

Epidemiological study on the prevalence of HIV and sexually transmitted diseases among men who have sex with men in five regions of the Russian Federation

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Background:

MSM are socially marginalized and highly stigmatized group in Russia, even in a medical community. Tightening laws against LGBT+ people are the reason for the lack of real epidemiological data on the prevalence of diseases in this key group. To fill data gap, a Study was implemented by a NGO delivering HIV related services to this marginalized populations.

Methods:

The "Steps" Foundation together with the Central Research Institute of Epidemiology carried out a biobehavioral study on a cohort of MSM in five regions of Russia in 2021. In addition to taking exams, participants of the Study completed a questionnaire. PCR investigations for the following STIs were conducted in samples obtained from three loci (oropharynx, rectum, and urethra): **N.gonorrhoeae**, **C.trachomatis**, **M.genitalium**, **T.vaginalis**, **T.pallidum**, **HSVI**, and **HSVII**. Serum ELISA tests (rapid testing) were also performed for syphilis, hepatitis B/C, and HIV.

Results:

Totally, 644 MSM participated in the study. Male and female sexual partners were reported by 15% of the subjects. Participants who are not in committed relationships make up about 60% of the sample group. Only 34% of participants, meanwhile, consistently use condoms. Of the 158 (24.5%) individuals, 14 (8.9%) were found to be HIV-positive during the study. 215 (33.4%) participants were diagnosed with STIs. Three quarters of **325** cases of STIs detected were located in the **rectum 166 (51%)**, the **oral cavity 104 (32%)**, and the **urethra 55 (17%)**. There was simultaneous detection of STIs at the three loci in 16% and 4% of HIV-positive and HIV-negative participants, respectively (*Pic.1*). 20% of participants mentioned utilizing psychoactive drugs or practicing chemsex, of which 33% were HIV-positive and 16% HIV-negative (*Pic.2*). The study revealed that substance abuse and HIV status are the risk factors that more than double the likelihood of contracting a STI as shown in a Table 1. A predictor of acquiring a STI is presented in a Figure 1.

Decision Tree Algorithm

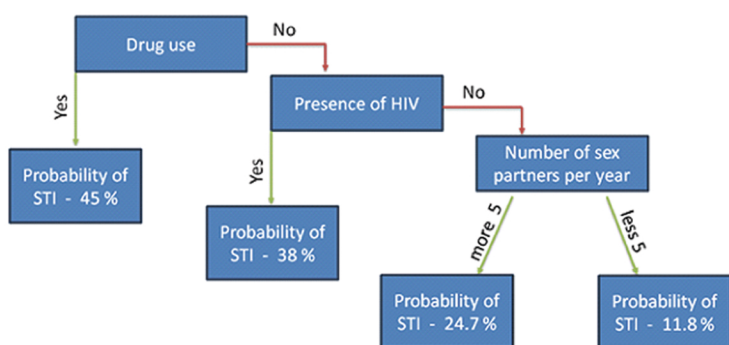
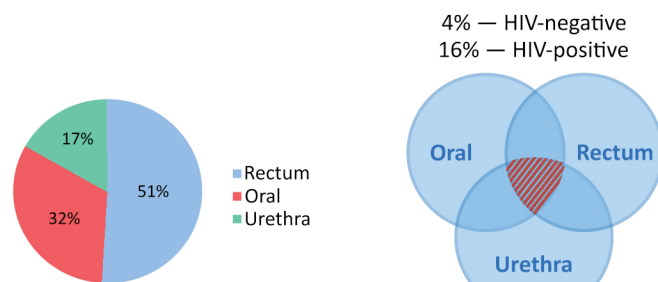
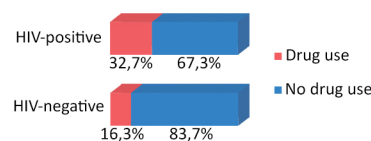


Figure 1. Predictors of having a STI



Pic. 1

Respondents' experience of using psychoactive substances



Pic. 2

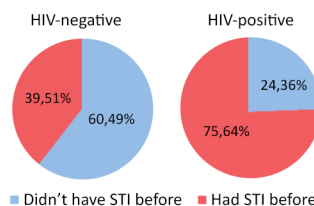
Regression analysis

Not oral infections

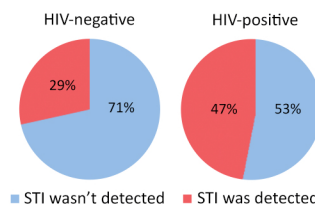
Predictors	Odds Ratios	CL	p
(Intercept)	0.16	0.12 – 0.23	<0.001
Sex partners male [more 5]	1.89	1.25 – 2.88	0.003
Drug use [Yes]	2.05	1.27 – 3.28	0.003
HIV [Yes]	2.33	1.52 – 3.56	<0.001
Observations	540		
R ² Tjur	0.086		

Table 1. Factors that increase a chance of having a STI

Respondents who previously had an STI



Identification of STIs among respondents during the study



Pic. 3

Conclusions:

The three main predictors of STIs among MSM were revealed: substance use, HIV status and a number of sexual partners. A partnership between NGO (Civil Society organizations) and governmental health institutions demonstrates highly effectiveness in terms of implementing studies among marginalized and highly stigmatized groups. Such practices also serve as tools for community integration.



Steps Fund

