | 4/289 | 21.3 (14.9-28.5) | 47/289 | 19.2 (12.9-26.4) | 58/289 |
| Dezomorphine | 20.2 (13.5-27.4) | 61/289 | 17.4 (11.8-23.9) | 48/289 | 36.7 (27.5-46.2) | 118/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Drug use behavior** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Ever shared used needle/syringe/other injecting equipment | | | | | | |
| Yes | 55.3 (47.5-63.3) | 172/289 | 60.8 (52.9-68.7) | 117/289 | 64.9 (56.8-73.1) | 191/289 |
| No | 44.1 (36.1-52.0) | 112/298 | 36.5 (29.5-43.7) | 108/289 | 34.5 (26.4-42.5) | 95/289 |
| Don't know | 0.6 (0.1-1.3) | 5/289 | 2.7 (0-7.1) | 4/289 | 0.6 (0-1.4) | 3/289 |
| Used sterile needle/syringe/ other injecting equipment at last injection | | | | | | |
| Yes | 89.0 (84.6-92.9) | 240/289 | 88.0 (84.1-92.7) | 244/289 | 87.3 (82.4-92.5) | 248/289 |
| No | 11.0 (7.1-15.4) | 49/289 | 11.8 (7.2-15.6) | 44/289 | 12.0 (7.3-17.0) | 40/289 |
| Don't know | 0 | 0/289 | 0.2 (0-0.7) | 1/289 | 0.7 (0-1.6) | 1/289 |
| Used previously used by others needle/syringe/ other injecting equipment at last injection | | | | | | |
| Yes | 4.9 (2.5-7.7) | 22/289 | 3.1 (1.2-5.3) | 14/289 | 3.2 (1.0-6.1) | 8/289 |
| No | 94.0 (90.6-96.9) | 265/289 | 96.7 (94.4-98.6) | 274/289 | 95.5 (92.2-98.2) | 278/289 |
| Don't know | 1.1 (0-3.3) | 2/289 | 0.2 (0-0.6) | 1/289 | 1.2 (0-3.1) | 2/289 |
| No Response | -- | 0/289 | -- | 0/289 | 0.1 (0-0.4) | 1/289 |
| Used previously used by him/herself needle/syringe/ other injecting equipment at last injection | | | | | | |
| Yes | 4.8 (2.4-7.5) | 25/289 | 10.1 (5.5-13.9) | 33/289 | 7.9 (4.2-12.0) | 31/289 |
| No | 95.2 (92.5-97.6) | 264/289 | 89.7 (85.9-94.3) | 255/289 | 90.6 (86.0-94.6) | 254/289 |
| Don't know | 0 | 0/289 | 0.2 (0-0.7) | 1/289 | 0.8 (0-2.2) | 2/289 |
| No Response | -- | 0/289 | -- | 0/289 | 0.7 (0-2.4) | 2/289 |
| Used needle/syringe / other injecting equipment left at a place of gathering by somebody else at last injection | | | | | | |
| Yes | 1.3 (0.3-2.5 ) | 7/289 | 4.0 (1.8-6.6) | 15/289 | 0.8 (0-2.1) | 3/289 |
| No | 94.2 (91.9-97.3) | 265/289 | 94.0(91.0-96.7) | 263/289 | 95.0 (89.9-98.6) | 279/289 |
| Don't know | 1.8 (0-3.5) | 2/289 | 2.0 (0.7-3.7) | 11/289 | 4.2 (0.8-9.2) | 7/289 |
| No Response | | | | | | |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Drug use behavior** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Used pre - filled syringe at last injection | | | | | | |
| Yes | 1.9 (0-4.3) | 4/289 | 0.8 (--) | 2/289 | 1.2 (0.2-2.9) | 5/289 |
| No | 96.9 (94.1-99.2) | 281/289 | 96.9 (--) | 283/289 | 98.0 (95.8-99.5) | 282/289 |
| Don't know | 1.2 (0-3.0) | 4/289 | 2.3 (--) | 4/289 | 0.8 (0-2.3) | 2/289 |
| Used shared bottle, spoon, boiling pan/ glass/ container, cotton/filter or water at last injection | | | | | | |
| Yes | 8.7 (5.1-12.7) | 38/289 | 6.7 (3.5-10.9) | 23/289 | 2.6 (0.9-5.1) | 9/289 |
| No | 81.6 (75.1-86.8) | 228/289 | 84.9 (80.5-90.6) | 246/289 | 92.0 (87.6-95.6) | 268/289 |
| Don't know | 9.7 (5.4-15.7) | 23/289 | 8.4 (3.9-11.4) | 40/289 | 5.4 (2.4-8.7) | 12/289 |
| Used solution from the shared container at last injection | | | | | | |
| Yes | 9.2 (5.8-13.2) | 32/289 | 5.3 (2.6-8.5) | 15/289 | 4.1 (1.4-7.5) | 11/289 |
| No | 90.3 (86.2-93.8) | 254/289 | 94.7 (91.5-97.4) | 274/289 | 95.9 (92.5-98.6) | 278/289 |
| Don't know | 0.5 (0-1.2) | 3/289 | 0 | 0 | | |
| Safe injecting practice at last injection | | | | | | |
| IDUs with safe injection practice at last injection *44 | 68.8 (62-75.4) | 175/289 | 75.8 (70.6-82.3) | 211/289 | 76.6 (70.1-82.8) | 220/289 |
| ≤ 24 | 66.1 (52.2-83.8) | 30/49 | 66.6 (50.3-88.7) | 16/23 | 76.5 (45.9-100) | 14/17 |
| ≥ 25 | 68.1 (61.4-76.5) | 145/ 240 | 76.3 (70.7-83.2) | 195/266 | 76.2 (69.7-83) | 206/272 |
| IDUs with safe injection practice at last injection v2 (excludes self used syringe use)45 | 72.2 (65.7-78.2) | 194/289 | 81.2 (13.4-24.1) | 228/289 | 84.2 (78.9-89) | 245/289 |
| ≤ 24 | 66.6 (52.6-84.3) | 30/49 | 66.5 (49.8-88.4) | 16/23 | 79.6 (53.1-100) | 15/17 |
| ≥ 25 | 72.5 (66.4-80.2) | 164/240 | 81.9 (76.4-87.7) | 212/266 | 84.2 (78.8-89.5) | 230/272 |

[44] not usage of needle/syringe previously used by somebody else or him/herself, not usage of needle/syringe left at a place of gathering, not usage of syringe prefilled by somebody else without his presence, not usage of syringe filled from previously used syringe, not usage of possibly contaminated shared equipment (container, cotton, filter, water), not usage of drug solution from shared container prepared without his presence.

[45] not usage of needle/syringe previously used by somebody else, not usage of needle/syringe left at a place of gathering, not usage of syringe prefilled by somebody else without his presence, not usage of shared equipment, not usage of drug solution from shared container prepared without his presence.

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug use behavior | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Last month sterile injecting equipment use | | | | | | |
| Never used previously used injecting equipment by others or him/herself | 83.6 (78.2-88.6) | 218/289 | 79.6 (75.0-86.1) | 221/289 | 77.7 (71.3-83.6) | 213/289 |
| Never used injecting equipment used by others | 89.0 (84.7-92.7) | 243/289 | 92.0 (88.6-95.3) | 259/289 | 91.9 (87.7-95.6) | 265/289 |
| Never used injecting equipment used by him/herself | 88.8 (84.6-92.8) | 234/289 | 81.8 (78.8-88.9) | 227/289 | 78.3 (72.6-84.2) | 218/289 |
| Last month injecting equipment shared with | | | | | | |
| Regular sexual partner | 0 | 1/70 | 0 | 0/67 | -- | -- |
| Partner in sex whom you didn't know before | 0 | 0/70 | 0 | 0/67 | -- | -- |
| Drug - related friend | 14.1 (0-37.3) | 23/70 | 33.3 (10.1-51.9) | 17/67 | 27.5 (4.5-33.6) | 9/76 |
| Drug trafficker | 0 | 0/70 | -- | -- | -- | -- |
| Stranger | 18.3 (0-39.0) | 7/70 | 0 (--) | 5/67 | 13.4 (0-20.3) | 3/76 |
| Friend | 0 | 0/70 | 0 | 11/67 | 0 | 11/76 |
| Number of injecting partners last month | | | | | | |
| Mean # of needle sharing partners among all *[46] | 0.42 (0-25) | 267 | 0.20 (0-6) | 283 | 0.17 (0-10) | 285 |
| Mean # of needle sharing partners among those who shared last month | 4.44 (1-25) | 25 | 2.24 (1-6) | 25 | 2.45(1-10) | 20 |
| Cleaning the needle/syringe before usage | | | | | | |
| Always | 72.3 (48.2-94.2) | 41/71 | 74.8(57.6-100) | 57/68 | 80.3(73.7-96.7) | 52/76 |
| Almost always | 0(--) | 0/71 | 2(--) | 2/68 | 0.7(--) | 2/76 |
| Sometimes | 0(--) | 4/71 | 2.7(--) | 1/68 | 1.3(--) | 1/76 |
| Once | 0(--) | 2/71 | -- | -- | -- | -- |
| Never | 0 (0-0) | 9/71 | 13.7(0-40.5) | 6/68 | 2.9(0-5.5) | 3/76 |

[46] Don't know and no response regarded as missing cases and not included in the analysis.

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug use behavior | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Don't know | 0(--) | 1/71 | -- | -- | -- | -- |
| No Response | 27.7 (5.8-5.2) | 14/71 | 6.7(--) | 2/68 | 14.7(2.7-22.8) | 18/76 |
| Methods used to clean the used needle/syringe | | | | | | |
| Water (boiled and non - boiled) | 100 (--) | 43/47 | 80.4(53-100) | 59/68 | 81.5(66.6-96.7) | 53/76 |
| Disinfecting solution and chlorine | 0 | 0/47 | 0 | 0/68 | -- | -- |
| Boiling the needles/syringes | 0 | 0/47 | 0 | 0/68 | -- | -- |
| Other | 0(0) | 7/47 | 18.6(--) | 4/68 | 0(0-0) | 3/76 |
| Frequency of giving the used needle/ syringe to others last month | | | | | | |
| Always | 0 (0-0.1) | 1/289 | -- | -- | -- | -- |
| Almost always | 0.2 (0-0.6) | 2/289 | 1.4 (--) | 1/289 | -- | -- |
| Sometimes | 2.8 (1.0-5.2) | 11/289 | 4.9 (1.2-6.8) | 16/289 | 6.6 (2.3-12.0) | 13/289 |
| Once | 4.8 (2.5-7.9) | 23/289 | 2.6 (0.7-3.8) | 10/289 | 3.3 (1.3-5.8) | 13/289 |
| Never | 90.7 (86.6-94.2) | 249/289 | 88.9 (--) | 260/289 | 88.1 (82.1-93.4) | 260/289 |
| Don't know | 1.4 (0-3.5) | 3/289 | 2.2 (0-2.4) | 2/289 | 2 (0-4.4) | 3/289 |
| Getting of new and unused needle/syringe when needed | | | | | | |
| Yes | 96.5 (93.9-98.9) | 277/289 | 98.1 (95.5-99.6) | 281/289 | 98.4 (96.2-99.8) | 282/289 |
| Place of getting/buying new (unused) needle/syringe | | | | | | |
| Drug store | 99.9 (99.6-100) | 275/277 | 92.5 (87.3-96.6) | 262/281 | 99.8 (99.3-100) | 280/282 |
| Shop | 0 | 0/277 | 1.0 (0-2.6) | 2/281 | -- | -- |
| Hospital | 0 | 0/277 | 0 (--) | 1/281 | 0.1 (0-0.3) | 1/282 |
| Family/Relatives | 3.1 (1.0-5.8) | 9/277 | 1.1 (0-1.5) | 2/281 | 1.9(0.6-3.3) | 8/282 |
| Sex partner | 0.1 (0-0.5) | 1/277 | 0 | 0/281 | -- | -- |
| Friends | 1.6 (0.2-4.0) | 6/277 | 0.3 (0-0.9) | 2/281 | -- | -- |
| Other injection drug user | 9.9 (6.4-14.4) | 40/277 | 3.9 (1.7-6.9) | 17/281 | 9.1 (5.1-13.4) | 30/282 |
| Drug trafficker | 0.1 (0-0.3) | 1/277 | 1.8 (0.4-3.7) | 5/281 | -- | -- |
| Syringe exchange program | 3.3 (1.4-6.5) | 21/277 | 36.8 (27.5-45.9) | 111/281 | 2.1 (0.3-4.5) | 11/282 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Drug use behavior** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| other | | | 1 (0.3-1.9) | 7/281 | -- | -- |
| Injected in other locations in last 12 months | | | | | | |
| Other cities in Georgia | 58.4 (50.2-65.5) | 165/289 | 45.6 (38.3-52.5) | 155/289 | 47.1 (40.2-55.7) | 137/289 |
| Countries of FSU | 6.1 (3.4-9.3) | 23/289 | 3.6 (0.8-7.0) | 7/289 | 10.2 (6.0-14.9) | 29/289 |
| Other than Georgia and FSU countries | 19.8 (13.6-26.7) | 66/289 | 28.2 (21.2-35.0) | 87/289 | 31.4 (24.4-39.4) | 95/289 |
| Used shared injecting equipment in other locations | | | | | | |
| Yes | 17.9 (10.5-28.6) | 51/ 211 | 11.6 (5.5-19.6) | 21/206 | 10.8 (4.7-15.9) | 26/201 |
| No | 79.2 (68.4-86.7) | 154/ 211 | 86.4 (78.6-92.8) | 179/206 | 88.5 (83.2-94.7) | 172/201 |
| Don't remember | 1.9 (0-5.3) | 2/ 211 | -- | 0/206 | -- | 0/201 |
| No response | 1.3 (0-3.4) | 4/211 | 2 (0-4.2) | 6/206 | 0.7 (0-1.8) | 3/201 |
| Used shared injecting equipment abroad | | | | | | |
| Yes | 26.4 (12.1-47.1) | 28/85 | 10.8 (0-33.6) | 11/92 | 19.2 (6.7-30.8) | 23/118 |
| Overdoses experience last year | | | | | | |
| Yes | 8.7 (5.3-12.7) | 35/289 | 12.5 (8.5-17.0) | 37/289 | 16.0 (10.6-22.4) | 47/289 |
| Usual place of gathering to take drugs* | | | | | | |
| (flat) | 68.1 (61.1-74.8) | 192/289 | 86.9(81.5-91.8) | 258/289 | 10.6(5.8-16.4) | 262/289 |
| Method of throwing away used needle | | | | | | |
| (garbage bin) | 45.7 (40.1-56.2) | 112/289 | 40.9(33.7-48.5) | 116/289 | 60.2(50.5-66.8) | 169/289 |

### Table 22: Sexual behavior

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Sexual history** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Sexual behavior | | | | | | |
| Median age at first sexual contact | 16.00 | | 16.00 | | 16.00 | |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Sexual history** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Had sex in the last 12 months | 89.7 (84.3-94.5) | 272/289 | 86.1 (80.5-91.5) | 261/289 | 87.7 (81.6-93.2) | 266/289 |
| Condom use at last intercourse | | | | | | |
| Used condom at last intercourse* | 32.0 (24.3-40.3) | 93/272 | 34.2 (26.8-42.7) | 93/261 | 29.0 (21.6-35) | 72/266 |
| ≤ 24 | 56.1 (25.8-70.8) | 26/45 | 63.2 (45.6-88.9) | 15/23 | 29.9 (2.3-66.1) | 4/17 |
| ≥ 25 | 23.3 (16.2-31.7) | 67/227 | 30.5 (22.8-38.7) | 78/238 | 28.8(20.9-34.7) | 68/249 |
| Regular sex partner last 12 months | | | | | | |
| Had regular sex partner | 68.3 (60.7-75.7) | 209/289 | 74.7 (68.1-81.1) | 230/289 | 77.0 (70.2-83.4) | 233/289 |
| Mean (Minimum-Maximum) | 1.37 (1-6) | | 1.29 (1-4) | | 1.39 (1-10) | |
| Median | 1.00 | | 1.00 | | 1.00 | |
| Used condom at last intercourse* | 20.5 (11.4-28.3) | 43/209 | 24.3 (18.4-32.9) | 61/230 | 24.3 (15.4-31.3) | 46/233 |
| ≤ 24 | 57.9 (10.2-81.8) | 10/29 | 47.7 (29.6-80.9) | 11/20 | 56.1 (10.1- 85.2) | 5/17 |
| ≥ 25 | 15.7 (8.5-23.9) | 33/180 | 21.4 (14.8-30.1) | 50/210 | 21 (12.2- 26.2) | 41/217 |
| Occasional sex partner (s) last 12 months | | | | | | |
| Had occasional sex partner last year | 56.9 (49.1-64.3) | 178/289 | 40.2 (33.6-47.6) | 133/289 | 44.3 (37.8-52.1) | 155/289 |
| Mean (Minimum-Maximum) | 5.03 (1-30) | | 4.19 (1-20) | | 4.54 (1-20) | |
| Median | 3.00 | | 3.00 | | 3.00 | |
| Used condom at last intercourse* | 43.5 (30.9-57.9) | 86/178 | 63.9 (41.2-76.8) | 81/133 | 37.5 (24.6-49.2) | 65/155 |
| ≤ 24 | 37.3 (9.8-69.1) | 24/37 | 72.4 (7.4-100) | 9/15 | 34.7 (0-84) | 4/12 |
| ≥ 25 | 38.3 (31.0-59.7) | 62/141 | 62.8 (35.4-78.5) | 72/118 | 36.8 (24.8- 49) | 61/143 |
| Paid sex partner(s) last 12 months | | | | | | |
| Had paid sex partner last year | 30.1 (23.4-37.4) | 113/289 | 19.9 (14.4-25.9) | 65/289 | 23.8 (17.8-30.2) | 80/289 |
| Mean (Minimum-Maximum) | 5.18 (1-50) | | 3.66 (1-20) | | 6.41 (1-40) | |
| Median | 3.00 | | 2.00 | | 3.00 | |
| Used condom at last intercourse* | 71.9 (58.5-89.0) | 87/113 | 83.3 (--) | 55/65 | 83.4 (69.0-97.4) | 67/80 |
| ≤ 24 | 82.6 (8.9-100) | 18/20 | 70.1 (50.0-50.0) | 5/5 | 66.7 (0-50.0) | 6/7 |
| ≥ 25 | 62.2 (55.6-88.1) | 69/93 | 65.8 (--) | 49/60 | 84.1 (69.8-100) | 61/73 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Sexual history** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Married IDUs paid/occasional sex partners last 12 months | | | | | | |
| Had occasional sex partners last year | 36.3 (21.8-53.2) | 50/101 | 30.6(19.6-42.5) | 52/147 | 39.6 (27.6-58.9) | 70/148 |
| Had paid sex partners last year | 14.6 (4.2-31.6) | 35/101 | 15.8 (7.1-24.9) | 23/147 | 19.5 (7.9-30.6) | 34/148 |
| Man had male sex partner | | | | | | |
| Ever had male sex partner | 1.7 (0-4.4) | 2/289 | 0.8 (0-1.5) | 2/277 | 11.5 (6.9-16.6) | 31/289 |
| Had male sex partner last year | 0 | 0/289 | 0 | 0/277 | 0.2 (0-0.7) | 1/289 |
| Had paid male sex partner last year | | | 0 | 0/277 | | |
| Reasons for not using condom at last intercourse with occasional partner * | | | | | | |
| Don't like it | | | | | | |
| Didn't think necessary | 39.2 (12.6-63.6) | 43/90 | 48.4 (32.4-86.5) | 23/52 | 48.3 (22.6-69.5) | 46/88 |
| Frequency of using condom with regular partner last year | | | | | | |
| Always | 11.7 (3.7-13.2) | 21/209 | 5.2 (2.2-10.6) | 21/230 | 8.1 (2.6-10.2) | 21/233 |
| Never | 62.2 (52.4-73.1) | 139/209 | 59.7 (48.9-67.7) | 48/230 | 68.2 (60.8-77.8) | 171/233 |
| Frequency of using condom with occasional partner last year | | | | | | |
| Always | 29.7 (16.4-42.8) | 56/178 | 43.7 (22.0-52.5) | 57/133 | 26.2 (17.7-40.5) | 39/154 |
| Never | 23.9 (12.4-38.4) | 49/178 | 16.6 (10.0-35.5) | 22/133 | 35.1 (27.9-49.9) | 47/154 |
| Frequency of using condom with paid for sex partner last year | | | | | | |
| Always | 59.4 (36.9-77.8) | 74/113 | 57.7 (14.7-100) | 45/65 | 73.0 (64.8-95.1) | 58/80 |
| Never | 14.1 (4.2-27.9) | 13/113 | 14.1 (0-40.4) | 5/65 | 6.0 (--) | 7/80 |
| Anal sex practice last 12 months | | | | | | |
| Anal sex intercourse with any sexual partner last 12 months | 7.4 (3.2-12.4) | 20/289 | 3.5 (1.7-5.8) | 18/289 | 7.3 (4.3-11.4) | 23/289 |
| Condom use during anal sex intercourse | 7.4 (3.2-12.4) | 9/20 | 51.7 (--) | 7/18 | 43.9 (0-60.0) | 5/23 |
| Sex partner is IDU | | | | | | |
| Regular sex partner is an injecting drug user | 0.9 (0.2-1.8) | 6/209 | 1.8 (0.2-2.1) | 7/230 | 3.6 (0.2-6.0) | 8/233 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Sexual history | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Occasional sex partner is an injecting drug user | 6.0 (1.2-10.4) | 10/178 | 6.5 (0-17.4) | 11/133 | 16.5 (6.1-26.3) | 13/155 |
| Paid sex partner is an injecting drug user | 19.4 (0.7-44.6) | 23/113 | 0 | 0/69 | 22.8 (4.3-43.8) | 5/80 |

### Table 23: Knowledge of HIV/AIDS and risk assessment

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Knowledge of HIV/AIDS | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| HIV/AIDS awareness | | | | | | |
| Yes | 94.8 (94.4-99.7) | 285/289 | 99.8 (99.4-100) | 288/289 | 100 | 289/289 |
| Knowledge of HIV infected, ill or died of AIDS | 19.1 (13.4-25.4) | 75/285 | 41.4 (33.2-49.1) | 121/288 | 49.3 (41.1-57.6) | 156/289 |
| One may reduce HIV risk by having one uninfected and reliable partner (yes) | 95.4 (92-98.3) | 278/289 | 98.4 (97.1-99.8) | 284/289 | 99.7 (99.2-100) | 287/289 |
| One can reduce HIV risk if one properly uses condoms during every sexual contact(yes) | 95.7 (92.5-98.4) | 280/289 | 99.2 (98.3-100) | 287/289 | 98.2 (96.1-99.7) | 284/289 |
| healthy - looking person can have HIV (yes) | 92.6 (89-95.8) | 267/289 | 91.2 (87.4-95.1) | 267/289 | 91.7 (87.1-96) | 270/289 |
| One can get HIV as a result of a mosquito bite (no) | 45.3 (37.1-53.3) | 126/289 | 49.8 (41.8-56.7) | 147/289 | 45 (38.1-52.6) | 132/289 |
| One can get HIV by sharing meal with someone who is infected (no) | 78.5 (71.8-84.6) | 220/289 | 91.2 (87.4-94.8) | 255/289 | 81.1 (77.1-87.4) | 228/289 |
| One may be infected with HIV by using a needle/syringe already used by someone else (yes) | 94.3 (--) | 286/289 | 98.7 (98.6-100) | 287/289 | 98.5 (97.3-100) | 286/289 |
| One may be infected with HIV by using shared bottle, spoon, boiling pan/ glass/ container, cotton/filter or water (yes) | 93.7 (90.2-96.8) | 271/289 | 99.2 (98.3-99.9) | 285/289 | 97.3 (95.5-99.3) | 282/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Knowledge of HIV/AIDS** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| One may be infected with HIV by using solution from the shared container which was prepared without his/her presence (yes) | 96.5 (93.8-98.7) | 279/289 | 98.3 (97.4-99.7) | 282/289 | 98.1 (96.8-99.9) | 285/289 |
| Drug users may protect themselves by switching to non - injection drugs (yes) | 98.1 (96-99.7) | 281/289 | 97.9 (97.6-99.6) | 281/289 | 98.7 (97.4-100) | 286/289 |
| HIV/AIDS infected woman can transfer the virus to her fetus or baby (yes) | 60.7 (53.2-67.9) | 194/289 | 68 (60.9-74.7) | 213/289 | 67 (59.8-74.5) | 215/289 |
| IDUs correctly identifying ways of preventing and transmission of HIV infection (Answers correctly on 5 questions GARPR indictor)*47 | 40.9 (33.0-48.9) | 107/289 | 45.7 (38.2-52.8) | 132/289 | 41.0 (34.1-48.0) | 115/289 |
| ≤ 24 | 25.3 (11.7-34.6) | 11/49 | 32.4 (9.6-52.6) | 6/23 | 40.4 (3.4-75.8) | 6/17 |
| ≥ 25 | 46.8 (38.4-56.3) | 96/240 | 45.7 (38.2-53.3) | 126 /266 | 41 (34.1-48.4) | 109/272 |
| IDUs correctly identifying ways of preventing and transmission of HIV infection (Answers correctly on 7 questions National indictor)*48 | 83.6 (78.1-88.7) | 238/289 | 88.2 (83.7-92.2) | 253/289 | 88.1 (83.1-92.8) | 259/289 |
| ≤ 24 | 86.0 (74.1-98.0) | 42/49 | 87.1 (75.5-100) | 20/23 | 90.9 (73.3-100) | 16/17 |
| ≥ 25 | 83.6 (78.1-89.4) | 196/240 | 88.1 (83.8-92.4) | 233/266 | 87.5 (82.4-92.7) | 243/272 |
| Knows possibility of confidential HIV testing in his/her city | | | | | | |
| Yes | 67.6 (59.5-75) | 200/289 | 91.5 (86.4-96.1) | 265/289 | 81.6 (76.3-86.9) | 236/289 |
| No | 32.4 (25-40.5) | 89/289 | 8.4 (3.8-13.6) | 23/289 | 18.4 (13.1-23.7) | 53/289 |
| No response | 0 | 0/289 | 0.1 (0-0.2) | 1/289 | 0 | |

[47] One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; no one can get HIV as a result of a mosquito's bite; no one can get HIV by taking food or drink with infected person .

[48] One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner; Can reduce the HIV risk if one properly uses condoms during every sexual contact; healthy looking person can be infected with HIV; one may be infected with HIV/AIDS by using a needle already used by someone else; one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water where might been touched needle already used by someone else; one may be infected with HIV/AIDS by taking solution from the shared container; drug users may protect themselves from HIV/AIDS by switching to non-injection drugs.

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Knowledge of HIV/AIDS** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Knows where HIV testing can be done | | | | | | |
| Yes | 62.1 (54.0-70.3) | 170/289 | 79.0 (71.7-85.5) | 222/289 | 79.4 (74.3-85.2) | 214/289 |
| No | 37.9 (29.7-46.0) | 119/289 | 20.9 (14.5-28.3) | 66/289 | 19.7 (14.3-25.0) | 74/289 |
| No response | 0 | 0/289 | 0.1 (0-0.2) | 1/289 | 0.9 (0-2.1) | 1/289 |
| Voluntary HIV testing | | | | | | |
| During the last year | 4.7 (1.9-8.5) | 24/289 | 22.3 (15.4-29.0) | 67/289 | 13.3 (8.3-20.0) | 39/289 |
| From one to two years period | 2.2 (0.3-4.8) | 10/289 | 10.8 (6.0-15.6) | 28/289 | 4.8 (2.0-8.2) | 22/289 |
| Two years ago | 11.6 (7.5-16.8) | 52/289 | 17.5 (11.9-23.1) | 57/289 | 26.1 (19.4-32.0) | 84/289 |
| Never been tested | 81.6 (74.6-86.8) | 203/289 | 49.3 (41.7-59.0) | 137/289 | 55.5 (46.9-64.2) | 142/289 |
| HIV testing during the last year | | | | | | |
| Received HIV test last year and know their results * | 5.1 (2.1-8.9) | 23/289 | 23.4 (16.4-29.7) | 65/289 | 12.0 (7.2-18.6) | 36/289 |
| ≤ 24 | 8.2 (0-15.9) | 3/49 | 0 (0-0) | 1/23 | 0 (0- 0) | 0/17 |
| ≥ 25 | 4.8 (2.3-9.2) | 20/240 | 25.1 (17.2-31.6) | 64/266 | 13 (8- 20.1) | 36/272 |
| Informing on HIV positive status | | | | | | |
| Informing sex partner on HIV positive status | 89.3 (83.3-94.4) | 261/289 | 95.8 (93.5-98.1) | 273/289 | 96.1 (93.1-98.6) | 277/289 |
| Informing IDU partner on HIV positive status | 94.4 (89.0-98.5) | 273/289 | 96.3 (94.0-98.5) | 275/289 | 97.0 (94.9-99.4) | 283/289 |

### Table 24: Drug treatment and social influence

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| **Drug treatment and HIV/AID prevention** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** | **RDS population estimates, % (95% CI)** | **n/N** |
| Drug treatment | | | | | | |
| Currently under medical treatment | 0.2 (0-0.3) | 1/289 | 3(0.7-6.4) | 10/289 | -- | -- |
| Used to take a medical treatment during last 12 months, but now isn't treating | 1 (0-2.4) | 5/289 | 2.2(0.7-4.3) | 11/289 | 4.1(1.4-7.3) | 12/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug treatment and HIV/AID prevention | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Never been treated | 90.8 (86.6-94.3) | 246/289 | 79.9(73.2-86.5) | 235/289 | 69.5(63-75.7) | 197/289 |
| Kind of medical treatment and assistance taken last 12 months* | | | | | | |
| Apply to a medical facility to get a special treatment because he/she is a drug user during last 12 months * | 1.0 (0.1-2.6) | 6/289 | 5.6 (2.3-9.4) | 21/289 | 4.1 (1.4-7.3) | 12/289 |
| ≤ 24 | 3.1 (0-8.1) | 1/49 | 0 | 0/23 | 0 (0) | 0/17 |
| ≥ 25 | 0.5 (0.1-1.0) | 5/240 | 6.2 (2.8-10.6) | 21/266 | 4.4 (1.5-7.9) | 12/272 |
| Consultations at a health centers | 0 | 0/6 | 0 | 0/21 | -- | -- |
| Self - treatment groups | 0 | 0/6 | 0 | 0/21 | -- | -- |
| Detoxification with Methadone | 0 | 0/6 | 0 | 0/21 | -- | -- |
| Substitution with Methadone | 33.3*(SPSS) | 2/6 | 100 | 15/21 | 0 | 2/12 |
| Detoxification with other drugs | 16.7*(SPSS) | 1/6 | 0 | 0/21 | 0 | 1/12 |
| Detoxification without drugs | 33.3*(SPSS) | 2/6 | 0 | 6/21 | 100 | 8/12 |
| Psycho - social rehabilitation center | 16.7*(SPSS) | 1/6 | 0 | 0/21 | 0 | 1/12 |
| Other | 16.7*(SPSS) | 1/6 | 0 | 2/21 | 2.8(--) | 5/12 |
| Survived "extreme need" with somebody else's help last 12 months* | 1.0 (0.1-2.5) | 6/289 | 5.6 (2.3-9.4) | 21/289 | 4.1 (1.5-7.4) | 12/289 |
| ≤ 24 | 3.1 (0-7.9) | 1/49 | 0 | 0/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 0.5 (0.1-1.0) | 5/240 | 6.2 (2.8-10.6) | 21/266 | 4.4 (1.5-7.8) | 12/272 |
| Survived "extreme need" without anybody's help last 12 months | 23.8 (16.6-30.7) | 86/289 | 31.8 (25.8-39) | 111/289 | 44.1(37-50.7) | 143/289 |
| IDUs reached with prevention programs | | | | | | |
| Aware about HIV testing possibilities and received sterile injecting equipment and condom last 12 months * | 3.2 (1.1-6.0) | 15/289 | 34.9 (26.7-42.9) | 106/289 | 3.4 (1.2-6.1) | 15/289 |
| ≤ 24 | 0 | 0/49 | 15.4 (0.4-41.3) | 5/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 4.5 (1.6-8.0) | 15/240 | 35.4 (26.7-43.5) | 101/266 | 3.6 (1.3-6.4) | 15/272 |
| Aware about HIV testing possibilities and received sterile injecting equipment or condom or brochures/pamphlets/booklet or qualified educational information last | 8.2 (4.9-12.2) | 44/289 | 45.3(36.3-53.6) | 140/289 | 20.5 (14.8-27.8) | 61/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug treatment and HIV/AID prevention | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| 12 months* | | | | | | |
| ≤ 24 | 4.0 (0.3-9.0) | 5/49 | 11.2 (0.5-28.6) | 6/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 9.1 (5.1-13.7) | 39/240 | 46.1 (36.3-54.7) | 134/266 | 21.6 (16.0-29.6) | 60/272 |
| Aware about HIV testing possibilities and received sterile injecting equipment and condom and brochures/pamphlets/booklet and qualified educational information last 12 months* | 1.6 (0.2-3.5) | 8/289 | 32.9 (25.0-40.4) | 100/289 | 2.6 (0.8-4.7) | 13/289 |
| ≤ 24 | 0 | 0/49 | 15.3 (0.4-40.3) | 5/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 2.4 (0.5-5.1) | 8/240 | 33.3 (24.9-41.2) | 95/266 | 2.8 (0.8-5.1) | 13/272 |
| Received sterile injecting equipment last 12 months* | 4.8 (1.9-8.2) | 28/289 | 43.9 (34.6-53.2) | 140/289 | 6.7 (3.2-11.1) | 27/289 |
| ≤ 24 | 0 | 0/49 | 22.7 (2.6-49.9) | 6/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 6.5 (2.6-11.1) | 28/240 | 45.8 (35.9-55.1) | 134/266 | 7.1 (3.5-11.8) | 27/272 |
| Received condoms last 12 months* | 4.7 (1.9-7.4) | 25/289 | 36.7 (29.4-45.2) | 114/289 | 10.2 (5.8-16.4) | 33/289 |
| ≤ 24 | 2.8 (0-6.9) | 3/49 | 9.7 (0-29.3) | 6/23 | 0 (0-0) | 1/17 |
| ≥ 25 | 5.4 (2.3-9.1) | 22/240 | 37.1 (29.2-45.8) | 108/266 | 10.4(6-17.1) | 32/272 |
| Received brochures/pamphlets/booklet on HIV/AIDS last 12 months* | 10.0 (6.0-14.7) | 49/289 | 44.1 (35.5-52.2) | 137/289 | 21.2 (15.2-28.0) | 67/289 |
| ≤ 24 | 8.8 (1.3-17.0) | 8/49 | 9.7 (0-27.6) | 6/23 | 2.5 (0-10.2) | 3/17 |
| ≥ 25 | 10.2 (5.7-15.3) | 41/240 | 44.6 (35.8-53.2) | 131/266 | 22.7 (16.7-30.3) | 64/272 |
| Received qualified information on HIV/AIDS last 12 months | 5.4 (2.7-8.6) | 28/289 | 38.9 (29.4-46.7) | 122/289 | 11.3 (7.3-16.3) | 40/289 |
| ≤ 24 | 9.1 (1.5-17.5) | 3/49 | 10.6 (0.3-2.8) | 6/23 | 0 (0-0) | 1/17 |
| ≥ 25 | 5.1 (2.4-8.6) | 25 /240 | 39.4 (29.4-47.4) | 116 /266 | 11.9 (8-17.9) | 39/272 |
| Heard information about syringe exchange program | 19.9 (12.4-25.5) | 100/289 | 62.7 (53.5-71.1) | 190/289 | 23.7 (18.2-30.4) | 74/289 |
| Received sterile syringes from the program during the last 12 months | 23.9 (5.9-41.9) | 22/100 | 81.0 (70.0-86.5) | 134/190 | 39.7 (12.0-73.6) | 20/74 |
| Heard about substitution therapy program | 86.6 (81.6-93.2) | 267/289 | 97.0 (93.9-99.3) | 280/289 | 95.2 (90.1-99.0) | 280/289 |

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Drug treatment and HIV/AID prevention | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| Two persons with major influence on continuing drug use | | | | | | |
| No one | 88.7(84-93) | 254/289 | 80.7 (74.4-86.3) | 222/289 | 84.9(79.9-89.4) | 234/289 |
| Needle partner | 9.3 (5.2-13.7) | 25/289 | 16.8 (11.7-22.8) | 58/289 | | |
| Two persons with major influence on quitting drug use | | | | | | |
| Parents | -- | -- | -- | -- | 21.6 (16.2-27.5) | 75/289 |
| No one | 40.8 (34.1-48.8) | 111/289 | 41.9 (34.9-49.4) | 89/289 | -- | -- |
| Friend | 23.5 (17.5-30.7) | 70/289 | 13 (9.1-17.7) | 53/289 | 22.4 (16.7-28.8) | 74/289 |

### Table 25: Prevalence of HIV

| | TELAVI | | GORI | | KUTAISI | |
|---|---|---|---|---|---|---|
| Biomarker | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N | RDS population estimates, % (95% CI) | n/N |
| HIV infection | | | | | | |
| HIV prevalence * | 0.4 (0-2.5) | 3/280 | 1.1 (0-2.8) | 5/284 | 2.1 (0.4-4.5) | 6/281 |
| ≤ 24 | 0 | 0/48 | 0 | 0/23 | 0 (0-0) | 0/17 |
| ≥ 25 | 0.5 (0-3.2) | 3/232 | 1.2 (0-2.9) | 5/261 | 2.3 (0.4-4.8) | 6/264 |

* Estimations could not be done in the RDSAT, were done in SPSS with 95% confidence interval

## Annex 3: RDS Study Forms

Questionnaire identification number: _____

Coupon number: __/ __/__/__/__/__/__/__/__/__/

Questions About Your Recruiter (Do not ask seeds)

| Questions | Responses |
|---|---|
| 1. How would you describe your relationship to the person who referred you to this study, that is, the person who gave you this coupon? (check all that apply) | 1. ____Drug Friend<br>2. ____Friend<br>3. ____Husband/wife<br>4. ____Sex partner<br>5. ____Parent (mother/father)<br>6. ____Sibling (brother/sister)<br>7. ____Offspring (daughter/son)<br>8. ____Neighbor<br>9. ____Person from the same district<br>10. ____Co-worker<br>11. ____Relative<br>12. ____Stranger<br>13. ____ Other |
| 2. How do you know the person who referred you to this study? (check all that apply) | 1. ____Person I have sex with often, my main sex partner<br>2. ____ Person I have sex with occasionally<br>3. ____ Person I use drugs with<br>4. ____ Person I buy drugs with<br>5. ____ Person I buy drugs from<br>6. ____ Person I share needles with<br>7. ____ Person I know through other drug user<br>8. ____ Other |
| 3. Not including the time you received your coupon, how many times have you seen your recruiter during the last four weeks? | _____ |
| 4. How old is your recruiter? (Probe:) What would be your best guess? | _____ years |
| 5. About how long have you known your recruiter? | _____ years<br><br>Or _____ months |
| 6. How close are you to your recruiter? | 1. ____Very close<br>2. ____Somewhat close<br>3. ____Not very close |
| 7. How often do you see your recruiter? | 1. ____Every day<br>2. ____Once a week<br>3. ____Once a month<br>4. ____Less than once a month |

## Client Checklist Form

To be filled out by authorized personnel

| | | | |
|---|---|---|---|
| **Date:** | | | |
| **Coupon number:** | \| \| \| \| \| \| \| \| \| \| \| \| | | |
| **Questionnaire number:** | \| \| \| \| \| \| \| \| \| \| \| \| | | |
| | | | Signature |
| The participant can join the study. | ❑ Yes | ❑ No[1] | |
| Informed consent has been signed. | ❑ Yes | ❑ No[2] | |
| The participant has completed the questionnaire. | ❑ Yes | ❑ No | |
| Counselor has completed the network size form. | ❑ Yes | ❑ No | |
| Counselor has counseled participant. | ❑ Yes | ❑ No | |
| Blood sample taken. | ❑ Yes | ❑ No | |
| Recruitment coupons released. | ❑ Yes | ❑ No | |
| Primary incentive paid. | ❑ Yes | ❑ No | |
| Secondary incentive paid. | | | |
| 1. First | ❑ Yes | ❑ No | |
| 2. Second | ❑ Yes | ❑ No | |
| Notes: | | | |

1 – Please fill non eligibility criteria form
2 – Please fill refusal form

**Form has been entered into Database** ❑

# Ineligibilty Form

(To be completed by the screener)

**Instructions:** Please complete a row on this form for each person you contact who does NOT meet the inclusion criteria to participate in the study.

| Ineligibility Codes | | | | |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| Is not an IDU | Is an IDU, but has not injected drugs during the last month | Under 18 years | Not from the geographic area | Other, specify: |

| # | **Coupon Number** (Take away the coupon and write the number in this column) | **Date** | **Reason for Non-Eligibility** (Write the code in this column) | **If Other, Specify** | **Signature of the Screener** |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |

# Refusal Form

To be completed by the screener.

**Instructions:** Please complete a row on this form for each person who meets the inclusion criteria but refuses to participate in the study.

| Refusal Codes | | | | | |
|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** |
| Didn't want to sign consent | Didn't want to answer questions | Fear of being identified | No time* | Did not want to give blood | Other, specify: |

| # | **Coupon Number** (Take away the coupon and write the number in this column) | **Date** | **Reason for Refusal** (Write the code in this column) | **If Other, Specify** | **Signature of the Screener** |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |

** Probe whether or not the person willing to come back in later time. If yes, hold his/her coupon, put it in an envelope, and try to make an appointment with him/her for the interview.*

## Sample RDS Network Questionnaire

Questionnaire identification number: _____

Coupon number: __/ __/__/__/__/__/__/__/__/__/__/

| # | Question | Answer |
|---|---|---|
| 1. | How many people in your city/region do you know who are IDUs (specify research city/region)? | |
| 2. | Among them how many people do you know personally (you know their name and they know yours)? | |
| 3. | How many of those who are 18 years old or more? | |
| 4. | How many of those have injected drugs during the last month? | |
| 5. | How many of those did you see in the last 30 days? | |
| 6. | Would you have recruited the same person who recruited you (gave you a coupon) if he/she had not already participated in the study? | ❑ yes ❑ No |
| 7. | How many of those (who are 18 or more years of age and IDU and have injected drugs during the last month) would you consider recruiting into this study? | |
| 8. | Why did you accept the coupon and come into this study? | *(Check all that apply)* |
| | a. For incentive | |
| | b. For clinical exam | |
| | c. Peer influence | |
| | d. The study seems to be interesting/useful | |
| | e. Had time to spend | |
| | f. Others (Specify): _____ | |

# Financial Reporting Form

**Instructions:** Coupon manager must complete this form each day for each seed. The date primary incentive was given (first column) is the same date the participant was interviewed.

**Seed number: _____** **Date: _____**

| Date primary incentive given | Coupon number | Quest. number | RDS coupons given | Date secondary incentive given* | Expiration date (two weeks) | Running total for primary incentive | Running total for secondary incentive |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| | | **Total** | | | | | |

# Coupon Tracking Form

**Instructions:** The coupon tracking form must be completed for each seed each day by the screener.

**Seed number:** _____

| Serial number | Referral Coupon Numbers | | | | | |
|---|---|---|---|---|---|---|
| | ***Questionnaire number*** | ***Date*** | ***Coupon Number*** | ***Coupon 1*** | ***Coupon 2*** | ***Coupon 3*** |
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |
| 11. | | | | | | |
| 12. | | | | | | |
| 13. | | | | | | |
| 14. | | | | | | |
| 15. | | | | | | |
| 16. | | | | | | |
| 17. | | | | | | |
| 18. | | | | | | |
| 19. | | | | | | |
| 20. | | | | | | |

# Coupon Rejecter Questionnaire

Questionnaire identification #: _____ Coupon #: _____

**Instructions:** Collect this information face-to-face from returning recruiters *each* time they come to collect their compensation.

Name of Interviewer: _____

Date of Interview: __ __ / __ __ / __ __ /

1. Is this the first time you have been here to collect compensation?
   - ❑ Yes *If yes, continue.*
   - ❑ No *If no, answer questions for the period of time between when the participant was last here and filled out this same questionnaire and now.*

2. How many coupons did you give out? _____ (*Between the last time you came here to receive compensation and now. If > zero, complete coupon rejecter questionnaire.)*

3. How many people refused to accept coupons? _____ *(If zero, do not complete the rest of this questionnaire. If > zero, continue.)*

## Ask These Questions for Each Individual Who Refused to Accept a Coupon

| | Question | Responses to question | Responses for each person who refused to accept a coupon |
|---|---|---|---|
| 1. | What is your relationship to this person? *(Check only one)* | 1. A stranger, someone you met for the first time<br>2. Someone you knew, but not closely<br>3. A close friend, someone you knew very well<br>4. A sexual partner<br>5. A family member/relation<br>6. A dealer<br>7. Other | Person 1 _____<br>Person 2 _____<br>Person 3 _____<br>Person 4 _____<br>Person 5 _____<br>Person 6 _____ |
| 2. | How long have you known this person? | 1. Less than 6 months<br>2. 6 months to 1 year<br>3. 1-2 years<br>4. 3-6 years<br>5. More than 6 years | Person 1 _____<br>Person 2 _____<br>Person 3 _____<br>Person 4 _____<br>Person 5 _____<br>Person 6 _____ |
| 3. | Why do you think this person refused to accept a coupon? *(Do not read. Ask for each individual who refused to accept the coupon.)* | 1. Too busy<br>2. Already had a coupon/already participated in the study<br>3. Not a sex worker/IDU<br>4. Younger than 18 years<br>5. Did not sell sex/inject drugs in past month<br>6. Fear of being identified as sex worker/IDU<br>7. Site is too far away<br>8. Not interested<br>9. Incentive is not worth the time | Person 1 _____<br>Person 2 _____<br>Person 3 _____<br>Person 4 _____<br>Person 5 _____<br>Person 6 _____ |

## Annex 4: Study questionnaire

Questionnaire Identification Number_____

| | |
|---|---|
| Questionnaire is Coded as: | |
| Questionnaire is Word Processed by: | |

**Behavior and Biomarker Study Among Injecting Drug Users in Georgia, 2012**

**City _____**

**Year _____**

Partner Organization: _____Bemoni_____

**Introduction:** "My name is…….. *Curatio International Foundation and Bemoni Public Union implement a joint project titled "Establishment of evidence based for HIV/AIDS National Programme, by strengthening surveillance system", funded by Global Fund.*

Have you taken an interview over the last five weeks for this study?

***Interviewer: If somebody has already taken an interview from the person you are talking, don't take another one. Tell him/her, that you cannot re-interview him/her. Thank the person and finish conversation. If nobody has taken an interview from the person in question, continue.***

**Confidentiality and consent:** "I am planning to ask you several questions that are hard to answer by some people. Your responses will be kept confidential. The questionnaire will not show your name and will never be referred to in connection with the information that you will share with us. You are not obliged to answer all my questions, and whenever you wish you may refuse to answer my questions. You may finish the interview at any time per you desire. However, we would love to note that your answers would help us better understand what people think, say and do in view of certain types of behavior. We would highly appreciate your input to this study.

**Interviewer's Code:** _____

***(Interviewer's signature certifying that the respondent has verbally agreed to the interview)***

| | Respondent 1 |
|---|---|
| **Date** | |
| **Interviewer** | |
| **Result** | |

**Result Codes:** 1. Completed; 2. Partially Completed; 3. Refusal; 4. other _____ (please specify)

Date and time of interview: /_____/date/____/hour/____/minute/

Signature: _____ Date _____

Q1. City: _____

Q2.Respondent ID [ ] #

Q3. How did you establish a contact with the respondent?

1. He is a patient/client of the counterpart organization
2. He has been picked out on a snowball basis
3. Other _____(please specify)

Q4. Place of the interview: (Field of place of institution):

_____

Q5. How many times have you participated in the same survey?

| | | |
|---|---|---|
| _____ times | 1 | *Continue* |
| None | 2 | *Go to A1.* |
| No response | 99 | |

Q6. Did you return to find out the results of your HIV test?

| | | |
|---|---|---|
| Yes | 1 | *Go to A1.* |
| No | 2 | *Continue* |
| No response | 99 | |

Q7. Why not?

1. Forgot
2. Did not interest the results
3. I was afraid of the positive result
4. I could not manage to go back
5. From my point of view, the testing was not necessary at all (I was healthy – did not have any symptoms)
6. Other (please specify) _____

88. Don't know
99. No response

A. Respondent's Personal Data

A1. Where do you live presently?

1. City (please indicate) _____
   1.1 District of the city (please indicate) _____
   1.2 Village (please indicate) _____

99. No response

A2. How long have you been living in this place?

(Please write down only the number of years, or months, or both; e.g. 2 years and 5 months)

1. _____ years
2. Always (since birth)

99.No response

A3. Are you an IDP or refugee?

1. Yes
2. No

99. No response

**A4. Within the last 12 months have you left the city or the current place of residence for more than a month?**

1. Yes
2. No
88. Don't know
99. No response

**A5. How old are you?**

/_____/_____/ years old

**A6. Gender**

1. Male
2. Female

**A7. Which ethnic group do you belong to?**

1. Georgian
2. Other (please indicate) _____
99. No response

**A8. Level of Education completed?**

1. None
2. Primary (1- 4 classes)
3. Secondary (school, technical school, vocational school)
4. Incomplete Higher
5. Higher
99. No response

**A9. Employment**

1. pupil/student
2. have a permanent job
3. have a temporary job
4. retired/disabled
5. unemployed
99. No response

**A9.1 How much is your monthly income?**

6. Less than 100 Gel
7. 100-300 Gel
8. 300-500 Gel
9. 500-700 Gel
10. 700-1000 Gel
11. 1000 Gel and more
99. No response

**A10. What is your marital status?**

1. Married
2. Divorced/Separated for ever
3. Widower
4. Has never been married
5. Other (please indicate)_____

**A11. With whom do you live now?**
(Interviewer: do not read out the options loud; choose the option below relevant to the response)

1. With a spouse
2. With a partner
3. Single
4. With parents/relatives
5. Other:_____ (Please indicate)
6. 99. Refused to answer

**A12. Penalty for drug usage:** (Please read out the options and match the responses with the relevant options in the table below)

| | Yes | How many times? | No | No response |
|---|---|---|---|---|
| 1. Have you detained in administrative sentence because of your drug use during the last 12 months? | 1 | | 2 | 99 |
| 2. Have you imprisoned before trial because of your drug use during the last 12 months? | 1 | | 2 | 99 |
| 3. Have you imprisoned because of your drug use during the last 12 months? | 1 | | 2 | 99 |

**A13. Within the last month how often have you consumed alcoholic beverages, such as beer, wine, vodka, other?**
1.Every day
2.More than once a week
3.Once a week
4.Rarely
5.Never (don't read out loud)
6.Other (please indicate)_____
99. No response

**A. Drug Usage**

**B1. How old were you when you start using drugs?**
I only mean any kind of drugs used for non-medical purposes, including those to be swallowed, smoked and/or injected
_____ years old (please indicate an exact age)

**B2. How old were you when you took the first drug injection?**

_____ years old (please indicate an exact age)

**B3. How long ago realized that you are depending on injection drug?** (Please indicate only number of years, or months, or both)
1. _____ years old
2. Don't think I'm depended on drug
99. No response

**B4. Within the last 6 months, when you inject drugs, do you inject repeatedly with many of the IDUs, that is, you are a regular injecting group?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No, alone | 2 | *Go to B5* |
| No, with other IDUs | 3 | |
| Don't know | 88 | |
| No response | 99 | |

**B4.1 How many IDUs are members of your regular injecting group?**

_____ (please indicate an exact number)

**B5. Which drugs have you used within the last week and which one did you inject?**

(Do not read out the options loud; choose the option below relevant to the response; several responses can be acceptable)

| | Consumed Last Month | | Injected Last Month | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| **1. CNS depressants** | | | | |
| 1.1 Barbiturates (_____) | 1 | 2 | 1 | 2 |
| 1.2. Tranquilizes (_____) | 1 | 2 | 1 | 2 |
| 1.3. Inhalants (_____) | 1 | 2 | 1 | 2 |
| 1.4 Antihistamines (_____) | | | | |
| 1.5 Other depressants(_____) | 1 | 2 | 1 | 2 |
| **2. Narcotic analgetics** | | | | |
| 2.1 Codeine | | | | |
| 2.2. Heroin | 1 | 2 | 1 | 2 |
| 2.3. Opium | 1 | 2 | 1 | 2 |
| 2.4. Poppy | 1 | 2 | 1 | 2 |
| 2.5. Methadone | 1 | 2 | 1 | 2 |
| 2.6 Subutex | 1 | 2 | 1 | 2 |
| 2.7. Morphine | 1 | 2 | 1 | 2 |
| 2.8 Dezomorphine ("Crocodile") | 1 | 2 | 1 | 2 |
| 2.9 Tramadol | 1 | 2 | 1 | 2 |
| 2.10 Other Opiates (_____) | 1 | 2 | 1 | 2 |
| **3. CNS stimulates** | | | | |
| 3.1 Cocaine | 1 | 2 | 1 | 2 |
| 3.2 Amphetamine | 1 | 2 | 1 | 2 |
| 3.3 Ecstasies | | | | |
| 3.4 Ephedrone (Vint) | 1 | 2 | 1 | 2 |
| 3.5 Jeff | 1 | 2 | 1 | 2 |
| 3.6 Other stimulates (_____) | 1 | 2 | 1 | 2 |
| **4. Hallucinates** | | | | |
| 4.1 LSD | 1 | 2 | 1 | 2 |
| 4.2 Hemp (marijuana, hashish, anasha) | 1 | 2 | 1 | 2 |
| 4.3 Cyclodol | | 2 | 1 | 2 |
| 4.4 Other hallucinates (_____) | 1 | 2 | 1 | 2 |
| **5.Combination** (please specify)____ | 1 | 2 | 1 | 2 |
| 6. **Other** (please specify) _____ | 1 | 2 | 1 | 2 |
| **Don't know/don't remember** | **88** | | **88** | |
| **No response** | **99** | | **99** | |

**B6. When did you inject drugs last?**

1. _____ days ago (Interviewer: If answer is "Today" please specify 0)
88. Don't remember
99. Refused to answer (go to B8)

**B7. How many times did you take drugs that day?**

1. _____
88. Don't remember
99. Refused to answer

**B8. Which drug did you inject at last?**

_____

88. Don't remember
99. Refused to answer

**B9.** (If you did not take the last shot today or yesterday) **Can you tell me why didn't you take drugs today or yesterday?** (please read out the options below and match them with the responses) **Maybe you had several reasons; if it is so, please indicate all.** After the answer, please ask once more **Besides these reasons, were there any other reasons?** (Several responses are acceptable)

1. Had no money
2. Had no desire
3. Couldn't get drugs
4. I'm receiving treatment
5. 5.Other (please indicate) _____

99. No response (don't read out)

**B10. Within the last month how often did you inject drugs?**

1. Once a month
2. Several times a month
3. Once a week
4. 2-3 times a week
5. 4-6 times a week
6. Once a day
7. Several times a day
8. Have not injected (don't read out)
88. Don't know
99. No response

**C. Needle Sharing Behaviour**

**C1.1 Have you ever used a needle/syringe that was used by somebody else before?**

1. Yes
2.No
88.Don't know
99.No response

**C1.2 Have you ever used a needle/syringe that was used by yourself before?**

1.Yes
2.No
88.Don't know

99.No response

**C2.1 At last, when you injected drugs, have you ever used needle/syringe that was used by anobody?**

1. Yes
2.No
88.Don't know
99.No response

**C2.2 At last, when you injected drugs, have you ever used needle/syringe that was used by you?**

1. Yes
2.No
88.Don't know
99.No response

*(Interviewer: If C2.1 and C2.2 is "No", go to C2.4)*

**C2.3 When you last injected the drugs, did you use a needle/syringe that was left at a place of gathering by somebody else (e.g. where the drugs were prepared, the dedicated flat, or elsewhere)?**

1. Yes
2. No
88. Don't know
99. No response

**C2.4 If many people were there, how do you think, how many people used the shared needle?**

1._____ (please specify the number)
77. I was alone
88. Don't know
99. No response

**C3.1 In the case of injection before the last usage, did you use a needle/syringe that had been used by anybody else before?**

1.Yes
2.No
88.Don't know
99.No response

**C3.2 In the case if injection before the last usage, did you use a needle/syringe that had been used by you before?**

1.Yes
2.No
88.Don't know
99.No response

*(Interviewer: If C3.1 and C3.2 is "No", go to C3.4)*

**C3.3 Did you then use a needle/syringe that was left at the place of gathering by somebody else or by you (of drug preparing, or some other place)?**

1. Yes
2. No
88. Don't know
99. No response

**C3.4 If several people were there at that time, how do you think, how many people could have used the shared needle/syringe?**

1._____ (please specify the number)
77. I was alone
88. Don't know
99. No response

**C4. During the last month when you injected the drug how often did it with the needle/syringe, which was use by somebody else?**

1. Always
2. Almost always
3. Sometimes
4. Once
5. Never
88. Don't know
99. No response

**C5. During the last month when you injected the drug how often did it with the same needle,which was used by you?**

1. Always
2. Almost always
3. Sometimes
4. Once
5. Never
88. Don't know
99. No response

*(Interviewer: If C4 and C5 answers are "Never" – go to C9)*

**C6. How many times did you clean needle/syringe that had been used by you or by others last month?**

| | | |
|---|---|---|
| Always | 1 | *Continue* |
| Almost always | 2 | |
| Sometimes | 3 | |
| Once | 4 | |
| Never | 5 | *Go to C7* |
| Don't know | 88 | |
| No response | 99 | |

**C6.1 If you cleaned the needle/syringe, how did you do it?** *(several responses are acceptable)*

| | Yes | No | Don't know | No response |
|---|---|---|---|---|
| 1. with water (boiled, not-boiled, hot) | 1 | 2 | 88 | 99 |
| 2. with disinfection solution | 1 | 2 | 88 | 99 |
| 3. boil the needle/syringe | 1 | 2 | 88 | 99 |

**C7. During the last month, did you use a needle/syringe that had been used by any of the following people?** (several responses are available)

| | Yes | No | Don't know | No Response |
|---|---|---|---|---|
| 1.Your usual partner in sex (girl-friend) | 1 | 2 | 88 | 99 |
| 2.Partner in sex whom you didn't know before | 1 | 2 | 88 | 99 |
| 3.Someone from the drug-addict community (drug-related friend) | 1 | 2 | 88 | 99 |
| 4.Drug trafficker | 1 | 2 | 88 | 99 |
| 5.Stranger | 1 | 2 | 88 | 99 |
| 6. Friend | 1 | 2 | 88 | 99 |
| 7.Other (please specify):_____ | 1 | 2 | 88 | 99 |

**C8. During the last month with how many different drug user partners did you share a needle/syringe? (Count all those people with whom you shared a needle/syringe)**

1. _____ (Number of Partners)
88. Don't know
99. No response

**C9. During the last month how many times did you give the used needle/syringe to others?**

| | | |
|---|---|---|
| Always | 1 | *Continue* |
| Almost always | 2 | |
| Sometimes | 3 | |
| Once | 4 | |
| Never | 5 | *Go to C11* |
| Don't know | 88 | |
| No response | 99 | |

**C10. When you gave a used needle/syringe to others for using , did you or they , whom did you give, clean them before usage?**

| | | |
|---|---|---|
| Always | 1 | *Continue* |
| Almost always | 2 | |
| Sometimes | 3 | |
| Once | 4 | |
| Never | 5 | *Go to C11* |
| Don't know | 88 | |
| No response | 99 | |

**C10.1 If you or they, whom did you give, cleaned the needle/syringe, how did you do it?** *(several responses are acceptable)*

| | Yes | No | Don't know | No response |
|---|---|---|---|---|
| 1.with water (boiled, not-boiled, hot) | 1 | 2 | 88 | 99 |
| 2.with disinfection solution | 1 | 2 | 88 | 99 |
| 3.boil the needle/syringe | 1 | 2 | 88 | 99 |
| 4.other method (please specify)_____ | 1 | 2 | 88 | 99 |

**C11. When you last threw away the used needle, how did you do that?** (do not read out the options. Match the responses with the options below. If the respondent's answer is different from the below presented options, take note of the full answer).

1. Threw the needle into the garbage bin without a cap
2. Broke the needle and threw into the garbage bin
3. Threw the needle into the garbage bin with a cap
4. Put into a bottle/can/boiling pan and left there
5. Throw on the ground
6. Burnt it in a stove
7. Other (please specify)_____

99. No response

**C12. During the last month how often have you used new and unused needle/syringe?** *(Compare C4 answers)*

1. Always
2. Almost always
3. Sometimes
4. Never

88. Don't know

99. No response

**C13. Can you actually get new and unused needles and syringes whenever you need them?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to C15*** |
| Don't know | 88 | |
| No response | 99 | |

**C14. Where do you get/buy new needles/syringes?** *(several responses are available)*

| | Yes | No |
|---|---|---|
| 1. Drug store | 1 | 2 |
| 2. Shop | 1 | 2 |
| 3. Hospital | 1 | 2 |
| 4. Family/Relatives | 1 | 2 |
| 5. Partner in sex | 1 | 2 |
| 6. Friends | 1 | 2 |
| 7. Other injection drug user | 1 | 2 |
| 8. Drug trafficker | 1 | 2 |
| 9. Syringe exchange programme | 1 | 2 |
| 10. Other (please specify) _____ | 1 | 2 |

**C15. During the last month how many times have you used a syringe that had already been filled with drugs without your presence?**

1. Always
2. Almost always
3. Sometimes
4. Once
5. Never

88. Don't know

99. No response

***C16. During the last week how many times did you take drugs after it had been filled with solution from a syringe that had been used by somebody else?*** *(Interviewer: Whether it was*

99. No response

**C17. During the last month when you injected drugs, how many times did you use shared syringe with left drug in it (portion used by somebody else, remaining left to you)?**

1. Always
2. Almost always
3. Sometimes
4. Once
5. Never

88. Don't know
99. No response

**C18. During the last month when you injected drugs, how many times did you use shared bottle, spoon, boiling pan/glass/container, cotton/filter or water?**

1. Always
2. Almost always
3. Sometimes
4. Once
5. Never

88. Don't know
99. No response

**C19. During the last month how many times did you take solution from the shared container?**

1. Always
2. Almost always
3. Sometimes
4. Once
5. Never

88. Don't know
99. No response

*(Interviewer: match the C15 – C19 responses to C20)*

**C20. Please recall the last instance of your taking drugs and tell me**:

| | Yes | No | Don't know | No respons |
|---|---|---|---|---|
| 1. Did you use a syringe after it was already filled by somebody else? | 1 | 2 | 88 | 99 |
| 2. Did you use a syringe after it was filled by somebody else from his/her used syringe? | 1 | 2 | 88 | 99 |
| 3. Did you inject drug it was left by somebody in the needle? | 1 | 2 | 88 | 99 |
| 4. Did you use a shared bottle, spoon, boiling pan/glass, container, cotton/filter or water? | 1 | 2 | 88 | 99 |
| 5. Did you take solution from the shared container? | 1 | 2 | 88 | 99 |

**C21. Over the last year have you injected drugs in another country/city/town?**

| | Yes | No | Don't know | No response |
|---|---|---|---|---|
| 1.Other cities of Georgia | 1 | 2 | 88 | 99 |
| 2.In countries of the FSU (please specify)_____ | 1 | 2 | 88 | 99 |
| 3. In other countries (please specify)_____ | 1 | 2 | 88 | 99 |

*(Interviewer : If C21 all answers are "No" – go to C22)*

**C21.1 When you injected drugs in any other country/city/town did you use somebody else's needle/syringe?**

1. Yes
2. No
88. Don't know
99. No response

**C22. Did you experience overdoses in the last year?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to C23.* |
| Don't remember | 88 | |
| No response | 99 | |

**C22.1 What kind of help did you get?** (*several responses are acceptable)*

1. Emergency aid
2. Hospital treatment
3. Other_____(please specify)

**C23. Did you try to stop drug use without medical help during the last 12 months?**

1. Yes
2. No
88. Don't know
99. No response

**C24. Have you ever got special treatment because you are a drug use?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to C30* |
| Don't know | 88 | *Continue* |
| No response | 99 | |

**C25. Have you applied to a medical facility, specialized center to get a treatment or specialized assistance because you are a drug user during last 12 months?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to C30* |
| Don't know | 88 | *Continue* |
| No response | 99 | *Continue* |

**C26. Did you currently get any medical treatment, or have you ever taken specialized treatment because you are a drug user?**

| | | |
|---|---|---|
| Currently taking a medical treatment *(Math to B9)* | 1 | *Continue* |
| Used to take a medical treatment during last 12 months, but now I'm not taking | 2 | |
| No | 3 | *Go to C30* |
| No response | 102 99 | |

**C27. What kind of medical treatment or specialized assistance have you taken over 12 months?** *(Do not read out the options. Ask also this: "What other treatments have you taken? Several responses are acceptable)*

| | Yes | No |
|---|---|---|
| 1. Consultations | 1 | 2 |
| 2. Self-treatment groups | 1 | 2 |
| 3. Detoxification with Methadone | 1 | 2 |
| 4. Substitution with Methadone | 1 | 2 |
| 5. Detoxification with other drugs | 1 | 2 |
| 6. Detoxification without drugs | 1 | 2 |
| 7. Psycho-social rehabilitation center | 1 | 2 |
| 8. Other ***(please write down)***_____ | 1 | 2 |
| 9. Survived "extreme need" without anybody's help | 1 | 2 |
| 88. Don't know | 88 | |
| 99. No response | 99 | |

**C28. Can you tell me in which country/city did you take medical treatment?**

1. Tbilisi
2. Batumi
3. Other city of Georgia (please indicate) _____
4. Foreign country

99. No response

**C29. Did you want to get other treatment or specialized assistance, but couldn't get it?**

| | | |
|---|---|---|
| Yes (I'd desire, but couldn't get it) | 1 | ***Continue*** |
| No | 2 | ***Go to D1*** |
| Don't know | 88 | |
| No response | 99 | |

**C30. Why you have not got treatment or specialized assistance during last 12 months? (***do not read out, more than one response is possible, match responses to given options)*

1. Have no desire
2. It is very expensive/ did not have enough money
3. Because of location
4. I applied, but wasn't enough place
5. I applied, but conditions were unsatisfactory
6. Couldn't find good specialist/doctor
7. Other ***(please specify)***_____

88. Don't know
99. No response

## *D. Sexual Life Record (For male)*

**D1. How old were you when you had the first sexual contact?**

1. _____ years old (please indicate the exact age)

77. Never had it (go to G Block)
88. Don't know
99. No response

**D2. Have you had sex with a female partner during the last year?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |

| | | |
|---|---|---|
| No response | 99 | |

**D3. In total with how many female sexual partners have you had sex over the last 12 months?**
1._____ (please specify the exact number)
88. Don't know
99. No response

**D3.1 How many of those were "regular sexual partners"? (*i.e. spouse or live-in partner, or sex partner you do not live with, but have regular sexual contact. Regular sexual contact means contact that lasts more than one year, or less than one year with an intention to continue it*)**
1. _____ (number)
88. Don't know
99. No response

**D3.2 How many of your female sexual partners were "paid" ones? (*i.e. those ones with who you had a sexual contact in exchange for money or drugs*)**
1. _____number
88. Don't know
99. No response

**D3.3 How many of those sexual partners were "occasional" ones? (*i.e. those who are not regular partners and never have paid money in exchange for sex*)**
1. _____number
88. Don't know
99. No response

**D3.4 Which one was your last sexual partner?**
1. regular
2. paid
3. occasional
88.Don't know
99.No response

**D3.5 Did you use condom during last sexual contact?**
1. Yes
2. No
88.Don't know
99.No response

**D4. We talked about your female partners. Have you ever had a male sexual partner?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to E1* |
| No response | 99 | |

**D4.1 How many male partners have you had during the last 12 months?**
1. _____number
88. Don't know
99. No response

## D. Number and Types of Partners (For male)

*The following questions I will ask you about your **regular sexual partner**. **i**.e. spouse or live-in partner, or sex partner you do not live with, but have regular sexual contact. Regular sexual contact means contact that lasts more than one year, or less than one year with an intention to continue it*

**E1. Have you had sex with your regular sexual partner over the last 12 months?**
*(Circle the response for the question D3.1)*

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E2*** |

**E1.1 How many times did you have sex with your regular sexual partner over the last month?**

1. _____times
88. Don't know
99. No response

**E1.2 When you had last sexual contact with your regular sexual partner did you use a condom?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E1.4*** |
| Don't know | 88 | ***Go to E1.5*** |
| No response | 99 | |

**E1.3 Who offered to use condoms at that time, you or your regular sexual partner's?**

1. I did
2. Partner
3. Both
88. Don't know
99. Refused to answer

***(Go to E1.5)***

**E1.4 Why didn't you and your regular sexual partner use a condom at that time?** *(Don't read out the options. Match the response up to the options below. Several responses are acceptable)*

| | Yes | No | Don't know | No response |
|---|---|---|---|---|
| 1. Was not available/Did not have it | 1 | 2 | 88 | 99 |
| 2. Too expensive | 1 | 2 | 88 | 99 |
| 3. Partner refused | 1 | 2 | 88 | 99 |
| 4. Don't like it | 1 | 2 | 88 | 99 |
| 5. Use other contraceptives | 1 | 2 | 88 | 99 |
| 6. Didn't think necessary | 1 | 2 | 88 | 99 |
| 7. Didn't think of it | 1 | 2 | 88 | 99 |
| 8.Other ***(please indicate)*** _____ | 1 | 2 | 88 | 99 |

**E1.5 How often have you used condoms with your regular sexual partner within the last year?**

1. Always
2. Almost always
3. Sometimes
4. Never
88. Don't know
99. No response

**E1.6 Does your regular sexual partner inject drugs?**

1. Yes
2. No
88. Don't know
99. No response

*The following questions I will ask you about your **paid-for sexual partner**. A paid-for sexual partner is someone who you has sexual contact in exchange for money or drugs.*

**E2. Did you have a paid-for sexual female partner over the last 12 months?** *(Circle response to D3.2)*

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E3*** |

**E2.1.1 Please recall all your paid-for sexual partners from whom you get money or drugs in exchange for sex. How many of those did you have over the last month?**

1. _____ (exact number)
88. Don't know
99. No response

**E2.1.2 Please recall all the paid-for sexual partners to whom you paid money or drugs in exchange for sex over the last month. How many of those did you have in total?**

1._____ (exact number)
88. Don't know
99. No response

***(Interviewer: If there are no numbers in E2.1.1 and E2.1.2 go to E2.3)***

**E2.2 Please recall your last paid-for female sexual partner? How many times did you have sex with her over the last month?**

1. _____times
88. Don't know
99. No response

**E2.3 Last time when you had sex with your paid-for sexual partner, did you use a condom?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E2.5*** |
| Don't know | 88 | ***Go to E2.6*** |
| No response | 99 | |

**E2.4 Whose initiative was to use condoms at that time (you or your paid-for sexual partner's)?**

1. Mine
2. Partner's
3. Mutual
88. Don't know
99. Refused to answer

***(Go to E2.6)***

**E2.5 Why didn't you and your paid-for sexual partner use condoms at that time?** (Don't read out the options. Several responses can be accepted)

| | Yes | No | Don't know | NR |
|---|---|---|---|---|
| 1. Was not available/Did not have it | 1 | 2 | 88 | 9 |

| | | | | |
|---|---|---|---|---|
| 1. Partner refused | 1 | 2 | 88 | 9 |
| 2. Don't like it | 1 | 2 | 88 | 9 |
| 3. Use other contraceptives | 1 | 2 | 88 | 9 |
| 4. Didn't think necessary | 1 | 2 | 88 | 9 |
| 5. Didn't think of it | 1 | 2 | 88 | 9 |
| 6. Other (please indicate) _____ | 1 | 2 | 88 | 9 |

**E2.6 Last year how often did you use condoms with your paid-for sexual partners?**

1. Always
2. Almost always
3. Sometimes
4. Never

88. Don't know

99. No response

**E2.7 Does your paid-for sexual partner inject drugs?**

1. Yes
2. No

88. Don't know

99. No response

*The following questions I will ask you about your **occasional sexual partners.** An occasional sexual partner is someone who you are not married to, never lived together, and have never paid money or exchanged drugs for sex.*

**E3. Did you have a sexual contact with an occasional sexual partner over the last 12 months?**
*(Circle the response to D3.3)*

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E4*** |

**E3.1 Please recall your very last occasional sexual partner. How many times did you have sexual contacts with her within the last month?**

1. _____times

88. Don't know

99. No response

**E3.2 Last time when you had a sexual contact with your occasional sexual partner, did you use condoms?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E3.4*** |
| Don't know | 88 | ***Go to E3.5*** |
| No response | 99 | |

**E3.3 Whose initiative was then to use condoms?**

1. Mine
2. Partner's
3. Mutual

88. Don't know

99. Refused to answer

(***Go to E3.5)***

**E3.4 Why didn't you and your occasional sexual partner use condoms then?** (Don't read out the options. Several responses can be accepted.)

| | Yes | No | Don't know | No respons |
|---|---|---|---|---|
| 1. Was not available/Did not have it | 1 | 2 | 88 | 99 |
| 2. Too expensive | 1 | 2 | 88 | 99 |
| 3. Partner refused | 1 | 2 | 88 | 99 |
| 4. Don't like it | 1 | 2 | 88 | 99 |
| 5. Partner uses other contraceptives | 1 | 2 | 88 | 99 |
| 6. Didn't think necessary | 1 | 2 | 88 | 99 |
| 7. Didn't think of it | 1 | 2 | 88 | 99 |
| 8.Other (please indicate) _____ | 1 | 2 | 88 | 99 |

**E3.5 How often have you used condoms with your occasional sexual partner over the last year?**

1. Always
2. Almost always
3. Sometimes
4. Never

88. Don't know
99. No response

**E3.6 Do you know whether your occasional sexual partner inject drugs?**

1. Yes
2. No

88. Don't know
99. No response

**E4. Have you had anal sex with any sexual partners?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to E5* |
| Don't know | 88 | |
| No response | 99 | |

**E4.1 Have you used condom then?**

1. Yes
2. No

88. Don't know
99. No response

**E5. During the last month have you had any problem with obtaining condom?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to G1* |
| Don't know | 88 | |
| No response | 99 | |

**E5.1 If yes, what was reason?**

_____ *(please specify)*

## *C. Sexual Life Record (For Female)*

**D1. How old were you when you had the first sexual contact?**

1. _____ years old (please indicate the exact age)

77. Never had it (go to G Block)
88. Don't know
99. No response

**D2. Have you had sex with a female partner during the last year?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to E Block* |
| No response | 99 | |

**D3. In total with how many male sexual partners have you had sex over the last 12 months?**
1._____ (please specify the exact number)
88. Don't know
99. No response

**D3.1 How many of those were "regular sexual partners" (*i.e. spouse or permanent sexual partner*)?**
1. _____ (number)
88. Don't know
99. No response

**D3.2 How many of your male sexual partners were "paid" ones? (*i.e. those ones with who you had a sexual contact in exchange for money or drugs*)**
1. _____number
88. Don't know
99. No response

**D3.3 How many of those sexual partners were "occasional" ones? (*i.e. those ones that you are not married to, never have lived together, and never have paid money in exchange for sex*)**
1. _____number
88. Don't know
99. No response

**D3.4 Which one was your last sexual partner?**
1. regular
2. paid
3. occasional
88.Don't know
99.No response

**D3.5 Did you use condom during last sexual conact?**
1.Yes
2.No
88.Don't know
99.No response

**E.Number and Types of Partners (For Female)**

*The following questions I will ask you about your **regular sexual partner**. A regular sexual partner is someone who is your spouse or who you consider your permanent sexual partner.*

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to E2* |

**E1.1 How many times did you have sex with your regular sexual partner over the last month?**

1. _____times
88. Don't know
99. No response

**E1.2 When you had last sexual contact with your regular sexual partner did you use a condom?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to E1.4* |
| Don't know | 88 | *Go to E1.5* |
| No response | 99 | |

**E1.3 Who offered to use condoms at that time, you or your regular sexual partner's?**

1. I did
2. Partner
3. Both
88. Don't know
99. Refused to answer

*(Go to E1.5)*

**E1.4 Why didn't you and your regular sexual partner use a condom at that time?** *(Don't read out the options. Match the response up to the options below. Several responses are acceptable)*

| | Yes | No | Don't know | No response |
|---|---|---|---|---|
| 1. Was not available/Did not have it | 1 | 2 | 88 | 99 |
| 2. Too expensive | 1 | 2 | 88 | 99 |
| 3. Partner refused | 1 | 2 | 88 | 99 |
| 4. Don't like it | 1 | 2 | 88 | 99 |
| 5. Use other contraceptives | 1 | 2 | 88 | 99 |
| 6. Didn't think necessary | 1 | 2 | 88 | 99 |
| 7. Didn't think of it | 1 | 2 | 88 | 99 |
| 8.Other *(please indicate)* _____ | 1 | 2 | 88 | 99 |

**E1.5 How often have you used condoms with your regular sexual partner within the last year?**

1. Always
2. Almost always
3. Sometimes
4. Never
88. Don't know
99. No response

**E1.6 Does your regular sexual partner inject drugs?**

1. Yes
2. No
88.Don't know
99. No response

*The following questions I will ask you about your **paid-for sexual partner**. A paid-for sexual partner is someone who you has sexual contact in exchange for money or drugs.*

**E2. Did you have a paid-for sexual partner over the last 12 months?** *(Circle response to D3.2)*

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E3*** |
| Don't know | 88 | |
| No response | 99 | |

**E2.1.1 Please recall all your paid-for sexual partners from whom you get money or drugs in exchange for sex. How many of those did you have over the last month?**

1. _____ (exact number)
88. Don't know
99. No response

**E2.1.2 Please recall all the paid-for sexual partners to whom you paid money or drugs in exchange for sex over the last month. How many of those did you have in total?**

1._____ (exact number)
88. Don't know
99. No response

***(Interviwer: If E2.1.1 and E2.1.2 isn't number go to E2.3)***

**E2.2 Please recall your last paid-for sexual male partner? How many times did you have sex with her over the last month?**

1. _____times
88. Don't know
99. No response

**E2.3 Last time when you had sex with your paid-for sexual male partner, did you use a condom?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E2.5*** |
| Don't know | 88 | ***Go to E2.6*** |
| No response | 99 | |

**E2.4 Whose initiative was to use condoms at that time (you or your paid-for sexual partner's)?**

1. Mine
2. Partner's
3. Mutual
88. Don't know
99. Refused to answer

***(Go to E2.6)***

**E2.5 Why didn't you and your paid-for sexual partner use condoms at that time?** (Don't read out the options. Several responses can be accepted)

| | Yes | No | Don't know | N |
|---|---|---|---|---|
| 1. Was not available/Did not have it | 1 | 2 | 88 | 9 |
| 2. Too expensive | 1 | 2 | 88 | 9 |
| 3. Partner refused | 1 | 2 | 88 | 9 |
| 4. Don't like it | 1 | 2 | 88 | 9 |
| 5. Use other contraceptives | 1 | 2 | 88 | 9 |
| 6. Didn't think necessary | 1 | 2 | 88 | 9 |

| | | | | |
|---|---|---|---|---|
| 1. Didn't think of it | 1 | 2 | 88 | 9 |
| 8.Other (please indicate) _____ | 1 | 2 | 88 | 9 |

**E2.6 Last year how often did you use condoms with your paid-for sexual partners?**

1. Always
2. Almost always
3. Sometimes
4. Never

88. Don't know
99. No response

**E2.7 Does your paid-for sexual partner(s) inject drugs?**

1. Yes
2. No

88. Don't know
99. No response

*The following questions I will ask you about your **occasional sexual partners.** An occasional sexual partner is someone who you are not married to, never lived together, and have never paid money or exchanged drugs for sex.*

**E3. Did you have a sexual contact with an occasional sexual partner over the last 12 months?**
*(Circle the response to D3.3)*

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E4*** |

**E3.1 Please recall your very last occasional sexual partner. How many times did you have sexual contacts with her within the last month?**

1. _____times

88. Don't know
99. No response

**E3.2 Last time when you had a sexual contact with your occasional sexual partner, did you use condoms?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to E3.4*** |
| Don't know | 88 | ***Go to E3.5*** |
| No response | 99 | |

**E3.3 Whose initiative was then to use condoms?**

1. Mine
2. Partner's
3. Mutual

88. Don't know
99. Refused to answer

(***Go to E3.5)***

**E3.4 Why didn't you and your occasional sexual partner use condoms then?** *(Don't read out the options. Several responses are available)*

| | Yes | No | Don't know | No response |
|---|---|---|---|---|
| 1. Was not available/Did not have it | 1 | 2 | 88 | 99 |
| 2. Too expensive | 1 | 2 | 88 | 99 |
| 3. Partner refused | 1 | 2 | 88 | 99 |

| | | | | |
|---|---|---|---|---|
| 1. Don't like it | 1 | 2 | 88 | 99 |
| 2. Partner uses other contraceptives | 1 | 2 | 88 | 99 |
| 3. Didn't think necessary | 1 | 2 | 88 | 99 |
| 4. Didn't think of it | 1 | 2 | 88 | 99 |
| 8.Other (please indicate) _____ | 1 | 2 | 88 | 99 |

**E3.5 How often have you used condoms with your occasional sexual partner over the last year?**

1. Always
2. Almost always
3. Sometimes
4. Never

88. Don't know

99. No response

**E3.6 Do you know whether your occasional sexual partner inject drugs?**

1. Yes
2. No

88. Don't know

99. No response

**E4. Have you had anal sex with any sexual partners?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to E5* |
| Don't know | 88 | |
| No response | 99 | |

**E4.1 Have you used condom then?**

1. Yes
2. No

88. Don't know

99. No response

**E5. During the last month have you had any problem with obtaining condom?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to G1* |
| Don't know | 88 | |
| No response | 99 | |

**E5.1 If yes, what was reason?**

_____ *(please specify)*

## *F. Sexually Transmitted Diseases*

**G1. Have you heard of diseases that are transmitted sexually?**

1.Yes

2.No

99.No response

**G2. Have you observed genital release or burning pain while urinating during the last 12 months?**

1. Yes

2. No
88. Don't know
99. No response

**G3. Have you observed genital ulcer/rash over the last 12 months?**

1. Yes
2. No
88. Don't know
99. No response

***(Interviewer: If G2 or G3 answer is "Yes" – Continue, in other case go to H)***

**G4. Whom did you apply for medical treatment?** *(multiple answers are possible)*

| | Yes | No | Don't know | NR |
|---|---|---|---|---|
| 1. STD Institution | 1 | 2 | 88 | 99 |
| 2. Private doctor | 1 | 2 | 88 | 99 |
| 3. Drugstore | 1 | 2 | 88 | 99 |
| 4. Self-treatment | 1 | 2 | 88 | 99 |
| 5. Nobody | 1 | 2 | 88 | 99 |
| 6.Other (please specify) | 1 | 2 | 88 | 99 |

*H. Knowledge, Opinion and Attitude*

**H1. Have you heard about HIV ?**

1. Yes
2. No
88. Don't know
99. No response

**H2. Have you heard about AIDS?**

1. Yes
2. No
88. Don't know
99. No response

***(Please explain that HIV is a human immunodeficiency virus which causes AIDS)***

***(Interviewer: If H1 and H2 there is "No" go to H7)***

H3. Do you know any person around you who has been infected, ill with, or has died of AIDS?

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to H5*** |
| Don't know | 88 | |
| No response | 99 | |

**H4. Do you have a close relative or friend who has been infected, ill with, or has died of AIDS?**

1. Yes, a close relative
2. Yes, a close friend
3. No

4. Other (please indicate) _____
88. Don't know
99. No response

**H5. How high is your risk of getting HIV infection?**

1. High risk
2. Medium risk
3. Low risk
4. There is no risk

88. Don't know
99. No response

**H6. Please give me your opinion regarding the following:** *(mark the relevant answer)*

| Assertions | Yes | No | DK | NR |
|---|---|---|---|---|
| 1. Do you believe that one may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner? | 1 | 2 | 88 | 99 |
| 2. Can one reduce the HIV risk if one properly uses condoms during every sexual contact? | 1 | 2 | 88 | 99 |
| 3. Do you think that healthy looking person can be infected with HIV? | 1 | 2 | 88 | 99 |
| 4. Can one get HIV as a result of a mosquito's bite? | 1 | 2 | 88 | 99 |
| 5. Do you believe that one can get HIV/AIDS by taking food or drink infected person? | 1 | 2 | 88 | 99 |
| 6. Do you believe that one may be infected with HIV/AIDS by using a needle already used by someone else? | 1 | 2 | 88 | 99 |
| 7. Do you believe that one may be infected with HIV/AIDS by using bottle, spoon, boiling pan/glass, container, cotton/filter or water previously touched by a needle/syringe used by someone else? | 1 | 2 | 88 | 99 |
| 8. Do you believe that one may be infected with HIV/AIDS by taking solution from the shared container? | 1 | 2 | 88 | 99 |
| 9. Do you believe that drug users may protect themselves form HIV/AIDS by switching to non-injection drugs? | 1 | 2 | 88 | 99 |
| 10. Do you believe that an HIV/AIDS-infected pregnant woman can transfer virus to her fetus? | 1 | 2 | 88 | 99 |

**H7. Is it possible in your neighborhood/town that one take confidential HIV/AIDS test to see if one is infected?** *"Confidential" means that nobody will know about the test results without one's permission*

1. Yes
2. No

88. Don't know
99. No response

**H8. If you wish to take an HIV test, do you know where to apply?**

1. Yes
2. No

99. No response

**H9. I don't want to know about the test results but have you ever taken an HIV test?**

| | | |
|---|---|---|
| Yes | 1 | ***Continue*** |
| No | 2 | ***Go to H13*** |
| No response | 99 | |

**H10. When did you take the last HIV test?**

1. During the last year
2. About 1-2 years period
3. 2 years ago
88. Don't know
99. No response

**H11. Was it your initiative to take the HIV/AIDS test or it was needed for certificate?**

| | Yes | No | No response |
|---|---|---|---|
| 1. My initiative | 1 | 2 | 99 |
| 2. Certificate | 1 | 2 | 99 |
| 3.Other _____ | 1 | 2 | 99 |

**H12. Don't tell me the test result, but do you know it?**

1. Yes
2. No
99. No response

**H13. If you are infected with HIV will you inform your spouse/sex partner?**

1. Yes
2. No
88. Don't know
99. No response

**H14. If you are infected with HIV will you inform your IDU partners?**

| | | |
|---|---|---|
| Yes | 1 | *Go to I* |
| No | 2 | *Continue* |
| Don't know | 88 | *Go to I* |
| No response | 99 | |

**H14.1 Why you will not inform your IDU partners about your infection? You might have several reasons, please list all of them.**

_____

## *I. Use of prevention programs*

***(I1 Question for those respondents who answered positively to Q H1 and/or H2)***

**I1. Out of the below listed information sources which one was used by you as a source of information about AIDS?** *(Several answers are acceptable)*

| | Yes | No |
|---|---|---|
| 1. Radio | 1 | 2 |
| 2. TV | 1 | 2 |
| 3. Magazines/Journals | 1 | 2 |
| 4. Booklets, Posters | 1 | 2 |
| 5. Healthcare system staff | 1 | 2 |
| 6. Schools/Teachers | 1 | 2 |

| | | |
|---|---|---|
| 8. NGO representatives/Social Workers | 1 | 2 |
| 9. Billboards/Street Advertising | 1 | 2 |
| 10. Internet | 1 | 2 |
| 11. Other (please specify)_____ | 1 | 2 |

**I2. Did anybody supply you with the following items and/or information about those during last year?** *(Multiple answers are available)*

| | Y | N |
|---|---|---|
| 1. Brochures/pamphlets/booklets on AIDS | 1 | 2 |
| 2. Qualified information on AIDS | 1 | 2 |
| 3. Condoms | 1 | 2 |
| 4.Needle/syringe | 1 | 2 |
| 5. Other (please specify)_____ | 1 | 2 |

*(Interviewer: If respondent says 1-4 in I2 question Continue, If no go to I4)*

**I3. Have you got all of these at one visit?**

1. Yes
2. No
88.Don't know
99. No response

**I4. Have you heard/seen or read any information about the syringe exchange program over the last year?**

| | | |
|---|---|---|
| Yes | 1 | *Continue* |
| No | 2 | *Go to I5* |
| Don't know | 88 | |
| No response | 99 | |

**I4.1 Did you get a sterile needle/syringe from this program during the 12 months?**

1. Yes
2. No
88. Don't know
99. No response

**I5. Have you heard any information about methadone or suboxon substitution therapy program?**

3. Yes
4. No
5. 88. Don't know
6. 99. No response

**J. Social Impact**

**J1. Please recall where do you normally inject drugs?** *(Don't read out,* s*everal answers are acceptable)*

1. Street
2. Flat
3. Car
4. Main entrance
5. Nonliving space (garage, basement, garret, lift, abandoned home)
6. Open space (Forest, Field, Sea coast )
7. Where I buy drugs
8. Everywhere its possible

1. other (please specify)_____

**J2. Please specify two persons who have the major impact on you in terms of continuing the using of drugs.** *(acceptable one answer in column)*

| | Person One | Person two |
|---|---|---|
| Parents | 1 | 1 |
| Siblings/Relative | 2 | 2 |
| Spouse/ sexual partner | 3 | 3 |
| My children | 4 | 4 |
| Friend(s) | 5 | 5 |
| Needle partners | 6 | 6 |
| Nobody | 99 | |

**J3. Please specify two persons who have the major impact on you in terms of continuing the using of drugs.** *(acceptable one answer in column)*

| | Person One | Person two |
|---|---|---|
| Parents | 1 | 1 |
| Siblings/Relative | 2 | 2 |
| Spouse/ sexual partner | 3 | 3 |
| My children | 4 | 4 |
| Friend(s) | 5 | 5 |
| Needle partners | 6 | 6 |
| Nobody | 99 | |

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**Q8. You have been very helpful. After generalization and statistical analysis of the study results our organization will plan projects that will be beneficial for all. If in several months I need to take another interview from you, would you make yourself available?**

1. Yes
2. No
88. Don't know /we'll see

***Interviewer, thank the respondent for cooperation and say good bye.***

**Q9. During the interview the respondent was:**

1. Interested
2. Indifferent
3. Irritated
4. calm
5. excited
6. under the influence of drugs

***Time when interview was concluded /_____/***

***The questionnaire is kept till completion of the project.***

**Q10. Quality control on the interview was carried out by**

1. _____ Position
2. _____ Organization

Quality control group member has used (completed) quality control card



**Signature**_____