

Information of the Population of the Chelyabinsk Region about HIV Infection and the Need for Services Related to the Prevention of HIV Infection

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Keywords: HIV infection, public awareness, Chelyabinsk region, HIV prevention.

Abstract: The article analyzes the data of a sociological study conducted by the authors on the territory of the Chelyabinsk region among citizens who took part in social projects of the Charitable Foundation "Istochnik Nadezhdy". Based on the results obtained, the authors assessed the level of awareness of the population about HIV infection and the demand for services related to the prevention of HIV infection. Based on the results of the work, it was concluded that most of the respondents are sufficiently informed about what HIV infection is, about the ways of infection and what methods of prevention of this disease exist. Based on the results of the study, the authors proposed to conduct more active preventive work among the population of the Chelyabinsk region, as well as to ensure that the population is informed on behalf of medical workers about the level of morbidity in the region, about the main periods of the development of the disease, about the mechanisms of infection and how HIV infection can be transmitted, and where to get free help.

1 INTRODUCTION

AIDS, as one of the most important social problems, arose before humanity at the end of the 20th century. There are currently more than 40 million HIV-infected officially registered in the world (Hongfei et al, 2017).

The very first death from AIDS was recorded by scientists in 1959 in Central Africa.

Later, the conclusion of doctors who studied the medical history of a deceased person recognized that this was the first (zero) recorded case of death from AIDS in the world.

By 1985, the ways of HIV infection were finally identified and officially confirmed - through blood, sperm, breast milk. In the same year, the very first HIV test was created.

Based on this development, the United States of America and Japan began testing all donated blood for HIV for the first time.

In Russia, the first major outbreak of the disease occurred in the capital of Kalmykia - Elista. A worker who served in the navy in 1982 became patient zero. He passed the virus to his wife, and during pregnancy their child was also infected. Immediately after the birth of the baby, they were hospitalized in the hospital, where the baby died before the diagnosis was made. A total of 75 children and 4 adult women were infected in Elista.

In the USSR at the end of the 80s cases of infection of children with the immunodeficiency virus during medical examinations were registered (Elista, Krasnodar, Rostov on Don, Volgograd). The total number of infected people was about 255.

Today Russia ranks 46th among countries in terms of the spread of HIV infection. According to most doctors, the Russian Federation is practically one step away from the HIV epidemic (exceeding the threshold of 2%). In Russia, only according to official data, from 250 to 300 thousand people die from AIDS every year (Fadeeva, 2020).

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The study is devoted to studying the level of awareness of the population about HIV infection and the demand for services related to the prevention of HIV infection.

The purpose of the study is to assess the level of awareness and demand for services related to the prevention of the spread of HIV infection among people who took part in the projects of the Charitable Foundation "Istochnik Nadezhdy".

Research objectives:

— Studying and determining the level of knowledge of the population about the HIV / AIDS disease itself, modes of transmission and methods of treatment.

— Analysis of people's awareness of methods of prevention of the spread of disease.

— Analysis of the awareness of the population about the services that can be obtained as part of preventive measures or in case of detection of a disease.

— Development of recommendations to improve the level of awareness of the population about HIV infection and about services and activities related to the prevention of the spread of HIV infection.

— The object of the research is the persons who took part in the projects of the Charitable Foundation "Istochnik Nadezhdy".

The subject of the research is the level of awareness of the population about HIV infection and the public demand for services related to measures to prevent the spread of HIV infection.

2 MATERIALS AND METHODS

The research was carried out by the Charitable Foundation "Istochnik Nadezhdy" in cooperation with the South Ural University of Technology.

According to the developed questionnaire, in the period June-August 2020, 2100 people who use psychoactive substances and use the services of the Charitable Foundation "Istochnik Nadezhdy" for HIV prevention were interviewed within the framework of the project "Responding to the HIV epidemic in the Urals District, among key groups".

The sample included 2,100 people living in the Chelyabinsk region. Sample type - multistage, serial (gender, age, education level, professional affiliation).

The representativeness of the sample allows us to consider the opinion of the respondents as the opinion of all people who participated in the project of the Charitable Foundation "Istochnik Nadezhdy"

"Response to the HIV epidemic in the Urals District, among key groups" with a statistical error of up to 2.1%.

Questionnaire points of respondents:

1. Outreach exits in Chelyabinsk, Kopeisk and Magnitogorsk. Pedestrian outreach and interviews of respondents using the visits of the Mobile Point.

2. Stationary Prevention Points in Chelyabinsk, Magnitogorsk. These are the branch offices of the Charitable Foundation "Istochnik Nadezhdy".

The methodological basis of the research is modern approaches in the field of organizing sociological research, supported by analytical methods and advanced developments in this area.

3 RESULTS AND DISCUSSION

Today, despite the fact that information is available "in one click", it is very difficult for an ordinary member of society to obtain the most relevant, complete and competent data regarding HIV infection. There is a lot of talk about the human immunodeficiency virus, but most people prefer to bypass this topic, as it causes fear and rejection.

In this regard, we conducted a study aimed at assessing the level of awareness of HIV infection among people who use psychoactive substances and use the services of the Charitable Foundation "Istochnik Nadezhdy" for HIV prevention within the framework of the project "Responding to the HIV epidemic in the Urals District, among key groups".

The most part of the respondents (43%) are between 30 and 39 years old, 24% are between 20 and 29 years old, and those who are between 40 and 49 years old are only 20%.

Men make up the overwhelming majority of 69% of the total number of respondents, and women - 31%. The main part of those who participated in the projects 61% (1045 people) have secondary or specialized secondary education, 283 people have higher education, which is 13%.

Most of the men surveyed (90%) are aware that HIV infection is a serious disease, 91% of the women surveyed agree with them. Only 3% of men and women, respectively, think HIV is a scam and not a cause for concern. Educational activity of the Charitable Foundation "Istochnik Nadezhdy" gave such a high result among the project participants.

If we consider the age of men and women, then the overwhelming majority of the working age of both sexes consider HIV-dangerous disease.

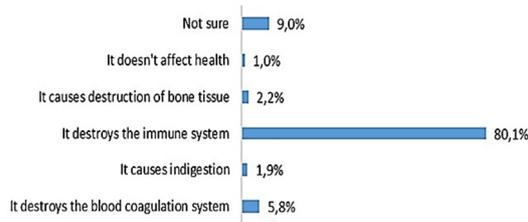


Figure 1: What is the effect of HIV infection on the human body? (in % of the total number of responses).

The most common answer to the question of how HIV infection affects human health was “destroys the immune system” - 80.1% of the respondents chose it. 9% of the respondents found it difficult to answer, and 5.8% named the option “destroys the blood coagulation system”. In principle, the respondents are fully aware of the main factors of HIV infection that affect the human body (see Fig. 1).

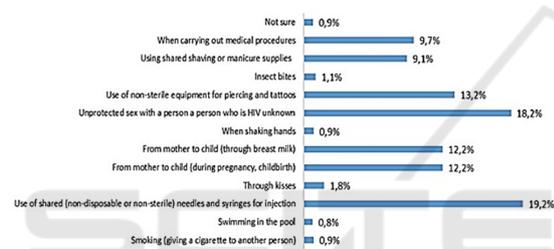


Figure 2. Ways of HIV transmission (in % of the total number of men's responses).

When answering the questions about the known ways of HIV transmission, the opinions of men and women practically coincided (see Fig. 2, 3).

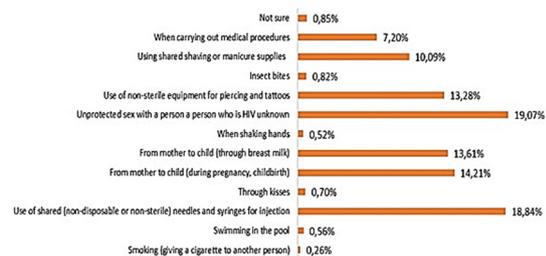


Figure 3: Ways of HIV transmission (in% of the total number of responses of women).

Men and women more often indicated such options as “Use of shared (non-disposable or non-sterile) needles and syringes for injection” - 19.2% and 18.8%, “unprotected sex” - 18.2% and 19.07%, “Use of non-sterile equipment for piercing and tattoos” by 13.2%, respectively.

This fact indicates that most of those who took part in the study are aware of the main ways of HIV transmission. This also suggests that participation in the project has increased the level of awareness of people.

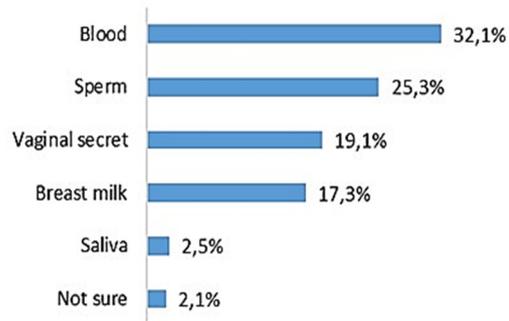


Figure 4: Respondents' answers to the question: “What biological fluids are the most dangerous ones for HIV transmission?” (in % of the number of respondents).

The wrong option "saliva" was chosen by only 2.5% of the respondents. It can be concluded that people who use psychoactive substances and use the services of the Charitable Foundation “Istochnik Nadezhdy” have a fairly high level of awareness about how to get infected with HIV.

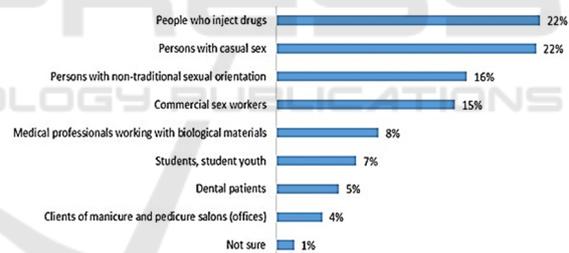


Figure 5: Groups of people with high risk of HIV infection and transmission (in % of the total number of respondents).

The survey participants believe that clients of nail and pedicure salons (offices) (4%) and patients of dental institutions (5%) are least at risk.

Most likely, this is because people do not wonder how manicure instruments are sterilized, whether the master uses professional equipment such as a sterilizer (disinfectant). Or they believe that all masters apply the necessary measures, including those who work at home or in small salons. As for dental institutions, they are medical institutions and must strictly observe all measures to comply with the rules of sterility in order to minimize all possible risks of any infections of clients, including HIV.

In our research, we also asked the respondents: "How can HIV infection be detected in a person?"

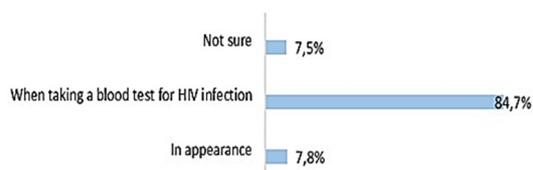


Figure 6: Methods for diagnosing HIV infection (in % of the total number of respondents).

The overwhelming majority of the surveyed project participants, 84.7%, know that in order to find out their HIV status, it is necessary to take a blood test. The special attention of the fund's projects is aimed at informing people how to find out their HIV status, where to turn for help and where they can get free services for the treatment and prevention of morbidity. And only 7.8% of respondents rely on external signs. There is a prevailing stereotype that HIV patients look emaciated or with signs of chronic fatigue on their face, their hair falls out a lot, there are abscesses and acne all over the body, and there is a lack of body weight.

Table 1: Respondents' answers to the question: "Can an HIV-infected woman give birth to a healthy child" (in % of the total number of answers).

| Can an HIV-infected woman give birth to a healthy baby? | Number of respondents, people | Number, in% |
|---|-------------------------------|-------------|
| No, under any circumstances | 203 | 10 |
| Yes, if she takes medications regularly as prescribed by her doctor | 1426 | 68 |
| Not sure | 426 | 20 |
| No answer | 45 | 2 |

Thanks to participation in the project, most of the respondents were able to answer this question correctly. The majority of respondents, 68%, believe that if a woman regularly takes medications, she can give birth to an uninfected child. A pregnant woman with a positive HIV status is monitored by a gynecologist and an infectious disease specialist. Doctors draw up an individual treatment regimen.

Medication prevents the development of the virus, so that with full adherence to the treatment plan, a woman with a positive HIV status can give birth to an absolutely healthy baby.

Table 2: People's answers to the question: "Do you know where, if necessary, you need to go to get tested for HIV?" (in % of the total number of responses).

| Do you know where, if necessary, you need to go to get tested for HIV infection? | Number of respondents, people | Number, in% |
|--|-------------------------------|-------------|
| Yes | 1663 | 79 |
| No | 225 | 11 |
| Not sure | 192 | 10 |

Also, almost the majority of respondents know where to go to get tested for HIV infection. Today, almost all medical institutions (polyclinics, laboratories, medical centers) can take a blood test for HIV infection.

Table 3: Respondents' answers to the question: "If you knew that your friend is HIV-positive, would you stop communicating with him?" (in % of the total number of responses).

| If you found out that your friend is HIV positive, would you stop communicating with him? | Number of respondents, people | Number, in% |
|---|-------------------------------|-------------|
| Yes | 304 | 14 |
| No | 1463 | 70 |
| Not sure | 313 | 15 |
| No answer | 20 | 1 |

HIV-infected people periodically face discrimination, people, when they find out about their diagnosis, stop communicating with them. Health workers sometimes fail to comply with confidentiality requirements and disclose HIV status information. This problem is especially relevant in small towns and villages, where people are afraid to take the test, because the whole community can learn about its results. Employers can force workers with HIV diagnoses to leave.

The majority of those participating in our study, 70%, answered that they would not stop communicating with a person if they found out about his positive HIV status.

Only 14%, namely 304 people out of 2,100 respondents, said they would stop communicating.

4 CONCLUSIONS

Based on the results of a survey of people who use psychoactive substances and use the services of the Charitable Foundation "Istochnik Nadezhdy" for HIV prevention within the framework of the project "Responding to the HIV epidemic in the Urals District, among key groups" in July-August 2020, it can be concluded that most of the respondents are sufficiently informed about what HIV infection is, about the ways of infection and about what methods of prevention of this disease exist.

If we consider the age of men and women, then the overwhelming majority of the working age of both sexes consider HIV-dangerous disease.

Most of the respondents have an idea of how HIV infection affects their health. Most often, the answer to the question of how HIV infection affects human health was the answer "destroys the immune system" - 80.1% of the respondents chose it. 9% of the respondents found it difficult to answer, and 5.8% named the option "destroys the blood coagulation system". The population, in principle, does not fully know all the factors of HIV infection that affect the human body.

When answering the questions about the known ways of HIV transmission, men and women were more likely to mention "Use of shared (not disposable or non-sterile) needles and syringes for injection" - 19.2% and 18.8%, "unprotected sex" - 18, 2% vs. 19.07%. "Use of non-sterile equipment for piercing and tattoos" by 13.2%, respectively.

The majority of the respondents attributed people who inject drugs and people who have casual sex to risk groups, 22%, respectively. The third and fourth places are taken by people with non-traditional sexual orientation (16%) and persons providing commercial sex services (15%).

72% of respondents know that there are drugs for the treatment of HIV infection. Only 9% of the people surveyed do not know about the existence of drugs for this disease

Most of the respondents are aware that HIV infection can be treated, and this disease cannot be cured, but the body lends itself to long-term therapy and, thanks to this, the risk of the infection becoming AIDS is reduced.

Also, almost the majority of respondents know where to go to get tested for HIV infection. Today, almost all medical institutions (clinics, laboratories, medical centers) can take a blood test.

62% of the respondents trust medical workers as a source of information, 58% trust the AIDS Center helpline employees, and 29% trust the media.

Based on the results of the study, recommendations were made:

1. To carry out active preventive work among the population of the Chelyabinsk region.

2. To ensure that the population is informed on behalf of medical workers about the incidence rate in the region, the main periods of the disease development, the mechanisms of infection and how HIV infection can be transmitted and where free assistance can be obtained.

REFERENCES

- Ajong, A. B., Njotang, P. N., Nghoniji, N. E., Essi, M. J., Yakum, M. N., Agbor, V. N. Kenfack, B., 2018. Quantification and factors associated with HIV-related stigma among persons living with HIV/AIDS on antiretroviral therapy at the HIV-day care unit of the Bamenda Regional Hospital, North West Region of Cameroon. *In Globalization and health*. 14. 56.
- Brinkley-Rubinstein, L., 2018. Jail and Prison Populations, Epidemiology of HIV/AIDS. *Encyclopedia of AIDS*.
- Fadeeva, E.V., 2020. Availability of free medical care in Russia: status and issues. *In Sociological Studies*. 4. pp. 94-104.
- Hongfei, D., Chi, P., Li, X., 2017. High HIV prevalence predicts less HIV stigma: a cross-national investigation. *In AIDS Care*. 30(6). pp. 714-721.
- Louchet, M., Didelot, H., Mandelbrot, L., 2021. Frequency of differential placental transfer to twins of maternal antiretroviral medications. *In European J. of Obstetrics & Gynecology and Reproductive Biology*. 256. pp. 405-411.
- Romodina, A. M., 2018. HIV / AIDS: Social aspects of the problem. *In Bulletin of the Council of young scientists and specialists of the Chelyabinsk region*. 2(21). pp. 67-70.
- Thapa, S., Hannes, K., Buve, A., Bhattarai, S., & Mathei, C., 2018. Theorizing the complexity of HIV disclosure in vulnerable populations: a grounded theory study. *In BMC Public Health*. 18(1). pp. 162-167.
- Thapa, S., Hannes, K., Cargo, M., Buve, A., Peters, S., Dauphin, S., & Mathei, C., 2018. Stigma reduction in relation to HIV test uptake in low- and middle-income countries: a realist review. *In BMC Public Health*. 18. p. 1277.