

HIV risk and prevention behaviour among Men who have Sex with Men in Tbilisi, Georgia

Bio-behavioral surveillance survey in 2012

Study report

Prepared by:

Curatio International Foundation

Center for Information and Counseling on Reproductive Health - Tanadgoma

February 2013



Acknowledgements

Curatio International Foundation (CIF) and the Association “Tanadgoma” would like to acknowledge the financial support provided by the GFATM under the project "Generating evidence base for risk behavior change and effectiveness of preventive interventions among high risk groups for HIV/AIDS”, which made this survey possible.

The report was prepared by Nino Tsereteli (Tanadgoma) and Dr. Ivdity Chikovani, Dr. Natia Shengelia, Nino Chkhaidze (CIF).

These surveys would not have been accomplished without collaboration with the National Center for Disease Control and Public Health, whose professional staff: Maia Tsereteli – coordinator of the research project, Maia Alkhazashvili and Ketevan Galdavadze carried out the laboratory testing.

The authors appreciate the highly professional work of the Tanadgoma staff – coordinator Sergo Chikhladze, field supervisors: Lela Kurdgelashvili and Giorgi Lomidze, the interviewers: Archil Rekhviashvili, Maia Jibuti, Khatuna Khazhomia and Ketevan Tchelidze, and the social workers: Tea Chakhrakia and Kakhaber Kepuladze for their input in recruitment and interviewing process.

The BSS team also wishes to thank all participants who agreed to dedicate their time and effort to the surveys.

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AI	Anal Intercourse
BSS	Behavioral Surveillance Survey
CIF	Curatio International Foundation
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GARPR	Global AIDS Response Progress Report
GEL	Georgian Lari
HIV	Human Immunodeficiency Virus
IDP	Internally Displaced Person
PWID	People Who Inject Drugs
MSM	Men who have Sex with Men
MSMW	Men who have Sex with Men and Women
NGO	Non-Governmental 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
USAID	United States Agency for International development
USD	United States Dollar
UNGASS	United Nations General Assembly Special Session

Definitions¹

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 IDUs).

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

Consistent condom use – use of condoms every time sexual relations occur, which includes vaginal, anal, or oral sex.

Man who has Sex with Man (MSM) - A man, who has had sexual contacts with other men, independently of his self-identification as gay.

Man who has Sex with Man (MSM) (for the survey purposes) - A man, who has had sexual contacts with other men during the last 12 months, independently of his self-identification as gay.

Regular sex partner for MSM – A sex partner, with whom sexual contacts and established without material remuneration and the relationship is stable.

Occasional (non-regular) sex partner for MSM – A sex partner, for a short period of time, who is not a regular partner and with whom sexual contact is established without materials remuneration.

Commercial sex partner for MSM – A sex partner with whom sexual contact is established in exchange for material remuneration, meaning that MSM paid money or gave some other material remuneration to the partner.

Client for MSM involved in commercial sex – A sex partner with whom sexual contact is established in exchange for material remuneration, meaning that MSM received money or some other material remuneration from the partner.

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

Executive Summary

Introduction

Georgia is among the countries with low HIV/AIDS prevalence but with a high potential for the development of a widespread epidemic. From the early years of epidemic injecting drug use was the main route for HIV transmission, however for the last two years heterosexual transmission is prevailing. According to the national HIV surveillance system, infections acquired through homosexual contact account for only 9.3% of all new HIV cases registered in 2012².

This study represents the subsequent wave of Bio-BSS undertaken among MSM in the capital city. The previous studies were carried out in 2007 and 2010. The objective of the 2012 Bio-BSS was to measure the prevalence of HIV and Syphilis among MSM, to provide measurements of key HIV risk behaviours and to generate evidence for program planning, advocacy and policy-making. The study was implemented within the GFATM-funded project “Generating evidence base for risk behavior change and effectiveness of preventive interventions among high risk groups for HIV/AIDS” by Curatio International Foundation (CIF), Center for Information and Counseling on Reproductive Health - Tanadgoma and the National Center for Disease Control and Public Health.

Methods

The study employed a cross-sectional design and a respondent-driven sampling methodology (RDS). The inclusion criteria for participation in the study included the following: age 18 years or older; homosexual anal or oral contact during the previous 12 months; being a resident of Tbilisi and ability to understand and communicate in Georgian.

The study protocol and questionnaires were approved by the Ethics Review Committee of HIV/AIDS Patients Support Foundation (certificate # 623/724 of 28.06.2012). Recruitment was accomplished by six seeds and a sample size of 218 respondents was reached. Face-to-face individual anonymous interviews were conducted by trained interviewers. The biomarker component involved analyses of blood specimens for HIV and Syphilis.

Equilibrium was not reached for key indicators, therefore data analysis in Respondent Driven Sampling Analyses Tool (RDSAT) was not performed. The data were analyzed using SPSS (version 18.0) to generate frequency tables and conduct bivariate analysis.

Results

Key findings from 2012 survey and comparisons with 2010 survey data are given below.

² National Center for Disease Control and Public Health, 2012 unpublished data

Socio-demographic characteristics

- The median age was 27 years, majority had secondary level education, had never been married, with monthly income less than 500 GEL (300 USD).
- The study did not reveal high proportion of heavy alcohol use or injecting drug use, only 2.8% reported use of injecting drugs during the last 12 months, indicating that there is no overlap with key populations such as MSM and PWID.

There is no difference in socio-demographic characteristics of MSM recruited in 2010 and 2012 studies. The study findings are limited to MSM mainly from the lower socioeconomic layer.

Sexual behaviour

- MSM had different types of both male and female sex partners (regular, occasional and commercial). The median number of male partners (anal/oral partners) in the last 12 months was 4, which was similar to that found in 2010.
- There is no statistically significant change in condom use at last anal intercourse (AI) in 2012 from 2010 (73.2% and 67.3% respectively). Condom use during last AI is the same with regular and occasional male partners (39.0% and 42.6% respectively), reported by approximately two thirds of the respondents.
- Consistent condom use with all types of male partners is less prevalent than last AI condom use. There is no statistically significant improvement in consistent condom use practices since 2010.
- About half of MSM reported having sexual relationship with a female partner in the past year. There is no statistically significant change of condom use with female partners at last sexual contact.
- About one fifth of MSM were involved in group sex during the last year. Lower proportion of MSM reported being involved in commercial sex (12.4%) than in 2010, which could be explained by migration of MSM for sex work abroad.

High risk practices have not changed over the last two years. There is high sexual activity among MSM, with risky sexual practices such as large number of different types of partners, both male and female, insufficient use of condoms, especially its consistent use with any type of male and female partners and involvement in group sexual practices. This raises concerns about the bridging role of MSM in HIV transmission to general population.

Condoms and lubricants

- Proportion of MSM who reported receiving condoms from preventive programs during the last 12 months increased significantly since 2010 (from 40.3% to 53.7%, $p < 0.01$). Young MSM benefited from these programs less compared to MSM from older age group.
- Lubricant use is low, mainly due to limited access. In contrast to the condoms, lubricants are

not distributed by the preventive programs and MSM refrain from buying lubricants at pharmacies not to disclose their status.

Knowledge and testing on HIV

- Knowledge about HIV/AIDS (correctly cite HIV prevention measures and reject major misconceptions) significantly increased in 2012 (from 23.4% to 36.7%, $p < 0.01$).
- Increase was observed in proportion of MSM who were tested during the last 12 months and received results, although it forms only one third of MSM. At the same time proportion of never tested on HIV dropped significantly (from 57.6% to 38.5%, $p < 0.01$). Increase in HIV testing uptake is probably explained by wide introduction of HIV rapid (finger prick) testing during the outreach, which makes HIV testing easily accessible for the target group.
- Young MSM and those with poor HIV knowledge are less likely to undertake HIV test.

Knowledge about HIV is high and has improved over the last years. Awareness on places where testing can be done, as well as HIV testing practice during the last year also improved since 2010. Knowledgeable MSM and those aged 25 years and older are more likely to undertake HIV testing.

Program coverage / media

- On average every second MSM is reached by preventive program, measured by the awareness of where to get HIV test and receipt of condoms during the last 12 months. Increase in program reach has been observed since 2010 (36.7% in 2010 to 48.3% in 2012 ($p < 0.01$)).
- Those who were reached by preventive programs were more likely to use condom at last AI. Young MSM were not equally reached by preventive programs compared to their older peers.
- NGOs and internet are leading among trusted sources of information on HIV/AIDS among MSM population.

There is increase in program coverage, although programs reached lower proportion of young MSM, rather than representatives from older age group. Innovative and new approaches are needed to fill this gap.

Biomarker

- The most alarming finding of this study is increase in HIV prevalence from 7% in 2010 to 13% in 2012.
- As for syphilis (TPHA), its prevalence is quite high but does not show difference compared to the results of 2010.

There is substantial increase in HIV prevalence among Tbilisi MSM for the last two years, proving that HIV epidemic is concentrated among this key population. Given unchanged sexual behaviour

practices there is real threat that HIV prevalence will further increase unless urgent and effective measures are taken.

Recommendations

Based on the findings of this study the recommendations focus on: 1) Increasing the coverage of MSM by preventive interventions aimed at risk reduction through implementing various approaches covering all segments of MSM population and specifically targeting young MSM; 2) Focusing on reducing HIV-associated, as well as homosexuality-associated stigma and discrimination; 3) Investigating interesting tendencies revealed by the survey, e.g.: factors underlining different patterns of condom use with female and male partners, migration issues, etc; 4) Conducting systematic surveillance of both behavioral and selected biological markers among MSM also in other locations, in order to monitor the prevalence dynamics of HIV infection and other STIs; 5) Ensure active recruitment in the following rounds of the survey through introducing more appropriate incentive system and adding testing for various STIs in the biomarker component.

Table 1: Summary of Core Indicators

Key indicators	2010		2012	
	%	n/N	%	n/N
Socio-demographic characteristics				
Median age (years)	29.0		27.0	
Education (Elementary /Secondary)	53.7	145/278	45.0	97/218
Education (Higher / incomplete higher)	46.3	125/278	55.0	120/218
Georgian nationality	82.0	228/278	89.9	196/218
Marital status (never married)	61.5	171/278	71.6	156/218
Alcohol and drug use				
Drink alcohol every day	8.6	24/278	9.2	20/218
Drug used during the last 12 months	21.6	60/278	17.9	39/218
Drug injected during the last 12 months	4.3	12/278	2.8	6/218
Sexual behavior				
Median anal/oral partners in the last 12 months	4.0		4.0	
Used condom at last anal intercourse (AI)*	67.3	181/269	73.2	153/209
≤ 24	75.3	64/85	76.3	61/80
≥ 25	63.6	117/184	71.3	92/129
Used condom at last oral intercourse	48.4	90/186	47.4	73/154
Consistent condom use during AI in the last 12 months	36.1	97/269	37.8	79/209
≤ 24	36.5	31/85	32.5	26/80
≥ 25	35.9	66/184	41.1	53/129
Had anal/oral regular male partner in the last 12 months	68.7	191/278	72.9	159/218
Used condom at last AI with regular partner	62.6	117/187	65.8	102/155
≤ 24	68.7	46/67	62.1	41/66
≥ 25	59.2	71/120	68.5	61/89
Consistent condom use during AI in the last 12 months with regular partners	39.0	73/187	41.3	64/155
≤ 24	37.3	25/67	37.9	25/66
≥ 25	40.0	48/120	43.8	39/89
Had occasional anal/oral male partner in the last 12 months	75.8	211/278	69.3	151/218
Used condom at last AI with occasional partner	69.1	141/204	67.8	97/143
≤ 24	74.6	47/63	68.5	37/54
≥ 25	66.7	94/141	67.4	60/89
Consistent condom use during AI in the last 12 months with occasional partners	42.6	87/204	44.1	63/143
≤ 24	49.2	31/63	48.1	26/54
≥ 25	39.7	56/141	46.1	37/89
Had anal/oral paid male partner in the last 12 months	4.3	12/278	3.7	8/218
Used condom at last AI with paid partner	66.6	8/12	50.0	4/8
Consistent condom use during AI with paid partner in the last 12 months	33.3	4/12	50.0	4/8

Key indicators	2010		2012	
	%	n/N	%	n/N
Had male client (received material reward for sex) in last 12 months	28.8	80/278	12.4	27/218
Used condom at last intercourse with male client	60.0	48/80	66.7	18/27
Had female partner in the last 12 months	62.2	173/278	51.4	112/218
Used condom at last intercourse with female partner	57.8	100/173	68.8	77/112
≤ 24	67.3	33/49	71.8	28/44
≥ 25	54.0	67/124	67.1	49/62
Used condoms at last group sex	49.0	50/102	68.4	26/38
Consistent lubricant use during AI in the last 12 months	10.4	28/269	12.4	27/218
STIs				
Test for any STI in the last 12 months	29.4	82/278	39.0	85/218
Never tested for any STI	39.5	110/278	33.0	72/218
Knowledge, opinions and attitudes towards HIV/AIDS				
Have heard about the HIV/AIDS	93.5	260/278	95.9	209/218
Correctly answer 5 questions (GARPR indicator)*	23.3	65/278	36.7	80/218
≤ 24	11.6	10/86	33.7	28/83
≥ 25	28.6	55/192	38.5	52/135
Know where to get HIV test	58.6	163/278	77.5	169/218
Test for HIV In the last year	26.2	73/278	33.9	74/218
Never tested on HIV	57.5	160/278	38.5	84/218
Received HIV test last year and know their results	25.9	72/278	33.9	74/218
≤ 24	27.9	24/86	28.9	24/83
≥ 25	25.0	48/192	37.0	50/135
Experience of violence				
Experienced violence in last 12 months	9.0	25/278	16.5	36/218
Preventive program coverage				
Know where to get HIV test and received condoms from preventive programs in the last 12 months*	36.7	102/278	48.6	106/218
≤ 24	34.9	30/86	33.7	28/83
≥ 25	37.5	72/192	57.8	78/135
Biomarker				
Positive for HIV*	7.0	19/271	13.0	28/216
≤ 24	3.6	3/83	4.9	4/82
≥ 25	8.5	16/188	17.9	24/134
Positive for Syphilis (TPHA)	34.3	93/271	32.9	71/216
≤ 24	20.5	17/83	12.2	10/82
≥ 25	40.4	76/188	26.1	35/134

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

Introduction

Georgia is among the countries with low HIV/AIDS prevalence but with a high potential for developing a widespread epidemic. The estimated prevalence of HIV among the adult population is 0.2%.³ As of December 31, 2012 in total 3,559 HIV cases have been registered by the national HIV surveillance system. 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 injecting 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 homosexual contact account yet for a small proportion of all HIV cases. In 2012, the homosexual route of transmission contributed to 9.3% of all newly registered cases⁴.

In the years 2002-2007 Save the Children Georgia Country Office under the USAID-funded STI/HIV Prevention (SHIP) project introduced second generation surveillance studies in the country and conducted Biomarker-Behaviour Surveillance Studies (Bio-BSSs) among various key populations. The first Bio-BSS among MSM was conducted in Tbilisi in 2007.

In 2010, under the GFATM funded HIV/AIDS surveillance system strengthening project, a subsequent wave of behavioral surveillance among the MSM was conducted. Respondent-driven sampling methodology (RDS) was used to recruit 278 MSM in Tbilisi. The study was implemented by Curatio International Foundation (CIF) in partnership with Center for Information and Counseling on Reproductive Health – Tanadgoma and the Infectious Disease, AIDS and Clinical Immunology Research Center.

Current study is a next wave of Bio-BSS among MSM in Tbilisi. The objective was to measure the prevalence of HIV and Syphilis among the key population, to provide measurements of key HIV risk behaviours and to generate evidence for advocacy and policy-making. The study was implemented within the GFATM-funded project “Generating evidence base for risk behavior change and effectiveness of preventive interventions among high risk groups for HIV/AIDS” by Curatio International Foundation (CIF), Center for Information and Counseling on Reproductive Health - Tanadgoma and the National Center for Disease Control and Public Health.

³ UNAIDS, AIDSinfo, 2012. <http://www.unaids.org/en/regionscountries/countries/georgia/>

⁴ National Center for Diseases Control and Public Health, unpublished data

Methods

Study design

The study employed a cross-sectional design and the RDS methodology. The key indicator for sample size calculation was condom use at last anal intercourse. On the basis of the earlier survey (2010 BSS, Tbilisi) a baseline value of the indicator was 61.7%. The current survey aimed to detect a 15% (2-sided) change of the proportion at a 95% significance level and the power of 80%. Design effect was estimated to be 2.0 based on the RDS design. The desired sample size was 300 MSM.

Sampling procedure

In the last two decades a variety of sampling methods have been used to recruit MSM in order to collect risk behavior data. These include time-location sampling (TLS), targeted sampling and snowball sampling, which have a number of limitations⁵. A relatively new sampling methodology Respondent Driven Sampling (RDS) 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: RDS involves a dual incentive system – a reward for being interviewed and a reward for recruiting others into the study; subjects are asked to recruit their peers into the study and recruitment quotas are introduced.⁶ A number of countries have successfully conducted behavioural surveys among MSM using RDS method,⁷ although now an increasing number of countries, especially in Western Europe, recruit MSM through the internet.⁸ The BSS among MSM in Tbilisi in 2010 was carried out by using RDS method.

For the current survey the MSM were recruited through RDS in the capital city – Tbilisi. Inclusion criteria for participation in the study included the following: 1) age 18 years or older, 2) homosexual anal or oral contact during the last 12 months, 3) being a resident of Tbilisi and 4) ability to understand and communicate in Georgian.

⁵ 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

⁶ 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

⁷ Bozicevic I., Voncina L, Munz M. Literature review on HIV epidemics among MSM in 27 countries of central and Eastern Europe

⁸ Mapping of HIV/STI behavioral surveillance in Europe. European Centre for Disease Prevention and Control, 2009

Fieldwork was conducted by association “Tanadgoma” which is a trusted and well-respected organization with extensive experience of working with the target population. The first step was to recruit initial respondents, so-called “seed” participants. The seeds were carefully selected to represent the demographic profile and socially diverse MSM network in Tbilisi (age, income, occupation, education). In total 6 seeds were involved in the study.

Following an eligibility assessment and provision of informed consent the seeds underwent the behavioral and biological 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. The seeds were instructed on how to refer other eligible MSM. Each coupon was printed with a serial number, study location (map) and information about 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 10 Gel (6 USD)⁹ and an additional incentive of 5 Gel (3 USD) for each eligible person they recruited.

The data on the coupons given to participants were managed by the MS Excel based software specifically developed for the coupon tracking.¹⁰

To ensure that participants met the eligibility criteria, a verification procedure was followed at the study site. The verification procedure, conducted by an experienced social worker, included a preliminary informal discussion. The participants were asked different questions face to face in a private setting, so that it was possible to detect whether they belonged to the target group. The basic questions asked were related to knowledge and experience of the participants about places and means for MSM to find partners, sexual practices they use with their partners, frequency of partner change, health problems related to homosexual relations they have experienced etc.

The eligible respondents were assigned unique identification number. Also, in order to overcome subject duplication, field coordinators and social workers paid special attention to physical characteristics of the participants such as height, weight, scars, tattoos and some biometric measures. Every shift of field workers included some person from the previous shifts, in order to make sure that the same person did not take part in the survey for a second time.

Recruitment results for MSM

The recruitment started with 3 seeds. Additional 3 seeds were added later (2 additional seeds - after 3 weeks and another seed – after 4 weeks) to ensure sufficient number of respondents. The basic

⁹ According to the average exchange rate of the National Bank of Georgia for the period of 2012

¹⁰ Author Hrvoje Fuchek, Iskorak, Zagreb, Croatia

demographic characteristics of the seeds are presented in the Table 2 below:

Table 2: Basic characteristics of the seeds

Basic Demographic Characteristics of seeds	n
Age groups	
<=24	1
25-34	4
>=35	1
Nationality	
Georgian	6
Level of education completed	
Secondary	2
Higher/incomplete higher	4
Marital status	
Never been married	6
Employment status	
Permanent job	1
Temporary job	1
Student	1
Unemployed	3
Monthly income	
<=100 GEL	1
101-300 GEL	2
301-500 GEL	2
701-1000 GEL	1
Total	6

All eligible respondents were asked six questions about their network size, specifically: “How many MSM do you know in Tbilisi?”, “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 had homosexual contact during the last 12 months?”, “How many of those have you seen during the last 3 months?” and “How many of those (who are over 18 years of age, are MSM, had homosexual contact during the last 12 months) would you consider to recruit for the study?”.

Following the verification procedure three potential participants were defined as non eligible for the survey, as two of them were not MSM. Also, one participant withdrew from the survey during the interview, most likely due to the fear of his status being disclosed.

The respondents who returned to receive the incentive for recruitment were additionally asked about whether anyone refused to accept coupons from them and what were characteristics of those who refused. However, it was not possible to use this information due to a very low response rate to these questions.

Recruitment was stopped after 11 weeks of fieldwork due to time constraints related to the completion of the project. The desired sample size (300 participants) was not accomplished and only 218 MSM (including seeds) were recruited. Coupon distribution was stopped one day prior to the end of the field work.

Measurements

The survey instrument used in the study was a standardized behavior questionnaire for MSM which is a part of standardized Bio-BSS methodology developed in the country in 2010.¹¹ The instrument is based on a questionnaire 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 slight modifications was applied in the previous BSSs among MSM in 2007 and 2010. For the given BSS a few additional revisions were made to the questionnaire in order to make sure that all indicators of the National and Global AIDS Response Progress Reporting are captured. A Georgian version of the questionnaire was pre-tested.

“Tanadgoma” staff was selected as interviewers based on familiarity with the target population and previous experience in similar studies. Interviewers’ training, which also included orientation on RDS procedures, was provided prior to the field implementation.

The biomarker component involved testing of blood specimens for HIV and Syphilis. Sample analyses for HIV and syphilis (TPHA) were done at the laboratory of the National Center for Disease Control and Public Health in Tbilisi.

Table 3: Test systems used in biomarker component

Biomarker	Screening	Confirmation
HIV	Genscreen Ultra HIV (BIO-RAD, France)	Western Blot HIV Blot 2.2, MP Biomedicals
Syphilis	Treponema Pallidum Hemagglutination Assay (IMMUTREP-TPHA OD081, Omega Diagnostics)	

The study protocol and questionnaires were approved by the National Ethical Committee of the HIV/AIDS Patients Support Foundation (certificate # 623/724 of 28.06.2012). During the study design and field implementation the following ethical issues were taken into consideration:

¹¹ <http://www.curatiofoundation.org> (Georgian version)

¹² http://gametlibrary.worldbank.org/pages/19_Surveys_surveillance_English.asp

- Participation in the surveys 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 labelled only by a study number.
- The staff engaged in the study, were trained in discussing sensitive issues and protecting participants' confidentiality and human rights.
- Individuals identified as positive for HIV or Syphilis were offered counselling and referred to designated facilities for further testing and/or free treatment.

Data collection

The data collection period was from October 8, 2012 to December 25, 2012. Data collection took approximately 11 weeks. Interviews were available from 12:00 pm to 20:00 pm, Monday to Friday, at a fixed site – the Tanadgoma office in Tbilisi.

After registration, the participants were taken to interview rooms to maintain privacy. Face-to-face individual interviews were conducted in Georgian by the trained interviewers. Each interview lasted on average 20 minutes. Following the completion of the behavioral component, participants were asked to voluntarily provide a blood sample for testing on infections (see above, section "Measurements"). If a participant agreed, pre-test counselling was provided and 5 ml of blood was collected on site by a trained nurse. The blood samples were transported to the laboratory of National Center for Disease Control and Public Health. The transportation was done within the 48 hours from sample collection. The blood tests were anonymous-linked. Each MSM 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 the study site within two weeks. The participants were asked to return, with their identification card, to receive their results. Post-test counselling was provided on site.

Internal quality control of the fieldwork was provided by the Tanadgoma staff and external control – by the CIF staff. The completed questionnaires were checked for consistency, and any problems identified were followed up with the interviewers.

Data processing and analysis

Data entry and analysis took place with the help of the SPSS software. Any discrepancies were resolved by examining frequencies and cross-tabs and checking the logic of all variables in the datasets. Hard copies of the completed questionnaires were kept at the CIF office.

Respondent Driven Sampling Analysis Tool version 6.0.1 (RDSAT, Cornell University, 2004) software was used for the analysis of waves and equilibrium. The sample failed to reach equilibrium for the key variables meaning that the sample composition changed for more than 2% up to the final wave. Therefore it was decided not to produce the population estimates in RDSAT and analyse the data in the SPSS. Bivariate analyse was performed to find out association between an exposure and outcome. Statistically significant associations (95% confidence intervals not crossing the value 1.00) were presented. Comparison of selected indicators was done using 2010 and 2012 datasets.

Description of the target group

The formative research conducted prior to the BSS in 2010 revealed a certain hierarchy and existence of different subgroups in the MSM population in Tbilisi. This has been proved also by outreach experience of Tanadgoma, which has more than ten years working experience with this population. Since then the internal structure of the MSM population in Tbilisi has not changed and is valid for 2012. Based to the formative research findings MSM in Tbilisi can be divided according to two parameters: **social status** (“with money” and “without money”, using the language of MSM) and **involvement in commercial sex**.

1. Description of MSM according to the social status:

1.1. MSM with a lower socio-economic background

This group includes mainly: MSM who arrived in the capital from other cities/regions in search of employment or other material benefits; and MSM that live in the capital with low or no income and mostly unemployed.

MSM with a relatively higher socio-economic background

This group includes persons with a relatively higher income, who can afford to visit bars, clubs and other gathering places; and so called “elite” gays, which include persons in high positions, for example, representatives of show business, in general, public faces.

As a rule, representatives of these two – high and low – tiers do not meet each other in everyday life. However, there is some type of relationship between them: mainly, generally knowing each other or having sexual contacts with persons belonging to the other group. The higher the social level of the MSM, the less the probability that he is involved in commercial sex as well as a lower frequency of occasional sexual contacts. And vice versa, the lower the social level of MSM, the higher the number of sexual partners and the higher the number of cases of involvement in commercial sex.

2. Description of MSM according to involvement in commercial sex:

2.1 MSM involved in commercial sex

This group includes mainly MSM standing at the bottom of socio-economic ladder and in exchange for material remuneration offer sexual services to other men.

The main reasons for involvement in commercial sex are: money, the opportunity of frequent change of partners and the possibility of having a good time.

This category of MSM can be characterized as representatives of the lower social tier, who are in dire economic situation; are residents of the capital, or from a regional city/village living in the capital for some time; the majority have no other occupation or job (quite a lot out of them are students); they tend not to be married or are separated, they have occasional or permanent female partners. They can be accessed at: the open gathering places in the city (so-called MSM cruising areas); as well as some closed places - facilities (baths, saunas etc), which are known to be places where MSM can meet each other.

2.2 MSM not involved in commercial sex

This group includes mainly MSM that belong to middle and a relatively higher socio-economic background. These MSM mainly establish homosexual contacts with other men for the following reasons: pleasure - satisfying sexual needs, the opportunity of a frequent change of partners.

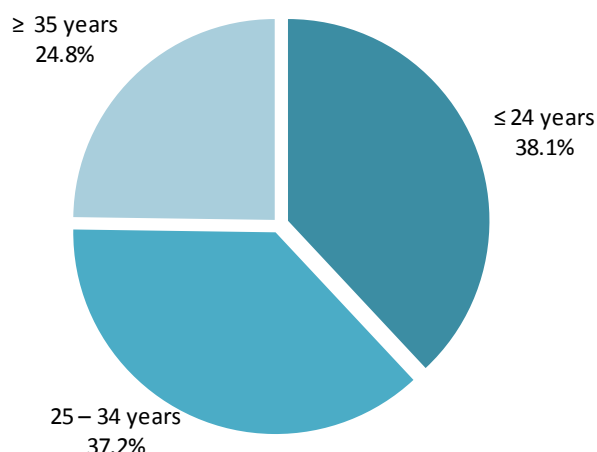
This category of MSM can be characterized as representatives of a higher social tier with a normal economic situation; they are residents of the capital, or from a regional city/village, that have been in the capital for some time; the majority have some other occupation or job; they tend to be married, with children, or have occasional or permanent female partners. They can be accessed at: the open gathering places in the city (known as places of gathering for MSM commercial sex workers), where they are looking for commercial or non-commercial sexual partners; the open gathering places in the city (known as places of gathering for MSM); closed entertainment places (cafes, bars, baths, movie theatres, etc), which are known to be places where MSM can meet each other.

Study results

Socio-demographic characteristics

The median age of the recruited MSM was 27 years with the age ranging from 18 to 68 years. Interquartile range (IQR) was 12. More than one third of the respondents were less than 25 years of age.

Figure 1: Age distribution



One participant completed only primary classes, almost half of the respondents received secondary education (44.5%) and 55% had complete or incomplete high education.

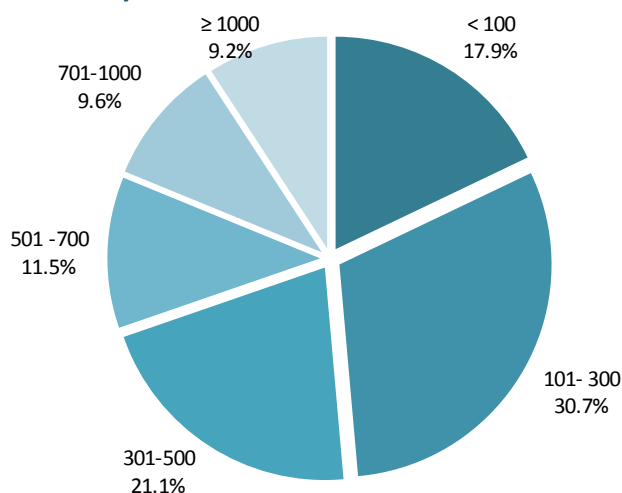
Large majority of the respondents were of Georgian nationality. Only 5.0% of the respondents were internally displaced persons. More than 70% were never married and 13.8% were currently married or in union.

Half of the respondents had no occupation, fewer had permanent or temporary employment and 9.6% were students.

Monthly income for the majority (69.7%) of the interviewed MSM did not exceed 500 GEL (301 USD¹³), while almost half (48.6%) had income of less than 300 GEL (182 USD). Only 9.2% reported having an income of more than 1000 GEL (606 USD) per month.

¹³ According to the average exchange rate of the National Bank of Georgia for 2012.

Figure 2: Monthly income in GEL



Alcohol and drug use

The study investigated alcohol and drug use for the 12 month period prior to survey, no questions were asked about alcohol and drug consumption before or during sex.

Heavy alcohol consumption (every day) was mentioned by only 9.2% of the respondents. Drug use during the last 12 months was reported by 17.9% of MSM. Of them, marijuana was the most frequently cited drug. Only 6 persons (2.8%) had injected drugs during the last 12 months. Four out of six injected buprenorphine; one used shared needle/syringe at the last injection.

Sexual behavior

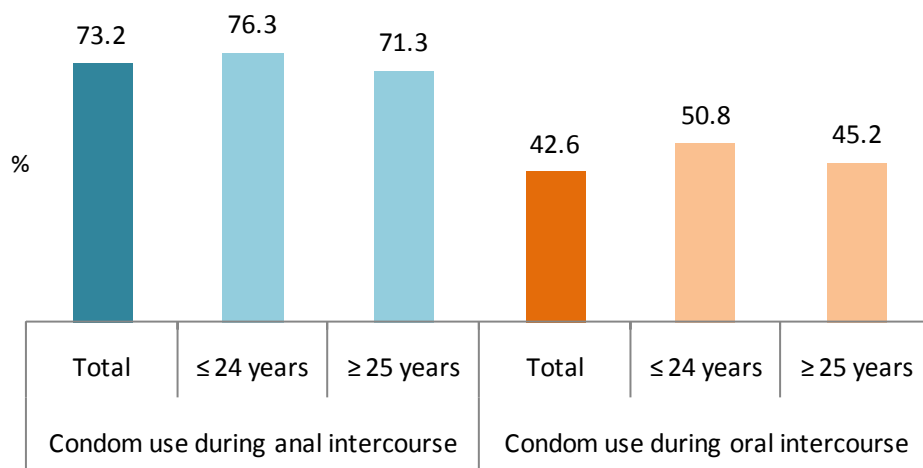
Male partners

The median number of male partners (anal/oral partners) in the last 12 months was 4. The majority (about half) said they had from 2 to 5 male partners. Having one partner during the last year was mentioned only by 22% of respondents.

Large majority of interviewed MSM (95.9%) had anal sexual intercourse during the last 12 months. Median number of anal partners is 3 and median number of sexual intercourses with anal partners is 4 per month. Out of MSM that reported anal partner during the last year 73.2% used a condom during their last sexual contact.

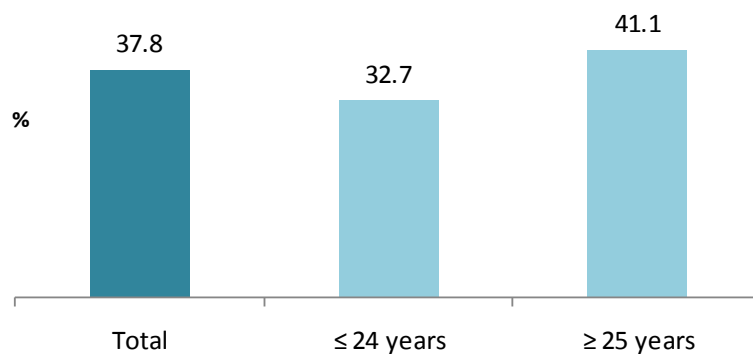
Seventy percent of respondents reported oral sexual intercourse during the last 12 months. It is noteworthy that a smaller proportion of MSM used condoms during their last oral intercourse compared with the anal sexual intercourse (47.7% vs. 73.2%).

Figure 3: Used condom at last anal/oral intercourse¹⁴



Participants were asked, how frequently they used condom during anal intercourse (AI) with any type of partner during the last 12 month. Consistent condom use was defined as “always” use of condom in the last 12 months. About one third of MSM reported consistent condom use during anal sexual intercourse. It is likely that older MSM used condoms in a more consistent manner; however, this difference was not statistically significant (see Figure 4).

Figure 4: Consistent condom use during AI in the last 12 months¹⁵



The study also looked at various sexual behavior patterns with different types of male sexual partners (regular, occasional, and commercial).

Regular anal/oral partners were mentioned by 72.9% of MSM during the last 12 months and the median number of this type of partners was two. Similar proportion (69.3%) had occasional anal/oral male sexual partners with four median partners. Only 8 out of 218 MSM said that they paid for sex with a male partner for anal or oral sex during the last 12 months; median number of commercial

¹⁴ Sample sizes: Anal partners: N=209, N(≤24)= 80, N(≥25)=129; Oral partners: N=154, N(≤24)= 61, N(≥25)=93

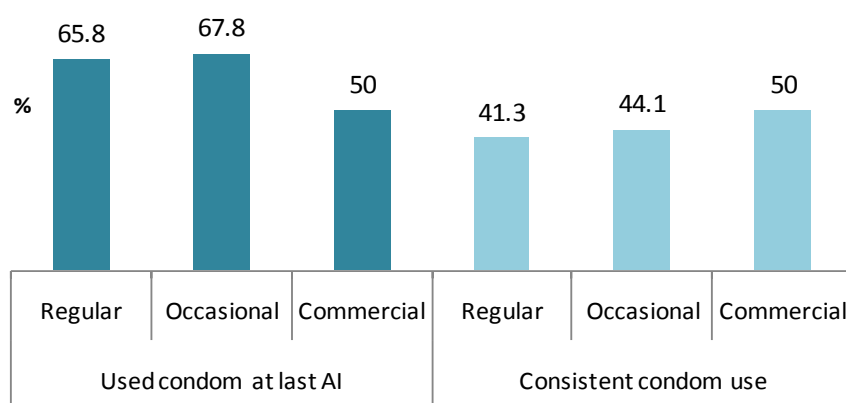
¹⁵ Sample sizes: N=209, N(≤24)= 80, N(≥25)=129

partners was two.

Proportion of MSM who reported condom use at their last AI with different types of partners varies from lowest 50% with paid to highest 67.8% with occasional partners. Given that the denominator for paid partners is very small this proportion should be interpreted with caution.

The respondents were asked to indicate frequency of protected sex with all types of partners in the last 12 months. Consistent condom use was defined as “always” use of condom during the last 12 months. It is noteworthy that consistent condom use with regular and occasional partners was less prevalent compared to last anal sex with the same type of partner. Consistent condom use with paid partner was mentioned by four out of eight respondents who purchased sex from the male partner.

Figure 5: Using condoms during last AI and consistent condom use with regular, occasional and commercial partners¹⁶



In relation to unprotected sex during last AI and during the last 12 months, no statistically significant difference was found among the different age groups.

Majority of MSM who did not use condom at last AI with regular partners thought it was not necessary; of those who did not use condom with occasional partners about one fifth did not think about it or thought it was not necessary; others did not have condom with them (16.3%) or did not like it (11.6%); and few reported that partner refused to use condom (7.0%).

In the bivariate analysis to find determinants of unprotected last AI no associations were found with age, education, knowledge of HIV preventive measures, ever testing on HIV and risk perception. Negative association was found with preventive program reach, meaning that those who knew where to get HIV test and received condom during the last year were twice less likely to have unprotected AI at last occasion (OR 0.45 95% CI 0.23-0.85).

¹⁶ Sample sizes: regular partners N=155, occasional partners N=143, commercial partners N=8

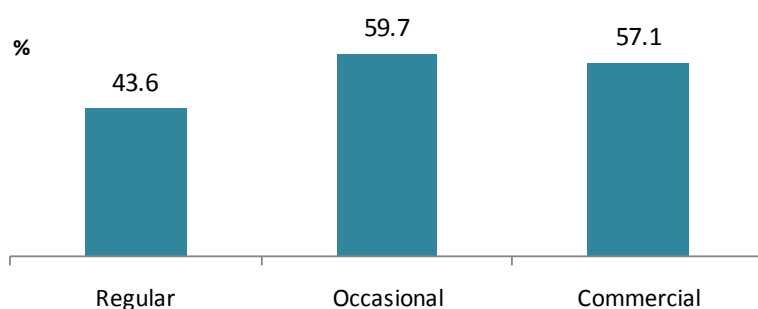
Particularly high risk behaviour is an unprotected AI with two and more partners. From the total sample of 209 MSM who had anal sexual partner(s) during the last year 163 MSM had more than one anal partner. Of them consistent condom use was reported by only one third of the respondents (33.7%).

Female partners

Overall 51.4% of MSM reported having a female sex partner during the last 12 months, with a median number of three partners. These 112 MSM who had female partner in the last year reported 2.50 (median) sexual contacts with females during last month.

More than half (68.8%) said they used a condom at last sexual intercourse with their female partner. Consistent condom use during the last 12 months with regular female partners was reported by less than half of MSM (43.6%) who had such partner. With occasional and paid partners consistent condom use was reported in 59.7% and 57.1% cases respectively.

Figure 6: Consistent condom use with regular, occasional and commercial female partners¹⁷



Engagement in commercial sex

The respondents were asked whether they have received any type of material remuneration for sex in the last 12 months. Twenty seven MSM (12.7%) responded positively to this question, meaning that they were engaged in commercial sex, however, only less than half of them - 11 MSM - identified themselves as sex workers. Of these 27 MSM 15 were younger than 25 years. Median number of clients (anal/oral) is 1.5 per working day.

The majority reported receiving money from their clients. The cost of services differed, in about half of cases MSM received from 50 to 100 GEL (30 - 60 USD)¹⁸ per service. Total monthly income from this occupation for the majority of MSM is less than 500 GEL (300 USD).

More than half (66.7%) of those engaged in commercial sex said they used a condom during their

¹⁷ Sample sizes: regular partners N=78, occasional partners N=67, commercial partners N=14

¹⁸ According to average exchange rate of the National Bank of Georgia for 2012.

last anal intercourse with the client. Of those fourteen MSM who had regular male partners nine used condom at last AI and only six used condom consistently during the last 12 months.

Group Sexual Practices

About one third of MSM were ever involved in group sex and 17.4% reported participation in the group sex during last year. Of them more than half were involved in male group sex, slightly more than one third in mixed group sex and only few participated in only female group sex. As for condom use, 68.4% used condom at last group sex.

Condoms and Lubricants

Vast majority (94%) of MSM mentioned that condoms can be easily obtained at pharmacies. Slightly more than half (53.7%) received condoms from preventive programs during the last year. MSM aged 24 years and younger benefited twice less from the preventive programs (OR 0.41 95% CI 0.24-0.72).

Not all MSM (84.4%) are aware about lubricants. About half mentioned use of lubricants and only 12.4% used lubricants consistently during AI. About one in every five MSM could not get lubricant when they need it. Only 38.5% knew that lubricants could be obtained at pharmacies.

Sexually Transmitted Infections (STI)

Vast majority (96/3%) were aware of Sexually Transmitted Infections. The respondents were further asked to list STI symptoms. The majority were able to mention at least one STI symptom (85.7%), while 10.5% refused to answer.

Only 39% of MSM reported taking any STI test during the last 12 months and additional 27% were tested prior to that. One third reported never being tested for STIs during their lifetime, listing “no need for testing” as a main reason. Young MSM are twice more likely to be never tested on STI compared to their older peers (49.4% vs. 23%, $p < 0.001$).

With regard to STI experience in the last 12 months 15.1% reported genital/anal discharge or genital/anal ulcers.

Among those who had ever been tested for STIs, majority named prevention as a main reason for testing; about one fifth undertook testing after the appearance of symptoms. More than 97% were aware of their test result. When asked about their actions during the symptomatic period, 69.7% referred to a health facility, 63.6% reported they did not have sexual intercourse, 48.5% informed their sexual partners about their STI symptoms. Condom use was reported by 12.1% and only 3.0% applied self-treatment during STI symptomatic period.

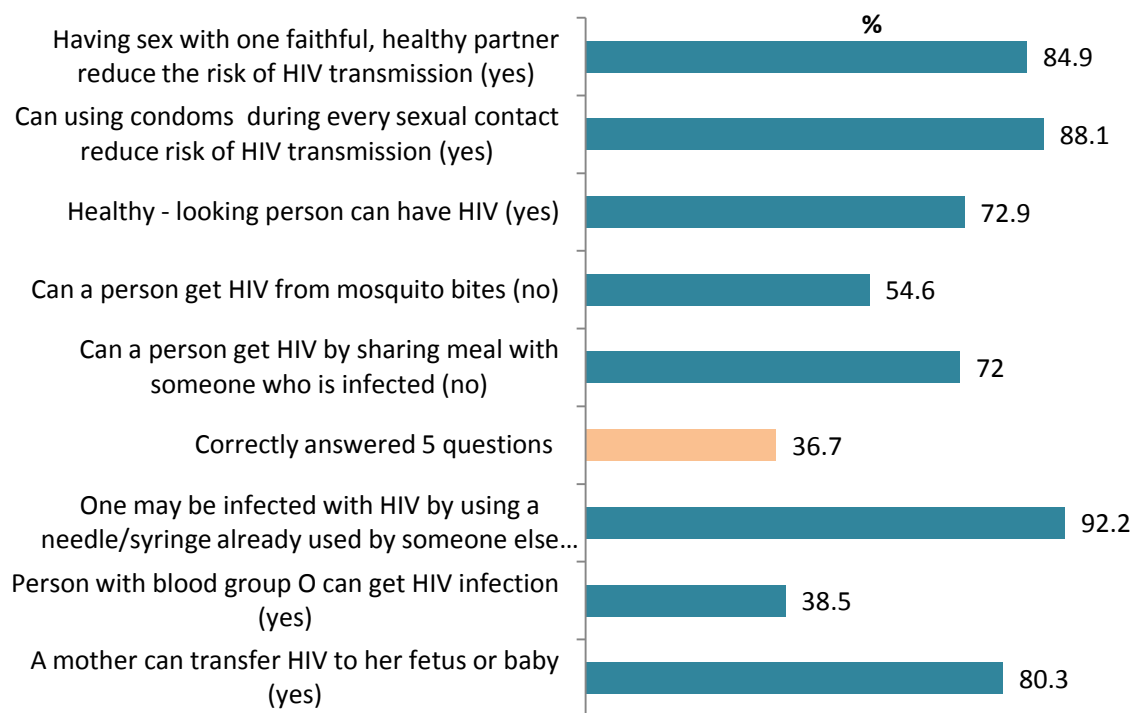
Knowledge/ opinions and attitudes towards HIV/AIDS

From the total sample 95.9% were aware of HIV/AIDS. More than one third correctly answered all 5

questions according to the Global AIDS Response Progress Report (GARPR) indicator on knowledge of HIV prevention.¹⁹ Although majority correctly cited ways of HIV transmission and preventive measures, misconceptions about HIV transmission on mosquito bite and meal sharing still exists among MSM. There is no statistically significant difference between young and older MSM on HIV knowledge.

The Figure 7 below shows the proportion of MSM who responded correctly to each of the knowledge questions:

Figure 7: Knowledge on HIV/AIDS prevention



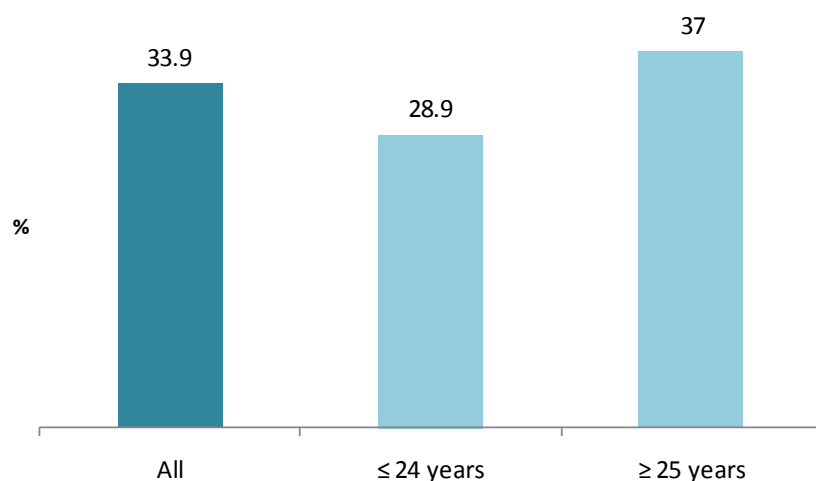
Majority (77.5%) of interviewed MSM knew where to get HIV test. However, their testing practice did not correspond with this knowledge. More than one third (38.5%) were never tested for HIV at all, another 33.9% was tested during the last 12 months and the remaining were tested prior to that.

In the bivariate analysis young MSM are less likely to be tested during their lifetime (OR 0.32 95% CI 0.18-0.57), while those who correctly answered 5 questions on HIV prevention and reject misconception have higher odds to be tested on HIV (OR 2.46; 95% CI 1.32-4.59). Other factors such as education, risk perception, and condom use practice did not show any associations with the testing experience. All MSM who were tested during the last 12 months received their test results.

¹⁹ Having sex with one faithful, healthy partner reduce the risk of HIV transmission (yes); Can using condoms during every sexual contact reduce risk of HIV transmission (yes); Healthy - looking person can have HIV (yes); Can a person get HIV from mosquito bites (no); Can a person get HIV by sharing meal with someone who is infected (no).

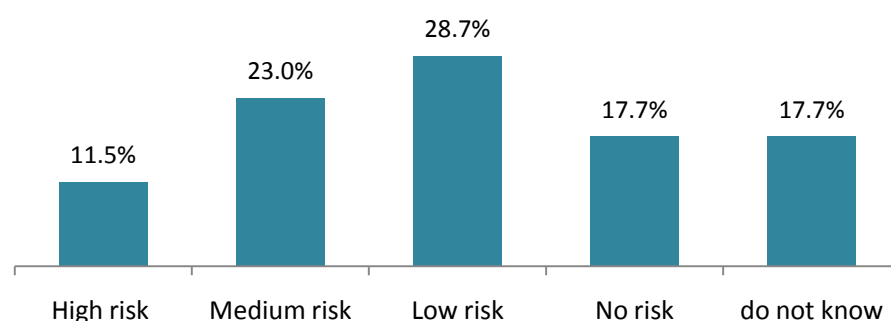
From the total sample it formed 33.9%.

Figure 8: Were tested on HIV during the last 12 months and know their results²⁰



It is also important to note that only 11.5% assessed their personal risk regarding HIV infection as high, 28.7% believed they are at low risk and 17.7% perceived no risk at all. MSM that claim consistent condom use with anal partners during the last year are twice more likely to consider themselves at low or no risk (OR 2.33; 95% CI 1.18-4.63).

Figure 9: HIV risk perception



Violence

From the interviewed MSM 16.5% (36 cases) reported they had experienced violence because of sexual orientation or sexual behaviour in the last 12 months. Out of these 36 cases the majority were verbal assaults (27 respondents), followed by physical (12) and sexual violence (7). In majority of the cases the perpetrator of the violence was a stranger (28). In the rest of the cases a family member/relative (2), a friend (4) and others (3) were listed as the perpetrators.

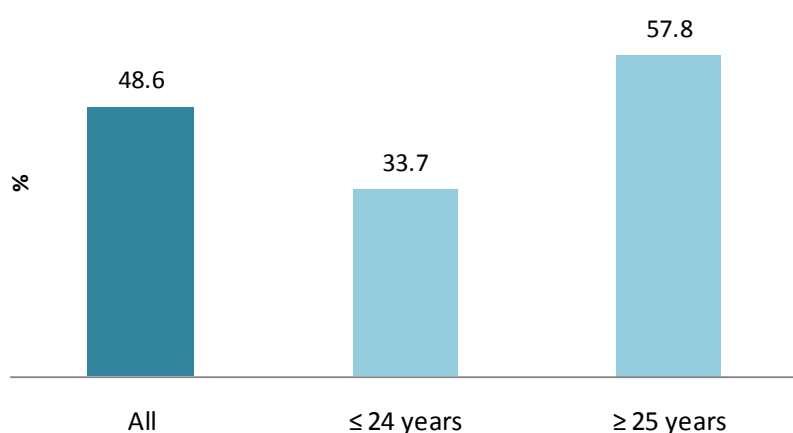
²⁰ Sample sizes: N=218, N(≤24)= 83, N(≥25)=135

Program coverage /Media

The respondents who were aware of HIV/AIDS or STIs (215 MSM) were asked to list all sources of information on these diseases. TV/Radio was named in the majority of cases (40.9%), followed by NGOs (37.2%), internet (34%) and friends (21.4%). Among the trusted sources NGO representatives were leading (40%), followed by internet (29.3%) and booklets (20.9%).

The respondent was considered to be covered by preventive program interventions if a) he knew where to go for HIV testing and b) he had received a condom during the last 12 months. Almost half of the respondents 48.6% were covered by preventive program.

Figure 10: Preventive program coverage²¹



Bivariate regression shows that younger MSM are less likely to be reached by preventive programs (OR 0.37 95%CI 0.21-0.66) compared to their older peers.

Biomarker

Blood samples for testing on HIV infection and Syphilis (TPHA) were taken from 216 participants. The results show that 13% of MSM were HIV positive.

Syphilis (TPHA) was detected in 32.9 % of the MSM.

In bivariate analysis HIV positivity was further analyzed towards various co-factors, such as demographic characteristics, type of partners, condom use behavior at last AI and consistent condom use, HIV knowledge, testing practice, risk perception and syphilis positivity. It was found that HIV positives are more likely to be representatives of the older age group (OR 4.20; 95% CI 1.40-12.59), ever been tested on HIV (OR 3.85; 95% CI 1.28-11.58), perceive themselves at high /medium risk (OR 3.0; 95% CI 1.16-7.97) and positive on syphilis (TPHA) (OR 4.55; 95% CI 1.97-10.50).

The characteristics of these 28 HIV positive MSM is given in the Table 4 below. Four out of 28

²¹ Sample sizes: N=218, N(≤24)=83, N(≥25)=135

infected are younger than 25 years most likely indicating recent infection.

Table 4: Characteristics of HIV positive MSM

Key indicators	n/N
Socio-demographic characteristics	
Age (years)	
<=24	4/28
25-34	16/28
>=35	8/28
Married	4/28
Drug injected during the last 12 months	1/28
Sexual behavior	
Median anal/oral partners in the last 12 months	2.5
Used condom at last anal intercourse (AI)	10/27
Consistent condom use during AI in the last 12 months	9/27
Used condom at last AI with regular partner	12/20
Used condom at last AI with occasional partner	11/19
Used condom at last intercourse with male client	1/2
Used condom at last intercourse with female partner	8/12
Test for STIs	
Ever tested for STIs	24/28
Never tested for any STIs	4/28
Test for any STI in the last 12 months	12/28
Test for HIV	
Ever tested	24/28
Never tested	4/28
Received HIV test last year and know their results	11/28
Syphilis (TPHA)	
positive	18/28

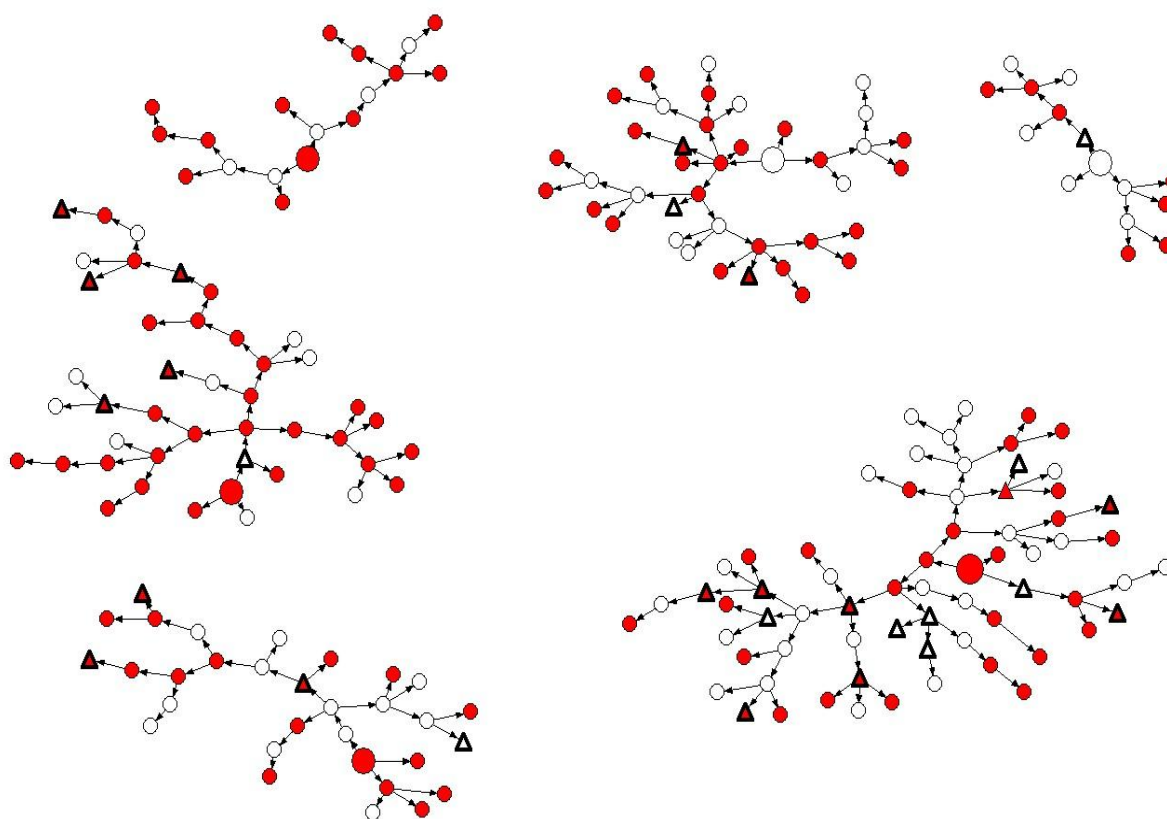
Recruitment pattern by risk sex behavior and HIV status

The figure below represents recruitment patterns of MSM by risk sexual behavior and their HIV status. Risk behavior was defined if MSM did not use condom consistently with any anal sexual partner during the last 12 months.

On the picture below larger symbols represent seeds and smaller symbols represent subsequent recruited MSM:

- HIV negative with safe sex behavior
- HIV negative with risk behavior
- △ HIV positive with safe sex behavior
- ▲ HIV positive with risk behavior

Picture 1: Recruitment chain of Tbilisi MSM by risk sexual behavior and HIV status



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 original seeds in the presented study 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. The study managed to recruit MSM mainly from the lower socio-economic layer. Majority of the study participants had small monthly income, therefore the study incentives were attractive to them. On the other hand, MSM who's position on the socio-economic ladder is high are not well represented in the survey. It is also possible that those MSM who knew their positive HIV status were less likely to participate in the survey due to low motivation to take HIV test.
- **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, e.g. group sex, engagement in commercial sex may be under-reported, while condom use may be over-reported by the 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.

Conclusions and Discussion

Overall, the Bio-BSS findings provide valuable data regarding the presence of HIV and risk behaviors among the key populations at increased risk of exposure to and transmission of HIV in Georgia.

Comparative analysis across the years allows measuring changes and gives directions for future focus of preventive strategies. The first round of the Bio-BSS among MSM in Tbilisi was carried out in 2007 that yielded 140 respondents, subsequent wave in 2010 recruited 278 participants and the current study recruited 218 participants in total. In this section we provide comparisons of key indicators with the 2010 data as the previous survey (2007) due to its small sample size does not have enough power for a comparative analysis. Considering that 2012 data represent unweighted frequencies generated by the SPSS, for comparison with the 2010 BSS similar unweighted frequencies were used.

Socio-demographic characteristics

The socio-demographic structure of Tbilisi MSM population studied in 2012 is close to that studied in 2010. Median age is 27 years, majority are with the secondary education, followed by complete or incomplete higher education, in most of cases they are not currently married, are Georgian by nationality and represent lower socio-economic layer (slightly less than half of the interviewed MSM had no occupation and the monthly income for the majority did not exceed 500 GEL (300 US Dollars)). There is slight decrease in median age of recruited participants from 29 to 27 years.

The recruitment process in the current and 2010 surveys managed to bring into the survey MSM mainly from the bottom of the socio-economic ladder – those with a low income, no or temporary employment. Hence, the survey findings illustrated characteristics of the lower socio-economic segment of this target group.

Alcohol and drug use

Alcohol and drug use are considered to be risky behaviours connected with HIV transmission. However, current study, similar to that of 2010, did not find high percentages of heavy alcohol use (everyday use) or injecting drug use. The studies did not investigate alcohol consumption before sexual intercourse that should be taken into account for further studies. In 2012 only 2.8% reported injecting drugs during the last 12 months. Only one HIV positive MSM claimed use of injecting drugs during the last 12 months.

As proved by last two surveys alcohol and drug use is not widespread among MSM. The two high risk groups – MSM and PWIDs – hardly overlap and the infection does not travel from one most-at-risk population to another.

Sexual behavior

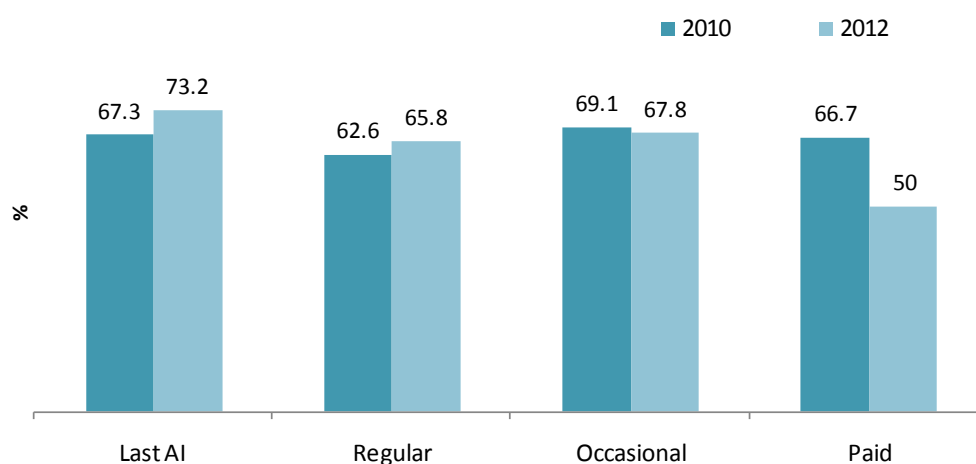
The MSM had several types of both male and female partners.

Sexual behavior with male partners

The median number of male (anal/oral) partners was 4 and the majority of the respondents (78%) reported more than one male partner in the last 12 months. The pattern is similar to that of 2010 study.

There is no statistically significant change in condom use at last AI in 2012 from 2010 (73.2% and 67.3% respectively). Oral sex remains less protected compared with anal sex; no change in condom use pattern during oral sex was observed. Condom use at last AI with different types of partners remains within the same range, with no statistically significant improvement or worsening. Due to small sample sizes of those MSM having male paid partners the difference is also not significant.

Figure 11: Condom use at last AI and different types of partners

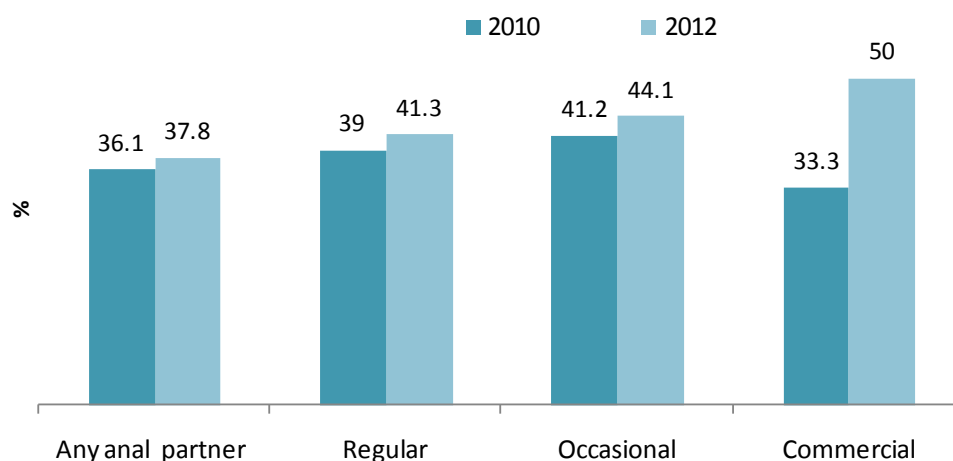


Consistent condom use is less prevalent than last AI condom use. This pattern is well documented in the literature.^{22,23} MSM generally tend to have more protected sexual practices with occasional than with regular partners, however our study did not show that. Condom use at last AI and consistent condom use did not differ between regular and occasional male partners. There is no statistically significant improvement in consistent condom use practices since 2010.

²² Mirandola M, Folch Toda C, Krampac I, Nita I, Stenekova D, Stehlikova D, Toskin I, Gios L, Fochia JP, Breveglieri M, Furegato M, Castellani E, Bonavina MG, the SOALON network. HIV Bio-behavioral survey among men who have sex with men in Barcelona, Bratislava, Bucharest, Ljubljana, Prague and Verona, 2008-2009. *Euro Surveill.* 2009;14(48)

²³ Davidovich U, de Wit JB, Stroebe W. Assessing sexual risk behaviour of young gay men in primary relationships: the incorporation of negotiated safety and negotiated safety compliance. *AIDS.* 2000;14(6)701-6

Figure 12: Consistent condom use at any anal and different types of partners



Group sex experience and involvement in commercial sex

Particularly high risk behaviour such as engagement in group sex activities was reported by 17.4% of MSM, out of which only two thirds used condom at last group sex.

Engagement in commercial sex was reported by a lower proportion of respondents (12.4%) compared to 2010 study (28.9%). This could be explained by increased migration of MSM sex workers to neighbouring countries for sex work. This phenomenon is based on anecdotal evidence and needs to be investigated in the next BSS round. Condom use rates at last AI with the client did not show any change from 2010 (around 65% in both studies).

Sexual behaviour with males and females

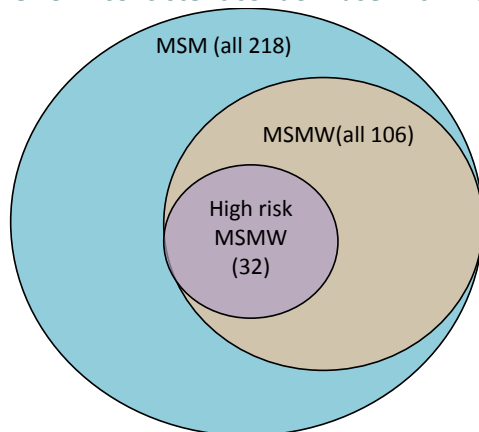
Half of the respondents reported having sexual relationship with a female in the past year. Compared to the 2010 survey findings (62.2%) in this survey lower proportion claimed to have female partners during the last 12 months (51.4%). The latest regional analysis of 2010 showed that proportion of MSM who had sex with women during the last 12 months varied from 21% in Belarus to 47.1% in Georgia.²⁴ Georgia figures were based on 2007 survey findings. In general, such high rate of bisexual activity could be explained by social pressure and stigmatization of homosexual behaviour. MSM might engage in sexual relationship with women to dispel any doubts about their homosexuality. High rates of reported sexual activity with women could also reflect social desirability bias. Still, this is a fact that needs a more in-depth qualitative investigation.

Similar to 2010 study, current survey results revealed behavioral factors that create ground for HIV/STI transmission from MSM to their female partners. Since 2010 there is increase in condom use at last sex with female partners at borderline significance level (from 57.8% to 68.8%, $p = 0.058$).

²⁴ "Men having sex with men in Eastern Europe: Implications of a hidden HIV epidemic. Regional analysis report", AIDSTAR-Two, November 2, 2010. www.aidstar-two.org

To compare condom use practices with males and females analysis of the sub-sample of MSM who had both male and female partners (106 MSMW) was conducted. At last anal intercourse with male partners 75.5% of MSMW used condom, while with the last female partner slightly less (70.8%) had protected sex. Among these 106 MSMW 30.2% (32 MSM) inconsistently used condoms with their male as well as with their regular female partners (see Figure 13).

Figure 13: Inconsistent condom use with male and female partners



The study showed high sexual activity among MSM. Risky sexual practices are quite widespread: The MSM reported a large number of different types of partners, both male and female, insufficient use of condoms, especially their consistent use with any type of male and female partners and involvement in group sexual practices. High risk practices have not changed over the last two years. This raises concerns about the potential bridging role of MSM in HIV transmission to general population.

Lubricants and condoms

Lubricant use is low, mainly due to limited access. Awareness on its existence improved since 2010. Consistent lubricant use during AI last year was mentioned by 12.4% of MSM, which has not changed since the last survey.

The vast majority knows where to get condoms, however slightly more than half knows places or persons where lubricants could be obtained. Among the places where lubricants and condoms could be obtained pharmacies are leading. In contrast to the condoms, lubricants are not distributed by the preventive programs and MSM refrain from buying lubricants at pharmacies not to disclose their status.

There is statistically significant increase in the proportion of MSM who reported receipt of condoms from preventive programs during the last 12 months (from 40.3% in 2010 to 53.7% in 2012, $p < 0.01$).

More MSM are aware on lubricants, and mention places where to obtain them, however, lubricant use remains low, mainly due to poor access. Awareness on places of condom supply is high among MSM and more MSM received condoms from preventive programs in 2012, although young MSM

benefited less compared to their older peers.

Sexually Transmitted Infections

The majority are aware of STIs and their symptoms in men. In 2012 39.0% of MSM claimed to have taken some STI test during the last 12 months, which is higher than that found in 2010 (29.4%). One third reported never been tested for STIs during their lifetime; young MSM are more likely not to be tested.

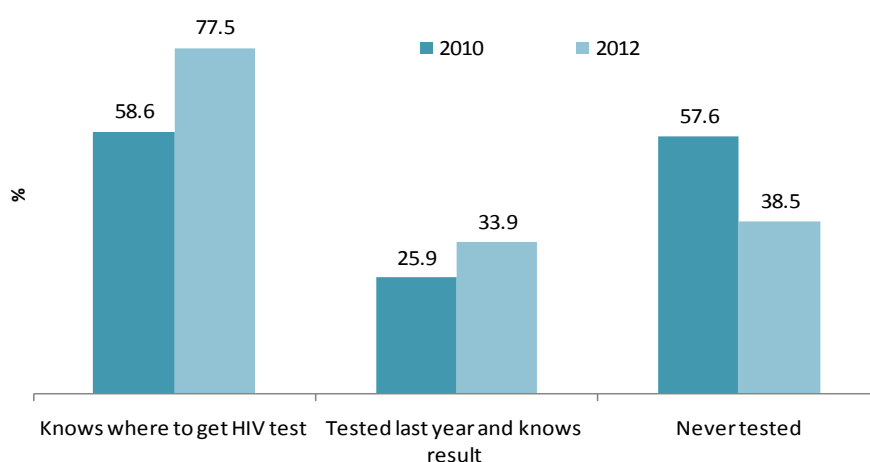
Knowledge about STIs is quite high. Although improvement since 2010 has been noticed, STI testing is still low among MSM, particularly among those aged younger than 25 years.

Knowledge and testing on HIV/AIDS, risk perception

Although HIV/AIDS awareness is high, not all MSM are aware of this disease (4.1%). Analysis of Global AIDS Response Progress Report indicator on HIV knowledge showed statistically significant improvement since the last survey (from 23.4% to 36.7%, $p < 0.01$). HIV knowledge was found to be positively associated with HIV testing practice.

There is significant improvement in MSM awareness where to get HIV test in case of necessity, as well as in the proportion of MSM who were tested during the last 12 months and received results. Lower proportion remains untested during their lifetime compared to 2010. Young MSM are more likely not to undertake HIV test. Increase in HIV testing uptake is probably explained by broad introduction of HIV rapid (finger prick) testing in the outreach in the frame of one of preventive programs, which makes HIV testing easily accessible to the target group. Low uptake of HIV testing by young MSM could be explained by the fact that rapid testing has not been yet used to specifically target young MSM in their gathering places (e.g. MSM friendly clubs).

Figure 14: HIV testing practices



Only 11.5% assessed their personal risk regarding HIV infection as high, while almost half believed

they are at low or no risk for HIV transmission. Personal risk assessment corresponds to the real risks associated with condom use behaviour meaning that MSM acknowledge risks associated with unprotected sex.

Knowledge about HIV infection is high and has improved over the last years. Knowledgeable MSM are more likely to undertake HIV testing, however this does not lead to improved safe sexual behaviour. Awareness on places where testing can be done, as well as HIV testing practice during the last year improved since 2010. Still MSM from younger age group are less likely to get tested. ..

Violence

From the interviewed MSM, 16.5% reported that they have experienced violence because of sexual orientation or homosexual behaviour in the last 12 months.

Violence because of sexual orientation exists, although it is not alarmingly high.

Program coverage / Media

NGOs and internet seem to be the major and best way for conveying messages to MSM. In 2010 TV was in the first place among trusted sources, however, in 2012 this source has lost its credibility. Coverage by preventive intervention measured by awareness of where to get a HIV test and receipt of a condom during the last 12 months increased from 36.7% in 2010 to 48.3% in 2012 ($p < 0.01$). It was found that during the last year young MSM were not equally reached by preventive programs as their older peers.

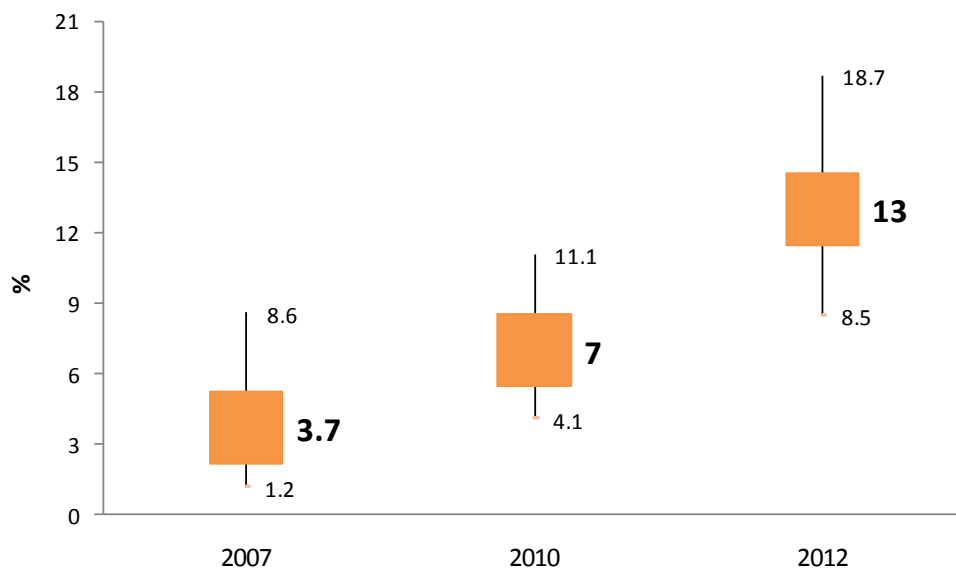
Program reach was found to play a protective role in MSM sexual behaviour, those who were reached by preventive programs were more likely to use condom at last AI, although it did not affect consistent condom use behaviour.

Coverage by preventive programs has increased; every second MSM in the sample is now reached by preventive program. New HIV prevention interventions introduced since 2010 as well as emerging LGBT community organizations might have played a positive role in coverage increase. Low coverage of young MSM by preventive interventions calls for targeting them through new approaches.

Biomarker

The most alarming finding of this study is increase in HIV prevalence from 7% in 2010 to 13% in 2012. As for syphilis (TPHA), its prevalence is quite high but does not show difference compared to the results of 2010. HIV positivity was found to be associated with older age, syphilis infection, experience of ever being tested for HIV and higher self risk perception.

Figure 15: HIV prevalence rates in 2007, 2010, 2012 (sample sizes 136, 271, and 216 respectively)



HIV prevalence increase has shown steady and alarming trend among MSM in Tbilisi. Number of HIV infected MSM is increasing, hence, there is a necessity to implement positive prevention strategies.

Recommendations

The following recommendations are proposed based on the findings of this study:

1. Increase coverage of MSM by preventive interventions aiming at risk behaviour reduction. The interventions should continue to include, but not be limited to, condom distribution, awareness raising and STI/HIV testing:
 - a) Apply various approaches to increase accessibility of HIV-related preventive services such as outreach, individual counselling, internet-based & community-based interventions and peer education
 - b) Expand MSM-friendly STI/HIV testing services
 - c) Recommend HIV testing to males attending the STI/genitourinary clinics
 - d) Reinforce safer sex messages, especially on the importance of protected sex
 - e) Increase awareness on and start distribution of lubricants
 - f) Involve representatives of the group in the planning and implementation of preventive interventions. This, additionally, will contribute to reaching other segments of MSM population – subgroups with a higher social-economic background
 - h) Design specific interventions to address risks undertaken by young MSM
 - i) Implement positive prevention strategies among HIV positive MSM
 - j) Continue and expand HIV rapid testing provision at the sites of MSM gathering
2. Focus on reducing HIV-associated as well as homosexuality-associated stigma and discrimination.
3. Further investigate interesting tendencies revealed through the survey, e.g.: the factors underlining different patterns of condom use with female and male partners; migration issues etc.
4. Conduct regularly non-coercive, anonymous, ethical and systematic surveillance of both behavioral and selected biological markers among MSM also in other locations, in order to monitor the prevalence dynamics of HIV infection and other STIs.
5. Ensure active recruitment in the following rounds of the survey through a) introducing more appropriate incentive system and b) adding testing for various STIs in the biomarker component.

Annex 1. Data tables

Network recruitment	%	n/N
Participation in earlier studies		
2007	31.7	69/218
2010	23.8	52/218
Both 2007 & 2010	15.1	33/218

Sociodemographic characteristics	%	n/N
Age		
≤ 24	38.1	83/218
25 – 34	37.2	81/218
≥ 35	24.8	54/218
Mean (minimum-maximum)	30.17 (18-68)	
Median	27.00	
Education		
Elementary	0.5	1/218
Secondary	44.5	97/218
Incomplete higher	18.8	41/218
Higher	36.2	79/218
Nationality		
Georgian	89.9	196/218
Other	9.6	21/218
No response	0.5	1/218
IDP status		
(Yes)	5.0	11/218
Marital Status		
Married	13.8	30/218
Divorced / Separated	14.2	31/218
Widower	0.5	1/218
Never married	71.6	156/218
Occupation		
Permanent Work	24.3	53/218
Temporary work	16.1	35/218
Student	9.6	21/218
No occupation	50.0	109/218
Monthly Income		
≤ 100 GeL	17.9	39/218
100 – 300 GeL	30.7	67/218

300 - 500 GeL	21.1	46/218
500 -700 GeL	11.5	25/218
700 - 1000 GeL	9.6	21/218
≥ 1000 GeL	9.2	20/218
Alcohol and drug use	%	n/N
Alcohol use		
Drink alcohol every day	9.2	20/218
Drug use		
Non-injection drug used during last 12 month	17.9	39/218
≤ 24	18.1	15/83
≥ 25	17.8	24/135
Most frequently used drug (Marijuana)	15.6	34/218
Drug injected during last 12 month *	2.8	6/218
≤ 24	1.2	1/83
≥ 25	3.7	5/135
Mostly injected drug (Subutex)	1.8	4/218
Injected with used needle/syringe during last injection	16.7	1/6
Sexual behavior	%	n/N
Male partners		
Number of anal/oral partners in last 12 month		
1	22.0	48/218
2 – 5	43.6	95/218
6 – 9	11.5	25/218
≥ 10	22.9	50/218
Median anal/oral partners	4.00	(218)
≤ 24	4.00	(83)
≥ 25	3.00	(135)
Had anal intercourse during last 12 month	95.9	209/218
Median anal partners	3.00	(209)
Median anal contacts last month	4.00	(163)
Used condom at last anal intercourse (AI) *	73.2	153/209
≤ 24	76.3	61/80
≥ 25	71.3	92/129
Consistent condom use during AI in last 12 month *	37.8	79/209
≤ 24	32.5	26/80
≥ 25	41.1	53/129
Had oral intercourse during last 12 month	70.6	154/218
Used condom at last oral intercourse	47.4	73/154
Regular male partners		
Had anal/oral regular partner in last 12 months	72.9	159/218

Median number of anal/oral partners	2.00	(159)
Median number of anal partners	1.00	(155)
Median number of anal acts last month	3.00	(155)
Used condom at last AI *	65.8	102/155
≤ 24	62.1	41/66
≥ 25	68.5	61/89
Consistent condom use during AI in last 12 month *	41.3	64/155
≤ 24	37.9	25/66
≥ 25	43.8	39/89
Reasons for not using condom at last AI with regular male partner (Didn't think necessary)	34.0	18/53
Occasional male partners		
Had occasional anal/oral partner in last 12 months	69.3	151/218
Median number of anal/oral partners	4.00	(151)
Median number of anal partners	4.00	(142)
Median number of anal acts last month	1.00	(142)
Used condom at last AI *	67.8	97/143
≤ 24	68.5	37/54
≥ 25	67.4	60/89
Consistent condom use during AI in last 12 month *	44.1	63/143
≤ 24	48.1	26/54
≥ 25	46.1	37/89
Reasons for not using condom at last AI with occasional male partner *(Did not have it)	16.3	7/43
Paid male partners		
Had anal/oral paid partner in last 12 months	3.7	8/218
Median number of anal/oral partners	2.00	(7)
Median number of anal partners	1.50	(6)
Median number of anal acts last month	1.00	(5)
Used condom at last AI *	50.0	4/8
≤ 24	50.0	1/2
≥ 25	50.0	3/6
Consistent condom use during AI in the last 12 months *	50.0	4/8
≤ 24	50.0	1/2
≥ 25	50.0	3/6
Reasons for not using condom at last AI with paid male partner (Refused to answer)	66.7	2/3
Engagement in commercial sex		
Had male client (received material reward for sex) in the last 12 months	12.4	27/218
Self-identified as sex worker	40.7	11/27
Median number of clients during a working day	1.5	(24)
Cost of commercial sex service (GEL)		
20-50 GEL	22.2	6/27

50-100 GEL	51.9	14/27
More than 100 GEL	22.2	6/27
No response	3.7	1/27
Monthly income from commercial sex service (GEL)		
50-100 GEL	18.5	5/27
200-300 GEL	18.5	5/27
300-500 GEL	18.5	5/27
500-1000 GEL	7.4	2/27
More than 1000	7.4	2/27
Don't know	7.4	2/27
No response	22.2	6/27
Used condom at last AI	66.7	18/27
Consistent condom use during AI in the last 12 months with male client		
often	12.5	1/8
sometimes	25.0	2/8
never	12.5	1/8
No response	50.0	4/8
Condom use at last AI with regular client	64.3	9/14
Consistent condom use with male regular client in the last 12 months	42.9	6/14
Female partners		
Ever had female partner	75.2	164/218
Had female partner in the last 12 months	51.4	112/218
Median number of female partners	3.00	(112)
Median number of sexual contacts during last month	2.50	(112)
Median number of regular partners	1.00	(78)
Median number of occasional partners	3.00	(67)
Median number of paid partners	3.00	(14)
Used condom at last intercourse *	68.8	77/112
≤ 24	71.8	28/44
≥ 25	67.1	49/62
Consistent condom use with regular partners in the last 12 months	43.6	34/78
Consistent condom use with occasional partners in the last 12 months	59.7	40/67
Consistent condom use with paid partners in the last 12 months	57.1	8/14
Reasons for not using condom with female partner		
group sex		
Ever engagement in group sex	36.7	80/218
Had been involved in group sex in the last 12 months	17.4	38/218
Only male	55.3	21/38
Only female	5.3	2/38
Mixed	39.5	15/38

Used condoms at last group sex (yes)	68.4	26/38
Access to condoms		
Knows where to obtain condoms	99.5	217/218
Places where condoms can be obtained (most frequently mentioned)- Pharmacy	94.0	205/218
Received condom during the last 12 months	53.7	117/218
Lubricants use		
Knows about lubricants	84.6	184/218
Knows where to obtain lubricants	56.9	124/218
Lubricant use during AI	50.9	111/218
Consistent lubricant use during AI in the last 12 months	12.4	27/218
Reasons for not using lubricants (most frequently mentioned)		
Cannot get it	18.8	41/218
Do not like it	16.5	36/218
Place where lubricants can be obtained		
Pharmacy	38.5	86/218
STIs	%	n/N
Aware of STIs		
Have heard about the STIs (yes)	96.3	210/218
Knowledge of symptoms of STI		
At least one	85.7	180/210
no	3.8	8/210
No response	10.5	22/210
Test for STI		
In last 12 months	39.0	85/218
More than 12 months	27.0	59/218
Do not remember	1.0	2/218
Never tested	33.0	72/218
Reasons for testing		
Prevention	71.2	104/146
After appearance of symptoms	21.9	32/146
Partner had STI	0.0	0/146
Other requested	2.7	4/146
Other	3.7	8/146
Awareness of test results		
yes	97.3	142/146
Reasons for not testing		
No need. I know that I am healthy	52.8	38/72
Experience of STI last 12 months		
Had symptoms of STI	15.1	33/218
Referral for treatment and preventive actions during STI symptoms manifestation		

Self-treatment	3.0	1/33
Traditional healer	0.0	0/33
Health facility	69.7	23/33
Private doctor at home	6.1	2/33
Pharmacy	0.0	0/33
Informed sex partner about STI symptoms	48.5	16/33
No sexual intercourse during symptoms	63.6	21/33
Condom use during symptoms	12.1	4/33
Knowledge, opinions and attitudes towards HIV/AIDS	%	n/N
HIV/AIDS knowledge		
Have heard about the HIV/AIDS	95.9	209/218
One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner (yes)	84.9	185/218
One can reduce HIV risk if one properly uses condoms during every AI (yes)	88.1	192/218
Healthy looking person can have HIV (yes)	72.9	159/218
One can get HIV as a result of a mosquito bite (no)	54.6	119/218
One can get HIV by sharing meal with someone who is infected (no)	72.0	157/218
One may be infected with HIV by using a needle/syringe already used by someone else (yes)	92.2	201/218
Correctly answered 5 questions (GARPR indicator)*	36.7	80/218
≤ 24	33.7	28/83
≥ 25	38.5	52/135
Person with the blood group 0 can get HIV infection (yes)	38.5	84/218
A mother can transfer the HIV/AIDS virus to her fetus or baby (yes)	80.3	175/218
Know where to get HIV test		
Yes	77.5	169/218
Test for HIV		
In last year	33.9	74/218
In last 1 - 2 years	15.1	33/218
More than 2 years	12.4	27/218
Never tested	38.5	84/218
Received HIV test last year		
Received HIV test last year and know their results *	33.9	74/218
≤ 24	28.9	24/83
≥ 25	37.0	50/135
HIV risk perception		
High risk	11.5	24/209
Medium risk	23.0	48/209
Low risk	28.7	60/209
No risk	17.7	37/209
Don't know	17.7	37/209

No response	1.4	3/209
Violence because of sexual orientation or homosexual relations	%	n/N
Experienced violence in the last 12 months		
Yes	16.5	36/218
No	83.5	182/218
Type of violence		
Physical	33.3	12/36
Verbal	75.0	27/36
Sexual	19.4	7/36
Perpetrator of violence		
Stranger	77.8	28/36
Family member / Relative	5.6	2/36
Friend	11.1	4/36
Other	8.3	3/36
Interventions / Media	%	n/N
Source of information of HIV/AIDS and STIs		
Have not heard about the HIV/AIDS and STIs	1.4	3/218
TV/ Radio	40.9	88/215
Newspapers	6.5	14/215
Friends	21.4	16/215
Family members	1.6	4/215
NGOs (Tanadgoma / Inclusive)	37.2	80/215
Internet	34.0	73/215
Others	18.1	39/215
No response	1.9	4/215
Trusted source of information		
TV	17.7	38/215
Radio	1.4	3/215
Newspapers	3.7	8/215
Internet	29.3	63/215
Booklets	20.9	45/215
Friends / relatives	11.2	24/215
Other MSM	1.4	3/215
NGO representatives	40.0	86/215
Others	19.5	42/215
No response	3.3	7/215
Preventive program coverage		
Know where to get HIV test and received condoms from preventive programs in last 12 months*	48.6	106/218
≤ 24	33.7	28/83

≥ 25	57.8	78/135
Biomarker	%	n/N
HIV infection		
prevalence	13.0	28/216
≤ 24	4.9	4/82
≥ 25	17.9	24/134
Syphilis (TPHA)		
prevalence	32.9	71/216
≤ 24	18.3	15/82
≥ 25	41.8	56/134

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

Annex 2. Survey instrument

Questionnaire ID Number:

Coupon ID Number

Questionnaire is Coded as:

Questionnaire is Word Processed by:

Behavior Surveillance Study with Biomarker component (BSS)

Men who have Sex with Men

Tbilisi 2012

Organization: Tanadgoma

Interviewer: Please specify the location of the interview and the respondent's ID code.

Operational definition of respondent: Men who have had manual, oral, or anal sex with another man in the past six months.

Introduction: "My name is_____. Georgian organizations Curatio International Foundation and Association Tanadgoma implement a joint project titled "Establishment of evidence based base for HIV/AIDS National Program, by strengthening surveillance system", funded by Global Fund. This survey is aimed at exploring the existing situation. Has anybody 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 to over the BSS period, don't take another one. Tell him, that you cannot re-interview him. Thank the person and finish conversation. If nobody has taken an interview from the person in question, continue as follows:

Confidentiality and consent: "I'm going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answers to these questions will help us better understand what people think, say and do about certain kinds of behaviors. We would greatly appreciate your help in responding to this survey. The survey will take about 30 minutes to ask the questions. Would you be willing to participate?"

Interviewer's Code: _____

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

	Respondent 1
Date	
Interviewer	
Result	

Result Codes: Completed – 1; Partially Completed – 2; Previously Interviewed – 3;

Refusal – 4; Other – 5

Q1.Date and time of interview: /_____/date/____/hour/____/minute/

Signature: _____ Date _____

BEHAVIORAL SURVEILLANCE SURVEY (BSS) WITH BIOMARKER COMPONENT FOR MSM
BEHAVIORAL SURVEILLANCE SURVEY (BSS) WITH BIOMARKER COMPONENT FOR MSM

Section A: Background characteristics

REMEMBER THAT ONLY MALES ARE TO BE INTERVIEWED WITH THIS INSTRUMENT.

A1. How old are you?

/____/____/ (please specify an exact age)

No response 99

A2. What is the highest level of education you have achieved?

No education 0

Primary (4 grades) 1

Secondary (5-11 grades) (general or
vocational school) 2

Incomplete higher 3

Higher 4

No response 99

A3. How long have you lived in Tbilisi?

Number of years /_____/

Record 00 if less than 1 year

Don't know 88

No response 99

A4. Are you an IDP?

Yes 1

No 2

No response 99

A5. What is your nationality?

Georgian 1

Other (**please specify**)_____ 2

No response 99

A6. What is your marital status?

Married 1

Divorced/Separated for ever 2

Widower 3

Has never been married	4
Other (please indicate)_____	
No response	99

A7. Are you employed?

Yes, I have permanent job	1
Yes, I have temporary job	2
Student	3
No	4
Other (please indicate)_____	5
No response	99

A8. What is your monthly income?

100 Lari and less	1
100-300 lari	2
300-500 lari	3
500-700 lari	4
700-1000 lari	5
1000 lari and more	6
No response	99

A9. Did you take a part in the study which was carried out by Tanadgoma in 2007 and implied questionnaire filling and blood testing?

Yes (200?)	1
No (200?)	2
Do not remember	3
No response	99

Section B: Drug and Alcohol Use

B1. In the previous month, how frequently did you drink alcohol beverages? (all type of alcohol beverages, include beer) (only one answer)

Every day	1
At least, once a week	2
At least, biweekly	3
Once a month	4
Don't know	88
No response	99

I did not drink (Don't read) 0

B2. Some people have tried various drugs. If you have done this, which one have you tried last 12 months? (Interviewer, read the list. For each drug use relevant option). Ask for the mentioned drugs – Please tell me, how did you take this drug: did you inject, smoke, inhale, drink, breath in or how? (Don't help; multiple answer)

Mult. ans.	Drugs	Inhale/ Breath in/ Drink/Swallow	Inject	Don't know	No response
0	Has not tasted (<i>don't read</i>)				
1	Heroin	1	2	88	99
2	Opium	1	2	88	99
3	Poppy-seed	1	2	88	99
4	Subutex	1	2	88	99
5	Vint/Jef/Amphetamin	1	2	88	99
6	Dezomorphine (Crocodile)	1	2	88	99
7	Inhalants	1	2	88	99
8	Marijuana	1	2	88	99
9	Extasy	1	2	88	99
10	Cocaine	1	2	88	99
11	Sedatives/hypnotics	1	2	88	99
12	Other (Specify) ----- ---	1	2	88	99
88	Don't know/Don't remember	88			
99	No response	99			

Interviewer: If the respondent has tried injecting drugs, then ask:

B3. Please try to remember, when you injected drugs for the last time, did you use syringe or needle used by someone else?

- Yes 1
- No 2
- Don't remember 3
- No response 99

Section C: Sexual history: numbers and types of partners

C1. Do you have homosexual relations? (Explain: By homosexual relations I mean that you have sexual contact – either oral or anal or both with men.)

- Yes 1
- No 2 STOP the interview

C2. During the last 12 months have you had homosexual relations??

- Yes 1
- No 2 STOP the interview

I would now like to ask you several questions about your sexual partners:

C3a. How many regular male partners have you had during last 12 months?

____ (Explain: regular partner means a spouse or sex partner with whom a relationship is stable)

C3b. How many occasional male partners have you had during last 12 months?

____ (Explain: occasional partner means a sex partner with whom sexual contact is established without exchange for material remuneration, for a short period of time, who is not a spouse, a regular partner, or a sex worker)

C3c. How many commercial male partners have you had during last 12 months?__ (Explain: commercial partner means a sex partner with whom sexual contact is established in exchange for material remuneration, meaning that you paid money or gave some other material remuneration to the partner)

(If the respondent answers yes all type of question 0, STOP the interview)

C4. In the past 12 months, have you had oral sex with a man? (Explain: By oral sexual contact I mean that penis of one person penetrates mouth of another person.)

- Yes 1
- No 2 Go to C7
- No response 99 Go to C7

C5. The last time you had oral sex, did you or your partner use a condom?

- Yes 1
- No 2
- Don't remember 3
- No response 99

C6. In general, with what frequency did you and your partners use a condom with oral sex during the past 12 months?

- Always 1
- Often 2
- Sometimes 3
- Never 4
- Don't know 88
- No response 99

C7. In the past 12 months, have you had anal sex with a man?(Explain: By anal sex I mean that penis of one person penetrates anus of another person.)

Yes	1
No	2 Go to section G
No response	99 Go to section D

C8. The last time you had anal sex, did you and your partner use a condom?

Yes	1
No	2
Don't remember	3
No response	99

C9. In general, with what frequency did you and your partners use a condom during anal sex during the past 12 months?

Always	1
Often	2
Sometimes	3
Never	4
Don't know	88
No response	99

Section D: Sexual history: Male regular partners

Interviewer: Check question C3a

IF HAD SEX WITH REGULAR PARTNER DURING PAST 12 MONTHS - **Continue**

IF HAD NOT SEX WITH REGULAR PARTNER DURING PAST 12 MONTHS - **Go to Section E**

D1. You had anal sex with your regular ____ male partner, (*Interviewer: specify the number of C3a*) with how many of them did you have anal sexual intercourse last 12 months?

_____ (Specify the number of partners)

Had no anal contact	77 Go to D5
Don't know/Don't remember	88
No response	99

D2. Please remember last month and your regular partner(s), how many times did you have anal contact during this period?

_____ (Specify the number of anal sexual contact)

Don't know/Don't remember	88
---------------------------	----

No response 99

D3. The last time you had anal sex with regular male partner, was a condom used?

Yes 1 **Go to D5**
No 2
Don't know/Don't remember 88 **Go to D5**
No response 99

D4. If no, what was the reason for not using condom? (Do not read the answers)

Did not have 1
Too expensive 2
Partner objected 3
Don't like them 4
Didn't think it was necessary 5
Didn't think of it 6
Other _____ 7
Don't know 88
No response 99

D5. In general, with what frequency did you and your regular male partner use a condom during the past 12 months?

Always 1
Often 2
Sometimes 3
Never 4
Had no anal contact 5
Don't know 88
No response 99

Section E: Sexual history: Occasional partners

Interviewer: Check question C3b

IF HAD SEX WITH OCCASIONAL PARTNER DURING PAST 12 MONTHS - **Continue**

IF HAD NOT SEX WITH OCCASIONAL PARTNER DURING PAST 12 MONTHS - **Go to Section F**

E1. The last time you had anal sex with occasional _____ male partner, (*Interviewer: specify the number of C3b*) with how many of them did you have anal sexual intercourse last 12 months?

_____ (Specify the number of partners)

Had no anal contact 77 **Go Section F**

Don't know/Don't remember 88

No response 99

E2. Please remember last month and your occasional partner(s), how many times did you have anal contact during this period?

_____ (Specify the number of anal sexual contact)

Don't know/Don't remember 88

No response 99

E3. The last time you had anal sex with occasional male partner, was a condom used?

Yes 1 Go to E5

No 2

Don't know/Don't remember 88 **Go to E5**

No response 99

E4. If no, what was the reason for not using condom? (Do not read the answers)

Did not have 1

Too expensive 2

Partner objected 3

Don't like them 4

Didn't think it was necessary 5

Didn't think of it 6

Other _____ 7

Don't know 88

No response 99

E5. In general, with what frequency did you and your occasional male partners use a condom during the past 12 months?

Always 1

Often 2

Sometimes 3

Never 4

Had no anal contact 5

Don't know 88

No response 99

Section F: Sexual history: Commercial Sex partners

Interviewer: Check question C3c

IF HAD SEX WITH MALE COMMERCIAL PARTNER DURING PAST 12 MONTHS - **Continue**

IF HAD NOT SEX WITH MALE COMMERCIAL PARTNER DURING PAST 12 MONTHS - **Go to Section H**

F1. The last time you had commercial male _____ partner, (*Interviewer: specify the number of C3c*) with whom sexual contact was established in exchange for material remuneration, meaning that you paid money or gave some other material remuneration to the partner. With how many of them did you have anal sexual intercourse last 12 months?

_____ (Specify the number of partners)

Had no anal contact **77 Go to Section H**

Don't know/Don't remember 88

No response 99

F2. Please remember last month and your commercial partner(s), how many times did you have anal contact during this period?

_____ (Specify the number of anal sexual contact)

Don't know/Don't remember 88

No response 99

F3. Please remember your last partner, with whom sexual contact was established in exchange for material remuneration did you use a condom?

Yes 1 Go to F5

No 2

Don't know/Don't remember **88 Go to F5**

No response 99

F4. If no, what was the reason for not using condom? (Do not read the answers)

Did not have 1

Too expensive 2

Partner objected 3

Don't like them 4

Didn't think it was necessary 5

Didn't think of it 6

Other _____ 7

Don't know 88

No response 99

F5. In general, with what frequency did you and your commercial male partners use a condom during the past 12 months?

Always 1

Often 2
Sometimes 3
Never 4
Had no anal contact 5
Don't know 88
No response 99

Section G: Involvement in Commercial Sex

G1. Have you sex with men in exchange of material remuneration? (Explain: By material remuneration I mean either money or some goods, or paying for your flat, etc.)

Yes 1
No 2 Go to section H
No response 99 **Go to section H**

G2. Over the last 12 months, approximately how often have you had sex with men in exchange of material remuneration?

Everyday 1
Several times a week 2
Once a week 3
2-3 times a month 4
Once a month 5
Once in three months or less 6
Do not know 88
No response 99

G3. Please specify, what kind of material remuneration do you usually get for your service? (*Multiple answer possible*)

Money 1
Food 2
Apartment/living plce 3
Other (Specify) ----- 4
Do not know 88
No response 99

(Interviewer: if the respondent does not take money for his service, go to G6.)

G4. How much money do you get for your services per day?

Less than 10 Lari and less 1
10-20 Lari 2

20-50 Lari 3
 50 – 100 Lari 4
 More than 100 Lari 5
 Other ----- **(Specify)** 6
 Do not know 88
 No response 99

G5. What is your monthly income from this service?

Up to 50 Lari 1
 50-100 Lari 2
 100-200 Lari 3
 200-300 Lari 4
 300-500 Lari 5
 500-1000 Lari 6
 1000 and more 7
 Other 8
 Do not know 88
 No response 99

G6. Do you have any other source of income besides this business (commercial sex)?

Yes 1
 No 2
 Do not know 88
 No response 99

G7. Over the last 12 months, about how many clients do you have per one working day?

_____ *(the number)*

Do not know 88
 No response 99

G8. Do you consider yourself as involved in the sex-business?

Yes 1
 No 2 Go to G10
 Do not know 88 **Go to G10**
 No response 99 **Go to G10**

G9. What is the reason of your involvement in the sex-business? *(Don't read; help if needed)*

Earning money 1

I like my occupation and
 don't want to do anything else 2
 I cannot do anything else 3
 Other _____ (Specify) 4
 Do not know 88
 No response 99

G10. Last time when you had sex with a male partner for material remuneration, did you or your partner use a condom?

Yes 1
 No 2
 Do not know 88
 No response 99

G11. If no, what was the reason for not using condom?

Did not have 1
 Too expensive 2
 Partner objected 3
 Don't like them 4
 Didn't think it was necessary 5
 Didn't think of it 6
 Other _____ 7
 Don't know 88
 No response 99

G12. In general, with what frequency did you and your male clients use a condom during the anal sex past 12 months?

Always 1
 Often 2
 Sometimes 3
 Never 4
 Had no anal contact 5
 Don't know 88
 No response 99

G13. How many regular clients do you have? (Explain: regular client means, when repeatedly uses sexual services of a particular person)

_____ (Specify the number of clients)

Have no regular client 77 **Go Section H**

Don't know 88
No response 99

G14. Was your commercial male partner your regular client?

Was regular client 1 Go to G17

Was not regular client 2

No response 99

G15. Remember your last regular client, when you had anal sex, did you or your partner use condom?

Yes 1 Go to Section H

No 2

Don't know 88

No response 99

G16. If no, what was the reason for not using condom? (Do not read the answers)

Did not have 1

Too expensive 2

Partner objected 3

Don't like them 4

Didn't think it was necessary 5

Didn't think of it 6

Other _____ 7

Don't know 88

No response 99

G17. In general, with what frequency did you and your regular client(s) use a condom during the anal sexual intercourse past 12 months?

Always 1

Often 2

Sometimes 3

Never 4

Had no anal contact 5

Don't know 88

No response 99

Section H: Sexual history: Sex with females

H1. Have you ever had sexual intercourse with a woman?

- Yes 1
No 2 Go to section I
No response 99 **Go to section I**

H2. Have you had sexual intercourse with woman during the past 12 months?

- Yes 1
No 2 Go to section I
No response 99 **Go to section I**

H3. Remember last month and your woman partner(s), how many times did you have sexual intercourse with women partners during this period?

H4. Now I would like to ask you several questions about your sexual partners that you had during the last 12 month.

H3a. How many regular female partners have you had during last 12 month?___ (Explain: regular partner means a spouse or sex partner, with whom the relationship is stable).

H3b. How many occasional female partners have you had during last 12 month?___ (Explain: occasional partner is a sex partner, for a short period of time, who is not a spouse, a regular partner, or a sex worker).

H3c. How many commercial female partners have you had during last 12 month?___ (Explain: commercial partner is a sex partner with whom sexual contact is established in exchange for material remuneration, meaning that you paid money or gave some other material remuneration to the partner).

(If the respondent answers yes all type of question 0, Go to Section I)

H5. The last time you had sex with female sex partner. Was a condom used?

- Yes 1
No 2
Don't remember 3
No response 99

H6. *Interviewer:* Check question H3a

IF HAD SEX WITH REGULAR FEMALE PARTNER DURING PAST 12 MONTHS - **Continue**

IF HAD NOT SEX WITH REGULAR FEMALE PARTNER DURING PAST 12 MONTHS - **Go to H7**

In general, what frequency did you use a condom with your regular female partner during last 12 months?

- Always 1

Often	2
Sometimes	3
Never	4
Don't know	88
No response	99

H7. *Interviewer:* Check question H3b

IF HAD SEX WITH OCCASIONAL FEMALE PARTNER DURING PAST 12 MONTHS - **Continue**

IF HAD NOT SEX WITH OCCASIONAL FEMALE PARTNER DURING PAST 12 MONTHS - **Go to H8**

In general, what frequency did you use a condom with your occasional female partners during last 12 months?

Every time	1
Most times	2
Occasionally	3
Never	4
Don't know	88

H8. *Interviewer:* Check question H3c

IF HAD SEX WITH COMMERCIAL FEMALE PARTNER DURING PAST 12 MONTHS - **Continue**

IF HAD NOT SEX WITH COMMERCIAL FEMALE PARTNER DURING PAST 12 MONTHS – **Go to I**

In general, what frequency did you use a condom with your commercial female partner during last 12 months?

Always	1
Often	2
Sometimes	3
Never	4
Don't know	88
No response	99

Section I: Group sexual practices

I1. Have you ever had group sex?

Yes	1
No	2 Go to section J
Don't know	88 Go to section J
No response	99 Go to section J

I2. Did you have group sex during the last 12 months?

Yes 1
No 2 Go to section J
Don't know 88 Go to section J
No response 99 **Go to section J**

I3. Were those groups only male groups, only female groups or mixed (male and female) groups?

Only males 1
Only females 2
Mixed 3
Don't know 88
No response 99

I4. At the last time you took part in the group sex, did you use a condom?

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

Section J: Condoms, lubricants

J1. Do you know of any place or person from which you can obtain condoms?

Yes 1
No 2 Go to J3
No response 99

J2. Which place or person do you know where you can obtain condoms?

(Don't read, circle each mentioned answer.)

Shop 1
Pharmacy 2
Market 3
Clinic 4
Bar/guest house/hotel 5
Peer educator 6
Friend 7
"Tanadgoma" 8
Other _____
Don't know 88
No response 99

J3. During the last 12 months, have you been given condoms by social workers, health cabinets?

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

J4. Now I would like to ask you some questions about the use of lubricants during sexual intercourse with men. (*Explain: I mean some dope grease that is used during sexual intercourse to make it less painful.*)

Do you use lubricants during anal intercourse with men?

NO ANAL SEX WITH MEN 1 **Go to section K**

Yes 2
No 3 Go to J6
Don't know what it is 4 **Go to section K**
No response 99

J4.1 Which lubricants do you use (*Several answers are possible*):

lubricants based on a liquid 1
lubricants with silicon 2
vazelin 3
cosmetis fat cream 4
intim-gel 5
skin oil 6
hair gel 7
animal fat 8
Other _____ 9
Don't know 88
No response 99

J5. How often do you use lubricants?

Always 1
Often 2
Sometimes 3
Never 4
Don't know 88
No response 99

J6. Why do not you use a lubricant? (Don't read, circle each mentioned answer.)

Partner objects 1
Afraid to use it 2
Too expensive 3
Can't get it 4
Don't like lubricants 5
Other _____ 6
Don't know 88
No response 99

J7. Do you know any place or person where you can obtain lubricants?

Yes 1
No 2 Go to section K
No response 99

J8. Which place or person do you know where you can obtain lubricants? (Don't read, circle each mentioned answer.)

Shop 1
Pharmacy 2
Market 3
Clinic 4
Bar/guest house/hotel 5
Peer educator 6
"Tanadgoma" 7
Friend 8
Other _____ 9
Don't know 88
No response 99

Section K: Sexually Transmitted Infections

K1. Have you ever heard of diseases that can be transmitted through sexual intercourse (venereal diseases)?

Yes 1
No 2 **Go to K3**
No response 99 **Go to K3**

K2. Can you describe any symptoms of STIs in men? What external signs or symptoms may cause men to suspect they may be infected? - Any other signs?

(Don't read, Circle all mentioned responses. More than one answer is possible)

Genital discharge	1
Burning pain on urination	2
Genital/anus ulcers/sores	3
Swelling in groin area	4
Other _____	5
No response	99

K3. Have you had anal or genital discharge during the past 12 months?

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

K4. Have you ever been tested for STIs?

Yes	1
No	2 Go to K8
No response	3 Go to section L

K5. If yes, when was the last time you were tested on STIs?

During the last year	1
During 1-2 year	2
2 years ago	3
Do not know	88
No response	99

K6. Why did you decide to be tested? (*Multiple answer possible*)

For prophylaxis	1
After discovering symptoms	2
Sexual partner had an STI	3
I was asked to	4
Other (Specify) _____	5
No response	99

K7. There is no need to disclose your test results to us, but have you enquired about them yourselves?

- Yes 1 Go to section L
 No 2 Go to section L
 No response 99 Go to section L

K8. If you have not been tested, what was the reason for that? *(Multiple answer possible)*

- Don't know where to get tested 1
 Don't need it, I know I am healthy 2
 Have never thought about this 3
 Afraid of the result, I prefer not to know 4
 It is very expensive 5
 Feel shy before the personnel 6
 Don't want to meet some acquaintances
 when I go for testing 7
 Don't want someone to know my test results
 (even medical personnel) 8
 Don't trust doctors 9
 Other (Specify) _____
 No response 99

Note: Module L should be filled only for those respondents, who have suffered STI symptoms over the last 12 months. (Check question K3). Otherwise go to Section M.

Section L: STI Treatment seeking behaviors

L. What did you do when you had genital or anal release or ulcer/boil last time? *(Circle one answer for each question)*

Questions	Yes	No	NR
1. Applied self-treatment	1	2	99
2. Consulted or received a treatment from a traditional healer or a wise man	1	2	99
3. Consulted or received a treatment at the state-owned health clinic or hospital	1	2	99
4. Consulted or received a treatment at a private health clinic or hospital	1	2	99
5. Consulted or received a treatment at a drugstore	1	2	99
6. Told your sexual partner about your symptoms or STI	1	2	99
7. Stopped having sex when the symptoms appeared (If answer is Yes Go to Section M)	1	2	99
8. Did you use the condoms during the symptom period?	1	2	99

Section M: Knowledge, opinions, and attitudes towards HIV/AIDS

M1. Have you ever heard of HIV or the disease called AIDS? (*Explain: HIV is a human immunodeficiency virus which causes AIDS. Make sure that the respondent understood what HIV is. You may use additional definitions too.*)

Yes 1
 No 2 Go to section N
 No response 99

M2. There is no need to disclose their names, but do you know anyone who is infected or died of AIDS?

Yes 1
 No 2
 No response 99

M3. Please give me your opinion regarding the following:

(Please read out all options and circle the relevant answer.)

Assertions	Yes	No	DK	NR
1. One may protect oneself from HIV/AIDS by having one uninfected and reliable sexual partner	1	2	88	99
2. One can reduce 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. One can get HIV as a result of a mosquito 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/syringe already used by someone else	1	2	88	99
7. Do you believe that one may be infected with HIV/AIDs if has blood group A?	1	2	88	99
8. Do you believe that an HIV/AIDS-infected woman can transfer virus to her fetus or child?	1	2	88	99

M4. Is it possible in your community for someone to get a confidential HIV/AIDS test ? By confidential, no one else has access to your HIV test results

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

M5. Do you know the place where you can get HIV tested?

Yes	1
No	2
No response	99

M6. There is no need to disclose your test results to us, but have you ever been tested for HIV?

Yes	1
No	2 Go to M10
No response	99 Go to M10

M7. When was the last time you were tested for HIV?

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

M8. Were you tested voluntary or for HIV or were you required?

Voluntary	1
Required	2
No response	99

M9. There is no need to disclose your test results to us, but have you enquired about them yourselves?

Yes	1
No	2
No response	99

M10. How you evaluate your risk for HIV?

High risk	1
Medium risk	2
Low risk	3
No risk	4
Don't know	88
No response	99

Section N: Violence

N1. During the last year Have you become a victim of violence because of your sexual orientation or sexual relations?

- Yes 1
- No 2 Go to section O
- Don't know 88 Go to section O
- No response 99 Go to section O

N2. What kind of violence have you experienced? (Multiple answer possible)

- Physical (beating, cutting, etc) 1
- Verbal (verbal insult) 2
- Sexual (rape) 3
- No response 99

N3. Who was the Perpetrator of violence?

- Stranger 1
- Family member 2
- Friend 3
- Other (**specify**) _____ 4
- No response 99

Section O: Exposure to Interventions

O1. Could you list all sources of information on STI/HIV? (Don't read) Could you remember some other sources of information? (Multiple answer)

- TV/Radio 1
- Newspapers 2
- Friends 3
- Clients 4
- Family members 5
- "Tanadgoma"/ "Incluzive" 6
- Internet 7
- Other _____ 8
- No response 99
- I have never heard anything about STI/HIV 00 **Go to section P**

O2. What is the most reliable source for you? (Multiple answer)

TV	1
Radio	2
Newspapers	3
Internet	4
Special Booklets	5
Friends, relatives	6
Other homo/Bisexual males	7
NGO	8
Other Please specify _____	
No response	99

Interviewer: before question Q3, ask questions from the additional forms 1 and 2.

Q3. That is the end of our questionnaire. You have been very helpful. After generalization and statistical analysis of the present study 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?

Yes	1
No	2
Don't know (we'll see)	88

Interviewer, thank the respondent for cooperation and say good-bye. After the interview make sure you have taken down the respondent's identification data so that the same person is used in the following panels of the study.

Q4. During the interview the respondent was:

Interested	1
Calm	2
Indifferent	3
Agitated	4
Uninterested	5

Time when interview was concluded _____

The questionnaire is kept till completion of the project.

Quality control on the interview was carried out by _____

Position _____

Organization _____