

Monitoring and Evaluation of National HIV Prevention: AIDS Care and STD Control Programs in the Russian Federation

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Introduction

The first HIV case in a Russian citizen was detected in 1987. The population of Russia is 147.1 million persons. From January 1, 1987 to October 15, 1998, 9,980 HIV-infected Russia citizens, including 427 children were registered. One hundred and nine children were born to HIV-infected mothers. AIDS developed in 331 patients, including 115 children. Three hundred and eighteen HIV-infected persons died, including 92 children. Until 1996, the HIV transmission was primarily sexual, with the predominance of homosexual, steadily increasing at 100 to 150 cases per year (excluding the years 1989-1990 when nosocomial transmission took place among children in some southern cities of Russia--271 children were infected). However, beginning in 1996 a dramatic increase of HIV infection cases has been taking place in a group of injecting drug users (IDU). From 1997 until the present approximately 10 to 12 new cases of HIV infection are registered every day. During 1996, 1,542 cases of HIV infection were registered, as many as during nine previous years combined. In 1997, more cases of HIV were registered per week than during the whole of 1995. From the total number of the 9,980 HIV infected citizens today, more than 6,000 persons were infected by injecting drugs.

There are 89 subjects of Russian Federation. HIV infection cases are registered in 72 territories of Russia. Russia has a nascent but concentrated HIV epidemic, as reflected in the high level of HIV cases in the IDU population. The main intervention strategy includes:

- 1) Registration of all HIV infection cases, not only AIDS cases, making early preventive measures possible.
- 2) A united, centralized system of AIDS Centers in Russia (80 territorial, 6 regional, 1 national, and more than 1,000 laboratories). Registration of all HIV infection cases in the national Russia AIDS Center.
- 2) Until 1995, active revealing of HIV-positive persons by compulsory and mandatory testing of 15 population groups. After the adoption of the new Federal Law on AIDS in August of 1995, compulsory testing was prohibited. Presently only 2 groups must undergo mandatory testing: blood donors, and medical personnel working with HIV-infected material and patients. Other Russian citizens can be tested only voluntarily and with counseling.
- 4) Contact tracing/partner notification of each HIV infection case. This allows early prevention and gives valuable data about the modes of transmission. It is always connected with counseling.

Context of the Program: Analysis of Main Events

1985-1987

- During this period the Russian Federation was the USSR - at that time an "iron curtain" existed. Traveling abroad by individuals was rare, the population had a lack of information about other countries, and it was thought that there were no "sex, drugs, homosexuals" in the country. Generally, it was thought that the HIV/AIDS epidemic was developing in African countries and in the United States. National response included preliminary investigations in the USSR involving wide-spread, selective, unlinked anonymous testing of different population groups, including infectious disease patients, STD patients, oncological, hematological patients, students and school-children. These investigations found low levels of HIV-morbidity in the USSR.

1986-1987

- Highlights include selective testing of foreign students studying in Moscow and other cities of the USSR. The first case of HIV infection in a foreigner, an African citizen, was revealed. Since 1987 voluntary anonymous testing existed in the country.

1987

- A first legislative document, a Decree of the Presidium of the Supreme Soviet of the USSR, "Measures of AIDS transmission prevention," was approved.

1987-1988

- The USSR Ministry of Health organized the HIV-surveillance system, developed and introduced a report form on HIV-antibody testing of country citizens, and implemented compulsory and mandatory testing of 15 population groups, including testing of blood donors. As a result, all cases of HIV infection by blood transfusion took place before beginning of blood screening. A special computer system for the analysis of HIV-screening and all HIV-infected cases was developed. The united registration system and analysis of all testing activities in the USSR AIDS Center (later Russia AIDS Center) began. The testing strategy was defined as the Elisa + Western Blot. A wide network of testing was created, giving a clear view of the HIV prevalence in the country, although the cost of testing was very high.
- The training of personnel began - medical doctors were trained in laboratory and clinical diagnostics of HIV/AIDS. This revealed in 1987 a first HIV infection case in Russian citizen by STD doctors (he was tested for HIV-antibodies as a patient, resembling the symptoms of HIV/AIDS - Kaposi sarcoma).
- Each case of HIV infection was investigated epidemiologically. At this time, little attention was given to human rights issues, resulting in some negative consequences for citizenry. Since 1987 contact tracing was undertaken as "partner notification". This method was effective for studying epidemiological peculiarities of HIV infection in homo/bisexual men, as homosexual relations were considered to be a criminal offence, and homosexuals dissembled their sexual contacts.

1988-1989

- A united centralized system of HIV/AIDS prevention was created, AIDS Centers and diagnostic laboratories throughout the country were opened. Due to contact tracing, a nosocomial outbreak of HIV infection in some children hospitals in the south region of Russia was detected. The cause of this outbreak was the use of unsterilized medical injecting equipment. After the outbreak was localized, a verification of infection and sterilization quality through the country, provision with sufficient quantity of single-used syringes, as well as quality of treatment (validity of the injections prescribed to the children) was done. Mother to child HIV-transmission via breastfeeding was recognized.

- During this period of time, an investigation of the risk behaviors, level of knowledge on HIV/AIDS in homo/bisexual men, injecting drug users and students was done with the help of questionnaires, telephone and newspaper interviews, etc.
- The first NGO's were created: "Association for struggle against AIDS" and "Ogoniok-AntiAIDS". These NGOs evolved as a response of the society to the epidemic to solve not only medical, but social problems of people, affected by the epidemic. The "Association for struggle against AIDS" is no longer in existence, but "Ogoniok-AntiAIDS" is still working with the families of the children infected during the nosocomial outbreak.

1990

- A USSR Law "Prevention of AIDS" was adopted.

1991

- Disintegration of the USSR. Different types of contacts with foreigners and visits to other countries increased. It became popular to use drugs, "be sexual", growth of more liberal ideas toward sexual activity and orientation.
- A number of workshops, organized by WHO, for the specialists in laboratory diagnostics and on counseling took place. In spite of the fact that the term "counseling" was new, it was understood early on that contact tracing/partner notification in the country was combined with counseling.

1991

- Changes in Criminal Law: homosexual relations were not punished. This was partly a result of investigations and publications on HIV/AIDS problem. The punishment for the illegal drug use was abolished also. At this time a second increase in the number of drug users occurred (the first increase was in 1987 after the introduction of "dry law" in 1985).

1991-1992

- Russia Aids Center organized workshops on counseling for Russian specialists. WHO organized a series of workshops on sentinel surveillance, which was strongly recommended for Russia. Russian specialists understood that the existing surveillance system could be optimized by reducing the mass testing.

1993

- "Federal special-purpose program for the prevention of HIV infection in the Russian Federation in 1993-1995". It was financed on 42.1 percent from those planned.
- Creation and active work of NGO's: AIDS-infoshare, "Names" fund and some others.

1995

- State Duma approved a Federal Law "On the Prevention of Propagation of the Disease Induced by the Human Immunodeficiency Virus (HIV infection)". According to the Law compulsory testing was prohibited, two groups were defined for mandatory testing - donors and medical personnel, working with HIV-infected patients or materials, other Russian citizens can be tested only voluntarily with counseling. The rights of HIV-infected persons are defined, as well as social support for them.

1996

- Federal special purpose program for the prevention of propagation in the Russian Federation of the disease induced by the human immunodeficiency virus (HIV infection) for 1996-1997 and for the period up to the year 2000 "Anti-HIV/AIDS" was approved.

1996-1997

- The existing surveillance system detected a beginning of HIV infection spreading in IDU. With the support of UNAIDS and "Doctors without Borders" a number of workshops were organized on the prevention of HIV infection in IDU for personnel of AIDS Centers and narcologists.

1998

- The Parliament Hearing on HIV/AIDS problem in Russia took place.

Monitoring and Evaluation of the Implementation of the "Anti-HIV/AIDS" Program

The program consists of a number of sections. The analysis of its activities is presented below:

Legal support of measures for the prevention and control of HIV infection

All activities in the field of prevention and treatment of HIV infection are supported and governed by the Federal Law "On the Prevention of Propagation of the Disease Induced by the Human Immunodeficiency Virus (HIV)," which was approved by the Governmental Duma in February of 1995. The law provides governmental guarantees of regular information for the population about the situation with HIV infection, HIV surveillance, production of preventive and treatment means, availability of HIV testing including anonymous testing accompanied by pre- and post-test counseling. All types of help for HIV-infected persons are offered free of charge. The Law also guarantees human rights of people with HIV, as well as social support for them and their families.

The RSFSR "Law On Sanitary and Epidemiological Welfare of the Population," the central legislation in the Russian Federation regarding the protection of citizen's health, and a few other legal acts in the field of health also help provide the legal underpinning of the AIDS treatment and HIV prevention programs.

Development of a system for informing the population about the available means for the prevention of HIV infection

A number of informative materials were produced including posters, booklets, calendars, badges, and plastic bags. Topical videofilms, videoclips, radio broadcasts were created and disseminated through TV and radio channels. A popular monthly magazine "AIDS and Sex.Health" is published. Regular presentations by leading scientists and public health and epidemiological survey officials, representatives of NGO's concerning the prevention of HIV infection took place (more than 15,000 radio and more than 10,000 TV presentations, about 25,000 articles and interviews were published). Additionally, special manuals for high school teaching staff were produced.

Systematic behavioral and sociological studies, which would allow evaluation of the information of the population and would be statistically reliable, are not conducted in the country due to poor financial support.

Some independent investigations were conducted from 1987, and the main results are as follows:

Knowledge of AIDS

The results of the telephone survey in 1987 showed that 92.8 percent of respondents knew about AIDS from mass media and only one percent from medical doctors. Over 89 percent of respondents answered the questions about the ways of HIV-transmission correctly. In a newspaper survey in "AIDS-info," 97 percent of the 5,018 respondents gave a correct answer about the danger of sexual transmission of HIV (1990).

An evaluation of the knowledge of school-children before and after lectures presented on HIV/AIDS showed an improvement in the knowledge about the factors that have no significance in HIV transmission, and relatively small improvement in the knowledge of true ways of transmission, which were high in both groups. Just over 98 percent of those interviewed mentioned sexual transmission before the lecture, compared to 98.9 percent after the lecture. In addition, before the lecture, 8.9 percent believed that AIDS could be transmitted by mosquitoes, compared to only 2.8 percent after (1990). The same studies found that knowledge is not strongly correlated with sexual behavior and that the behavior of persons at high risk of exposure does not change significantly in relation to the information received by mass media. Seventy five percent of respondents in the telephone and newspaper surveys did not associate their own behavior with the risk of infection.

Knowledge about AIDS was studied not only in youth and the general population, but also in persons engaging in high risk behaviors: homosexuals, intravenous drug users (IDU) and sex workers. The survey of homosexual men showed, that while 81.2 percent named the preventive measures correctly, 64.8 percent never used condoms. Forty six percent stated that their behavior had not change even though they had more information about AIDS. The survey of IDU, conducted in different periods of time, showed that before HIV infection began to spread in this population, 68.4 percent of drug users considered that there is no risk of HIV infection. After the outbreak in 1996-1997 (according to the results of rapid situation assessment in 30 territories of Russia), contradictory data were received. In some regions of Russia, 60 to 72 percent of the interviewed drug users thought there was no or little risk of HIV transmission through shared needles, or they never thought about it. Seventy six percent of IDU interviewed in Moscow stated that they were fearful of becoming infected. A survey of prostitutes working on Moscow streets showed a high level of knowledge about the ways of HIV-transmission. More than a half of prostitutes interviewed never regretted having used a condom. One-fifth agreed to work without a condom for additional money (1997).

Condom Availability

Information about the availability and use of condoms is limited. In 1992-1994 a network of drug stores in Moscow possessed a great number of cheap condoms, but they were not much in demand because the sexually active youth visited drug stores very seldom. At the same time, commercial kiosks sold imported condoms of unknown quality for relatively high prices. Production and availability of condoms at the national level was not adequate for mass distribution or use. It is interesting that at that time, mass media advertised home-produced condoms as absolutely unsuitable things, although neither home-produced nor imported condoms were tested in Russia. Anecdotal evidence shows that the purchase of condoms can be difficult for many people because of restrictive ideology around sexual activity. Condoms are sold today in vending machines at various sites. In 1998 condom vending machines and visual aids on STD prevention were placed in Moscow nightclubs, casinos, disco clubs, restaurants, cinemas, airports, etc. Ability to use condoms properly has also been found problematic. Results from a recent survey by the Russia AIDS Center found that 12 percent of respondents put a condom on just prior to ejaculation, but not during all sexual intercourse.

Condom provision in Moscow improved through 1995, but the accessibility of condoms still cannot be considered satisfactory. The study conducted in Moscow showed that 97 percent of Moscow drug stores, 88 percent of drug kiosks in metro, 20 percent commercial shops and 18 percent of kiosks in hotels sold condoms. As drug stores are not open during the entire week, condoms were not available on holidays or at night. The price for one condom was from 280-2,900 and from 1,000 to 6,600 Rubles. Condoms were often sold in multiple packages, thereby raising the purchase price to 17-120 Rubles. In comparison with the minimum salary in Russia of 57,000 Rubles, condoms are not easily afforded by lower income segments of the population, including students.

Sexual Behavior

According to the data of the "White House" more than 30 percent of urban teenagers and more than 50 percent of teenagers in rural regions (17 to 18 years old) had had an "experience of sexual intercourse." Studies conducted in the Saratov region confirmed the contemporary tendency of early initiation of sexual relations: 34.6 percent of examined girls-adolescents have sexual relations. The majority first had sexual intercourse between the ages of 15 and 16, but 18.2 percent had experienced sexual intercourse before the age of 15. Just over 90 percent of the adolescents interviewed considered the ages of 14 to 18 to be acceptable for the first sexual intercourse, 56.1 percent accept sexual relations before marriage.

Every fifth mother (21.9 percent) does not condemn sexual relations before marriage. Over 26 percent of those interviewed consider prostitution to be prestigious work, and 50.1 percent said they did not condemn women who are sex workers.

As can be seen from the above information, the level of knowledge in the Russian population about avenues of HIV- transmission and preventive measures is rather high. Despite the increased availability of condoms in the most of Russian cities, this information does not result in behavior changes to reduce risk of exposure. Moreover, there is a trend in earlier onset of sexual activity, a liberal attitude toward sexual morality, a striving for a "free" lifestyle, and transient casual sexual contacts. Behavior that some time ago was considered to be shocking is now not only not condemned, but even becomes an example for imitation (prostitution, drug use, sexual relations before marriage).

Improvement of epidemiological surveillance of the propagation of HIV infection, of State control over implementation of preventive and anti-epidemic activities

HIV-surveillance in Russia started in 1987. It is original and has no foreign analogs. The main interventions and features of the surveillance are described in the introduction. The surveillance system in Russia was rather effective both for determining the level and trends of HIV infection, by time, mode of transmission, place and for determining outbreaks. Full analysis of HIV infection morbidity is given in tables 1,2,3.

However, the evolution of socio-economic processes in the society and the particular characteristics of the HIV epidemic in Russia call for revision and improvement of HIV-surveillance. Under development are plans to develop and introduce methodological instructions for HIV-surveillance, to prepare and disseminate analytical reviews of the epidemiological situation, to develop and implement an integrated computer based information-analytical system of monitoring of HIV-epidemic, and to provide AIDS Centers with computer and copying equipment. Means of telecommunication to allow the operation of the integrated computer system are also planned.

In addition to the constant analysis of HIV infection prevalence, analysis of STD and viral hepatitis prevalence and incidence are also done.

STD Epidemics

At the present time in Russia, there is an unfavorable situation with STD. Beginning in 1989, the number of STD cases has increased in both the general population and in adolescents and children. In 1997, more than 1.8 million new cases of STD were registered. The rate per 100,000 population was 1,293. Syphilis morbidity is particularly worrisome. At 265.3 cases per 100,000 of population, it has increased 60 times over 1989 levels. In 1997 more than 392,600 syphilis cases were registered. Syphilis cases in children increased 77 times, including an 8.8 fold increase in congenital syphilis. The gonorrhea morbidity is rather high: 108.6 per 100,000.

In 1990, the syphilis to gonorrhea ratio was 1/7 ; today it is 2/1. The decrease of gonorrhea cases against syphilis can be explained by the fact that the number of cases is underregistered due to self-treatment or treatment in private sites without registration and reporting. Among other STD's, the highest levels ever of urogenital candidiasis (185), gardnerelosis (153), and chlamidiasis (162.2) are registered. The economic loss due to treatment and inability to work is more than 1.5 billion Rubles.

Viral Hepatitis

The number of hepatitis B cases per 100,000 population increased from 17.9 in 1991 to 35.7 in 1997. The state registration of hepatitis C started in 1994. Since that time, the number of cases per 100,000 increased from 3.1 to 7.6. In some regions there are difficulties with laboratory diagnostics of hepatitis C. A high rate of hepatitis B and C in the age group 15- to 30-year-olds is due to drug injecting. 90 percent of patients in the departments for hepatitis treatment are IDU's. Sometimes nosocomial outbreaks are registered. In 1995, 35 nosocomial outbreaks were registered, with a total number of 1,150 persons infected. Today the proportion of hepatitis of medical origin is 17 percent.

Drug Use

Since 1985, there has been a dramatic increase in the number of drug users. It is estimated that in 1998 there are two million drug users as compared to 600,00 in 1990.

These epidemics developing in the country indicate the absence of effective preventive programs both for the whole population and for risk groups.

Ensuring the safety of medical interventions, donated blood, medical immunobiological products, biological fluids, organs, tissues

Since 1987, all donated blood is tested for HIV-antibodies. Blood sample positive in Elisa is rejected as defective, and the person is removed from donors. Between 1987 and 1990, nine HIV-positive blood recipients were registered. They were infected before 1987--before the beginning of blood screening. Between 1996 and 1998, new cases of infection by blood transfusion were registered. Three recipients were infected by a blood transfusion from a donor in a "seronegative window", and two persons got infected blood due to criminal negligence of medical workers. Not a single case of nosocomial infection or infection of medical staff has been registered during last nine years. There is a system in the country for teaching medical personnel about safety measures; tests of their knowledge is a component of this training.

Improvement of HIV infection diagnosis and management

By May of 1989, a system of HIV-prevention was created in Russia, including a network of settings (AIDS centers) for diagnosis, treatment and prevention of HIV infection. Now this system includes Russia Scientific-Methodological Center (Moscow), Russia Clinical Center (St. Petersburg), six regional, 80 territorial, more than 1000 laboratories, and more than 250 settings for anonymous testing. Home-produced test-kits were developed and are now used in Russia. "Timazid" (Russian AZT), which is less toxic than foreign analogs, is also used. The existing system allows early revealing, treatment, care and social and psychological support of HIV-infected persons. All treatment for HIV-infected persons is free. Due to a poor economic situation, antiretroviral therapy is not available throughout the whole country. All medical help is confidential, is guaranteed by the Law on AIDS, and can also be anonymous.

Counseling

Counseling began in Russia in 1987 and was combined with contact tracing. It consisted of post-test for HIV-positive persons, pre-test counseling for their partners, and "crisis" counseling for HIV-positive persons. Counseling took place in AIDS Centers and at other sites for anonymous testing. Since 1995, counseling became a necessary component of testing by law. However, counseling services in Russia are not satisfactory. Investigations in some regions of the country showed that only from two to ten percent of those tested received counseling.

Training of health workers

There are more than 50 medical universities in Russia, including 12 post-graduate institutes. In all the programs, instruction on HIV are included.

Research and Evaluation

A great deal of scientific research in different fields on the problem of HIV is done in the country, as well as in conjunction with international cooperation. PI Indicators are not used for the analysis of the effectiveness of the preventive program. The system of medical help in Russia, including the system of HIV surveillance and the systems of STD and infectious disease do not include use of WHO prevention indicators. Program effectiveness is evaluated only by the HIV infection morbidity

The Role of Donor Assistance

A number of activities are sponsored by different donor organizations: workshops, preventive programs, conferences and some behavioral studies. Due to a poor economic situation in the country these activities cannot continue without donors.

Conclusion

The main strengths of the monitoring and evaluation of the program include a united centralized system of AIDS Centers, which allows for monitoring and evaluation on the basis of annual reports of AIDS Centers. Each report has information about activities in surveillance, counseling, prevention, treatment, training of medical staff, etc. The data on activities can be analyzed on the national level, or broken down by site, territory, or region.

One of the weaknesses of the program is that behavioral studies are not conducted on a regular basis, nor are they used in the evaluation of the program. In the future, regular social studies and their use in evaluating AIDS treatment and HIV prevention programs are planned.