

## **SUMMARY OF THE ANALYTICAL REPORT**

«MONITORING THE BEHAVIOUR AND HIV-INFECTION PREVALENCE AMONG MEN WHO HAVE SEX WITH MEN AS A COMPONENT OF HIV SECOND GENERATION SURVEILLANCE»



(according to the results of 2013 bio-behavioral survey)

**Kyiv 2014** 



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(ACCORDING TO THE RESULTS OF 2013 BIO-BEHAVIOURAL SURVEY)

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## **LIST OF ABBREVIATIONS**

HIV - human immunodeficiency virus

CT (counselling and testing) – medical and psychological counselling of a certain person on HIV/AIDS and counselling-related medical testing of the person for presence of antibodies to HIV, carried out on voluntary basis from the person's side

NGO – non-governmental organization: civil or charitable organization legalized or registered in accordance with the legislation of Ukraine

**CSW** – commercial sex workers – people of both sexes who provide commercial sex services (for a fee)

**PWID** – people who inject drugs

AIDS - acquired immunodeficiency syndrome

**MSM** — biological men who have had at least one oral or anal sexual contact with another biological man in the last 6 months<sup>1</sup>. Among others this group includes transgender people who relate to biological men and practice sex with men

RDS (respondent driven sample) – sample directed and realized by the respondents themselves

<sup>&</sup>lt;sup>1</sup> The given definition of MSM is not universal and is used only for the purposes of this survey

## **SURVEY METHODOLOGY**

The survey was implemented by the Centre of Social Expertizes of the Institute of Sociology NAS of Ukraine in cooperation with the State Institution "Ukrainian Centre for Socially Dangerous Disease Control" through the request of the ICF "International HIV/AIDS Alliance in Ukraine". Data was collected from April to October 2013.

#### Survey aim and objectives

- To identify the level of HIV-infection prevalence among MSM.
- To study behavioural stereotypes that are known risk factors for HIV among MSM.
- To study the trends in knowledge, attitude and behavioural practices based on the comparison of this survey data to the survey results of 2007, 2009 and 2011.
- To study the relation between MSM behaviour and HIV test results.

#### Survey target group

- Have had at least one oral or anal sexual contact with a man within the last 6 months preceding the survey.
- Have 16 full years at the moment of their involvement into the survey.
- Live, work or study in the surveyed city.

**Ethical grounds for the survey.** Survey protocol and questionnaire were examined by the Committee on Sociologist's Professional Ethics at the Sociological Association of Ukraine and the Committee on Medical Ethics of the Institute of Epidemiology and Infectious Diseases named after L.V. Gromashevskyi of the Academy of Medical Sciences of Ukraine.

#### Number of respondents in each city

City	Realized sample	City
Bila Tserkva	150	Odesa
Vinnytsia	250	Poltava
Dnipropetrovsk	400	Rivne
Donetsk	400	Simferopol
Zhytomyr	200	Sevastopol
Zaporizhzhia	400	Sumy
Ivano-Frankivsk	200	Ternopil
Kyiv	400	Uzhhorod
Kirovohrad	200	Kharkiv
Kryvyi Rih	400	Kherson
Luhansk	300	Khmelnytskyi
Lutsk	200	Cherkasy
Lviv	400	Chernivtsi
Mykolaiv	400	Chernihiv
Total		8100

**Survey design:** cross-sectional survey that includes individual interviews with the use of "face-to-face" method and respondents' testing for HIV with the use of rapid tests. Respondents were recruited to participate in the survey according to the RDS methodology.

400 300

200

300

300

300 250

200

400

300

200

150

300

200

Seeds were selected according to the following criteria:

- bisexual;
- MSM with high or medium level of income;
- HIV-negative (as self-reported by the respondent);
- At least one "seed" is not a client of HIV-service organization;
- Residents of different areas of the surveyed city;
- Is under 25 years old;

**Data analysis.** Data was processed using RDSAT (calculations for cities) and SPSS (national calculations) software. Significance of difference in percentage among different groups was proved by the statistical xi squared test. In order to determine factors which associated with HIV, multilevel logistic regression was built up.

# SOCIAL AND DEMOGRAPHIC PROFILE OF MSM

- The average age of MSM is 28 years. Relative proportion of MSM adolescents (14–19 years) is 11%.
- 79% of interviewed MSM have never been married. Official and actual marital statuses are naturally linked. Thus, 84% of those living with a female partner have officially registered heterosexual marriage, while 98% of those living with a male partner are either not married or divorced.
- Quite high level of education has been fixed among MSM: 32% have complete higher education and 17% have incomplete higher education, another 1% of MSM have a scientific degree.
- As far as "financial welfare" is concerned, the respondents symmetrically distributed around the most represented group being average in terms of financial welfare ("have generally enough to live", "have enough to live, but not to save").
- 97% of MSM have never been imprisoned.
- Almost two thirds of respondents (65%) reported that only men attract them.
- More than a half of respondents actively use Internet in order to search for sexual male partners.

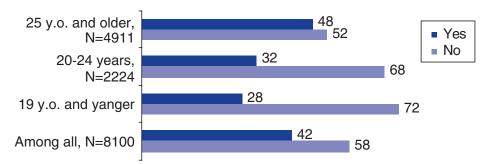


Fig. 1. Distribution of Internet users searching for sexual male partners, by age subgroups, %

Table 1. Social and demographic characteristics of MSM, % (2013)

	Characteristics	%
Age	Under 19 years	11
	20–24 years	29
	25+ years	61
Legal marital status	Has never been married	79
	Officially married	8
	Divorced	12
	Widower	1
With whom does he	Lives alone	41
live?	Lives with parents or relatives	34
	Lives with a female partner	17
	Lives with a male partner	8
Educational level	Incomplete secondary (9 classes)	2
	Complete secondary (11 classes)	16
	Secondary vocational (technical school, college)	32
	Incomplete higher (bachelor)	17
	Higher (master, specialist)	32
	Scientific degree	1
Financial welfare	Begs sometimes	1
	Does not have enough money for food	1
	Has enough money only for food	10
	Has generally enough money to live	36
	Has enough money to live, but not to save	28
	Has enough money to live and save	18
	Lives in full abundance	6
Sexual orientation	Only men	65
	Mostly men, but sometimes women	16
	Men and women to the same extent	10
	Mostly women, but sometimes men	7
	Only women	1
	I haven't decided yet.	1

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## **SEXUAL BEHAVIOUR AND RISKY PRACTICES**

#### First sexual intercourse

- On average, men had first sexual contact with another man 1.8 years after their sexual debut with a woman:
  - Average age of sexual debut with a man 18 years (including 27% of those who had their first sexual contact with a man before reaching 16 years old);
  - Average age of sexual debut with a woman 17 years.

#### Last sexual intercourse

- In half of the cases (50%) last anal sex was practice with a permanent partner, 45% of respondents had it with a casual partner, 2% with a partner to whom they paid and 2% with a partner, who paid the respondent for sex.
- Respondents had two anal intercourses on average during the last sex with a man.
- 72% of respondents used condoms.

#### Sex with men in the last 30 days

- On average MSM have had three oral intercourses and per two anal intercourses in active and passive roles in the last 30 days.
- More than a half of those MSM who have had sexual intercourses with other men in the last 30 days always used condoms.

#### Contacts with permanent partners

- 57% of MSM have had a permanent sexual partner in the last 30 days.
- The level of condom use during the last sexual intercourse and in the last 30 days is the lowest as compared to corresponding indicators for other sexual partners.

#### Contacts with casual partners

- 58% of MSM have had sexual intercourses with casual partners in the last 30 days.
- The average number of such partners is three.
- 83% of respondents used condoms during the last anal sex.

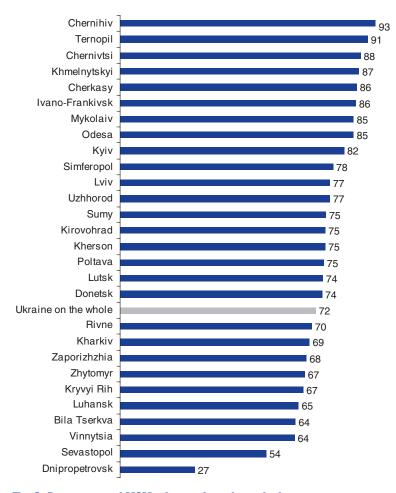


Fig. 2. Percentage of MSM who used condoms during the last sexual contact with a male partner

## **SEXUAL BEHAVIOUR AND RISKY PRACTICES**

#### Intercourses with commercial partners

- 2% of MSM have had sex with a commercial partner to whom they paid for it in the last 30 days. The average number of such partners is one.
- 16% of respondents reported having experience (at least once throughout life) of selling sex to another man, a third of these respondents (36%; 5% of the whole sample) have received payment for sex in the last 30 days.
- It was rather single or at least irregular experience for a half of MSM who have received remuneration for sex in the last 6 months.
- Almost all MSM who have experienced commercial sexual intecrourses used condoms.

#### Table 2. Practice of sexual contacts with different sexual partners (%)

	Permanent			l partner
	partner	partner	who was paid	who paid
Presence of partners	50	43	2	2
Among those who have had contacts with the given type of partners:				
Condom use during last sex	62	82	97	85
Have always used condoms in the last 30 days	50	57	70	67

#### Sex with women

- A half of the interviewed MSM (54%) have experienced heterosexual intercourse throughout life, including 79% (or 23% of the whole sample) of those who have had such intercourses in the last 6 months.
- The average number of female partners in the last 6 months (among MSM who have had such contacts) is three.
- 66% used condoms during their last vaginal or anal sex with a woman.
- The reason for condom non-use is mainly confidence in the partner (she is healthy and/or she is my wife).
- 7% of bisexually active MSM have used services of female sex workers (FSW) in the last 6 months, including 93% of those who used condoms during their last sexual intercourse with FSW.

#### Additional risks of sexual behaviour

- During the last sex with a man respondent's semen contacted his partner's mucous membranes (fell into mouth or rectum) in 22% of cases, while semen of a respondent's partner contacted mucous membranes of the respondent in 18% of cases.
- More than a half of the respondents (58%) do not know the HIV-status of their last male or female partner, 41% consider it to be negative, and 1% – positive.
- A quarter of those who do not know a partner's HIV-status still did not use condoms during anal sex with him.
- 22% of the respondents have practiced group sex in the last 6 months. They
  usually did not know HIV-status of their male and female partners during the last
  group sex (66%).

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## PRACTICE OF ALCOHOL CONSUMPTION AND DRUG USE

#### Alcohol consumption

- The overwhelming majority of MSM (83%) consume alcohol beverages of different strength (occasionally or regularly).
- 48% of those consuming alcohol, have done this several times per week or every day within the last month, 46% – once or twice per month.
- Strong and medium strength alcohol is consumed less frequently than low-alcohol beverages.

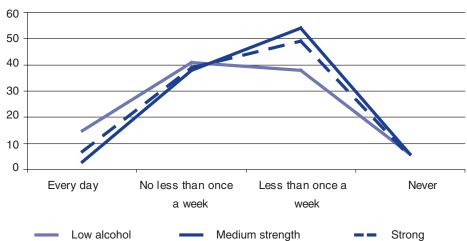


Fig. 3. Frequency of alcohol consumption, depending on the strength

#### Drug use

- 12% of the respondents have used non-injecting drugs within the last year (another 7% used to have this experience).
- 0.5% have injected drugs in the last 12 months (1% had this experience earlier than a year ago).

Almost all MSM who have experienced injecting drugs used sterile syringe during the last injection (31 out of 39 men).

#### Sex under the influence of alcohol and drugs

 42% of MSM (among those who consume alcohol) generally denied having had sexual intercourses when intoxicated or have occasionally had them in the last month, others have practiced it with certain regularity.

Table 3. Distribution of respondents' answers to the question: «How often have you had sex when intoxicated in the last month (30 days)?»

	Types of alcohol beverages			
	Low-alcohol	Medium strength	Strong	
Always (100%)	6	3	6	
In most cases (75%)	12	8	12	
In half of the cases (50%)	14	19	21	
Sometimes (25%)	22	25	24	
Rarely (less than 10%)	21	23	18	
Never	26	22	18	

## **HIV PREVENTION FACTORS**

#### Clients of HIV-service non-governmental organizations

- 30% of all respondents are clients of non-governmental organizations working in the field of HIV prevention among MSM.
- Almost all clients (93%) have received condoms free of charge from the representative of this organization in the last 6 months.

## Table 4. Social and demographic characteristics of clients and non-clients of HIV-service non-governmental organizations

		Clients	Non-clients
Age, years, p <	under 19 years	8	12
0.001	20–24 years	29	29
	25+ years	63	59
Financial welfare,	Often do not have enough money and food.	1	< 1
p < 0.001	Do not have enough money for food	1	1
	Have enough money only for food	9	11
	Have generally enough money to live	34	39
	Have enough money to live, but not to save	32	25
	Have enough money to live and save	17	17
	Live in full abundance	5	7
Sexual orientati-	Homosexual	77	65
on, p < 0.001	Bisexual	22	29
	Heterosexual	1	3
MSM status disc-	Keep it in secret from all	42	53
losure, p < 0.001	Do not keep it in secret and ready to talk about it anywhere	10	8
	Do not keep it in secret, but am not the first to say it	46	38

#### Coverage with services

- 46% of MSM are covered with HIV prevention programmes.
- The indicator has decreased as compared to 2011 (52% in 2011) which is related to the decreasing number of regions with available prevention services for MSM.

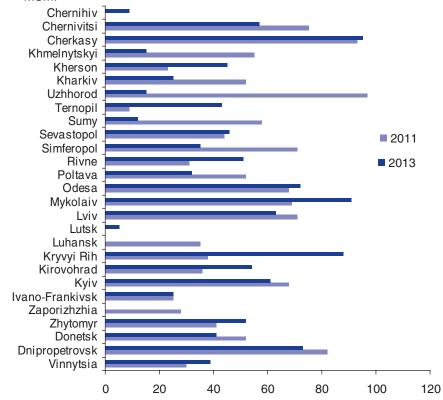


Fig. 4. Percentage of MSM covered with prevention programmes

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## **BASIC KNOWLEDGE ABOUT HIV**

- 68% of the respondents correctly identify ways of HIV transmission and know how HIV cannot be transmitted.
- The most significant differences concerning the level of knowledge about ways
  of HIV transmission are observed depending on age, level of education and
  usage of NGO services.

## Table 5. Level of knowledge about ways of HIV transmission, depending on age, I evel of education and status of NGO client

Age, years, p < 0.001	under 19 years	53
	20–24 years	66
	25+ years	71
	Incomplete secondary (9 classes)	51
	Complete secondary (11 classes)	62
Education, p < 0.001	Secondary vocational (technical school)	65
	Incomplete higher (bachelor)	69
	Higher (master, specialist or scientific degree)	77
NGO client	Clients	81
status, p < 0.001	Non-clients	63

- Indicator's gradual increase has been fixed as compared to 2011 (2011 64%)
- The most positive dynamics of the indicator has been fixed in Chernihiv, Cherkasy, Mykolaiv, Vinnytsia.

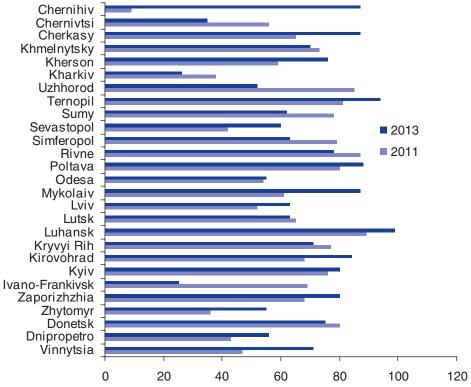


Fig. 5. Percentage of MSM who correctly identify ways of HIV sexual transmission and know how HIV cannot be transmitted

## **APPLYING FOR VCT SERVICES**

- The overwhelming majority of the respondents (89%) know where they can be tested for HIV and the same percentage considers it available for them.
- Main barriers for HIV testing are poor awareness of the testing location or concerns about confidentiality of the results.
- Two thirds of the respondents (61%) have applied to relevant institutions or organizations at least once throughout life (5 times on average) in order to be tested for HIV, almost all of them were tested and received test results.
- 80% of respondents tested for HIV agreed to disclosure their status; 1.6% of them (or 91 person) indicated being HIV-positive, including 77 MSM registered at the AIDS Centre and a half (48 men) receiving ARV medications.

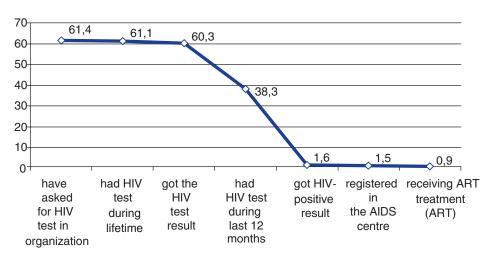


Fig. 6. Representation of the HIV testing process, official registration of HIV-positive people and treatment receiving, %

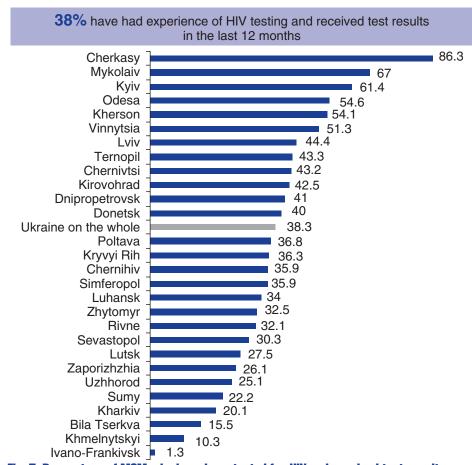


Fig. 7. Percentage of MSM who have been tested for HIV and received test results in the last 12 months

## **HIV PREVALENCE AMONG MSM**

• 5.9% of interviewed MSM appeared to be HIV-positive, 1% of them received HIV-positive result for the first time in the course of the survey.

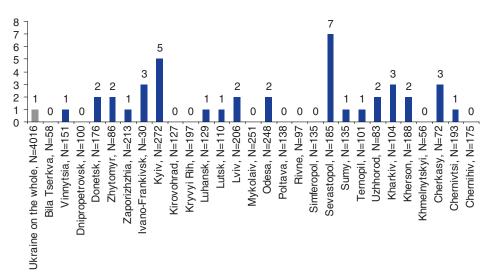


Fig. 8. Percentage of respondents who received HIV-positive test result f or the first tie in the course of the survey, %

- HIV-infection prevalence among young MSM (under 25 years old) makes up 3%, among MSM of 25+ years 7.7%.
- There is some steadiness of the indicator of HIV-infection prevalence: slight decrease in HIV prevalence has been fixed as compared to 2011 (6.4% in 2011), but the dynamics is not statistically significant.

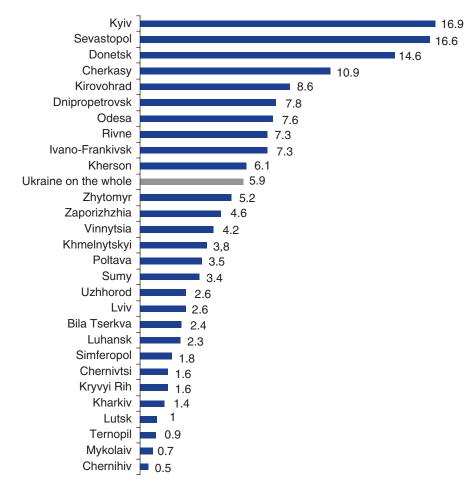


Fig. 9. Percentage of HIV-infected MSM

## FACTORS ASSOCIATED WITH HIV-INFECTION

According to the results of multilevel logistic regression analysis, statistically significant factors of HIV presence are:

- age (belonging to the group of 25+ years doubles odds of being infected),
- bisexual behaviour (this way of life three times reduces odds of being infected)
- using certain ways of getting acquainted to other men (those MSM who used more traditional ways – dating sites, through friends or have not been looking for new partners at all, were less likely to get infected as compared to those who used special mobile applications and respectively had twice higher odds of being infected).

Presence or absence of basic knowledge about HIV/AIDS or HIV testing during the year did not demonstrate links to seroconversion.

Table 6. Results of logistic regression analysis, which links the possibility of seroconversion to other factors (N = 4016,  $\sigma^{12}$  = 632,  $\sigma^{02}$  = 654)

Factor	OR	AOR (95% CI)		
Age (ref. = 'under 25 years'), p = 0.03				
25+ years	1.9	2.1 [1.1–3.7]		
Presence of bisexual behavior in the last 6	Presence of bisexual behavior in the last 6 months (ref. = 'absence'), p < 0.001			
Presence	0.4	0.3 [0.1–0.7]		
Ways of getting acquainted to other men in order to have sex (ref. = did not use'), p < 0.001				
Dating sites	0.6	0.4 [0.2–0.7]		
Through friends and acquaintances	0.6	0.4 [0.2–0.7]		
Through special mobile applications (Grindr, Hornet, etc.)	2.2	2.4 [1.2–5.0]		
Have not been looking for male partners in the last 6 months	0.7	0.2 [0.1–0.5]		
Basic knowledge about HIV/AIDS (ref. = gave incorrect answers to five basic questions'), $p = 0.1$				
Gave correct answers to five basic questions	0.6	0.6 [0.4–1.1]		
Have been tested for HIV in the last 12 months and received test result (ref. = have been not tested'), $p = 0.1$				
Have been tested	0.6	0,7 [0.4–1.2]		

## LIMITATIONS AND FACTORS THAT COULD INFLUENCE THE RESULTS

- Cross-sectional survey design does not allow to unambiguously determine
  the cause-and-effect relationship between factors, but only allows to mention the inhesion of certain behaviour pattern or HIV-status to a certain
  sub-group of respondents, though it does not allow to get answers to the
  question on when the changes happened and what was their reason.
- Despite the fact that in 2013 the geography of the survey was expanded to all regional centres of Ukraine, Kyiv and Sevastopol, as well as Kryvyi Rih and Bila Tserkva, these data cannot be representative for the total number of MSM of Ukraine. The data are representative for the MSM population residing in regional centres (they have better access to information and HIV prevention services), as MSM from small towns and villages were not involved into the survey.
- The level of institutional development of LGBT community and MSM-service is not the same across different regions. Thus, in Kyiv, Odesa, Lviv, Mykolaiv and Donetsk and Dnipropetrovsk regions MSM have more opportunities to get specific services than in other regions of Ukraine, therefore, larger sample sizes were realized in these cities as compared to other cities.

- In some cities (Kyiv, Mykolaiv, Cherkasy, Kryvyi Rih, Chernivtsi) the sample is half presented by clients of HIV-service organizations. This imposes certain restrictions on distribution of the received data for the entire MSM population in the city.
- RDS methodology is the best way to study closed groups. However, there is certain risk to get biased indicators, as the most reliable sample type – the random sample – is not realized.

## RECOMMENDATIONS TO IMPROVE PREVENTION PROGRAMMES

#### Improving access to prevention services

Survey results showed significant differences in socio-demographic profile of clients and non-clients of prevention programmes. Statistically significant differences are observed for almost all characteristics:

- Clients are older (analysis of average age indicators).
- Among clients there is bigger proportion of those having permanent male sexual partner with whom they live together;.
- Clients more often identify themselves as homosexuals and can more often reveal their MSM status to others.

Presence of such differences indicates that in terms of prevention services certain subgroups remain out of consideration of prevention programmes. There is also a significant number of regions where HIV-prevention services for MSM are not represented at all, which significantly reduces the coverage rate in general and makes obtaining services in these regions almost impossible (except when MSM receive services in NGOs that implement programmes aimed at other most-at-risk populations, such as PWID, FSW). Based on these data, the concept of providing HIV-prevention services and planned coverage within the programme monitoring should be adjusted for the gradual implementation of HIV-prevention services for MSM in all regions of Ukraine. Local communities should create conditions for realization of prevention programmes:

- Implementation in the regions where they are not available.
- Modification and retargeting to broader MSM groups that correspond to the group's general socio-demographic profile in the regions where MSM-services are available.

#### Prevention programmes for MSM partners

There is an opinion that it can be enough to provide means of protection to one of the partners in order to ensure safe behaviour during sexual contact. However, in order to realize this assumption it is necessary to strengthen motivational counselling on safe behavior and instruct a client on reasoning the necessity of safe behavior and certain means to ensure it. Moreover, such counselling should take into account

different types of partners with whom a client can have sexual contacts: permanent, casual, commercial, female partners.

#### Work with bisexuals

According to the survey results, the group of bisexual MSM is one of the most vulnerable. Given also the fact that this group is a contact group for the general population, its coverage with prevention programmes and development of models of continuous safe behaviour is extremely important for improving epidemiological indicators in the group as a whole and on the way to prevent HIV transmission to the general population or vice versa (for example, through contacts with FSW). In order to perform these tasks it is necessary to develop certain strategies of access to female sexual partners of MSM. This can be done in two ways:

- Direct involvement of female partners to receiving HIV prevention services. Implementation of such a model is possible through recruitment of women by MSM themselves in case if they do not hide their belonging to the group from their female partner.
- Indirect access to female partners through MSM. Increase in coverage of bisexual MSM with prevention services and counselling of this group on safe behaviour and motivation for such behaviour with a female partner.

#### Online counseling

The survey continues demonstrating high level of using Internet sites, forums, social networks in order to search for partners. This resource should be also used as much as possible for prevention work: providing information about HIV, means of protection, their proper use, the need for HIV testing and places where a person can be tested. Online counseling is the most effective means of providing such consultations. Use of online resources to access the target group can also lead to significant expansion of audience and reach of new subgroups of MSM who were previously almost inaccessible to HIV prevention services (for example, MSM with high financial welfare, top managers, or other categories who are afraid to revel their belonging to MSM group).