

SURVEY ON RISKY BEHAVIOR IN RELATION
TO HIV PREVALENCE AMONG
POPULATIONS AT HIGHER
RISK OF EXPOSURE



REPORT

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INSTITUT ZA ZAŠTITU ZDRAVLJA RS
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INSTITUTE FOR PUBLIC HEALTH FB&H



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Table of content

Introduction	6
Research objectives	11
Methodology and respondents	12
MSM Study	16
Summary	17
Results	18
Research results - 18-24 age group	31
Conclusion	36
Recommendations	37
SW Study	38
Summary	39
Results	40
Research results - 18-24 age group	52
Conclusion	60
Recommendations	61
Literature	63

Acronyms and abbreviations used:

AIDS	Acquired immune deficiency syndrom	<input type="radio"/>
AAA	Action against AIDS	
BiH	Bosnia and Herzegovina	
FPH	Fondation PH Suisse — <i>Partnerships in Health</i>	
CCM	Country Coordinating Mechanism	
FBiH	Federation of Bosnia and Herzegovina	<input type="radio"/>
GFATM	Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria	
HIV	Human immunodeficiency virus	
MSM	Men Who Have Sex with Men	
RS	Republika Srpska	
SIDA	Swedish International Development Agency	
SW	Sex Worker	
UG PROI	Udruženje građana za podršku resocijalizaciji ovisnih i izliječenih od droge – Citizens Association for Support in Re-socialisation of the drug addicts and former drug addicts	<input type="radio"/>
UNDP	United Nations Development Programme	
UNICEF	United Nations Children Fund	
UNAIDS	The Joint United Nations Programme on HIV/AIDS	
XY	Asocijacija za seksualno i reproduktivno zdravlje – XY – Association for Sexual and Reproductive Health	<input type="radio"/>

GOVERNING BOARD:

Aida Kurtović

Dragana Stojisavljević, MD

Zlatko Vučina, MD

AUTHORS:

Jelena Ravlija, MD

Ljubica Jandrić, MD

Aida Kurtović

RESEARCHERS:

Ljubica Jandrić, MD

Jelena Ravlija, MD

Janja Bojanić, MD

Marija Zeljko

INTRODUCTION

HIV represents a vast, unprecedented, global health problem of today's world. Known for 27 years, HIV already caused about 25 millions of deaths and thorough demographic changes in countries most affected by this problem. HIV and AIDS are currently considered as the most devastating health conditions, jeopardizing health of millions of people around the world. UNAIDS estimated that the number of people living with HIV in 2007 reached 33 millions. Only in 2007, 2,7 million of people got infected by HIV. In addition, two million people have died of diseases that are probably HIV related*.

Results of the HIV infection can not be limited exclusively to the health condition of the people infected. HIV infection unfortunately has huge social and economic effects, extremely visible in those countries having high HIV prevalence. Sub-Saharan Africa is a region having the highest HIV prevalence in the whole world – in some of these countries, Swaziland for example, the prevalence reaches the rate of 36,1 infected. The situation in regard to this issue in the East Europe and Central Asia region, covering Bosnia and Herzegovina as well, is somewhat better. However, the reason for concern is the fact that our region is facing a rapid growth of HIV epidemics. It is estimated that some 1,5 million of people in East Europe and Central Asia region are living with HIV – 90% out of that number are living either in Russian Federation (69%) or in Ukraine (29%). Epidemics in this region are mainly concentrated to injection drug users, sexual workers and their diverse partners. Prevalence in Bosnia and Herzegovina is less than 0,1%*.

Dynamic social and economic changes however represent a context within which not only the vulnerable groups (injection drug users, MSM, SW, promiscuous persons), but the general population as well are prone to risk. Increase in heterosexual transmission indicates that the epidemics are entering the general population as well. HIV/AIDS epidemics in this region are still at their early stage and could be stopped and put under control by timely and effective interventions. Experience from other countries is showing that, if the appropriate prevention measures are not taken this current status might change very quickly. If we want to maintain the existing prevalence, reduce the risk of HIV spreading by increasing and developing knowledge on risky behaviour in individuals and by creating appropriate, efficient prevention activities directed to specific behaviour models, our efforts in terms of prevention have to be constant.

Models of risky behaviour, especially in vulnerable groups, as well as the presence and share of HIV, Hepatitis B, C and syphilis infections are poorly researched in our country. Such recurring biobehavioural researches are therefore of great importance. Their results are needed for all future activities in terms of control and evaluation of the measures taken.

* UNAIDS 2008 Report on the global AIDS epidemic

Efficient monitoring and control of infection are essential measures within an appropriate response to infection. In that regard, the Foundation PH Suisse —*Partnerships in Health*, Republika Srpska Public Health Institute and Public Health Institute of the Federation of Bosnia and Herzegovina have, based on an initiative from the programme “Coordinated National Response to HIV/AIDS and Tuberculosis in a War-torn and Highly Stigmatized Settings” implemented in Bosnia and Herzegovina with the financial support of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and with the technical support of the United Nations Development Fund (UNDP), implemented biological and behavioural researches within the MSM and SW sub-populations.

Researches of the risky behaviour among the populations under the increased risk from acquiring HVI/STI have been conducted within the January/February 2008 period. The sample consisted of 224 respondents from the MSM (Men Who Have Sex with Men) subpopulation and 146 respondents from the SW (sexual workers) subpopulation in seven urban areas in Bosnia and Herzegovina. Researches have been conducted in the following urban centres in Bosnia and Herzegovina: Sarajevo, Banja Luka, Mostar, Tuzla, Prijedor, Bijeljina and Prnjavor in order to monitor the magnitude and to collect data on prevalence of the infections mentioned in these targeted subpopulations. The results will be used as the baseline data for further monitoring of trends of infections mentioned within the target subpopulations in order to reduce the prevalence of these infections or maintain its current values. Results of the research indicate that the target subpopulations have still not faced HIV in a more significant degree.

With regard to the extremely short deadline to conduct the study and the lack of resources necessary to implement the research, the Country Coordination Commission (CCM) addressed the “Fondation PH Suisse —*Partnerships in Health*”, Republika Srpska Public Health Institute and the Federation of Bosnia and Herzegovina Public Health Institute asking them to collect the funds needed and to develop and conduct the researches mentioned. “Fondation PH Suisse —*Partnerships in Health*” was successful in collecting these funds from the following donors: UNAIDS, SIDA, UNICEF, GFATM and UNDP. We would like to use this opportunity to thank them for their contribution and for enabling this research. Federation of BiH Public Health Institute and Republika Srpska Public Health Institute provided the expert support in development and implementation of the research. The research protocol, fieldwork guide and questionnaires for respondents have been prepared in a close cooperation between the governmental and nongovernmental sector partners within this program. Success of this research demonstrates capacities and professional expertise of the public health institutes in Bosnia and Herzegovina in terms of conducting such a research. These types of researches were previously, up till now, being implemented mainly by international agencies and organizations. The fieldwork was done by the Public Health Institutes and infectious diseases clinics in cooperation

with the NGO's: Margina – Margin from Zenica, Akcija protiv Side (AAA – Action against AIDS) from Banja Luka, Asocijacija za seksualno i reproduktivno zdravlje – The Association for Sexual and Reproductive Health – XY and the Citizens Association PROI from Sarajevo. We would like to point out that the success of the research comes as a result of the joint efforts of all of the partners involved that worked together in all of the phases of the research, starting from the development of the Protocol all the way to the very fieldwork. These, successfully implemented researches have shown that such a partnership approach is viable and efficient, though such practice is still rather rare in Bosnia and Herzegovina. We sincerely hope that the practice and the approach used can serve as a model for development and implementation of the future researches in Bosnia and Herzegovina. We also hope that the results of these studies will contribute to a higher quality of monitoring of these infections in Bosnia and Herzegovina and the more successful preparation and implementation of the prevention and fight against HIV, hepatitis and syphilis programs to be implemented in Bosnia and Herzegovina in the forthcoming period.

All the success in your work!

Federation of BiH Public Health Institute

Republika Srpska Public Health Institute

Fondation PH Suisse —*Partnerships in Health*

ACKNOWLEDGMENTS

Fondation PH Suisse — *Partnerships in Health* would like to thank to all of those who made this research possible.

Our sincere thanks go to all those respondents who agreed to participate in this study. We would like to thank the agencies and organizations that donated funds needed for this research: *UNAIDS, Swedish International Development Agency (SIDA), Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, UNDP and UNICEF*. Fondation PH Suisse — *Partnerships in Health* would like to thank to the Public Health Institute of the Federation of Bosnia and Herzegovina and the Republika Srpska Public Health Institute led by Draganom Stojisavljević, MD and Zlatko Vučina, MD. Jelena Ravlija, MD and Ljubica Jandrić, MD, employees of these institutes, provided their outstanding professional and expert support in development, implementation and the research analyses.

The implementation of the research would not be possible without the contribution of our partners in the local NGO sector - Asocijacija za seksualno i reproduktivno zdravlje – Association for Sexual and Reproductive Health XY, CA PROI, Action Against Aids and Margina – Margin – and we would like to thank them for the efficient running of the field work.

Special thanks go to the research supervisors and the medical personnel - for the fieldwork they have done and their contribution in terms of the research coordination.

BACKGROUND

The routine monitoring data confirms 147 registered HIV/AIDS cases in a period from 1986 to 2007, meaning that Bosnia and Herzegovina is not facing epidemics; however, the circumstances within the country present a potential threat from further HIV spreading in the forthcoming period. These include: poor social and economic conditions, high unemployment rates, insufficient education of the population, increase in the misuse of psychoactive substances, prostitution, trafficking in human beings, migrations – mobile population, stigma, discrimination, limited diagnostic and therapeutic capacities in terms of STIs, lack of knowledge about difficult to reach populations with risky behaviour. The dominant mode of the HIV transmission in Bosnia and Herzegovina is via sexual intercourse, primarily among the heterosexual and homo/bisexual persons and persons injecting drugs. Thus the three subpopulation groups whose risky behaviour might contribute to the further spreading (“link” to the general population) are: sexual workers, Men Who Have Sex with Men and injection drug users. Therefore these subpopulations are in the focus of the behavioural (BBS) studies being conducted.

To be precise, routine statistical data does not give an insight into risky behaviour and HIV prevalence among these, particularly vulnerable subpopulations and the problem is even more aggravated by difficulties they are facing in terms of access to adequate health care. Social barriers caused by the low level of education, lack of knowledge accompanied by prejudice, stigma and discrimination are causing marginalization of many of these high risk groups and causing them to have limited access to health services. Problem is even more aggravated by some of the features of these subpopulations such as the fact that they are rather closed and difficult to access, concealed, their size, socio-demographic characteristics, geographic distribution, etc. These features are mainly unfamiliar, making planning and implementation of adequate, targeted promotion and prevention programs more difficult.

By introducing the second generation of the HIV/AIDS monitoring, activities are being directed towards these priority groups. In order to establish the baseline estimates of the HIV prevalence in these subpopulation groups, as well as the patterns of behaviour necessary to monitor changes in risky behaviour in terms of HIV/STI and to evaluate program activities (GF), such an approach, in addition to the routine statistical data – that are, by the way, unreliable due to considerable underreporting, requires the data from epidemiological biobehavioural studies (BBS).

Biobehavioural studies (BBS) consist of recurring cross-sectional researches systemically implemented in order to monitor changes in risky behaviour in terms of HIV/STI.

GOALS

Goal of the BBS study

To monitor behaviour within the MSM and SW subpopulations in order to assess the risky behaviour related to HIV/STI.

Research objectives

- To assess the demographic profile of the target groups (MSM, SW)
- To assess the sexual behaviour (type of partners, number of partners...)
- To evaluate and analyze the risk factors, especially the risky behaviour within the target population
- To evaluate the health status and needs of the population examined (self-registering of the STIs, testing, use of health services and care, etc.)

II. Research objectives

- To look at the knowledge, attitude and behaviour in regard to the HIV/STI among the Men Who Have Sex with Men (MSM) and the sexual workers (SW)
- To estimate the prevalence of HIV, sexually transmitted infections and the infections transmitted by blood and the combined risky behaviour among the MSM and SW subpopulation
- To establish baseline data for further monitoring within the Monitoring and Evaluation Plan of the “Coordinated National Response to HIV/AIDS and Tuberculosis in a War-torn and Highly Stigmatized Settings” program. *HIV/AIDS i tuberkulozu u ratom pogođenom i izuzetno stigmatiziranom okruženju*

METHODOLOGY AND RESPONDENTS

The research has been conducted as a cross sectional study among the MSM and SW subpopulation. The field research conducted via standardized questionnaire (interview method) and taking of the blood samples included 231 respondents within the MSM population and 150 respondents from the sexual workers (SW) subpopulation.

1. Target population

Sexual workers (SW) — are defined as female persons exchanging sexual services for money or other items (drugs, i.e.);

Men Who Have Sex with Men (MSM) – are defined as “any male person that was involved in sexual activities with another man”;

2. Location

Study was conducted in larger, urban locations: Sarajevo (MSM, SW), Tuzla (MSM, SW), Zenica-Travnik (SW), Mostar (SW), Banjaluka (MSM, SW), Bijeljina (SW), Prijedor (SW, MSM). All the locations have been selected based on estimated presence of high risk groups, availability of the outreach workers, NGO engagement and availability of the reliable data.

3. Framework sample

Sex workers (SW=150), status that was established directly (it was not obligatory to be part of the resident population)

Selection criteria:

- The respondent identified herself as the sexual worker
- The respondent provided a paid sexual service (penetrative sex) **within the past 12 months**
- The respondent is older than 16 for behavioural and older than 18 years for the BBS (and testing!)
- The respondent participating in the study provided his/her informed consent to be tested for HIV/STI.

Men Who Have Sex with Men (MSM=230) status that was established directly (it was not obligatory to be a resident)

Selection criteria:

- The respondent self-identified himself as MSM
- The respondent had a sexual intercourse with a man within the last six months
- The respondent is older than 16 for behavioural and older than 18 years for the BBS (and testing!)
- The respondent participating in the study gave its informed consent to be tested for HIV/STI.

4. Timeframe

- January - February 2008 (9 weeks)

5. Data collection methodology

Respondents from both samples were contacted using the multiple “snowball” technique. After the quantitative and qualitative data was collected from different sources (secondary data from different services – census data, police, NGOs and others working with a certain population), a preliminary qualitative study – field mapping was conducted and the initial sources of information were established. These sources were used to reach other “members” of the targeted subpopulation.

From the very start of the survey, we accepted the “limitations” of the methodology used – the fact that the sample was somewhat “biased” since it was not selected randomly, and the sample itself consisted of those “more available” individuals.

6. Field teams

Selected respondents have been processed (interview and blood testing) at an appropriate, previously agreed location or via mobile teams, as conditions permitted. Both target groups had the opportunity to work with mobile teams. The mobile research team consisted of interviewers, previously trained health worker (to collect the blood samples and deliver them to the lab) provided with the guide, i.e. the written instructions for their work.

7. Preparations and the field work

The respondents were interviewed individually (only the respondent and the interviewer present). Standardized questionnaire was applied. The interview was voluntary, anonymous, and confidential and the respondents were previously explained that all the information and the conversation will remain confidential. After they gave their informed consent and were counselled before the testing, biological material for the laboratory testing was taken. Material was then coded and officially delivered into the previously designated laboratories of the clinical centres in Sarajevo, Tuzla, Zenica, Mostar and the laboratory of the Public Health Protection Institute in Banjaluka. Samples were processed using the new generation ELISA tests.

Each respondent received certain financial reimbursement for the time they spent participating in the study. They were also given a phone number to, if they want to (depending of the laboratory testing the sample) get an information in regard to getting the results or possible post-testing counselling.

8. Approval from the ethics commission

The research protocol and the survey questionnaires were delivered to the ethics commission. The commission approved them and gave its consent for the research to be conducted confirming that it, following the principles of the Helsinki Declaration, did not put into question the dignity and the right of respondents to have their privacy protected, and that purpose of the survey was explained to each of the participants. They were also explained that the data collected is going to be used in order to provide for the personal and collective benefits in terms of the health protection of the population participating and the general population.

9. Collection, processing and statistical analysis of the data collected

Upon a logical processing of the data, the data was entered into a database and statistically processed using the SPSS software, and to end with, entered into a final report.

10. Results expected and obtained

- Lessons learned for the future research
- Standardized approach in developing the questionnaire
- Methodology of the biobehavioural research that is planned to be conducted biannually tested
- Baseline data foreseen by the Global Fund and UNGASS M&E Plan collected – this means fulfilling the country's obligations in accordance with the Declaration signed
- Contributing to the second-generation monitoring

● MSM STUDY

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SUMMARY

HIV/STI vulnerability related risky behaviour study among the MSM subpopulation was conducted in January/February 2008. The sample consisted of 224 respondents from four urban areas in Bosnia and Herzegovina.

The subpopulation of Men Who Have Sex with Men (MSM) is a particularly vulnerable one in terms of HIV/STI. That vulnerability increases due to behaviour, marginalization, stigmatization and the lack of access to health and social protection.

Having in mind that this is a rather “covert” population, a biobehavioural study provides an adequate approach, techniques for realistic assessment of the type and level of the risky as well as the protective behaviour and other prevention mechanisms.

The purpose of the study was to assess the prevalence of HIV/STI in a sample of the population demonstrating a particularly risky behaviour, to assess the scope of risky as well as protective sexual behaviour that would enable us to establish the baseline data and to plan targeted prevention programs.

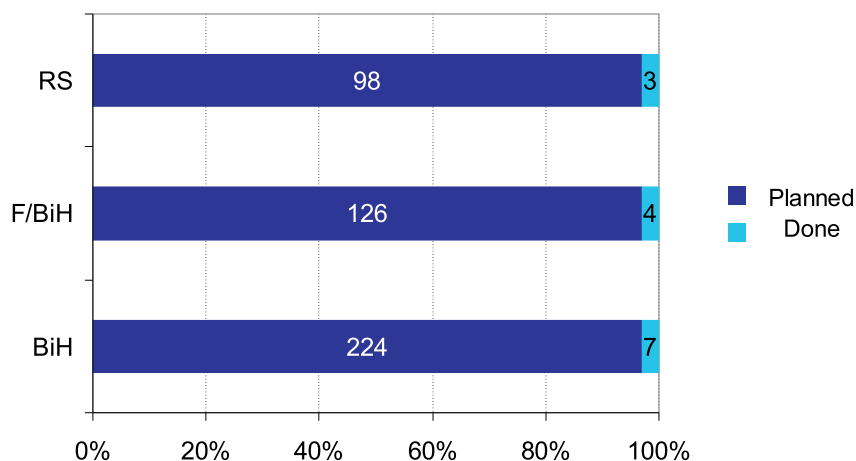
Data on socio-demographic features, knowledge, risk awareness, respondents' sexual behaviour (number and type of partners: steady partners, casual partners, HIV positive partners, female partners), use of condoms, self-registered STI, testing, etc. was collected using standardized questionnaire.

Data was processed and presented for BiH as a whole and parallel, for each of the entities. In addition, a sample of young people at the age of 18-24 was processed separately.

Data gathered indicate certain vulnerability of the population surveyed related to risky behaviour and the complex network of sexual partners contributing to the sexual mixing of the population with high-risk behaviour and the one showing low-risk behaviour. This might present a “bridge” towards the general population.

RESULTS

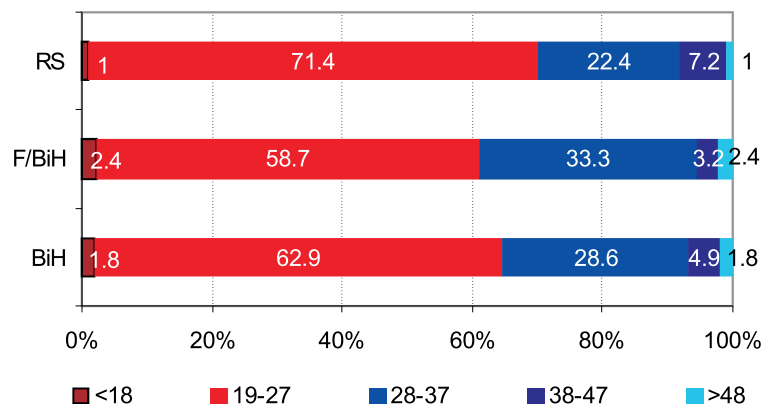
A research conducted during January/February 2008 included 231 respondents (FBiH-131, RS-100). Respondents were selected using the so called “snowball” method, at four urban locations: Sarajevo (88), Tuzla (41), Banja Luka (70), Prijedor (31). After it was logically processed, data for seven of the respondents was excluded (Graph 1).



Graph 1. Sample of respondents - response rate

Demographic characteristics

The largest number of respondents within the entire sample were within the 18-27 age group (BiH-62,9%, FBiH-58,7% and RS-71,4%). The average age of the respondents was 26 ($X=26,94$; $\delta=6,97$), the youngest one being 16 and the oldest 59 years old.

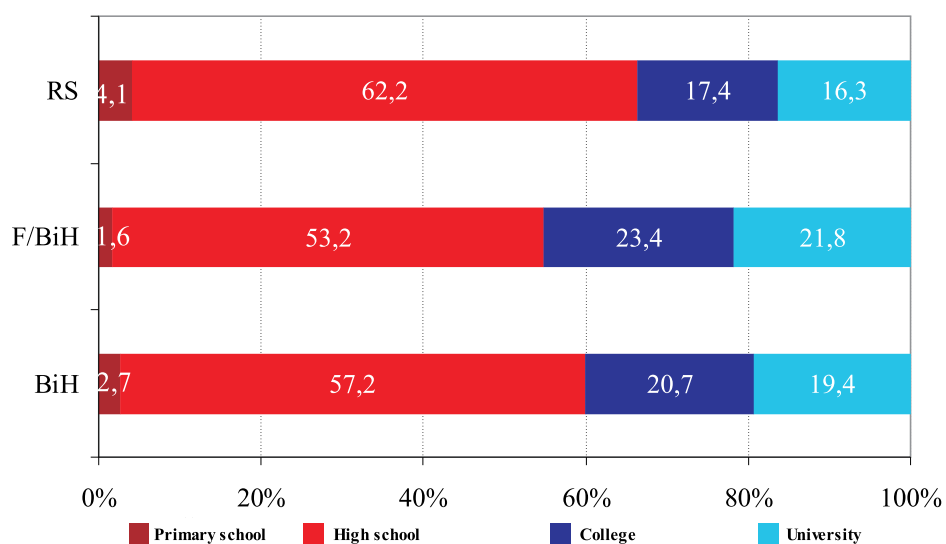


Graph 2 : Structure of respondents – by age groups

RESULTS

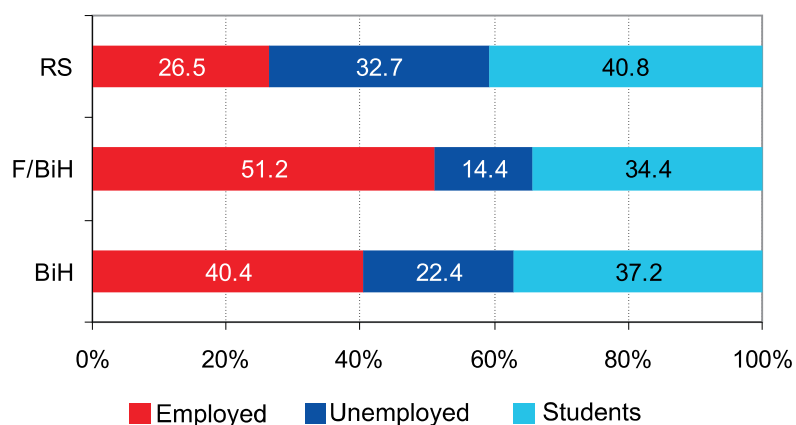
Almost all of the respondents (97,3%) are Bosnia and Herzegovina nationals (99,2% in the FBiH and 94,9% in RS), mainly from urban areas (BiH-97,3%). More than 95% of the respondents are living at the same location for more than one year.

Respondents had different socioeconomic profiles, starting from unemployed to educated professionals. Majority of respondents were students or pupils (BiH-37,1%, FBiH-34,1%, RS-40,8%). In terms of their vocational profiles, somewhat higher percentage (15%) of them are working in tertiary services (catering, trade, etc.).



Graph 3. Sample structure according to the education level of the respondents

The largest number of respondents have finished high school - BiH-57,2% (FBiH-53,2%, RS-62,2%), 20,7% have finished junior college (FBiH-23,4%, RS-17,4%) while 19,4% of them have a university degree (FBiH-21,8%, RS-16,3%).

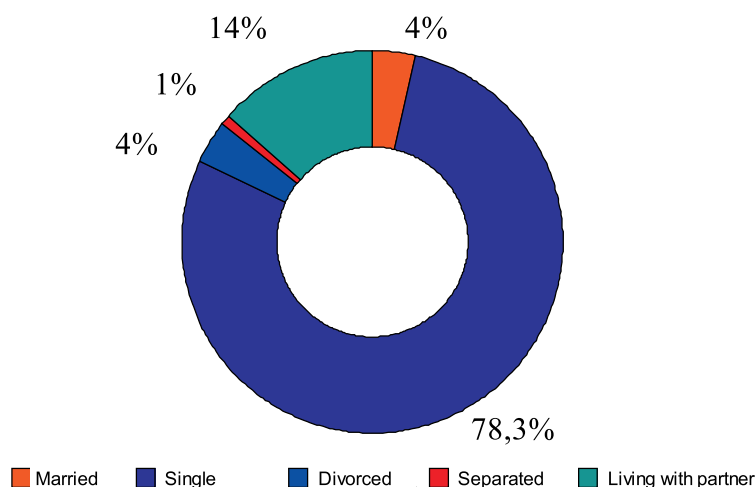


Graph 4: Respondents according to their employment status

RESULTS

Estimates say that 40% of the population surveyed are employed, the number of employed being almost double in the Federation of BiH in comparison to RS (Graph 4).

On the average (not counting pupils and students – 37% of respondents), more than 22% of respondents are unemployed (FBiH-14,4%, RS 32,7%).



Graph 5: Sample structure – by the respondents' marital status

In terms of their marital status, 78,3% of the respondents are unmarried (FBiH-83,1%, RS-72,2%), 14% are cohabitating, 4% reported that they are married, 5% are divorced or separated (Graph 5).

Sexual behaviour of MSM has implications to the reproductive health of both sexes. 153 (68 %) of the respondents reported having sex with a women. 100 of them had such an intercourse within the last 12 months, and for that period each of the respondents reported having two female sexual partners on the average, while 34/153 respondents are currently married or are in a relationship with a women. 52% of those who reported having sex with a woman used a condom. 42% of the respondents did not use a condom, while 6% of them did not answer this question.

Knowledge related to the HIV infection

Table 1 shows answers to questions referring to the mode of transmission of a virus, assessment of the personal risk of a respondent in terms of acquiring HVI/STI. Almost 50% of those MSM respondents interviewed considered their personal risk from acquiring an HIV infection as low, 16,5% consider that there is no risk (especially respondents from Federation of BiH-21,4%, compared to the respondents from RS-10,2%). Less than 10% of the respondents are estimating that their risk of acquiring an HIV/STI is significant (in the Federation, 5,6% of them consider this risk to be significant, while in RS that number is somewhat higher - 15,3% (Table 1).

RESULTS

Table 1. An overview of results – answers given by respondents to questions related to their knowledge on HIV/AIDS

Questions	BiH	F/BiH	RS
Self-evaluation risk	n=224	n=126	n=98
No risk	16,5	21,4	10,2
Low risk	49,6	51,6	46,9
Moderate risk	24,1	21,4	27,6
High risk	9,8	5,6	15,3
Knowledge on partners HIV status former or current	n=223	n=125	n=98
Partner never tested	27,8	22,4	34,7
Yes, he/she is HIV +	0,4	0,8	-
Yes, he/she is HIV -	27,4	32,8	20,4
We didn't talk about it	44,4	44,0	44,9
Condoms use can reduce the risk of HIV infection?	n=224	n=126	n=98
Yes	98,2	98,4	92,8
No	1,3	1,6	1,0
Don't know	0,4		1,0
Person that looks healthy can be infected with HIV?	n=223	n=126	n=97
Yes	83,4	76,2	92,8
No	4,0	3,2	5,2
Don't know	12,6	20,6	2,1
You can get infected with HIV if using the same cutlery that HIV infected person used too?	n=223	n=125	n=98
Yes	9,4	6,4	13,3
No	74,4	75,2	73,5
Don't know	16,1	18,4	13,3
You can get HIV infected if injecting with already used needle?	n=223	n=125	n=98
Yes	99,6	99,2	100,0
Don't know	0,4	0,8	
You can get STI if having oral sex?	n=221	n=123	n=98
Yes	70,6	76,4	63,3
No	11,3	3,3	21,4
Don't know	18,1	20,3	15,3
HIV infection is possible if a person ejaculates in partners mouth	n=223	n=125	n=98
Yes	66,4	73,6	57,1
No	12,1	6,4	19,4
Don't know	21,5	20,0	23,5

n=number of people that answered the question

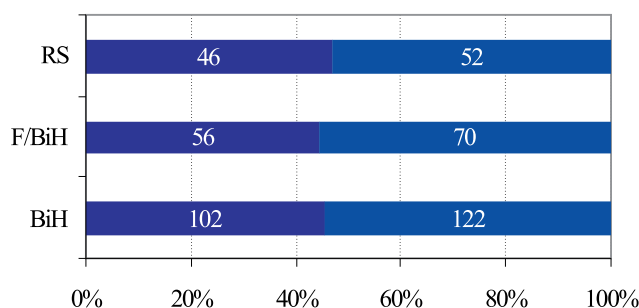
RESULTS

About one third of respondents are aware of the HIV status of their partner, 27,8% of them states that their partners never got tested (FBiH-22,4%, RS-34,7%), while majority, 44%, have no knowledge of their partners' HIV status since they never had such a conversation.

98 % of the respondents know that the risk from infection can be reduced by using condoms. High percentage of respondents (83,4%), know that a healthy looking person may be HIV positive. At the same time, however, 13,6% of them stated that they don't know (particularly the respondents from the territory of the Federation of Bosnia and Herzegovina (20,6%). The results referring to question: “Can one acquire an HIV infection by using the same cutlery?” are not as good – compared to previous ones, since one in a four of them failed to provide an adequate answer. 9% of the respondents think that it is possible to get the infection this way, while 16% of them don't know if it is possible. This may contribute to a certain stigma and discrimination of people living with HIV. High percentage of respondents (99,6%) gave a proper answer to a question regarding the risk of acquiring an infection by using a needle that was already used.

About 70% of them responded correctly to question referring to a possibility of getting HIV or sexually transmitted infection orally, still, a large percentage of them state that they don't know (20%).

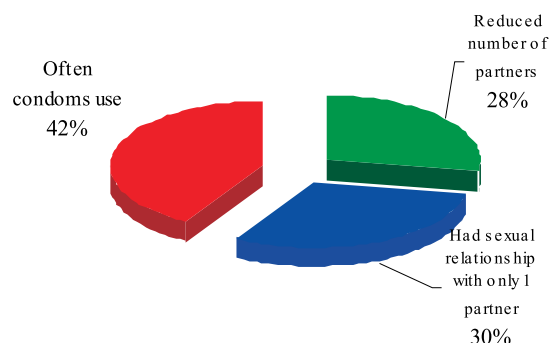
Although there is a relatively high level of awareness of the ways of acquiring HIV infection, more than 80% of respondents believe that a certain personal risk in their case exists and more than 50% of respondents stated that they hadn't changed a thing in their behaviour within the past six months in order to reduce the risk of acquiring an HIV (Graph 6).



Graph 6. Reducing risky behaviour within the last 6 months

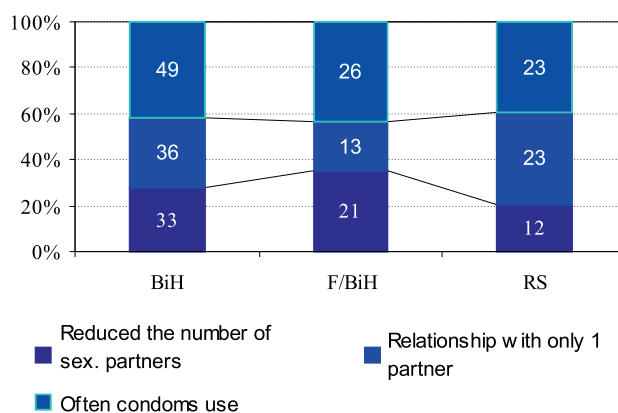
The largest part out of 102 respondents who have stated that they have changed something in their behaviour in order to reduce the risk of getting an HIV/STI – 48% of stated that they are using condoms more often (Graph 7).

RESULTS



Graph 7: Changes in behaviour – risk reduction within the last 6 months

Equal percentage of respondents from RS listed the use of condoms and practicing sex with only one partner as the most used measure to reduce the risk from HIV/STI in the last six months, while the respondents from GBiH stated that the most used method of risk reduction within the last six months, in addition to the use of condoms, was a reduction in the number of partners.

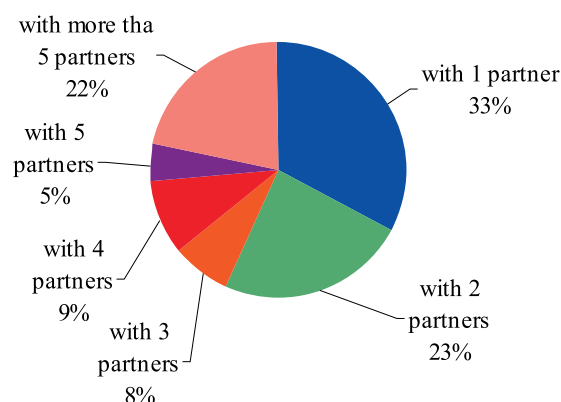


Graph 8: Reducing a risk from acquiring HIV/STI- as stated by respondents

Sexual behavior

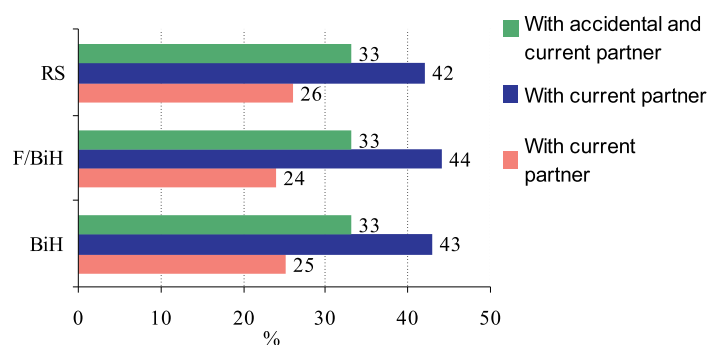
Large number of respondents reported having sexual intercourses with multiple male partners. 67% of them stated that in the last six month they had anal sexual intercourses with two or more male sexual partners. Each respondent reports an average of five male sexual partners ($X=4,90$; $\delta=10,97$). One third of respondents stated that within the last six month, they were having sex with only one partner, 23 of them reported having two partners, while 22% reported having five or more partners (F/BiH-32%, u RS-9%), (Graph 9).

RESULTS



Graph 9: Structure of respondents – according to the number of their male sexual partners

43% out of the total number of respondents (224) have stated that they had sex only with their steady partner, 25% reported having sex only with a casual partner, while 33% reported both having sex with an casual and with a steady male partner (Graph 10).



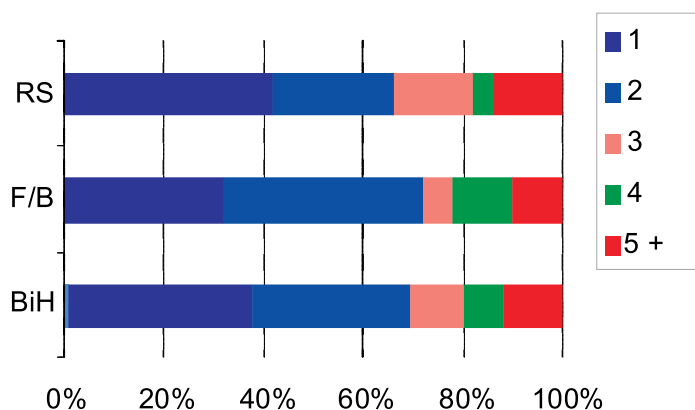
Graph 10: Respondents – according to the type of their male sexual partner

The least percentage of respondents reported having sex with a casual male partner only. There is a noticeable similarity in terms of distribution of respondents (FBiH and RS) according to the type of their male sexual partner.

46 (65,2%) out of the total number of respondents reported currently having a steady partner, while 73% of them reported having sex only with their steady partner.

According to the research data, sexual behaviour of the MSM respondents is not limited only to their male partners, since 153 (68,3%) of respondents reported having sex with women as well.

RESULTS

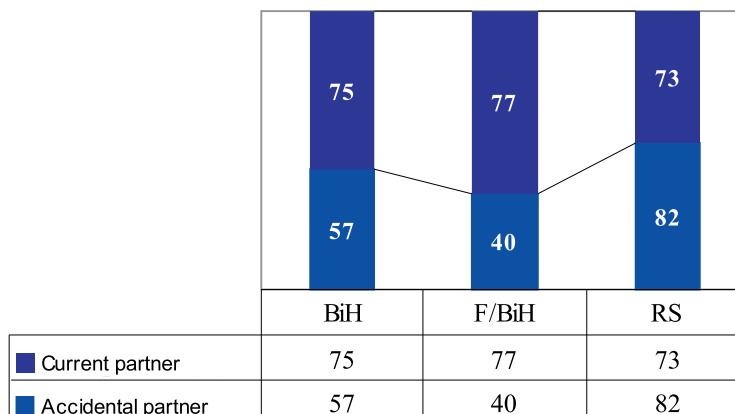


Graph 11: Structure of respondents according to the number of sexual partners within the last 12 months

34 (15%) out of the total number of respondents who reported ever having sex with a women (n=153) are currently in a relationship with a women. 100 respondents reported having sex with a woman within the last 12 months, each of them having sex with two women on the average. Share of respondents in comparison to the number of their female sexual partners within the last 12 months is presented by Graph 11.

Reported use of condoms

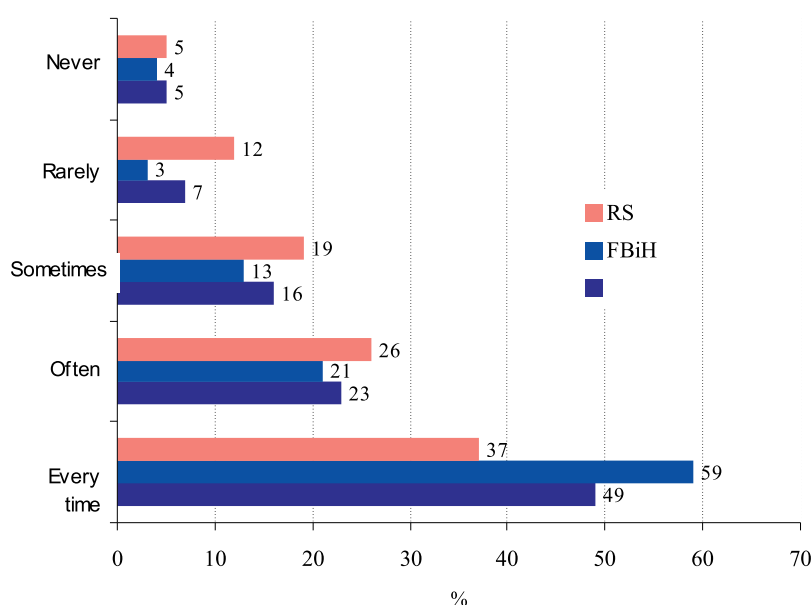
Although a very high percentage of respondents (98%) are aware that the proper use of condoms reduces the risk from the HVI/STI transmission, 75% of the respondents have, on the average within the last six month, reported using condoms when having an anal sexual intercourse with their steady partner, while when it comes to casual partners, that percentage is lower (57%), particularly among the respondents from the Federation of BiH — 40% (Graph 12).



Graph 12: Use of condoms during the sexual intercourse with casual/steady partner

RESULTS

Comparing the frequency of use of condoms during the anal sex with steady and casual partners, respondents are, on the average, stating that they are using condoms more often when having sex with their steady partners. Higher percentage of respondents in RS are using condoms when having sex with the casual partner (82%) although a rather high percentage of them uses condoms with their casual partner(s) as well (Graph 12). Frequency of use of condoms reported shows that 5 -16% of the total number of respondents who reported having sex with a casual partner (128) have never or rarely or sometimes used condoms within the past six months (Graph 13).

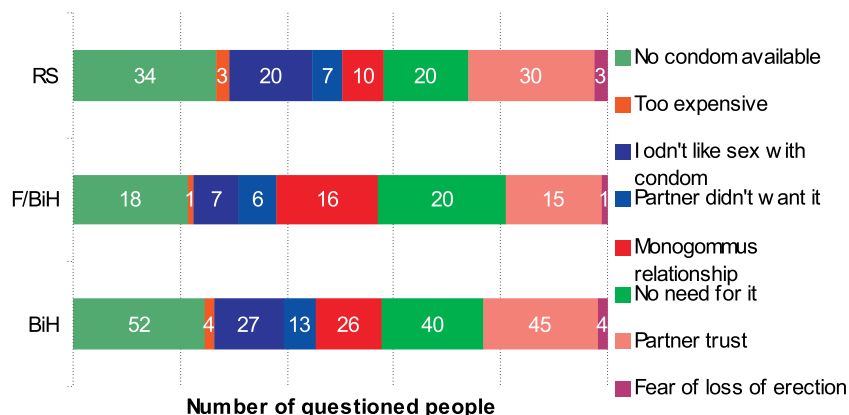


Graph 13: Use of condoms during a sexual intercourse with a casual partner

Only 49% out of 128 of those who reported having sex with casual partners within the last six months have used a condom during every anal sexual intercourse with a male partner (FBiH-59,2%, RS-36,8%), 23,4% used condoms often, while 4 to 5% have not used condoms ever – showing statistical connection to a group of respondents having only one partner ($p < 0,01$).

56,2% of 73 respondents who have reported having sex both with their steady and casual partner used condom during the last sexual intercourse they had (FBiH-63,4%, RS-46,9%).

RESULTS



Graph 14: Reasons given for not using a condom during a sexual intercourse with a man

The most common reason for not using condoms when having anal sex within the last six months stated by respondents was that the “condom was not readily available”, followed by trust they had in their partners, their own assessment that “they didn't need a condom with that particular partner”! (Graph 14).

75% out of 219 respondents who gave an answer to a question referring to the use of lubricants reported that they used a lubricant during the last anal sexual intercourse they had. These were mainly (74%) manufactured water based lubricants – a proper choice for latex condoms in order to prevent their breakage.

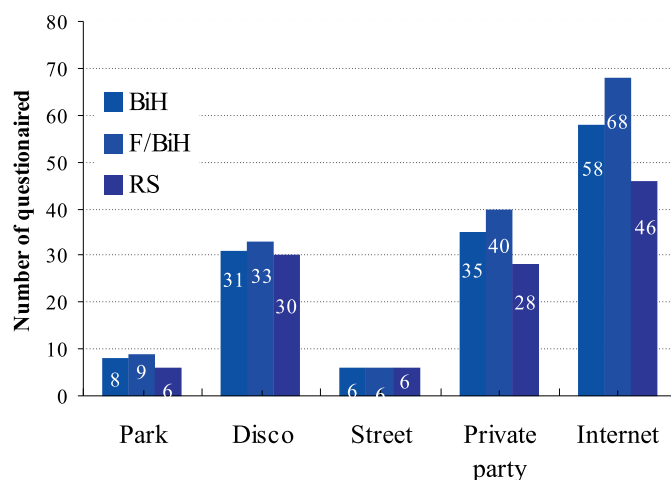
Other risks in the sexual behaviour of the MSM subpopulation

Not a single respondent out of 223 had anal sexual intercourse with an HIV positive person, still 5,8% refused to answer this question (FBiH-9,5%, RS-1%)!

16% of the respondents stated that they had a group intercourse (with two or more partners) and during such an intercourse 13 of them (out of 36 who reported such an intercourse) did not use a condom (this percentage is significantly higher in RS - 10/16 respondents). 22% of respondents reported having sexual intercourse under the influence of drugs – more in RS (32,7%) than in the Federation of BiH (13%). That percentage is even higher when it comes to a sexual intercourse with a male partner under the influence of alcohol within the last 6 months (56%).

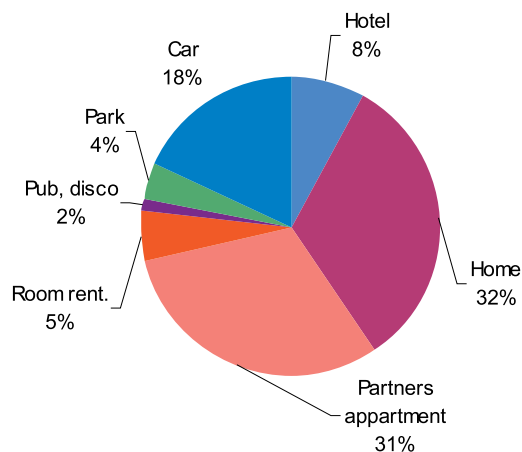
In terms of places and ways of finding male sexual partners (this was a multiple choice question with the possibility to give more than one answer), respondents reported: the Internet in 58,3% (FBiH-68%, RS-46%) cases, private parties in 35% cases, discos in 31,4% cases and other (park, street) (Graph 15).

RESULTS



Graph 15: Locations where the respondents were finding male sexual partners

Locations where, as stated by respondents, they are usually (most frequently) having sex with the male sexual partner

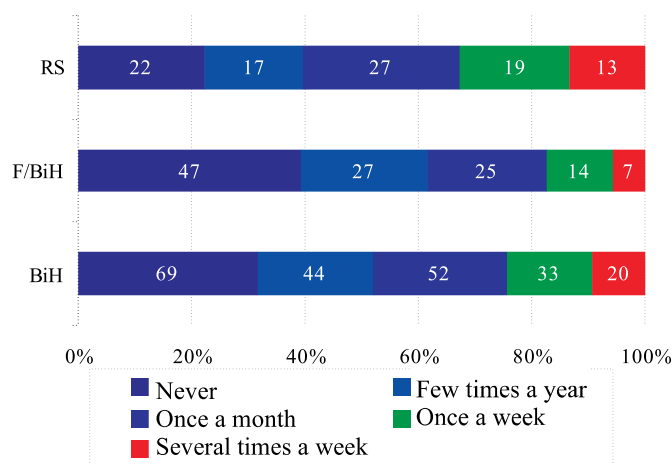


Graph 16: Most frequent locations of sexual intercourse

82% of respondents know personal details of their last male sexual partner. 41% of them are stating that they know, by their first and last name, between 10 and 20 persons of same sexual behaviour. On the average, respondents are familiar with 28 persons of the same sexual behaviour (FBiH-33, RS-22).

RESULTS

Data on attendance at the places where Men Who Have Sex with Men are meeting shows that, on the average, 56% of respondents did not attend such places within the last 6 months (Graph 17).



Graph 17: Frequency of attendance at the MSM gathering places within the last 6 months

According to the data gathered, respondents from RS have reported a more frequent attendance at the MSM gathering locations.

8-9% out of 224 respondents who responded to a question on providing and using *sexual service in exchange for money* or some other type of material gain stated that they are providing/using such services occasionally and rarely while 91% of them stated that they never provided nor received sexual services in exchange for money or something else.

65% out of 224 respondents stated that they have a steady sexual partner, meaning a steady relationship, and in 73% of the cases, they have sex only with their steady partner.

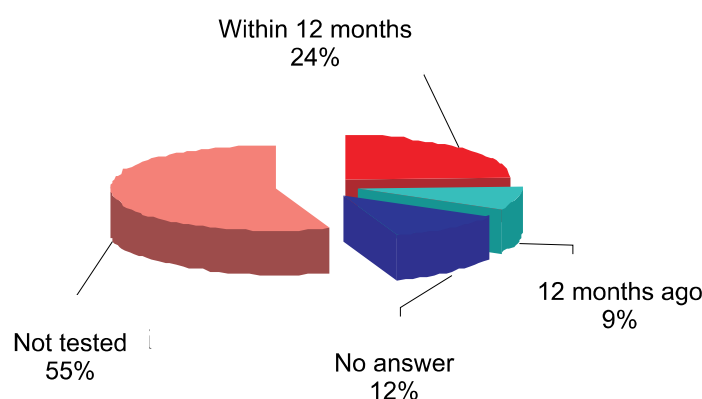
Self-registering of the sexually transmitted diseases (STI)

10% out of the total number of respondents stated that they had some type of STI: gonorrhoea (6), HPV (6), genital herpes (2), HCV infection (8 – which can be explained by the fact that 5 respondents have confirmed that they are injecting drugs). Some 40% of the respondents have answered that, if suspecting that they acquired an STI, they would look for help from their family MD, private MD, 7% of them would look for help at the pharmacy («self-treatment»). In terms of other risks 102 (46 %) respondents stated that they tried drugs (FBiH 42, RS 60), 15 of these were taking drugs intravenously (all in RS, 8 of which have reported exchanging the injection tools with others). About 8% of the respondents served jail sentence (often being qualified as a determining factor in terms of risky behaviour).

RESULTS

Getting tested to HIV/STI

100 (45%) out of the total number of respondents have been tested to HIV once or several times – high percentage of the respondents tested know the results (94%).

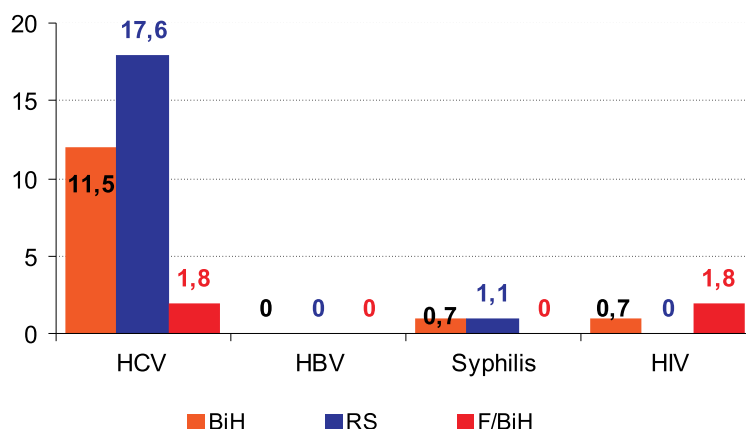


Graph 18: Respondents' structure – by the date of the HIV test taken

52 respondents out of 196 of those who answered the question referring to the earlier testing to HIV reported of getting tested within the last 12 months – meaning 26,5% of the total number of respondents (FBiH-38,1%, RS-4,3%), and 50 of these (96%) know the results of their test.

Test results

148 or 66% out of the 224 participants gave their informed consent and were tested to HIV, HCV, HBV and syphilis (the respondent group was 45,2% in the FBiH and 94,9% in RS). 152 respondents were tested to HIV (FBiH-61, RS-91)



Graph 18a: Percentage of results positive to HIV, HCV, HBV, syphilis

Research results - 18 to 24 age group

Results of tests are showing that 0,7% of the 152 of those tested to HIV were HIV positive. Prevalence among 148 of those tested to HCV was 11,5%. Prevalence for syphilis was the same as for HIV – 0,7%. Testing did not show a single HB antigen carrier (noting that no other HBV infection markers were being examined).

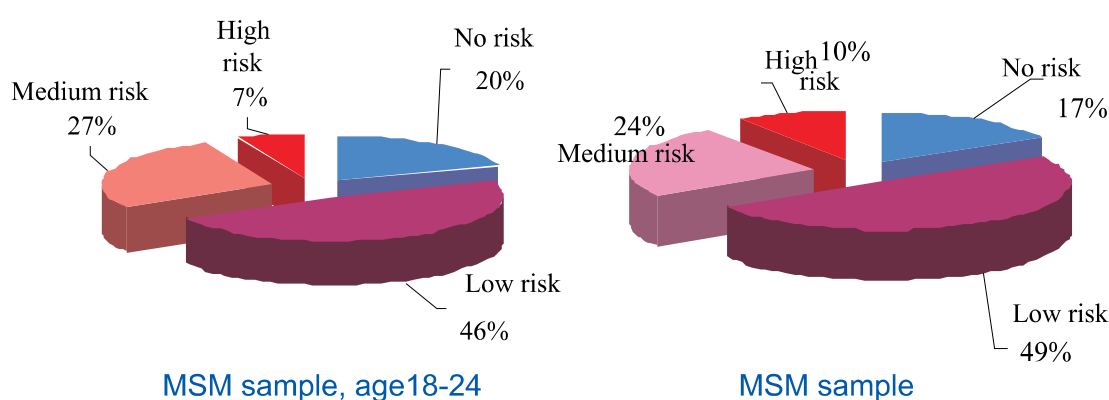
Share of the respondents falling within the 18-24 age group in a total sample was 41,1% (FBiH 37,3%, RS 45,9%), while their average age was about 22 ($X=21,7$, $\delta=1,62$).

Demographic features

Majority of respondents (94,4%) are BiH citizens (FBiH-97,8 %, RS-97,8%), mainly from urban areas (98,9%), and over 90% of the respondents are living at the same location – location they were interviewed at for more than one year. Majority of respondents finished high school in BiH-58,7%. Majority of respondents (63%) are students and pupils. The average employment rate within the sample was about 23%, with somewhat larger number of respondents working in tertiary services (catering, trade). In terms of their marital status, majority (85,7%) were unmarried, 1,1% were married, 2,2 % divorced and 11% are cohabitating.

Knowledge in terms of the HIV infection

Majority of respondents (46,7%) consider that the personal risk of acquiring the HIV infection is low, 19,6% consider that such a risk does not exist at all (number somewhat larger than a percentage in terms of the entire sample), while 6,5% consider this risk to be high, a lesser percentage than the one showing within the entire sample (Graph 19).



Graph 19: Risk self-assessment – comparison between the young (18-24) and the total sample

RESULTS

Smaller percentage of young population of MSM respondents in general estimate their personal risk of HIV infection as high, i.e. greater percentage estimates that they are facing no personal risk in that regard.

When it comes to a question of understanding their partner's HIV status, and similar to data attained from the general sample, most of the examinees (44,6 %) answer they never discussed about it with their partners, while certain percentage (1,1%) state they know their partner is HIV positive. High percentage (98,9%) of respondents is familiar with the proper use of condoms that is reducing the risk of HIV infection. In addition, very high percentage (84,8%) of the respondents is aware of the fact that the healthy looking person could be HIV infected, but 12% stated that they didn't know.

Results related to the following question: “Could the use of joint cutlery result in HIV infection?” were not as good. 64,8% answered correctly, while 16% stated they didn't know. All of the respondents however provided correct answer to question whether the HIV can be transferred by sharing/exchanging syringe (needle) already used. About 72% of the respondents answered that the HIV/STI could be transferred orally, but the relatively high rate of them didn't know (17,6%). Though young MSM estimate their own risk of HIV infection approximately the same as the respondents in general sample, larger percentage of these respondents (50%) reported they have changed their behaviour in the past six months, in terms of reducing the risk of HIV infection (Chart 20).

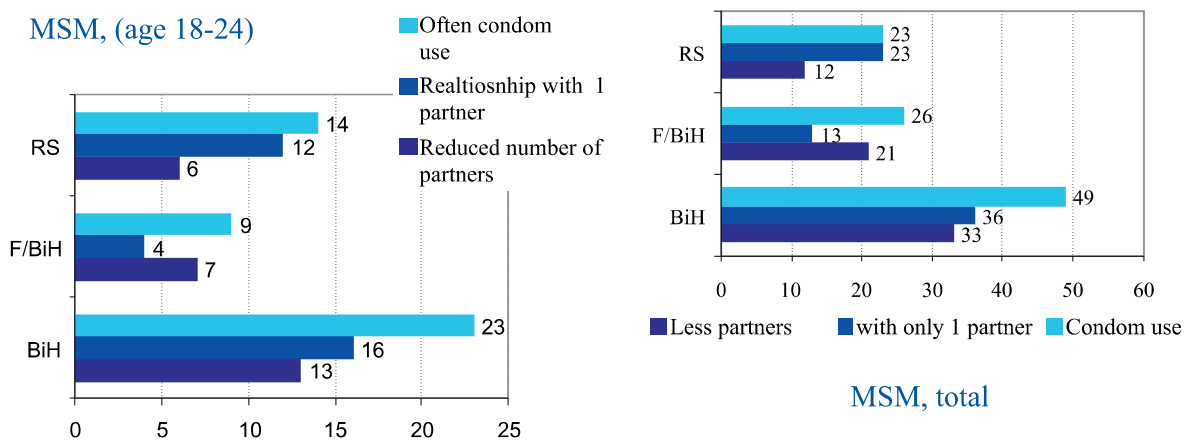


Chart 20: Changes in behaviour in past six months aiming at reducing the risk of HIV/STI infection-comparison

Out of 46 whose answer to this question was positive, most of them stated that they are using condoms, practicing safe sex with a single partner, and reducing the number of sexual partners. Young people are more often, in comparison to general sample, especially in RS, using condoms as a measure of reducing the risk of HIV infection and practicing sex with a single partner.

RESULTS

Sexual behaviour

One third of respondents (32/92) have reported practicing anal sex with only one partner, while 18,5% of them had anal sex with more than 5 partners. On the average, each respondent had four male partners. In the past six months, 20,7% of respondents practiced anal sex only with a casual male partner, 41,3% only with their steady partner, and 38% with both casual and steady male partners. In comparison to the general sample, majority of young MSM respondents reported simultaneous sexual relations with both casual and steady partners.

Majority of respondents reported using condoms (similar to the general sample) while practicing anal sex with their steady partner (57,6%) in past six months, while they were using condoms (similar to the general sample) in practicing sex with casual partners in 47,8%. That percentage of respondents who reported having anal sex without the use of condoms is larger among the respondents from RS - almost by one third. 58,7% out of 92 respondents had anal sex with casual male partner in past six months, 27 (50%) of them used condoms each time, and nine of them (16,7%) have used it rarely or never.

None of the 92 respondents had anal sex with an HIV positive partner, although 5,4% of them have not answered this question. Locations they were finding their male sexual partners at are mostly Internet in 59,3%, private parties 31,9%, etc. Places where respondents practiced sexual relations are mostly their own houses-apartments in 64,2%, partner's place in 60,9%, cars in 33,7%.

14 (out of 91) respondents do not know personal details of their last male sexual partner. 4,4% out of 92 respondents were involved in the occasional providing or receiving of sexual services for money: one third state that they were victims of some form of psychological abuse. Two thirds of respondents have steady male sexual partner and 22% of them, in addition, have sexual relations with casual partners as well.

Use of condoms and lubricants

Most common reasons for not using condoms during anal sex with a male partner in past six months were: condoms were not at hand (25/59), they trusted their partner (25/59), and they don't like having sex with a condom (9/59).

72,5% of examinees have used lubricants in their last anal sex. In the past six months most of the lubricants used were water-based (77%). 16,3% of examinees reported having group sex (sexual intercourse with two or more male partners) in the past six months, with 9/15 not using condoms on that occasion.

RESULTS

Sexual behaviour, drug and alcohol

46,7% out of total 92 respondents reported having experience with the use of drugs, with 4/42 who were injecting drugs and 2/4 have shared their syringe/needle kit. 20,0% out of 90 examinees responding to the question whether they had sexual intercourse under the influence of drugs answered that they did - in the past six months, and 10% refused to answer. There is even greater percentage of those who reported having a sexual intercourse with the male partner under the influence of alcohol in the past six months (61%). 66% out of 92 respondents have had sexual experience with a female partner, and 16/61 are currently in a relationship/marriage with female. Each of 61 respondents on the average had sexual experience with two female partners, and during the last sexual intercourse, 62,3% of them have used a condom.

Self-registered sexual and blood transferred infections

4 out of 90 respondents, when answering if they had any sexually or blood transmitted infections reported that they had an STI (HPV and HCV). When suspecting that they acquired an STI, respondents stated they would visit the private medical doctor first, rather than go to a public medical institution. 5% of them would try “self-treatment” (medications at home, buying medications at the pharmacy).

HIV/STI Testing

61 (66,3%) out of 92 respondents were never tested to HIV (more than in a general sample). 18 (19,6%) of them were tested within the last six months and are aware of the results. Respondent rate in terms of the blood sampling and laboratory testing within this sub-sample was 75%, while 69 respondents gave their informed consent and provided a blood sample for testing (+ 2 Rapid test). Test results are: anti-HCV (5/69), HBV-0; HIV-0, Syphilis-0.

DISCUSSION

Research was conducted during January and February 2008, with the sample of 224 respondents from MSM sub-population, identified by the “snowball” method in four urban locations. Respondents differed in terms of their socio-economic profiles, from unemployed to high educated or non-educated. Most of the respondents are from the age group 18 to 27, over 96% of examinees are members of urban population (especially sub-sample of young age 18-24 with 99% of urban examinees). More than 97 % examinees are citizens of Bosnia and Herzegovina, living in the place of research for more than one year. Research results show that the respondents were not fully aware of the risk of HIV/STI infection, considering that they estimated their personal risk of HIV/STI infection as low or none. Estimating the awareness in terms of HIV/STI

RESULTS

prevention, over 98% examinees are aware that the infection can be prevented by consistent use of condoms, 83% are aware that a healthy looking person can be HIV positive. However, their relative knowledge on the ways of transmission of HVI/STI was not enough to make them decide and make changes in their behaviour - in the last six months less than 50% of respondents have taken steps to reduce the risk (mainly by a more frequent use of condoms, reducing the number of sexual partners etc.).

Research reveals a significant proportion of respondents practicing unsafe anal sex and with multiple sexual partners. 63% of respondents reported having anal sex with two or more a man, 57% having anal sex with a man – occasional partner in the past six months. According to the results obtained, MSM respondents mostly look for their male partners on the internet or at the private parties, and practice sex in their male partners' homes and their own home. According to the data obtained, about 40% of respondents occasionally visit places where Men Who Have Sex with Men meet (rate of those who are visiting „gay places“ is somewhat higher in RS).

Registered use of condoms is limited. Although aware that the proper use of condoms prevents an HIV/SPI transmission, only 49,2 % of them reported using condom during the last anal intercourse they had with a male, occasional partner, while the rate is somewhat larger with their steady partners (56,2%). Respondents have reported that they did not use a condom while having a group sex (13/36 of examinees), and in their latest sexual intercourse with a woman (64/100). The most common reason for not using condoms stated by respondents was that they were not readily available, or that they estimated that with certain partners they did not need protection, that they trusted the partner (although this very research revealed that the awareness of the partner's HIV status was rather low, since only 27% of respondents are actually informed about their partner's HIV status. 29% state their partner never took a test, while the major percentage of 44,4% stated they never discussed the HIV status. 75% of examinees (properly) use lubricant - manufactured, water-based lubricant preventing condom bursting - the only one to be used with latex condoms. In terms of other associated risks, respondents emphasized having sex under the influence of drugs in the past six months (22% of examinees), and more often, under the influence of alcohol (56,1%). Out of total 196 examinees responding to the question on earlier HIV testing, 45% of them got tested before, which is far more than in a general population. Percentage of those tested within past 12 months is 26,5% (in part of the sample from FBiH the percentage shows close to ten times more of the respondents tested, FBiH-38,1%, RS-4,3%). Out of those tested to HIV, 96% know of the results. In terms of self-registration, 10% of respondents stated they had some type of STI. Test results have shown the highest prevalence of HCV infection (this could be explained by an associated risk injecting of drugs and sharing of the injection kits). Rate of HIV positive is 0,7%. Same goes for syphilis, while none of the respondents were HBV positive.

If suspecting that they acquired some sort of an STI, respondents stated that they would look for professional treatment and care (primarily to private medical institutions – because of the higher level of confidentiality).

CONCLUSION

Despite the limitations of the “snowball” sampling method, research results provided useful information on the character of the sexual behaviour of the MSM subpopulation within BiH, level of their knowledge, awareness and the perception of the risk from acquiring HIV/STI.

The results indicate that the MSM is, in terms of HIV/STI, a high risk subpopulation, particularly if we take into consideration a significant proportion of the unprotected anal sexual intercourses and multiple sexual partners reported. In addition, a large proportion of the MSM reporting penetrative sexual intercourses with both male and female partners indicates that the MSM subpopulation act as a “bridge” population in terms of the HIV transmission towards the general population. The “risk profile”, socio-demographic features and geographic distribution of the targeted subpopulation are, generally speaking unknown, and in order to plan and develop efficient, targeted educational and prevention programs, we need regular, systematic researches that would help in establishing the size of the population and its exposure and vulnerability to risks, such as the level of presence and types of the risky sexual behaviour. Such information is necessary in order to understand and assess the possible partaking of the targeted subpopulation group in a further distribution of the HIV epidemics and the need to raise awareness in relation to this problem. Such biobehavioural studies assessing the seroprevalence of HIV and other sexually transmitted and blood carried antigens among the MSM population – as one of the groups demonstrating risky behaviour that makes it vulnerable in terms of the infection are supposed to be repeated every two years. Application of the cross-sectional studies of the population demonstrating risky behaviour will enable us to recognize the risks within the targeted subpopulations and would provide for the efficiency of the promotional and preventive measures.

Results of such studies are of particular importance since they provide for:

- A multidisciplinary approach and a joint, coordinated cooperation between the governmental and non-governmental sector
- Evaluation of the current routine epidemiological system of HIV/AIDS monitoring
- An insight into the occurrence of risky as well as protective types of behaviour or lifestyles within the MSM subpopulation as well as within other groups prone to a higher risk, thus enabling rapid intervention and adjusting of the promotional and prevention measures.

Development of a database containing data collected within this study that would provide for additional, far more precise scientific studies within the area of the HIV/STI infections epidemiology.

RECOMMENDATIONS

Taking into consideration the existence of the highly risky types of behaviour among the MSM subpopulation, in addition to additional research, we would recommend:

- To develop and implement targeted promotional and prevention programs on sexual health, which would include the improving of the access and availability of the appropriate services (STI – targeted to MSM).
- To strengthen campaigns demonstrating clear messages, motivating proper and consistent use of condoms and delivering key messages through adequate communication channels.
- To promote the use of condoms, lubricants and to promote testing (DPST/VCT)
- To implement informational and educational activities, to develop materials
- To improve the availability of the health services, counselling and health educators.
- To work in terms of raising the awareness, sensitization of the decision makers and professionals about the existence of risky sexual behaviours characteristic for the MSM subpopulation and to train professionals to provide adequate care and counselling.
- To raise awareness on the risks of HIV/STI within the MSM community
- To promote the message of personal accountability, to focus the campaign to strengthening of the role of every individual (“to stop the HIV, if everyone plays his/her role”).

● SW STUDY



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SUMMARY

Study of the risky behaviour among the subpopulation of sexual workers (SW) whose risky behaviour makes them particularly vulnerable in terms of HVI/STI was conducted within the same time period as the MSM study, during January/February 2008. Both of these studies were conducted simultaneously and partially at the same locations. The so called “snowball” sampling method was used and the sample thus selected included 146 respondents (FBiH-92, RS-54), in seven urban locations: Sarajevo (33), Travnik (33), Tuzla (18), Mostar (8), Banja Luka (40), Prijedor (7) and Bijeljina (7).

Both subpopulations included into this study – MSM and SW are groups particularly vulnerable in terms of HIV/STI, and that vulnerability increases due to behaviour, marginalization, stigmatization, lack of access to health and social protection, etc. In addition, having in mind that the SW population is one of the “covert” and “difficult to access” populations, this biobehavioural study enabled an adequate approach and techniques for a realistic assessment of the type and level of both risky and protective behaviour as well as other prevention mechanisms.

The purpose of the study was to assess the prevalence of HVI/STI in a sample of the population with a particularly risky behaviour, the scope of risky as well as protective sexual behaviour that would enable to establish the baseline data and to plan targeted prevention programs.

Data on sociodemographic features, knowledge, risk awareness, respondents' sexual behaviour (number and type of partners: steady partners, casual partners, HIV positive partners, female partners), use of condoms, self-registered STI, testing, use of drugs and alcohol, etc. was collected using standardized questionnaire.

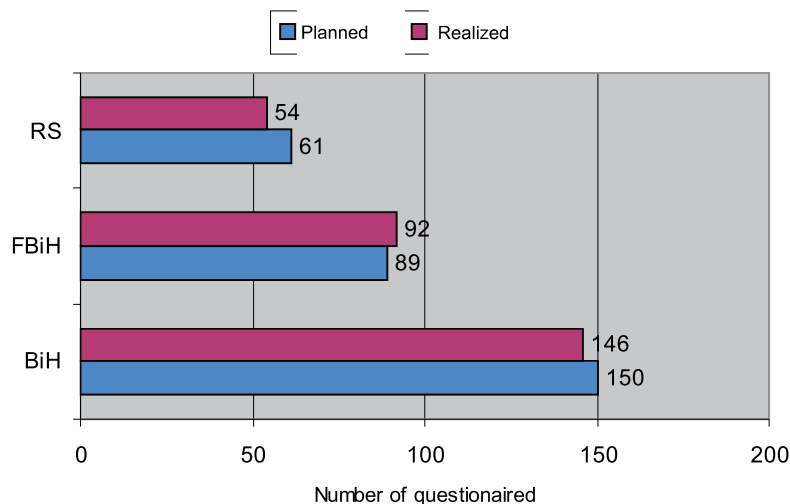
Data was processed and presented as a sample for the entire BiH and parallel, for each of the entities. A sample of young people at the age of 18-24 was, in addition, processed separately.

Data gathered, similar as in the case of the MSM subpopulation indicate a certain vulnerability of the population surveyed related to the risky behaviour and the complex network of sexual partners contributing to the sexual mixing of the population demonstrating high-risk behaviour and the one showing low-risk behaviour. This might present a “bridge” towards the general population.

After the fieldwork was completed, data collected and logically analyzed, no questionnaires were excluded and the implementation rate was 97,3%. 146 out of 150 interviews that were planned were completed (FBiH 89/92, RS 61/54) (Graph 1).

RESULTS

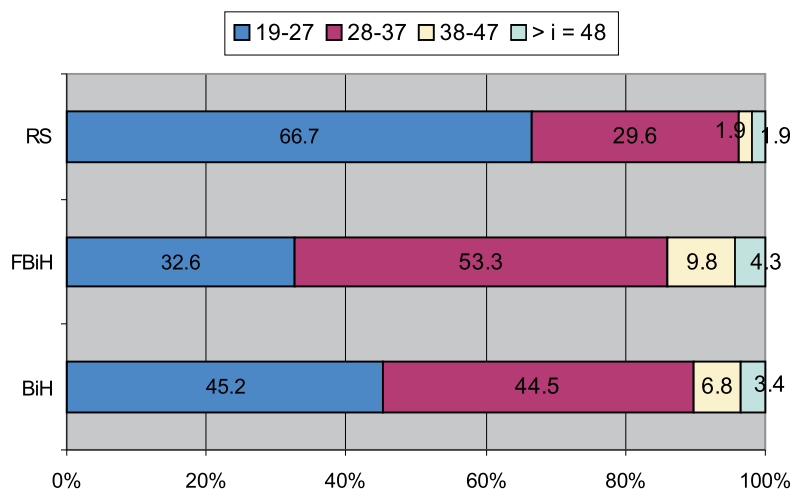
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Graph 1. Sample

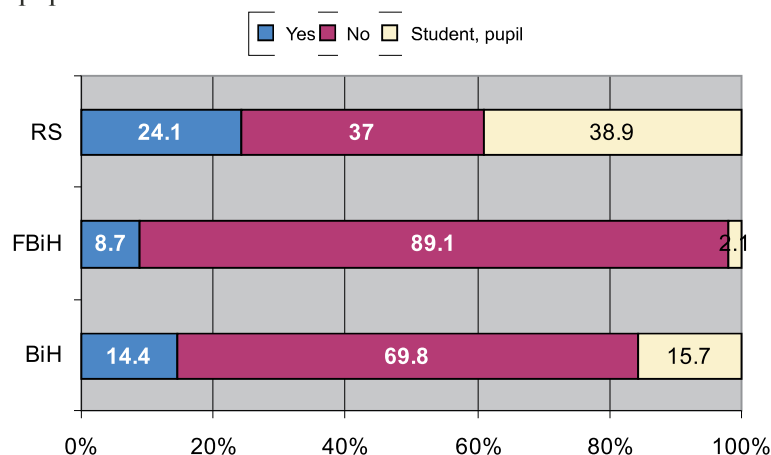
1. Demographic characteristics

All the respondents this study has covered were adults. Majority of them were between 19 and 27 (45,2%), average age being 28 ($X=28,9$; $\delta=6,8$), with the age ranging from 19 to 51. The youngest respondent was 19, while the oldest one was 51. Comparing the age structure of respondents we noted that the respondents from the FBiH were older – since 32,6% of them fall within the age group from 19 to 27, compared to 66,7% in RS, while in the FBiH 53,3% of them were in the age range from 28 to 37, compared to 29,6% of respondents in RS (Graph 2).



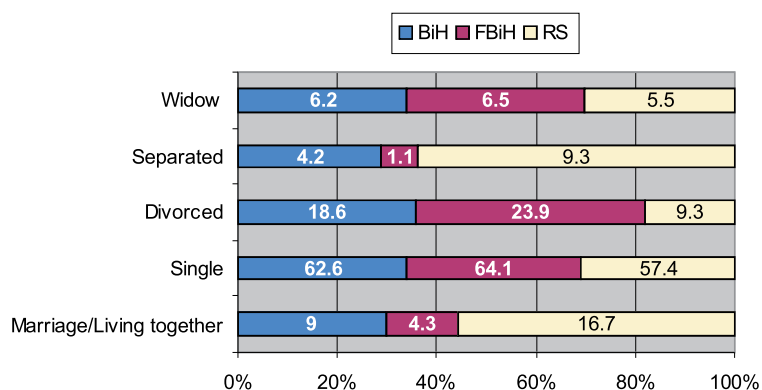
RESULTS

In terms of their place of residence, majority of them live in urban (88,4%) and 10,3% in rural areas. Majority of the respondents participating in this study were Bosnia and Herzegovina nationals (95,9%), while 4,1% were foreigners (2 respondents were from Serbia and others (one from each country) from Macedonia, Albania, Rumania and Russia). Only 4,1% of the sexual workers have been living at their current place of residence for less than a year, while the rest of them have been residing at the same location for more than one year. In terms of the level of their education, some two thirds of respondents (67,8%) have finished high school, 14,3% have completed elementary school, 8,2% of them have junior college diploma, while 8,9% of respondents hold a university degree. More respondents in RS have either junior college completed or university degree (RS-22,6%, FBiH 2,2%). Only 14,4% out of the total number of respondents are employed, some two thirds (69.8%) are unemployed, while 15,7% are pupils or students (Graph 3). Unemployment rate is far greater in the FBiH sample. RS sample includes more students and pupils.



Graph 3. Respondents' employment status

Majority of respondents were unmarried (62,6%), 18,6% are divorced, while 9% of them are married or cohabitating. The rest of them are either separated or widows. The research in the FBiH included more divorced respondents and less of those cohabitating with a partner or married in comparison to the RS sample (Graph 4).



Graph 4. Marital status

RESULTS

2. Knowledge about HIV/STI and the risk assessment

In terms of their status in regard to risks, questions were asked on their knowledge about the HIV/STI and about their self-assessment in terms of the risk from acquiring an HIV infection. Table 1 shows these results.

Table 1. Risk assessment and knowledge about HIV/STI

Self evaluated HIV infection risk	BiH n=146	FBiH n=92	RS n=54
There is no risk	8,2	4,3	14,8
Low risk	28,8	20,7	42,6
Medium risk	43,8	48,9	35,2
High risk	19,2	26,1	7,4
It is possible to get infected by drinking from the same glass that HIV positive person used too?	n=144	n=90	n=54
Yes	11,0	11,1	11,1
No	56,3	48,9	68,5
I don't know	32,7	40,0	20,4
By proper use of condoms HIV infection can be reduced?	n=146	n=92	n=54
Yes	92,5	91,3	94,4
No	1,4	1,1	1,9
I don't know	6,2	7,6	3,7
Person that looks healthy can be HIV positive?	n=146	n=92	n=54
Yes	70,5	66,3	77,8
No	8,2	8,7	7,4
I don't know	21,2	25,0	14,8
HIV infected pregnant woman can transef the infection to her child?	n=146	n=92	n=54
Yes	72,6	66,3	83,3
No	5,5	5,4	5,6
I don't know	21,9	28,3	11,1

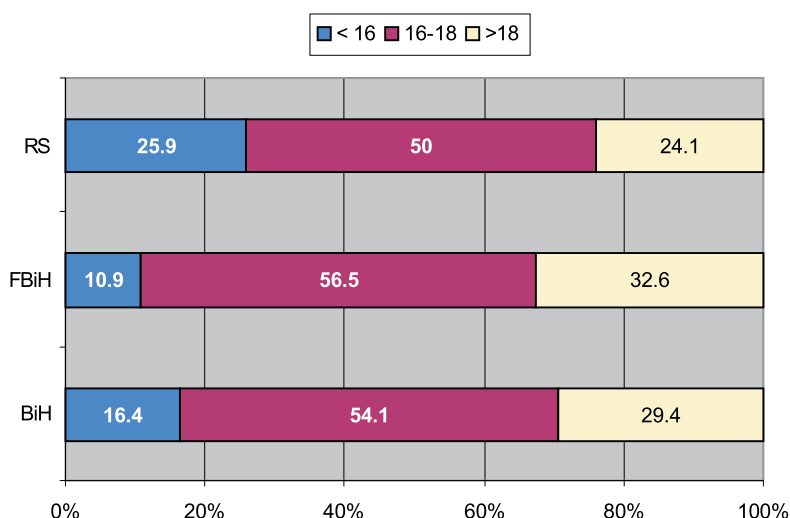
Following group of questions consisted of 4 questions referring to knowledge about the HIV – providing multiple choice answers – yes, no, don't know. One third of respondents (32,7%) didn't know if the infection can be transmitted by using a glass already used by an HIV positive person, somewhat more than a half of them (56,3%) knew, while 11% described it as a possible way of transmitting HIV infection.

Majority of respondents (92,5%) are aware that the adequate use of condoms reduces the risk of transmission of an HIV infection. About more than two third (70,5%) of respondents know that a healthy looking person may be infected by HIV, while 72,6% of them answered that an HIV infected pregnant woman can transmit this infection to her child.

RESULTS

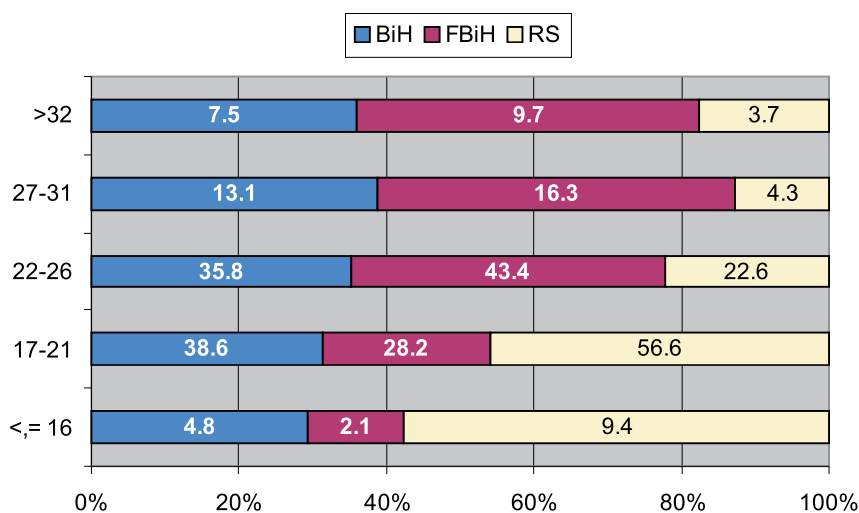
3. Sexual behaviour (activities)

More than half of respondents (54,1%) had their first sexual intercourse at the age between 16 and 18, 29,4% were older than 18, while 16,4 respondents had sex before the age of 16. Average age in terms of the first sexual intercourse was 17 ($X=17$; $\delta=2,07$). The youngest respondent to enter her first sexual intercourse was 13, while the oldest was 24. Respondents from RS were having sex for the first time earlier than the respondents from the FBiH (Graph 5).



Graph 5. The age of entering into a first sexual intercourse

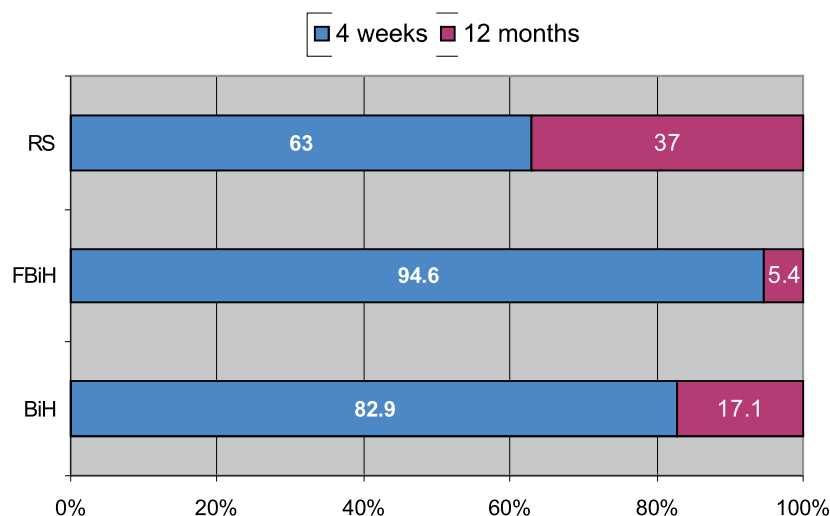
Majority of respondents (74,4%), provided first sexual service for money at the age between 17 and 26, 20,6% were older than 26 at the time, while 4,8% of respondents were younger than 16 (Graph 6). Average age at which they started selling sexual services was 22 ($X=23$; $\delta=5,63$), while individually speaking, it ranged from 15 to 45. Respondents from RS were – on the average, younger when they started selling sexual services in comparison to respondents from the Federation of BiH.



Graph 6. Age (years) at which the respondents started selling sex in exchange for money or some other compensation

RESULTS

82,9% of the respondents provided sexual service for money within the last 4 weeks, while 17,1% of them have done it within the last year. Differences between the entities are quite large – 94,6% in the FBiH and 63% of the respondents in RS did it in the last month, while 5,4% in the FBiH and 37% in RS (Graph 7).



Graph 7. Paid sexual service

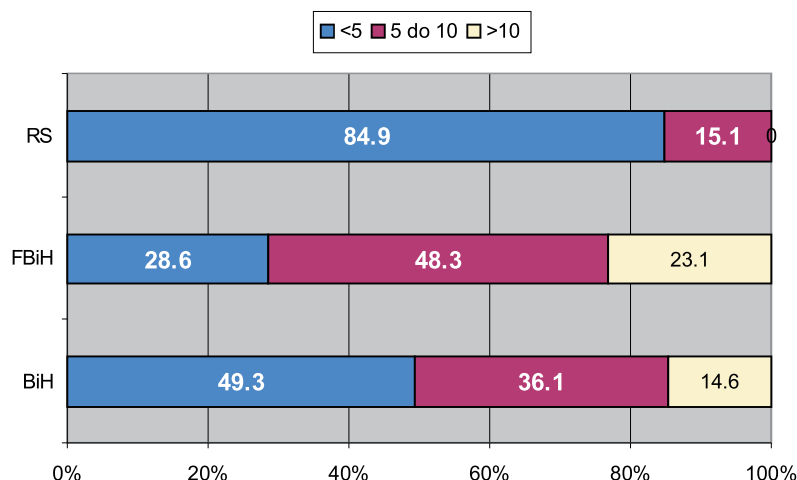
About half of the respondents (47,2%) have, when asked: “*How long have you been providing sexual services for money or some other type of reimbursement?*”, answered that they are doing it for 3-5 years, 15,7% are doing it for 6-8 years 14,3% 1-2 years, 13% for less than a year, while 9,5% were doing it for more than 8 years.

Other than providing sexual favours for money - something that almost all the respondents are doing (95,8%), somewhat less than a third of them are selling sexual services for clothes (29,2%), drugs (15,3%), food and drinks (15,2%). Beside the things stated, respondents, in some cases listed that they provided sexual services for: jewellery and perfumes, passing exams at the faculty, better status at work, travels, etc.

Half of respondents (49,3%) said that the number of clients they had (on the average) during one week was less than 5 while 36,1% of respondents reported 5 to ten clients a week. 14,6% reported having more than 10 clients a week.

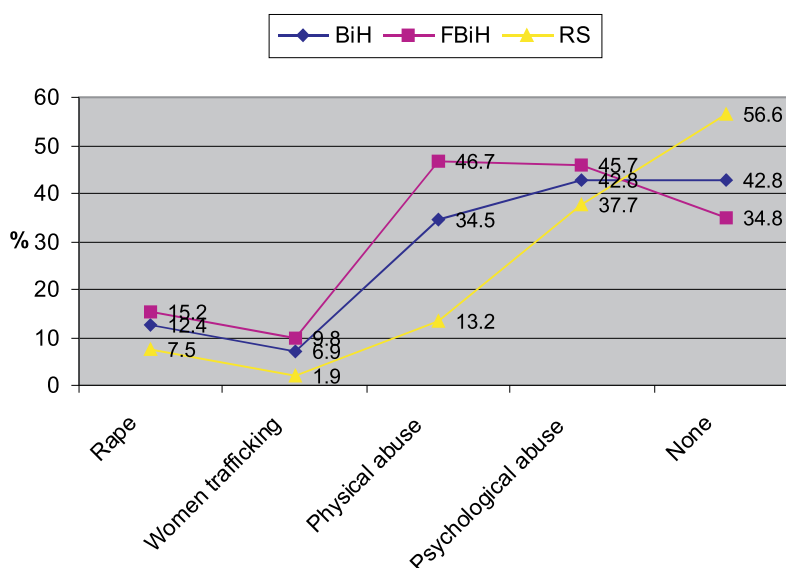
RESULTS

There is a large difference in regard to this question between the entities. While in the RS not a single of respondents reported having more than 10 clients a week, in the Federation of Bosnia and Herzegovina 23,1% of the respondents have had more than 10 clients a week (Graph 8). Average number of clients is 5 ($X=5,7$; $\delta=4,48$), while it ranged from one to 30 clients a week.



Graph 8. Average number of clients a week

One of the multiple choice questions was: “Have you been a victim of several forms of abuse?” 83 out of the total number of respondents (57,2%) were exposed to some sort of violence stated within the questionnaire (rape, physical violence, psychological abuse, mocking, and discrimination). Largest percentage of these (42,8%) were victims of psychological abuse, 34,5% were physically molested, while a significant percentage were victims of rape (12,4%) and trafficking in women (6,9%), (Graph 9). Respondents in RS were more exposed to psychological, and in FBiH to physical abuse.

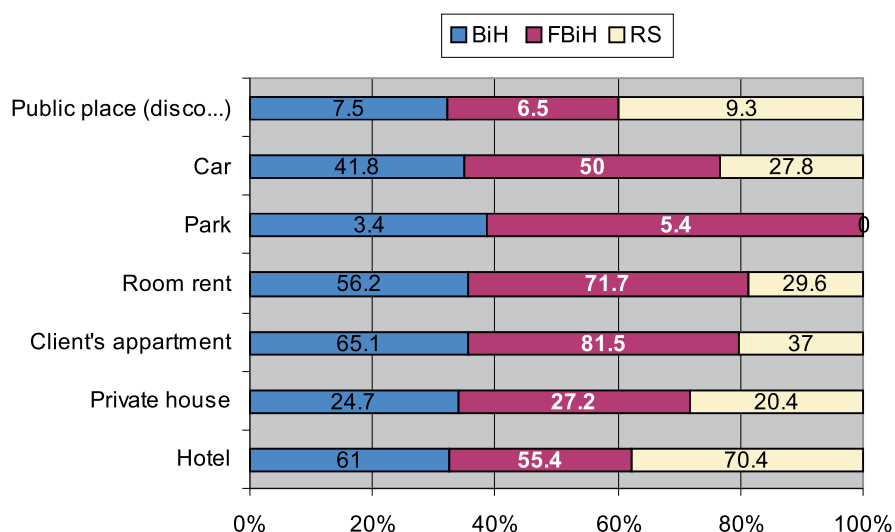


Graph 9. Exposure to violence/abuse by types of abuse

RESULTS

The most common method respondents used to find clients was: on their own (53,8%), via known channels (hotel staff, contact persons) 47,3%, while 26,9% of sexual workers responded that they were finding their clients via their pimps. When comparing the situation between the entities, there is a significant difference in terms of finding clients via pimps (FBiH-35,9%; RS 9,4%). Results about places respondents are using to meet their clients are showing that more than half of respondents (52,7%), stated that they are meeting their clients in cafes/bars/coffee shops, hotels (40,4%) and rented apartments (40,4%), and rarely in the parks (9,6%).

The most common places they were using to provide sexual services were: client's apartment (65,1%), hotel (61%), rented room (56,2%), and far less often public premises (coffee shops, discos) (7,5%) and parks (3,4%), (Graph 10).

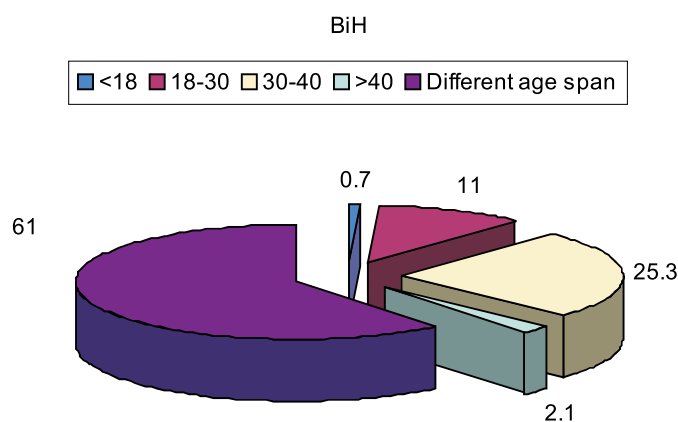


The most frequent users of sexual services - 92,4% of them were men, in 9% of cases both men and women, and in 4,8% respondents these were couples and groups.

The most frequent users of sexual services are persons of different age (61%), then those at the age between 30 and 40 - 25,3% and between the age of 18 and 30 - 11%, (Graph 11).

RESULTS

The most common users of sexual services are the inhabitants of that city/town (86,9%), people from out of town (43,4%), while 37,9% responded that these are people on a trip. The largest difference between the entities is visible in case of the people from out of town, (FBiH-50%, RS-32,1%).

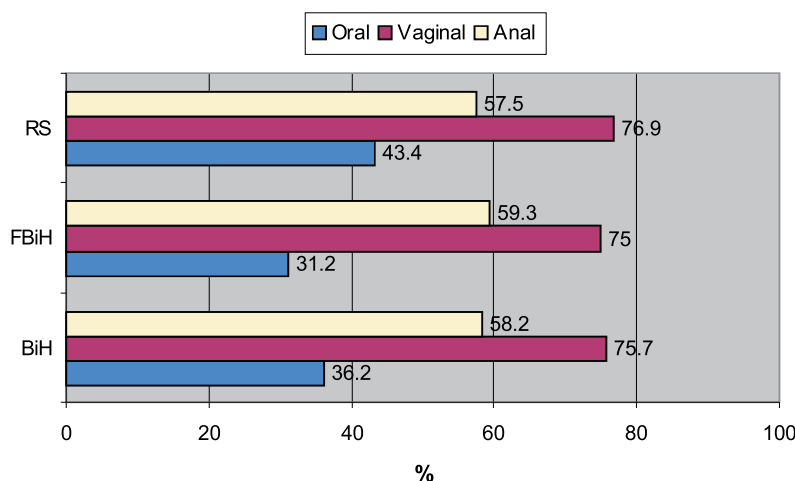


Graph 11. Age structure of sexual services users

RESULTS

4. Condoms and sexual health

Frequency of the use of condoms as the best available protection against the transmission of HIV/STI is shown by Graph 12. About one third of respondents (36,2%) used a condom during the last oral, about two thirds (75,7%) during the last vaginal and somewhat more than a half (58,2%) have used the condom during the last anal intercourse they had. Respondents from RS were, in a slightly higher degree, using condoms when having an oral intercourse more often.

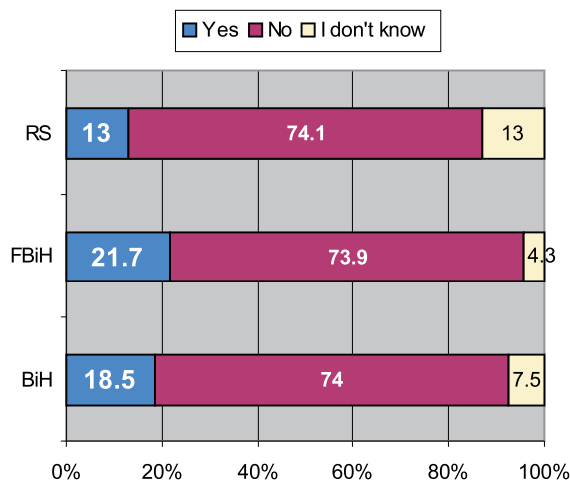


Graph 12. Frequency of the use of condoms during the last sexual intercourse

Respondents were given several choices as reasons for using a condom. Some two thirds (75,3%) of sexual workers stated that they are using it because they wanted to use it, 28,8% have used it upon a client's request, while 16,4% upon a request of their pimp.. Respondents from the Federation of BiH were using condoms upon a request of their pimp more often than those from RS (FBiH-22,8%, RS-5,6%). When it comes to goals and purpose of condoms 84,1% of respondents said that they were using a condom to prevent getting "some sort of disease", 62,1% of respondents were using it as a contraception, while 54,5% of them were using a condom to protect themselves from HIV/AIDS. Respondents from the FBiH are using condoms more often in order to avoid "getting some sot of a disease" than those from RS. A certain number of respondents listed other reasons for using condoms, such as: protection of a client, safety, self-confidence, etc. Less than half of respondents (43,2%) have a steady sexual partner, and there is a difference between the entities (FBiH-39.1%,RS-50%). 22,2% of respondents have answered that they are using a condom during a sexual intercourse with their steady partner, 33,3% are doing that occasionally, while 41,2% are not using condoms at all.

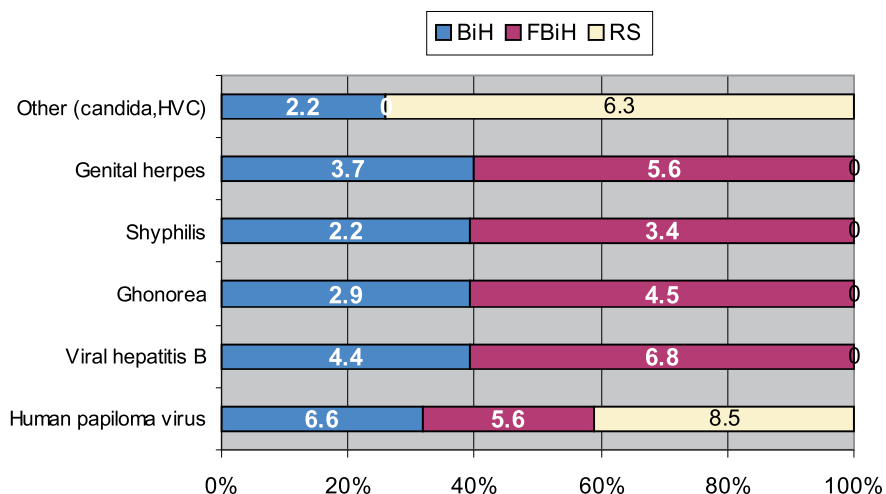
RESULTS

18,5% of respondents have confirmed that they have had some sort of a sexually transmitted disease, 74% responded that they never had such a disease, while 7,5% of them don't know. Respondents from the Federation of BiH were, on the average having such sexually transmitted diseases more often (21,7%) compared to the respondents from RS (13%), (Graph 13).



Graph 13. Sexually transmitted infections - frequency

The most common among these sexually transmitted infections was HPV – human papilloma virus in 33,3% cases. In 11,1% cases, they stated syphilis as well as some other infection (respondents listed themselves: yeast infections, hepatitis C virus). In RS, these were HPV or something else (yeast infection, HCV), while all other infections were registered among the respondents from the Federation of BiH. Prevalence presented in Graph 14 is based on results referring to self-registered STI in this subpopulation.

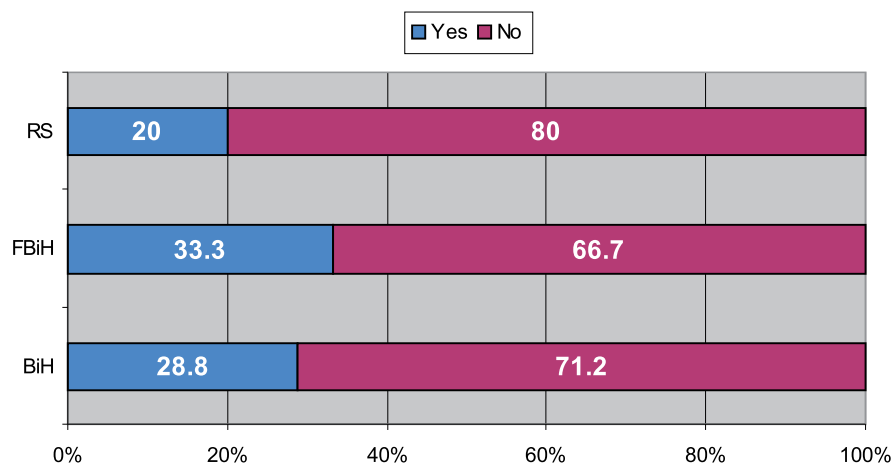


Graph 14. Prevalence of the self-registered sexually transmitted infections

RESULTS

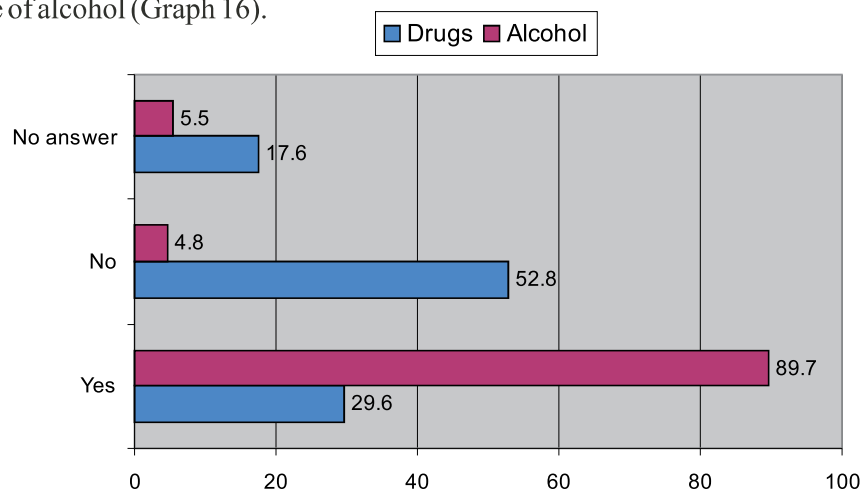
5. Use of drugs, alcohol and sexual behaviour

45 respondents confirmed reported the use of drugs as an undesirable and risky type of behaviour (32,1%). 28,8% of the respondents who reported ever using drugs were injecting it. This form of drug use is more frequent in the FBiH (33,3%) than in RS (20%) (Graph 15).



Graph 15. Injecting of drugs

More than a half of those (53,8%) who reported injecting drugs were occasionally sharing used syringes and needles. All the drug users from RS who were injecting drugs reported that they have been sharing used syringes and needles, while only 40% of those in the Federation of BiH reported the same thing. Only 15,9% respondents are aware of having sex with the clients who were injection drug users while 60,7% of the respondents don't know that. Less than a quarter of them (23,4%) believe that they weren't providing services to this subpopulation. Almost a third of respondents said that they had sex under the influence of drugs, and 89,7% have had sex under the influence of alcohol (Graph 16).



Graph 16. Sex under the influence (of drugs and alcohol)

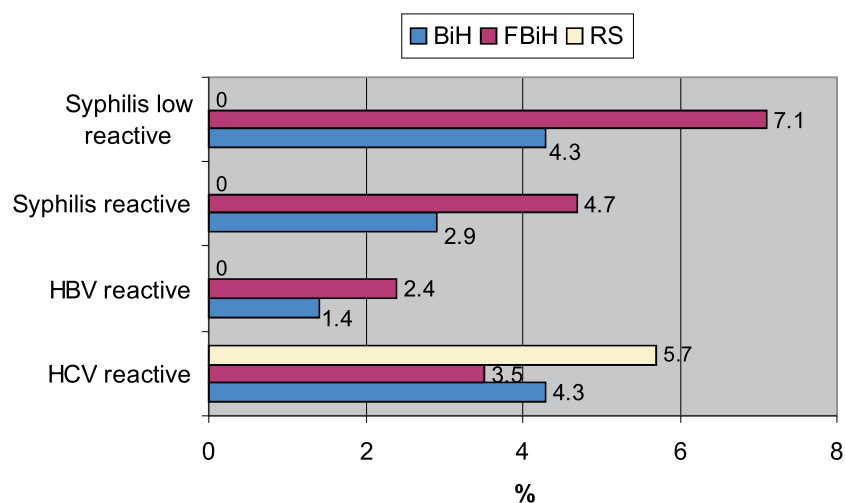
RESULTS

6. Getting tested to HIV and other sexually transmitted infections

42 out of the total number of respondents (28,8%) have got tested to HIV and other sexually transmitted diseases, and majority (81%) of them are aware of the test results, while 20 respondents (13,6%) actually got tested within the last 12 months.

94,5% of respondents have confirmed that they would like to get tested, and all of them provided their informed consent and the blood sample to be tested.

18 out of total of 138 samples taken (13%) have turned to be positive. In RS, the respondents were positive to HCV, while in the Federation of Bosnia and Herzegovina, in addition to HCV, syphilis and HBV was found. The results are given in Graph 17.



Graph 17. Blood test results

Research results – 18-24 age group

The total number of respondents from 18 to 24 years of age was 27,4%. Far more respondents within this age group are from RS (42,6%) in comparison to the Federation of BiH (18,5%). Average age was 23 ($X=22,08$, $\delta=1,80$).

1. Demographic characteristics

Study participants within this age group were mainly citizens of Bosnia and Herzegovina (97,5%), living in urban areas (90%). 94,9% of the respondents have lived at the same location for more than a year. About two thirds of them (62,5%) have finished high school, while 25% of them have finished junior college or university. Some 30% of them are students, while 16% of them are employed. Majority of the respondents were unmarried - 22 (82,5%), while only 4 (10%) are married.

2. Knowledge about the HIV infection and the risk assessment

Comparative results referring to knowledge about the HIV infection and the risk assessment within this sub-sample (18-24) and the total sample are presented within the Table 2.

<i>Self evaluated HIV infection risk</i>	Sub sample (18-24) n=40	Total n=146
No risk	10,0	8,2
Low risk	32,5	28,8
Medium risk	37,5	43,8
High risk	20,0	19,2
You can get infected with HIV if using the same glass that HIV infected person was using?	n=39	n=144
Yes	7,7	11,0
No	56,4	56,3
I don't know	35,9	32,7
HIV infection can be reduced by proper use of condoms?	n=40	n=146
Yes	92,5	92,5
No	2,5	1,4
I don't know	5,0	6,2
A person that looks healthy can be HIV infected?	n=40	n=146
Yes	72,5	70,5
No	7,5	8,2
I don't know	20,0	21,2
HIV positive pregnant woman can transfer HIV to her child?	n=40	n=146
Yes	72,5	72,6
No	10,0	5,5
I don't know	17,5	21,9

RESULTS

We can note that more than a third of respondents within the sub-sample (32,5%) consider the risk of acquiring an HIV/STI infection as minor, while 37,5% of the respondents consider this risk to be moderate. Generally speaking, opinions in regard to the level of risk are rather similar.

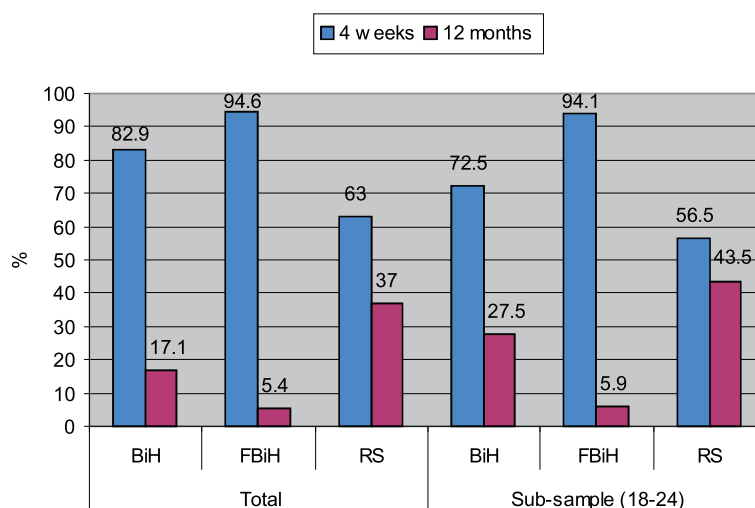
7,7% of respondents believe that the HIV can be transmitted by using common cutlery (glasses) – less than in the overall sample. 92,5% of the young respondents believe that the use of condoms is a proper way to protect them from acquiring an HIV infection – the same results we have got in a general sample. Some two thirds (72,5%) of respondents agree that the look of a person does not reflect their HIV status, while the same number of respondents are aware that the pregnant woman infected by HIV can transmit the infection to her child.

3. Sexual behaviour (activities)

The largest number of respondents (65%) within the sub-sample have had sex for the first time at the age between 16 and 18, and the average age they had their first sexual intercourse at was 17 ($X=16,88$; $\delta=1,72$). The youngest one having sex for the first time have had it at the age of 14 and the oldest at the age of 22.

The largest number of respondents (25%) provided sexual service in the exchange for money for the first time at the age of 19. The average age in that regard was 19 ($X=18,90$; $\delta=1,85$), while it ranged from 15 to 22.

72,5% of the young respondents have provided a sexual service for money within the past 4 weeks, while 27,5% of them provided such a service during the past year. This differs from the results for the general sample, and there are visible differences between the entities – within the past 4 weeks (FBiH-94,1%; RS-63%), within the past year (FBiH-5,4%; RS-37%). (Graph 18).



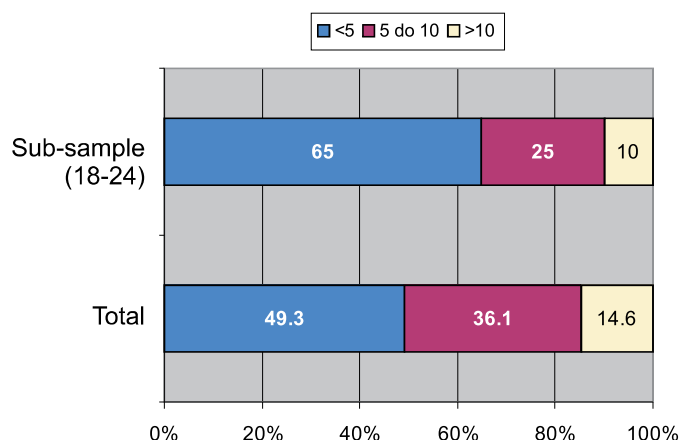
Graph 18. Paid sexual intercourse – sub-sample (18-23) and sample

RESULTS

Majority of young respondents (35%) are engaged in selling sexual services for money or some other kind of compensation for 3 to 5 years. There are some differences between the entities in that regard (FBiH-29,4%; RS-39,1%).

87,2% of respondents are providing sexual services for money – somewhat less than in the overall sample, while the large number of them are doing that for clothes – an important factor among the young people in terms of their success in their surroundings. In addition, they listed: to pass the exams at the university, travels, jewellery, etc.

Some two thirds (65%) of respondents have less than 5 clients a week, a quarter (25%) are having 5 -10 clients a week, while 10% of them are having more than 10 clients a week, less clients on the average in comparison to the general sample (Graph 19). On the average, they were having 3 clients a week ($X=4,25$; $\delta=3,21$), ranging from 1 to 15 clients a week.



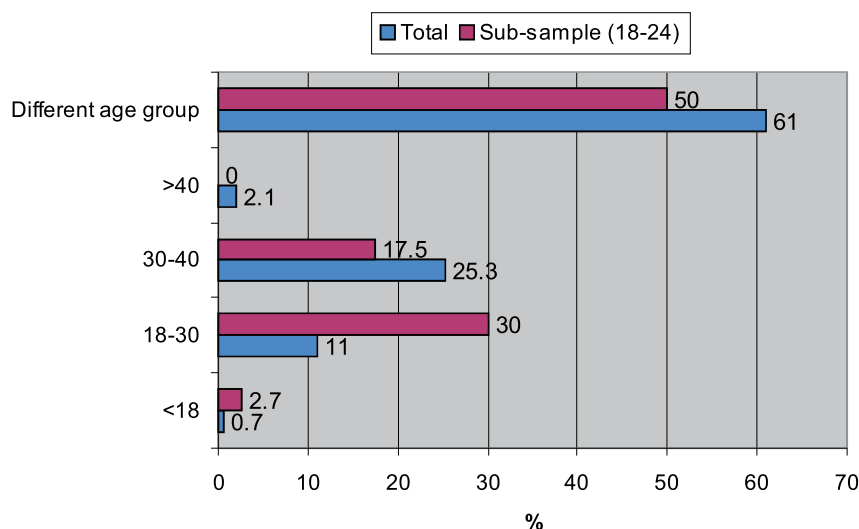
Graph 19. Average number of clients per week – sub-sample (18-23) and sample

About one third of respondents consider themselves as being victims of some sort of violence/abuse, majority of them have experienced physical (20%) and psychological (27,5%) abuse, although the number of those who have been victims of the trafficking in women is not to be neglected either (5%). The largest percentage of respondents - 60% of them are finding their clients on their own, (42,5%) are finding them through known channels, and 17,5% are finding them via their pimps – less than within the overall sample (26,9%).

The most common locations they are using to meet their clients are hotels (55%), coffee shops (42,5%), parties (35%) and disco clubs (32,5), while they mostly provide their services in the hotels (75%), at their clients' apartments (65%), rented rooms (42,5%), cars (40%), etc. Almost all of the users of their sexual services are men (97,5%), while in 2,5% of the cases men and women as well as couples and groups. Most common users of their sexual services are persons of all ages (50%), users in the age of 18 to 30 (30%). This differs in comparison to the overall sample (Graph 20).

RESULTS

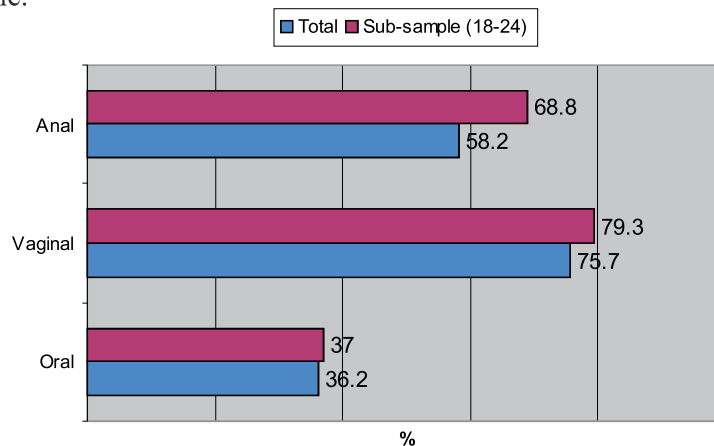
Sexual services users are, similar to the situation established in the general sample, mainly the town residents (84,6%), and after that people out of town (foreigners) (33,3%) and persons travelling through the town (28,2%) – somewhat less in comparison to the general sample.



Graph 20. Structure of the sexual services users – by age – sub-sample (18-23) and the general sample

4. Condoms and reproductive health

About one third of respondents (37%) have used a condom during the last oral, and about 2/3 (75,7%) during the last vaginal sexual intercourse they had. 68,8% respondents have used a condom during the last anal sexual intercourse they had – somewhat more often that those in a general sample (Graph 21). We also noted that the young respondents from RS are using condoms more often when having vaginal sex, while in the FBiH when having anal sex in comparison to the general sample.



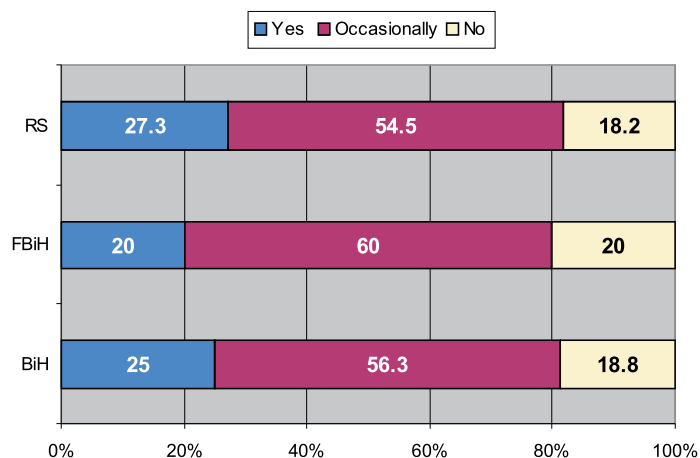
Graph 21. Frequency of the use of condoms during the last sexual intercourse – sub-sample (18-23) and sample

RESULTS

The most common reason that the young respondents stated for using condoms is their wish to do so (80%) – similar as those in the general sample. Majority of them (77,5%) stated that they are using condoms in order not to get “some sort of a disease”, while a bit less of them (70%) are using condoms as contraception. 54,5% of the respondents are using condoms to protect themselves from HIV/AIDS.

40% of the respondents have a steady sexual partner, more in RS (47,8%) than in the Federation of Bosnia and Herzegovina (29,4%).

Only one quarter (25%) of the young sexual workers are using condoms with their steady sexual partners, while 56,3% of them are doing that occasionally. There is a significant difference between the entities (Graph 22).



Graph 22. Frequency of the use of condoms with a steady partner

Only 5 (12,5%) of the respondents stated that they have had some sort of sexually transmitted infection – this is less than in the general sample (18,5%). In terms of the self-registered STI, young respondents were mainly reporting Hepatitis B and other STIs (Candida, HCV) – 40% each, Human papilloma virus and syphilis – 20% each.

5. Use of drugs, alcohol and sexual behaviour

15 out of total of 39 young respondents (38,5%) were once using drugs, while only one of them (5,9%) was injecting it – less than in a general sample (28,8%). A respondent injecting drugs was using her own injection kit. 17,5% of the respondents had sex with clients who were injection drug users, more in the FBiH (29,4%) than in RS (8,7%). One third of respondents (33,3%) had sex under the influence of drugs and 89,7% had sex under the influence of alcohol which corresponds to a general sample.

RESULTS

6. Getting tested to HIV and other sexually transmitted infections

20% of the respondents have so far get tested to HIV and other sexually transmitted infections – majority of them know what the test results were. Majority if those tested have done it within the last 12 months (6/8).

All of the young (40) have agreed to get tested to HIV/STI, and the test results have discovered syphilis reactivity in one of the respondents.

DISCUSSION

Research among the sexual workers was conducted in a period of January and February 2008. The so called “snowball” sampling method was used, covering 146 respondents in seven cities and towns in Bosnia and Herzegovina. All the respondents in this research were adults. Their average age was 28, youngest of them having 19 and the oldest 51. Majority of the research respondents lives in the cities/towns (88,4%) and are Bosnia and Herzegovina nationals (95,9%). About two thirds of them (67,8%) have finished high school, 14,3% have completed elementary school, 17,1% of them have a junior college or university degree, while 2,7% of them have no education at all. Only 14,4% of the respondents were employed, some two thirds (69,8%) were unemployed, while 15,7% are students or pupils. Majority of respondents (62,6%) are unmarried, 18,6% are divorced, 9% are married/cohabitating, while the rest of them are either separated or widows. Research results are showing that the respondents are not enough aware of the risks of getting the HIV/STI, since some two thirds of them (72,6%) consider this risk to be minor or moderate.

In terms of their knowledge on the use of condoms as the safest prevention against the sexually transmitted infections, 92,5% of the respondents know that the proper use of condoms significantly reduces the risk of transmission of the HIV infection. 70,5% of the respondents are aware that a healthy looking person may be HIV positive, while 71,6% of the respondents have answered that the HIV positive pregnant woman can transmit the infection to her child. When analyzing the age at which the respondents started with sexual activities, the youngest to start having sex was 13 and the oldest 24, while the average was at the age of 17. Respondents from RS were becoming sexually active at an earlier age than the respondents from the Federation of BiH. Majority of the respondents (74,4%) have had their first sexual service in exchange for money at the age between 17 and 26. Average in terms of start of selling sexual services for money was 22, ranging from 15 to 45. Respondents from RS were, in that regard, younger than those from the FBiH. Approximately half of the respondents (47,2%) are providing sexual services for money or some other kind of compensation for 3 to 5 years. Beside selling sexual services for money,

RESULTS

something that almost all of the respondents are doing (95,8%), less than one third of them are selling sexual services for clothes, drugs, alcohol/drinks, food, jewellery, to pass the exams at the university to get a better status at work, in exchange for travels, etc.

The results are showing that the average number of clients per week is 5, ranging from 1 to 30 a week. There is a visible difference in the average number of clients per week between entities, while in RS not a single respondent had more than 10 clients a week, in the Federation of BiH 23,1% of respondents had more than 10 clients a week. Almost half of the respondents (47,2%) were exposed to some sort of violence/abuse, majority to psychological abuse (42,8%) physical violence (34,5%), while a significant percentage were victims of rape (12,4%) and trafficking in women (6,9%) as severe forms of violence/abuse.

Among the victims of violence/abuse, majority in RS were exposed to psychological and in the FBiH to physical violence. More than half (53,8%) of respondents are finding their clients on their own, followed by those who are finding them through known channels agreed (hotel staff, contact persons) or pimps, mainly at the coffee shops, hotels and rented apartments.

The most common locations for providing sexual services are clients' apartments, hotels and, rarely, public facilities and parks. Their clients were mainly men of different age, mostly the city/town residents (86,9%), than people from out of town (foreigners) and people traveling through town. 5,7% of respondents have stated that they have been using a condom, as the safest form of protection during the last vaginal intercourse they had, 58,2% during the last anal intercourse and 36,2% during the last oral intercourse they had.

Principal reasons they stated for using condoms was mainly their wish to do so, request from their clients and request of their pimp. In terms of goals and the purpose of the use of condoms, majority of respondents (84,1%) stated that they are using condoms in order to avoid getting “some sort of a disease”, than as contraception, while half of them are stating protection against HIV/AIDS as the primary reason for using condoms.

Respondents from FBiH are using condoms more often in order to avoid “getting some sort of disease” than those from RS, indicating the awareness of the risks – this may be related to the older average age of the respondents from this entity. Somewhat less than half of respondents (43,2%) have a steady sexual partner, and the use of condoms with steady partners is insufficient. 27 of respondents (18,5%) have had some sort of sexually transmitted disease, more of them from the FBiH. When it comes to the use of drugs and alcohol as associated behaviour risks, 29,6% have reported having sex under the influence of drugs, while 89,7% of them under the influence of alcohol.

RESULTS

Research results have shown that 42 (28,8%) of respondents out of the total number of respondents got tested to HIV and other STIs and that the majority of them knows what the results are. Almost all the respondents (94,5%) have agreed to get tested. 18 samples out of 138 samples taken turned out positive. Majority of results - 10 (7,2%) - have turned positive to syphilis, 6 (4,3%) of the respondents have turned positive to HCV and 2 respondents (1,4%) turned positive to hepatitis B.

No samples tested were positive to HIV.

CONCLUSION

Having in mind that the sexual workers are a subpopulation that is hard to get, the research was conducted in accordance with the protocol and methodology developed, providing basic information on sexual behaviour, level of knowledge, awareness and risk perception as well as biological parameters referring to HIV and other sexually transmitted diseases.

Research results are showing that the sexual behaviour of the respondents established during this research indicates a significant level of vulnerability and risk, despite their knowledge in terms of modes of transmission and protection against HIV/AIDS.

In addition, this research established the presence of certain risk factors: early start in having sex, insufficient use of condoms when providing sexual services to clients, providing sexual services under the influence of drugs and alcohol which facilitates and contributes to potential spread of HIV/STI to general population. Beside the factors stated, the research has also shown that the significant numbers of clients using sexual services are foreigners and people travelling through their city/town – this can also have an impact in regard to the HIV/STI transmission.

Another thing we need to point out is the fact that providing sexual services for money or compensation in Bosnia and Herzegovina is illegal, thus this SW sub-population is working illegally. This fact is, at the same time, the main reason for the lack of data on number, size and basic features of this sub-population. Thus it is very difficult to plan or organize targeted programs and activities in terms of educational, prevention and promotion and intervention measures. Therefore these researches are providing more info needed in order to resolve the problems stated.

The results of this research have shown seroprevalence of certain STIs – significant in terms of HVB and HVC, and particularly in regard to syphilis. Results we gathered will serve as the baseline for more measures and activities. Such researches are planned to be conducted biannually. That would enable for the monitoring of the measures taken, incidence and movement of disease.

• RECOMMENDATIONS

Having in mind the presence of highly risky behaviour within the SW subpopulation, the research team would recommend following steps to be taken:

- Implementation of educational, promotional, prevention programs on sexual health that should be directed to targeted sub-population
- Implementation of educational/awareness raising campaigns that would send clear messages on importance and proper use of condoms
- Distribution of condoms free of charge and increased work of the field services – in cooperation with the non-governmental sector
- To increase the availability of the health services along with the strengthening of the Voluntary Counselling and Testing Centres (DPST, VCT)
- To increase the scope and availability of the educational/promotional materials
- To increase the awareness on risks as well as the knowledge on HIV/STI within the targeted sub-population
- To strengthen multidisciplinary work and cooperation between the governmental and non-governmental sector

RESEARCH TEAMS MEMBERS

Data collectors:

1. Marija Šobot
2. Bojana Delibašić
3. Goran Zorić
4. Milorad kapetanović
5. Srđan Kukolj
6. Lejla Agić
7. Sanela Vrabac
8. Mevludin Hadžobeganović
9. Zlatko Blažević
10. Nermin Golub
11. Nedžad Džebo
12. Amar Osmanović
13. Dario Krmek

Medical technicians:

1. Šefik Škaljić
2. Jasminka Kuloglija
3. Benina Čovrk
4. Emilija Primorac
5. Emira Mušović
6. Fata Jovičić
7. Halida Čeliković
8. Rada Ilić
9. Cvijo Simić
10. Dragana Radić
11. Stojanka Mašanović

NGO sector coordinators:

1. Adnan Cviko (Asocijacija za Seksualno i Reprodukativno zdravlje - XY)
2. Denis Dedajić (Margina)
3. Samir Ibišević (UG PROI)
4. Srđan Kukolj (Action Against Aids)

Supervisors:

1. Dr. Radovan Bratić
2. Dr. Alma Gusinac-Škopo
3. Dr. Vesna Hadžiosmanović
4. Dr. Lejla Čalkić
5. Dr. Sana Šabović
6. Dr. Marija Zeljko

Data entry:

1. Julijana Martinović
2. Slavica Mikulić
3. Mira Pupiće
4. Dr. Ljubica Jandrić

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