

# Risk Behaviors for Getting HIV Infection among the Croatian Men Who Have Sex with Men in 2007

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## ABSTRACT

*This survey was conducted with the aim of obtaining the information on the sexual risk behavior of Croatian men who have sex with men (MSM) two years after the first research. There was total of 820 respondents recruited at seven frequent meeting places of Croatian MSM in Zagreb and Rijeka, as well as one gay-oriented web-site. The overall response rate was 17.6% which is 1.4 percentage point less than it was two years ago. The rate of condom use during last anal intercourse was 53.2% and 69% of those who used a lubricant had chosen a correct water-based product which is increase of 15% comparing to the last research. Only 27% of those who had also had sex with women (MSM/MSW) during last 12 months regularly used protection. The results of this research suggest that there are trends in declining of some risk behaviors among Croatian MSM but there is a lot of space for focused and effective prevention activities on increasing the risk perception and reducing risk behaviors.*

**Key words:** Croatia, MSM, MSM/MSW, behavior

## Introduction

Men who have sex with men (MSM) are vulnerable subpopulation for HIV infection all over the world<sup>1</sup>. Among all registered HIV infected persons in Croatia MSM counts 41.8% and male homosexual intercourse is the most common transmission path of HIV infection in Croatia<sup>2</sup>. We started to conduct surveillance of risk factors and sexual behaviors among MSM in order to develop and adjust the preventive programmes for this subpopulation. This research is follow-up to the one that was conducted two years ago and it could give us the first information on effectiveness of existing prevention programmes<sup>3</sup>.

The design of effective HIV prevention programs for MSM requires a clear understanding of their sexual risk behavior in relation to the type of sexual intercourse, number of sexual partners, condom use, and substance use immediately before sexual intercourse and existence of sexual intercourse with women<sup>4,5</sup>. All of these factors influence individual risk of HIV infection/transmission.

The first research of among Croatian MSM was conducted in 2005 and the result showed significant level of

risk behaviors regarding HIV infection<sup>3</sup>. Therefore we undertook this survey to detect changes in the sexual behavior of MSM in Croatia.

## Subjects and Methods

A convenience sample of MSM was recruited at seven frequent meeting places of the MSM (disco clubs, bars and saunas) in Zagreb and Rijeka, as well as one gay-oriented web-site.

The research was conducted in a month's timeframe (November-December 2007) using an anonymous self-administrated questionnaire. Each visitor received a copy of the questionnaire and after filling it in, place it in the box prepared for returning the questionnaires. The other option to return the questionnaire was receiving paid return envelope and sending it by mail. On the web-site, a message was sent to all registered users with a kind request to fill in the questionnaire. The only exclusion criterion from the survey was the filling in of the questionnaire within the last month. To be able to calcu-

late the response rate we used the denominator data as it was provided by the field researchers – the number of questionnaires delivered and the number of web-site users that had received an e-mail invitation to join the survey.

The questionnaire was based on Family Health International questionnaire for MSM<sup>6</sup> and it consisted of 22 multiple choice questions and was divided into several parts: socio-demographic data, knowledge about HIV infection, use of drugs prior to sexual intercourse, sexual intercourse with men and sexual intercourse with women.

## Results

There was a total of 820 respondents. The overall response rate was 17.6% (820/4650) and according to venue differed from 3.2 to 26.3%. The median age was 26, the minimum being 14, maximum 86 (Table 1). The summary of results is shown in Table 2.

### *Knowledge about HIV infection*

Almost all (99.3%) of the respondents have heard about HIV/AIDS, 6 respondents (0.7%) have never heard and 8 respondents (1%) did not answer the question. Majority of the respondents (84.7%) thought that regular condom use can prevent HIV infection, 11.5% did not agree and 3.8% answered that they did not know.

Almost half of the respondents (48.8%) have never been tested on HIV, 24% had one test in a lifetime and 27.2% had more than one test.

### *Drug use*

Drug use before sexual intercourse in the last month stated 14.1% of the respondents: 5.8% once, 7.3% several times and 1% almost always. Among 146 respondents who did use drugs, the most common drug was marijuana – 39.7%; followed by butyl/isobutyl nitrate (poppers) – 30.1%; amphetamine – 13%; cocaine – 5.5%; heroin – 1.4%; and some other drug – 10.3%.

### *Sexual intercourses with men*

Within the last 12 months 91.6% of the respondents stated they had had oral intercourse with a man; 79.8% reported that they had never used a condom during oral intercourse, and 6.8% had used a condom each time. The median number of partners with which the respondents stated having oral intercourse within the last year was 2, with a minimum of 0 and a maximum of 365.

84.9% of the respondents had anal sexual intercourse in the last 12 months; 40.31% used a condom at each anal intercourse and 20.2% never. At last anal intercourse 53.2% of the respondents used a condom and 46.8% did not. The main reasons for not using condoms at last anal intercourse was the assessment that the intercourse was not a risky one/being in a steady relationship (61.9%), followed by »I was simply overwhelmed with passion and I did not think« (15.7%), »I did not have a condom with me at that moment« (7.3%), »I don't like sex with con-

**TABLE 1**  
RESPONSE RATE ACCORDING TO VENUE OF RECRUITMENT

Venue*	Response rate n/N (%)
A (online)	667/3520 (17.7)
B, Zagreb	54/250 (21.6)
C, Zagreb	23/300 (7.6)
D, Zagreb	15/100 (15)
E, Rijeka	8/250 (3.2)
F, Zagreb	32/150 (21.3)
G, Zagreb	21/80 (26.3)
Total	820/4650 (17.6)

\*The names of the venues are not provided to prevent breach of confidentiality and concerns of respondents and the owners of the venues

doms« (7%), while 8.9% had some other reasons to not use a condom.

At last anal intercourse 74% of the respondents used a lubricant. A water based lubricant was used by 69.5% of the respondents, while the rest uses body lotion/milk (14.5%), Vaseline (9.7%), oil/butter (1.3%) and something else (6.3%).

### *Sexual intercourses with women*

Among 24.1% of those who stated also having sex with women within the last 12 months 46.5% have never used a condom and 26.8% used it every time.

## Discussion

This was the second behavioral survey on MSM in Croatia and one of the most important findings is the fact that Croatian MSM is not willing in participating the research – the overall response to the survey was very low (17.6%), even lower than it was two years ago (19%)<sup>3</sup> – probably due to the still strong stigmatization of the MSM in Croatia. This implies the much needed risk assessment evaluation in the MSM group.

Knowledge on the possibilities of protection from HIV by using condoms was relatively high, but still we found there is a need for improvement and reaching desired level: we would like that every citizen in Croatia knows the benefits of using condoms.

Although the sample is not representative, we reached the group of similar age to the last research and to the respondent driven sampling research<sup>7,8</sup> (median was 26 and 27 years, respectively). Reaching the middle-aged and older MSM in Croatia remains a challenge for the future researches.

Almost half of the respondents have never undergone HIV testing. Such a low testing rate is very concerning with respect to secondary HIV prevention measures and implies the lack of effective promotion of voluntary counseling and testing among MSM. Still, there is an increase of 5 percentage point in the testing rate comparing to the

**TABLE 2**  
KNOWLEDGE ABOUT HIV/AIDS, HIV TESTING AND SEXUAL  
RISK BEHAVIOR OF CROATIAN MSM IN 2007\* *N*=820, *n* (%)

Ever heard of HIV/AIDS		»The partner did not want to use a condom«	2.8
No answer	1	»Condoms are too expensive«	1.7
Answered	99	Other reasons	3.6
Yes	99.3	Lubricant use during last anal intercourse	
No	0.7	No answer	14.6
Condom is an effective means of protection from HIV		Answered	85.4
No answer	1	Yes	74
Answered	99	No	26
Yes	84.7	Most frequently used lubricants within the last year	
No	11.5	No answer/ not applicable	32.1
Don't know	3.8	Answered	67.9
Undergone HIV testing		Water based lubricant	69.5
No answer	0.5	Body lotion/milk	14.5
Answered	99.5	Vaseline	9.7
Never	48.8	Oil/butter	1.3
Once	24	Something else	5
Several times	27.2	Intercourse with women within the last year	
Type of drug used before sex within the last month		No answer	5.5
No answer/ not applicable	82.2	Answered	94.5
Answered	17.8	Yes	25.5
Marijuana	39.7	No	74.5
Butyl/isobutyl nitrate (poppers)	30.1	Condom use during intercourse with women within the last year	
Cocaine	5.5	No answer/ not applicable	75.9
Amphetamine	13	Answered	24.1
Heroin	1.4	Always	26.8
Some other drug	10.3	Often	4
Condom use during oral intercourse within the last year		Sometimes	12.6
No answer/ not applicable	8.4	Rarely	10.1
Answered	91.6	Never	46.5
Always	6.8		
Often	3.3		
Sometimes	4.5		
Rarely	5.6		
Never	79.8		
Condom use during last anal intercourse			
No answer	15.1		
Answered	84.9		
Yes	53.2		
No	46.8		
Reasons for not using condoms during last anal intercourse			
No answer/ not applicable	56.5		
Answered	43.5		
»Intercourse was not a risky one«	61.9		
»I was overwhelmed with passion and I didn't think«	15.7		
»I did not have a condom with me at that moment«	7.3		
»I don't like sex with condoms«	7		

\*Percentages for »no answer/not applicable« pertain to percentages from the total sample. All other percentages are percentages from the total number of participants who answered the question.

research that was conducted two years ago, which could be provoked by the measures that were taken meanwhile.

In our research, 14% of the respondents used drugs before sex within the last month. Marijuana and »poppers« are used most commonly that is the same result as the one from the former research. As the light drugs use have been shown to be a risk<sup>9,10</sup> for entering into sexual intercourse without protection, additional research and analyses are required to try to identify which subpopulation uses drugs more frequently and aim focused interventions towards those subpopulations<sup>11,12</sup>.

The fact that almost 50% of the overall respondents have not used a condom at last anal intercourse is of great concern. There are many contextual factors that influence the decision to engage in unprotected anal intercourse (UAI)<sup>13,14</sup>. Our results suggest that decision (of

having UAI) was based mostly on the trust into the HIV status of the partner or happened due to not thinking of risk or not finding pleasure in sexual intercourse using condoms which is consistent to the results of other studies worldwide<sup>15,16</sup>.

With respect to condom use, the rate of use a lubricant during last anal intercourse was 74% comparing to 64% two years ago. Furthermore, among those who did use it, 69% used a water-based product with respect to 45% two years ago. It would be of great benefit if this trend continues because inappropriate condom use increases the chance of HIV transmission.

A little less than third of the respondents had sexual intercourse with women in the last 12 months, and only 27% of them regularly used protection. Still, there is some increase in condom use comparing to the research from two years ago when the rate was only 20%. For this reason we can conclude that the so-called bridging population's behavior is very risky and that there is danger of transmitting the infection from MSM into the general population through a heterosexual route of transmission<sup>17,18</sup>.

There are several severe limitations of this survey that prevent as from making any firm conclusions. The main are low response rate and limitations regarding self-administrated questionnaire. Therefore, we need to continue to track the tackled subpopulations for years to have some ideas on trends and changing in risk behav-

iors and partially neutralize the mentioned limitations. Still, the sample size could guarantee some degree of informative value with assumption that types of clients in different venues are stable.

## Conclusion

To conclude, the results of this research suggest that there are trends in declining of some risk behaviors among Croatian MSM but there is a lot of space for focused and effective prevention activities on increasing the risk perception and reducing risk behaviors. Still, the very low response made us disabled from making any firm and statistically significant conclusions. Continuation of this kind of researches (next one is planned in two years) is a high priority for the second generation HIV surveillance in Croatia as the MSM is most affected by the epidemic.

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## **RIZIČNA PONAŠANJA ZA HIV INFEKCIJU MEĐU HRVATSKIM MUŠKARCIMA KOJI PRAKTICIRAJU SEKS S MUŠKARCIMA U 2007. GODINI**

### **S A Ž E T A K**

Istraživanje je, dvije godine nakon prvog ovakvog istraživanja, provedeno s ciljem dobivanja informacija o rizičnim seksualnim ponašanjima u hrvatskih muškaraca koji prakticiraju seks s muškarcima (MSM). U studiju je bilo uključeno 820 ispitanika iz sedam okupljališta MSM populacija u Zagrebu i Rijeci, uključujući jednu web stranicu namijenjenu gay populaciji. Ukupna stopa odziva bila je samo 17,6%, što je za 1,4% manje nego u prvom istraživanju. Učestalost korištenja kondoma pri zadnjem analnom odnosu bila je 53,2%, a 69% onih koji su koristili lubrikant izabralo je adekvatno sredstvo za korištenje s lateks kondomima. Samo 27% ispitanika koji su imali seksualni odnos sa ženama u zadnjih 12 mjeseci redovito je koristila kondom. Rezultati istraživanja ukazuju na trend smanjenja učestalosti nekih rizičnih ponašanja, ali i potrebu za daljnjim ciljanim preventivnim aktivnostima koje bi dovele do porasta percepcije rizika i smanjenja učestalosti rizičnih ponašanja.