

Introduction of Second-generation HIV Surveillance Guidelines in some Newly Independent States of Eastern Europe

Report on a WHO Meeting

St Petersburg, Russian Federation
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ABSTRACT

The explosive character of the HIV epidemic in eastern Europe demands the introduction of a more sensitive and more flexible system of surveillance. This should be capable of monitoring the ways in which the virus is transmitted and the factors that facilitate it, and offer the possibility of predicting new ways of transmission, new vulnerable population groups, and new areas of HIV spread. WHO, in cooperation with UNAIDS, has developed recommendations for such a type of second-generation HIV surveillance. As a result of the adoption of these recommendations, three new elements related to HIV surveillance will be introduced: sentinel surveillance for HIV prevalence, behavioural surveillance, and surveillance for sexually transmitted infections (STI). The main aim of the new system is more efficient data collection and analysis. The ultimate goal is more precise monitoring of the epidemic and tailoring actions of its prevention and control. The participants exchanged information on practical aspects of the current surveillance system in countries of eastern Europe, discussed and agreed on the technical issues of introducing second-generation surveillance, and developed recommendations for the development of national country-specific protocols for introducing and coordinating surveillance.

Keywords

HIV INFECTIONS – epidemiology
ACQUIRED IMMUNODEFICIENCY SYNDROME – epidemiology
EPIDEMIOLOGIC SURVEILLANCE
GUIDELINES
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CONTENTS

	<i>Page</i>
1. Introduction.....	1
2. Objectives of the meeting.....	1
3. Review of the epidemiological situation and the experience of the HIV/AIDS surveillance systems.....	2
3.1 Review of the epidemiological situation on HIV infection and AIDS in Europe and in particular countries.....	2
3.2 Review of national experience on HIV/AIDS surveillance.....	3
3.3 HIV surveillance as a part of the harm reduction projects supported by the organization “Doctors without borders”.....	4
3.4 Sentinel secondary surveillance and harm reduction projects in central Asia and Armenia.....	6
3.5 Making HIV prevalence and AIDS estimates.....	7
3.6 Discussions about HIV surveillance in small groups.....	8
4. Behavioural surveillance.....	8
4.1 Methods of the behavioural and sentinel surveys.....	8
4.2 Behavioural surveillance and sentinel surveillance for HIV/AIDS in the countries.....	9
4.3 Discussions of behavioural surveillance in small groups.....	10
4.4 Demonstration of CD-ROM with information on second-generation HIV surveillance.....	10
5. Surveillance of sexually transmitted infections (STI) as a component of second-generation HIV surveillance.....	10
5.1 Surveillance of STI and HIV infection: advantages and disadvantages of the existing system in the Russian Federation.....	10
5.2 STI surveillance as a component of second generation HIV surveillance.....	11
5.3 Discussion on STI surveillance in the countries participating in the meeting: experience, problems, syndromes diagnosis, laboratory support.....	11
5.4 Suggestion for national protocol and guidelines development.....	12
5.5 Discussion of suggestions for a national protocol on HIV/AIDS/STI surveillance in small groups.....	13
5.6 Discussion of the conference draft recommendations.....	13
Annex 1. Participants.....	15

1. Introduction

The World Health Organization (WHO), in cooperation with the Joint United Nations Programme on HIV/AIDS (UNAIDS), has developed recommendations for second-generation HIV surveillance. As a result of the introduction of the recommendations, three new elements related to HIV surveillance will be introduced: sentinel surveillance for HIV prevalence, behavioural surveillance and surveillance for sexually transmitted infections (STI). The main goal of the new system is more efficient data collection and analyses and the use of the data by the national and international system for more precise monitoring of the epidemic and tailoring the actions of its prevention and control.

The main features of second-generation HIV infection surveillance include:

- Utilization of the lessons and experience of the previous two decades of HIV surveillance, improving efficiency and widening the scope of the existing national surveillance systems.
- Tailoring of a more flexible surveillance system to the needs and state of the epidemic (such as low-level epidemic, concentrated epidemic affecting primarily some groups of population, and generalized epidemic with spread of the infection among the general population) to the real epidemiological situation in various countries and to the available resources.
- Improving the integration of HIV biological surveillance (HIV/AIDS reporting, HIV surveillance) with behavioural risk surveillance (monitoring trends in behaviours or using STI data as indicator of behavioural change).
- Supporting continuous research into new epidemiological tools, improved methods for building estimates and modelling the epidemic, and better ways of using data for advocacy, planning, monitoring and evaluation purposes.

2. Objectives of the meeting

1. To exchange information of the current surveillance system for HIV infection in selected countries of central and eastern Europe and to ascertain whether it is able to reflect the real epidemiological situation.
2. To define the current problems in HIV surveillance which needs to be addressed and solved such as for example the inability to predict the areas, population groups and time for further outbreaks of HIV infection.
3. To exchange information on feasibility of sentinel surveillance studies to be introduced in each peripheral level of the epidemiological structures.
4. To get agreement on the steps for introduction of second-generation HIV surveillance including sentinel HIV surveillance and behavioural surveillance for risk factors facilitating the HIV epidemic.
5. To develop a protocol for each participating country on the steps to be taken at national level in introduction of second-generation HIV surveillance.

The participants were the national experts directly responsible for the national HIV surveillance and for STI surveillance from the most affected counties of eastern Europe (Armenia, Belarus,

the Republic of Moldova, the Russian Federation, Ukraine) as well as behavioural surveillance scientists who guide the national AIDS control programmes in promoting behavioural surveillance in relation to the transmission of HIV and other sexually transmitted infections. The meeting was facilitated by national and international experts.

3. Review of the epidemiological situation and the experience of the HIV/AIDS surveillance systems

3.1 Review of the epidemiological situation on HIV infection and AIDS in Europe and in particular countries

In Europe, the AIDS incidence has decreased since 1996 after the peak in 1994 (26 412 cases) due to introduction of antiretroviral therapy. In 2000, 10 415 cases were diagnosed. The notified incidence of AIDS in these countries reflects the character and the way of transmission of HIV infection 10–12 years ago. In these countries the proportion of newly diagnosed cases acquired through homosexual route of transmission is decreasing with years but the proportion of cases through injecting drug use (IDU) is increasing as well as heterosexually transmitted AIDS. During the last few years there has been a significant intensification of the epidemic process in some countries of eastern Europe. In the Russian Federation at the end of 2000 the cumulative number of reported cases of HIV infection was equal to 86 249, in Ukraine 36 600, in Estonia, where only few cases of HIV infection was reported before 2000, in the year 2000 alone 390 new cases of HIV infection were discovered. In the Russian Federation, Belarus, the Republic of Moldova, and Ukraine the HIV transmission was predominantly among injecting drug users (IDUs). A significant increase of syphilis incidence has been observed in countries of eastern Europe and central Asia. The high incidence of syphilis is an indicator of the possible sexual route of HIV transmission. In Europe among the 13 registered opportunistic infections associated with AIDS tuberculosis is in third place. There is evidently a need for development and realization of a coordinated programme on prevention of HIV/AIDS and tuberculosis (Dr A. Gromyko).

Armenia. Since 1988 the cumulative total number of HIV infections registered up to 31 May 2001 was 153: 115 were male (75.2%), 36 female (23.5%) and 2 children born by HIV-infected mothers (1.3%). Most of the HIV-infected persons (79.1%) are 20–39 years old. Twenty-eight AIDS cases were registered; 16 persons died from AIDS. The route of transmission among registered HIV cases was predominantly heterosexual (43.8%) but during the last few years transmission among IDUs (43.8%) has become more prominent (Dr R. Ohanyan).

Belarus. 3587 HIV infections have been registered in the country from 1987 until June 2001 including 308 cases diagnosed in the first half of 2001. The majority of cases were diagnosed in 1996 (122 230 cases) mostly in the city of Svetlogorsk. HIV has been spread mostly among IDUs. Social status of the patients: persons without any fixed term job. There is a notable increase of HIV in penitentiary establishments (Dr O. Zdanovskaya).

Republic of Moldova. The first cases of HIV infection have been identified in the Republic of Moldova in the second part of the 1990s. As of 1 June 2001, a cumulative total of 1294 cases of HIV infection have been notified in the country; AIDS has been diagnosed in 33 patients, 24 of whom have died. Cases of HIV infection have been notified from all administrative territories of the country. The incidence of HIV infection per 100 000 population is 28.18. From the total number of infected persons 83% are IDUs. The role of sexual transmission of HIV has been increasing significantly during the last few years, primarily due to the commercialization of sex

and growing prostitution, unlawful trafficking of young women abroad for sex work and a growing incidence of STI. 95% of infected persons are in the age group 15–40 years (Dr S. Gheorghita).

Russian Federation. Since the beginning of the epidemic as of 1 April 2000, the country has reported a cumulative total number of 122 000 cases of HIV infection. During the first five months of 2001 more than 35 000 new HIV-infected were reported, including 1541 paediatric cases. The cumulative number of AIDS cases in the country is equal to 710. 96% of the infected persons are IDUs. The most dominant age group among infected persons is the 15–25-year-old age group. The HIV epidemic in the Russian Federation can be referred to as a concentrated epidemic (Dr E. Dubitskaya). The epidemic spread of HIV infection in the Altai region of the country reflects the situation in the country as a whole. The predominant group of HIV transmission in Altai is also IDUs (Dr L. Sultanov). In Siberia in the Irkutsk region the first case of HIV was reported in 1991. Up until 1998 only single cases were registered annually. In 1998 the first outbreaks of HIV infection in the region were detected among IDUs. In 1999 a real epidemic started among this group of population. In the year 2000 more than 4500 new cases of HIV infection were detected. In the first months of 2001 the region reported 2500 new cases most of which are concentrated in Irkutsk city. Afghanistan and Chechnya are the main suppliers of narcotic drugs (Dr Y. Rakina).

Ukraine. The first cases of HIV infection in Ukraine were reported in 1987. By the end of that year 81 cases were recorded: 6 cases among Ukrainian citizens and 75 cases among foreigners. The spread of the HIV infection in the country up until 1994 had a rather sporadic character. Most of the cases were acquired through sexual route of transmission, predominantly through heterosexual route. By the end of 1994 the first cases of HIV among IDUs were detected in the country in Nikolaev city, in 1995 in Odessa city. By the end of 1997 no region in the country was free from HIV infection. But in 2000–2001 the proportion of new infections acquired through sexual route of transmission has been increasing. The percentage of women among infected persons is also increasing as well as the number of children born with HIV infection (Dr L.Bochkova).

3.2 Review of national experience on HIV/AIDS surveillance

Armenia. The epidemiological surveillance in the country is the responsibility of the national public health service. In the last two years certain elements of second-generation HIV surveillance have been introduced among particular vulnerable groups such as IDUs, pregnant women coming for abortion, female sex workers, and prisoners. However, this kind of surveillance has not been widely introduced. So far 548 persons from such groups have been tested for HIV. Behavioural aspects of population have not been studied well. Sentinel surveillance will be introduced in a more wide scale (Dr R. Ohanyan).

Belarus. Surveillance for HIV was initiated in 1987. Annually more than 200 000 persons have been tested for HIV. During the last few years, however, the scale of testing and the number of population groups to be tested has been diminished. HIV surveillance is based mainly on sentinel surveillance among certain population groups as a part of the regular medical examinations. During the last few years sociological and behavioural research surveys have been initiated. However, these surveys are not part of the well planned behavioural surveillance and their results are not adequate for a proper prognosis of further spread of the HIV infection or for targeting the preventive interventions (Dr O. Zhdanovskaya).

Republic of Moldova. HIV surveillance was established in 1987. During the last two years some elements of second-generation surveillance were initiated such as a study of HIV prevalence among IDUs, prisoners, STI patients, pregnant women, and women coming to the gynaecological clinic for abortion. HIV surveillance is being implemented in an integrated way with STI surveillance (Dr S. Gheorghita).

Russian Federation. The HIV surveillance is based on obligatory testing of blood donors and registration of AIDS cases as well as HIV-infected persons (Dr E. Dubitskaya). The advantage of the current surveillance system is its well organized reporting mechanism from the peripheral level to the Federal Centre. Some drawbacks of the system are absence of linkage with the STI surveillance, surveillance for drug use phenomenon and tuberculosis. Socio-epidemiological monitoring of the situation is also a weak point in the HIV surveillance. Elements of the sentinel surveillance are being gradually incorporated among IDUs, prisoners, and STI patients (Dr Y. Rakina). Wide testing of the population, often undertaken against the existing law, basically covers those persons who need not to be tested and it does not reach the marginalized population groups. Testing is often being done without preliminary informed consent and does not allow making any prognosis on the further development of the epidemic. Socio-behavioural surveys are not standardized and do not allow monitoring the trends. Introduction of the sentinel surveillance is very important during the first stage of the epidemic which with the correct approach and adequate representation of the selected cohorts will allow to make a prognosis for the future development of the situation and to take strategic decisions on monitoring the problem and to assess the impact of the preventive programmes for the change of the situation (Dr T. Smolskaya).

Ukraine. HIV epidemiological surveillance was initiated in the country in 1987. The surveillance initially was based on the official reports. The current surveillance system is not adequate and does not reflect the real epidemiological situation in the country since only about 10–15% of the real number of HIV-infected persons are being reported. The surveillance system requires an improvement. The sentinel surveillance was first introduced in Odessa city among IDUs, then in 1998 in Poltava city among female sex workers, pregnant women, and TB patients (Dr L. Bochkova).

3.3 HIV surveillance as a part of the harm reduction projects supported by the organization “Médecins sans Frontières”

Dr Lizz Frost

Disadvantages of the existing surveillance system

The current system of case detection and contact tracing is rather limited being focused on description of the epidemic, registration of new cases of HIV infection (annual and cumulative incidence), number of infected children and deaths.

Rationale for the sentinel HIV surveillance

Given the rapid increase of HIV cases among IDUs, there is a need for specific data that would help to make decisions, provide prevention and treatment of IDUs, and show trends, risk groups, and behavioural risk. Data collection should reflex the trends of the epidemic.

There is a need to establish independent sentinel surveillance, which could be implemented within the framework of harm reduction programmes. This would be the first step in creating a new HIV surveillance system in the Russian Federation. The sentinel surveillance would strengthen prevention and treatment and suggests:

- universal indicators for monitoring and evaluation;
- standardized variables to measure behavioural risks;
- generally accepted practice of unification of the information received;
- exchange of information through the net of harm reduction programmes that serve as sentinel surveillance sites.

Sentinel sites

More than 40 harm reduction programmes are under implementation in the Russian Federation. IDUs are the target group for interventions. Harm reduction programmes reach the groups with the most risky behaviour when the traditional surveillance system has no access to these groups. Harm reduction programmes collect data on risky behaviour and HIV trends for planning of its own interventions. However, the data collection is limited, the data is isolated, not standardized, and thus cannot be used for comparison purpose.

Goal

To improve the data collection on HIV cases, behavioural risk and groups of risk, and access to this information in the Russian Federation.

Aim

To create a net of independent sentinel surveillance sites based on the existing harm reduction programmes in a given city or region in the Russian Federation.

Activities

1. Sentinel sites/participants fill in standard reports regarding current situation using universal indicators.
2. United Russian Federation sentinel surveillance report compiles the data from all received reports.
3. United report will be published twice a year in the Russian and English languages and will be distributed among sentinel surveillance sites, local, federal, and international organizations.

Sources of information – sentinel surveillance sites

Sentinel surveillance sites exist within the harm reduction programmes on a voluntary basis.

Biological data to collect

- Information on registered HIV cases – from regional AIDS centres, sentinel surveillance on IDUs, prisoners, STI patients, pregnant women, etc.
- Data on STIs and hepatitis B
- Data from clinics for drug users (number of IDUs registered).

Behavioural data

- Testing of certain risk groups population
- Monitoring and evaluation within the framework of harm reduction programmes
- Sociological data from sociological facilities
- Infectious hospitals and clinics for IDUs
- Independent organizations.

Other sources

- Data from police offices
- Programme reports
- Governmental juridical organizations on punishment.

3.4 Sentinel secondary surveillance and harm reduction projects in central Asia and Armenia

Dr Busel

A national policy on prevention that would have been based on the real data and governmental support does not exist in central Asian countries where the dynamic of an epidemic is observed. Given this environment the response on epidemic will reflect some population groups and will rely on technical and financial assistance of the international community. Prevention of epidemic generalization as well as provision of sufficient care for HIV/AIDS patients is doubtful without formulated national response.

Studying the problem in depth and consolidation of the efforts to combat an epidemic in the region has been decided. The study should be based on a reliable situation analysis, determinant factors, advantages and barriers to minimize the possible consequences of the epidemic. Existing surveillance systems have been used as a basis to solve the following tasks:

1. The earliest possible discovery of the epidemic.
2. Determinant factors and perspective for HIV dissemination.
3. Adequate interventions planning.
4. Policy decisions and mobilization of the international and national resources to support epidemic struggle strategy.
5. Monitoring and evaluation of an effectiveness of current prevention activities.

However, existing surveillance systems have some weaknesses:

- Registered cases of HIV/AIDS are the only basis for the surveillance.
- The surveillance means regular serological tests of general population.
- Limited access to the target groups, absence of risk behaviour data is observed.
- Population mentality serves as a barrier in open discussion of existing problems.

A need to create local surveillance systems was observed. Given the low level of the HIV epidemic in central Asian countries, newly created local surveillance systems included the following:

- assessment of IDUs number and behaviour;
- assessment of youth sexual behaviour and behaviour regarding drug use;
- sentinel surveillance in the IDUs group;
- HIV cases analyses;
- STIs and injection-related hepatitis.

Data collection methods corresponded to undertaken activities. Socio-demographic data was part of the surveillance system. Created surveillance systems served two time specific tasks.

First – to develop prevention programmes, to advocate and to disseminate information in the society

Second –to implement preventive programmes, to determine trends, to monitor, evaluate and adapt activities.

Questionnaires and focus groups research were used for behavioural surveillance, and anonymous unlinked test of remained blood in the syringes or test of blood taken with another purpose was used for biological sentinel surveillance. Research was conducted in the cities with a big number of the target group population: Tashkent, Uzbekistan (1998), Dushanbe, Tajikistan (1999), and Yerevan, Armenia (2000). Research results show effectiveness of the sentinel surveillance systems in receiving information for planning and correction of the preventive activities, for advocacy in government, for mobilization and concentration of the resources.

3.5 Making HIV prevalence and AIDS estimates

Dr Lazzari

The AIDS morbidity in Europe with its highest level in 1994 (26 412 cases) started to decrease since 1996, the time of HAART (highly active antiretroviral therapy) introduction. In the year 2000, 10 415 cases of AIDS were registered. Programmes on HIV transmission prevention have been very successful in many European countries except Portugal. HIV transmission by heterosexual contacts has started to increase recently and so has the number of HIV-infected women. Tests of pregnant women and HIV prevention among the newborn have decreased the level of HIV among the newborn.

Existing surveillance systems are based on obligatory data collection. In accordance with WHO recommendations no immediate interventions should be undertaken in comparison with other infections. This should determine the registration system. Local authorities in different countries determine whether registration should be obligatory or voluntary. One of the weaknesses in the existing surveillance system is the impossibility to provide prevalence data on HIV/AIDS, key information that is demanded by governments, health care systems, mass media, and population. Total screening of certain population groups or the general population is costly and thus unacceptable. At the same time HIV prevalence data is a tool to assess the real situation regarding HIV/AIDS in a country. This data is used for programme planning, resource distribution, and for educational activities. Prevalence data is also important for epidemic model development, which allows estimating AIDS morbidity and mortality.

Three different epidemic states are observed in the dynamic of an epidemic.

Low-level: HIV prevalence has not consistently exceeded 5% in any defined sub-population, such as IDUs, men that have sex with men (MSM) and commercial sex workers (CSW). In the countries with low-level epidemic sentinel surveillance should cover sub-population with risky behaviour.

Concentrated: HIV prevalence consistently over 5% in at least one defined sub-population. HIV prevalence is below 1% in pregnant women in urban areas. Sentinel surveillance should be continued in sub-populations with risky behaviour, urban population should be under observation.

Generalized: HIV prevalence consistently over 1% in pregnant women. In addition to sentinel surveillance in urban population and in one of the sub-population groups with risky behaviour, the rural population should be under observation.

3.6 Discussions about HIV surveillance in small groups

Group 1	Group 2	Group 3
S. Lazzari	Y. Kobyshcha	A.P. Busel
S. Gheorghita	V. Calistru	L. Frost
O. Zhdanovskaya	A. Navrotski	V. Dobrjanskij
S. Yanch	R. Ohanyan	L. Bochkova
S. Molochko	L. Kalioujnaia	D. Ostrovskij
O. Balakireva	E. Dubitskaya	J. Rakina
E. Buravtseva	V. Tretyakova	L. Sultanov
T. Smirnova	A. Pimenov	
N. Semenova		

Information needed for the interventions development programmes has been presented in the small groups reports. It included socio-demographic data of a country, prevalence data and situation analyses regarding HIV/AIDS, STIs, drug use, hepatitis B and C, tuberculosis in the general population and in sub-population groups with risky behaviour. There is a need for information on prevention programmes and their effectiveness, on resources availability and possibility to mobilize them. Official statistic data, data from nongovernmental organizations (NGOs), surveys and reports of the international organizations, and results of social scientific researches were named as valuable sources of information.

Governmental centres for epidemiological surveillance, registration of all HIV cases as well as all AIDS cases were mentioned as strength of the existing surveillance system. Limited integration of STI surveillance, HIV surveillance, behavioural surveillance, absence of population behaviour monitoring, violation of human rights as well as absence of the reliable data for evaluation of interventions effectiveness, were named as weakness of the system.

4. Behavioural surveillance

4.1 Methods of the behavioural and sentinel surveys

Dr Jenkins

Dr Jenkins presented a topic on behavioural surveillance within the epidemic of HIV/AIDS and syphilis. The goal of the survey was to monitor behaviour changes and evaluate the impact of changes on the risk practice dynamic and risk groups' formation. Many methods to assess behaviour exist with the most important as follows:

- Rapid assessment and response is used in case of an emergency when an adequate response is needed but the available information is very limited.
- Repeated on a regular basis behavioural surveys – more reliable data in dynamic used to adapt decisions made. Standardized repeated surveys are one of the obvious advantages of this method.

Many questions could be answered by a behavioural survey. However, it is worthwhile concentrating on five to six of the most important of them and use the method for assessment of

particular groups. Correct selection of survey representative groups by number and behavioural characteristics is crucial. Selected groups should be within the local context. Trust of interviewee is one of the important criteria. Mapping of the results survey with identification geographical zones of the high-risk behaviour would help conduct a second round of the survey and to implement interventions. Simultaneous biological (tests) and behavioural (interview) surveys are hard to implement.

Results are used for:

- understanding of epidemic trends
- making policy decisions
- strategic planning.

4.2 Behavioural surveillance and sentinel surveillance for HIV/AIDS in the countries

In **Ukraine** some behavioural surveillance is conducted in the general population and in groups with high risk of infection: CSW and their clients, neighbours, injecting drug users (IDUs), and young people. Six hundred thirty-eight (638) women (sex workers) were interviewed, which helped to better understand social characteristics of CSW and to develop plan of interventions. The same kind of surveys was conducted in the other eastern European countries. However, absence of universal approaches and methods does not allow comparison of the results. There is a need to select five to six questions, which could serve as behaviour indicators. This would help to compare the data. (Dr Balakireva).

In the **Russian Federation** a great interest in behavioural surveys has been observed within the last several years. However, no surveys were done before 1996. Behavioural surveys are conducted within the framework of preventive projects and cannot serve as a tool for monitoring of behaviour. AIDS centres do not have structure and staff for this work and no coordinating body exists (Dr Smolskaya). Behavioural surveys within the framework of preventive projects did not serve the main purpose which was to save a person from drug use. An approach used was: to help a person, and not to research him. It would be important to take into account that physical access to a marginal group is easier than a psychological one (Dr Ostrovsky). Harm reduction projects have become attractive not only to IDUs but to CSW also. This has allowed conducting sociological research that has helped to assess a real situation and to develop interventions (Dr Sultanov).

In the **Republic of Moldova** some behavioural researches are conducted. However, the sample size is not always adequate. Research of knowledge about HIV/AIDS and STIs has been conducted in young women living in dormitories (500 students and workers). The survey was conducted with the assistance of Kaye Wellings, The National Survey of Sexual Attitudes and Lifestyles, United Kingdom. The same kind of survey was conducted in migrant groups covered by harm reduction projects. However, the role of behavioural surveys in needs assessment, prevention strategy and interventions development is insufficient (Dr Dobrjanskij). Dr Calistru presented results of the behavioural survey in two groups of women (sex workers): those who have been deceived and illegally moved abroad to provide sex service, and those who provide commercial sex in the capital of the Republic of Moldova on a volunteer basis. The results showed that knowledge of preventive methods of getting HIV infection and STIs is satisfactory. However, clients or circumstances mostly determine safe or unsafe sex practice and not whether CSW will accept it. A high level of STIs and unwanted pregnancies in this group has proved a significant role of CSW in HIV and STIs dissemination.

In **Belarus** behavioural surveys are recognized as an important part of epidemiological surveillance of HIV infection. However, methodology, group selection criteria, and indicators are not enough developed. There are more questions than answers. Social workers and health care providers have started to collaborate just recently. Surveys are conducted to serve the needs of a particular project (Dr Zhdanovskaya).

In **Armenia** some surveys in CSWs and IDUs have been conducted. However, behavioural surveys are not in practice yet.

4.3 Discussions of behavioural surveillance in small groups

Certain difficulties to conduct behavioural surveys were mentioned: lack of methodological approaches, necessity to adapt existing methods of survey, training, technical support, computerized programs for results evaluation, and financial support.

The majority of the participants agreed in expanding the behavioural surveys within the epidemiological surveillance for HIV infection as a sensitive tool to monitor trends in knowledge, behaviour and practice. General population behaviour as well as behaviour of potentially vulnerable groups and groups with high-risk behaviour were mentioned as important to be monitored. Correct selection of such groups and expansion of the size of these groups were noted as important factors.

4.4 Demonstration of CD-ROM with information on second-generation HIV surveillance

Dr Lazzari

The behavioural component is very important in HIV surveillance. The results of good quality behavioural survey could be equal to laboratory testing. The CD-ROM presents surveillance principles, including serological surveillance, surveillance of STIs, surveillance of HIV and STI registration, surveillance of drug use, behavioural survey, and guidelines how to use the data. Definition of HIV cases, guidelines on laboratory testing of HIV and STIs, ethical issues, methods of evaluation and prognosis are presented in the CD-ROM. Guidelines on how to use the disk, EPI INFO 2000, and EPIMAP were given. It was recommended to use information from the Web page of UNAIDS. All participants received the CD-ROM and expressed high appreciation for the useful materials.

5. Surveillance of sexually transmitted infections (STI) as a component of second-generation HIV surveillance

5.1 Surveillance of STI and HIV infection: advantages and disadvantages of the existing system in the Russian Federation

Dr I. Toskine

An extensive experience has been accumulated on the epidemiology of STI/HIV/AIDS. However, the current advances of the epidemiological knowledge on STI are put into practice rather slowly. This is partially due to the absence of a state programme on prevention and control of STIs and inadequate coordination of preventive strategies at vertical (federal, regional structures) as well as horizontal levels public health services, STI service, AIDS prevention service). Some attempts of epidemiological analysis of the situation on STI/HIV are based on the officially notified cases of these infections and are valuable only in a retrospective view. Such

important components as behavioural factors, risk behaviour for STI/HIV transmission, and interaction of STI and HIV infection are practically absent.

The pilot projects on public health approaches to the prevention and control of STI/HIV in Khakassia and Tyva republics and in Samara and Voronez regions have given an opportunity to improve the system. The epidemic process of STI transmission has been stabilized: the decline of syphilis incidence has become more significant becoming 1.2–2 times in comparison with the average Russian figures; the stabilization of annual STI incidence has occurred during the last two years; the syphilis incidence has decreased in Tyva and Khakassia 1.5–2 times more than in the Russian Federation as a whole; the number of persons who came themselves to seek medical care on STI and/or HIV to all types of “sexual” health services has increased significantly; the proportion of young people and adolescents constantly using condoms has also increased. The experience of these pilot projects demonstrates a full suitability of the current types of surveillance for STI/HIV in the Russian Federation. The improvement of surveillance depends on the close interaction of various structures at vertical and horizontal levels, and in introduction of current methods of the epidemiological monitoring of the situation.

5.2 STI surveillance as a component of second generation HIV surveillance

Dr A. Gromyko

During the last 10 years a significant increase of syphilis incidence has been observed in practically all newly independent states. The peak of syphilis incidence was in 1995–1996. However, during 1997–2000 the incidence of syphilis has declined and by the end of 2000 the officially notified incidence of syphilis in the Baltic states was as follows: in Latvia 24.9 per 100 000 population, in Lithuania 100 per 100 000 population, and in Estonia 75.3 per 100 000 population. Higher figures of notified syphilis incidence have been reported from the Russian Federation, Kazakhstan, Belarus, the Republic of Moldova and Ukraine. The notified level of HIV infection remains comparatively lower than the incidence of syphilis but evidently the syphilis incidence demonstrates a high level of unsafe sexual behaviour, which might facilitate the spread of HIV infection. In such circumstances the epidemiological surveillance for STI and HIV/AIDS should be well coordinated and implemented with close interaction. In STI surveillance the major attention should be given to:

- registration of cases of diseases (on etiological or syndrome basis depending on the national capabilities in laboratory support);
- analysis of prevalence;
- introduction of ethiotropical or syndromic case management;
- monitoring of sexual behaviour of population with regard to STI as a possible indicator for potential risk of HIV spread.

Thus the STI surveillance should be considered as an integral important component of second-generation HIV/AIDS surveillance.

5.3 Discussion on STI surveillance in the countries participating in the meeting: experience, problems, syndromes diagnosis, laboratory support

Ukraine. A negative tendency of disintegration of STI service has been noted. However, some new approaches for democratization of patient management have been introduced: anonymity and confidentiality in STI case management as well as outpatient treatment of STI patients. There is a tendency to strengthen the laboratory support to STI case management although

acceptable ways of introduction of syndrome approach into STI case management were explored primarily at the rural areas. Syphilis incidence still remains at a high level although the number of officially notified cases has been decreasing during the last three years. The number of congenital syphilis continues to grow, and the incidence of syphilis in rural areas is also increasing (Dr L. Kalioujnaya).

Belarus. An increased prevalence of STI among younger groups of population has been noted in the country during the last few years. The system of prevention and surveillance of STI has been modified so that STI case management can be done through a more democratic approach: development and improvement of primary prevention system, introduction of principle of confidentiality, anonymity in STI case management, improvement of acceptability and accessibility of STI treatment, and avoidance of oppressive ways of dealing with STI patients. Under consideration is a suggestion to exclude gonorrhoea from the list of diseases, which must be treated only in the dermato-venerological dispensers and to permit physicians of other disciplines such as for example urologists and gynaecologists to treat gonorrhoea. Behavioural studies have been introduced now as an integral part of STI/HIV surveillance. Risky behaviour of three groups of young people has been studied recently: syphilis patients, school children and young people who have been involved in some criminal activities (Dr A. Navrotski).

In the **Republic of Moldova** as in other countries of eastern Europe there is a significant increase of STI incidence, particularly syphilis. For the period 1989–1999 the incidence of syphilis has increased more than 25 times but slightly decreased by the end of 2000. The most affected age group is 20–29 years old. However, the gonorrhoea incidence has decreased significantly. If in 1989 for each syphilis case there were 6.4 gonorrhoea cases then in 1999 for 2 cases of syphilis only one case of gonorrhoea was notified. At the same time there are positive trends in resolving problems related to the STI situation: marked increase of the primary prevention of STI together with prevention of HIV infection. Such close interaction is possible to implement because STI control is an integral part of the National Programme on prevention of HIV/AIDS/STI in the Republic of Moldova. The health status, awareness and sexual behaviour of the population have also been studied during the last few years. Special studies have been conducted among particular risk groups of population such as drug users, MSM, men with promiscuous sexual behaviour, and unmarried women with promiscuous sexual relations (Dr B. Calistru).

Comments

Preventive activities on HIV/AIDS/STIs in all countries presented at the conference have had a similar basis: home visiting and forced exposure and treatment. Each country is moving towards democratization of its principles and approaches in the area of HIV and STIs prevention, many of which are in accordance with the Second Generation HIV Surveillance. Some expertise has been gained and needs to be analysed and disseminated if relevant.

5.4 Suggestion for national protocol and guidelines development

Dr Kobyshcha

To formulate goals and objectives of the surveillance is very important. Correct selection of groups for sentinel surveillance (IDUs, CSWs, MSM, STI patients, etc., as well as a sample size (no less than 250–300 people), length of surveillance (4–8 weeks), and selection of sentinel sites, are crucial in surveillance planning. Some other aspects, like access to target groups, number of visits a day, blood taking practice (unlinked anonymous testing, volunteer anonymous testing, testing of blood remaining in syringes, referral system to specialists) should also be taken into

consideration. It is necessary to develop registration forms, table models, and behavioural indicators. One of the important steps is training of personnel on their responsibilities and creation of a group of participants. To combine sentinel surveillance and behavioural surveys is not desirable. In general, development of country level guidelines on implementation of second generation of surveillance should be taken into account.

5.5 Discussion of suggestions for a national protocol on HIV/AIDS/STI surveillance in small groups

Countries representatives recognized the necessity to expand epidemiological surveillance by including behavioural surveillance. A list of suggestions for national protocols was developed.

- Policy decision to introduce second generation surveillance.
- Interstructural agreements between organizations to better coordinate activities.
- Selection of a working group and determination of its functions.
- Information materials on methodology of second-generation surveillance development and distribution.
- Pilot projects in several regions.
- Training of professionals.
- Selection of a group for survey.
- Size and steps of the sentinel and behavioural surveillance.
- Selection of united rules on data collection, analysis and information exchange.

5.6 Discussion of the conference draft recommendations

Draft recommendations presented at the conference are acceptable in general. They reflect the content of HIV/AIDS/STIs second-generation surveillance, the content of issues discussed at the conference, and opinions shared. It is recommended to avoid strict, categorical formulations, and to follow advisable recommendations.

Recommendations

1. National HIV surveillance systems have to be completed by behavioural surveillance and surveillance of other STI in accordance with second-generation HIV surveillance approaches.
2. To recommend the establishment of a national interdisciplinary consulting committee with the aim of elaborating, implementing and monitoring national HIV and STI surveillance including behavioural surveillance. The consulting committee must be responsible for the permanent analysis and evaluation of the current epidemiological situation, the assessment and prognosis on HIV/STI as well.
3. To recommend the initiation of either a position of leading sociologist or working groups responsible for the behavioural surveillance which will work in close collaboration with the national consulting committees at federal, regional, and district HIV prevention and care institutions.
4. National protocols on second-generation surveillance including behavioural surveillance and HIV surveillance have to be elaborated and used as HIV/STI epidemics and behavioural trends monitoring tools.

5. National protocols have to define most eligible methods, tools and target groups to gather information answering on key epidemiological questions.
 - What is the HIV prevalence and risk tendency in different groups of population.
 - What is the STI prevalence and risk tendency in the different population groups.
 - Who have to be concerned (or treated) as high-risk groups related to HIV infection.
 - What kind of behaviour is considered as having risk.
 - Where infections are collected.
 - Why do people expose themselves to the risk of HIV/STI infection.
 - How the risky behaviour could be influenced.
 - What part of the population is exposed to the risk of infection.
 - When and what kind of circumstances could change the risky behaviour.
 - Have the prevention activities at district and regional level changed the situation.
6. The main goal of national protocols have to be the collection of the following data:
 - incidence and prevalence of HIV/AIDS in different groups of the population;
 - characteristics and location of the high-risk territories;
 - groups of population with HIV/STI-related high-risk behaviour;
 - definition of the high risk behaviour and supported factors;
 - location of groups and territories with high-risk behaviour population;
 - definition, nature and role of risk behaviour;
 - social and sexual “network”;
 - proportion of the population at risk;
 - level and time dynamics of risk in the population subgroups.
7. The following institutions (facilities) have to be defined in the national protocols: responsible for the HIV/AIDS/STI surveillance and risky behaviour; decision-makers on personnel and finance issues; discussing ethical issues and leading institutions defining data accessibility and their optimal use in programme planning, monitoring and evaluation as well.
8. Information collection on population groups’ behaviour involved in the epidemics has to be added by offering either medical care or other services, e.g. STI care, to CSW.
9. National surveillance system has to collaborate with NGOs that could facilitate data accessibility and collection in the high-risk behaviour groups.

Annex 1

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