MEETING ON PROSPECTS FOR THE PUBLIC HEALTH APPROACH TO THE PREVENTION AND CARE OF SEXUALLY TRANSMITTED INFECTIONS IN COUNTRIES OF EASTERN EUROPE AND CENTRAL ASIA

Report on a WHO meeting

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ABSTRACT

The Meeting addressed current trends in sexually transmitted infections (STI) and possible reasons for their decline, the role of high-risk behaviour, and progress in, obstacles to and perspectives on care for and the prevention of STI in the newly independent states (NIS) of the former USSR. The participants discussed recent and continuing changes in case management, problems with the implementation of syndromic treatment, surveillance and the integration of services. In particular, services for STI and for HIV/AIDS should work closely together; almost everywhere in the NIS, these services are separated and neither seems willing to cooperate. The participants discussed successful examples of such cooperation and ways to share positive experience. The need to promote the use of condoms for the prevention of both STI/HIV/AIDS and unplanned pregnancies was emphasized. After analysing countries’ achievements in controlling the STI epidemic and identifying remaining problems, the participants made recommendations on future action and its implementation.

Keywords

SEXUALLY TRANSMITTED DISEASES – prevention and control – therapy
DELIVERY OF HEALTH CARE
HEALTH POLICY
PUBLIC HEALTH
EVALUATION STUDIES
EUROPE, EASTERN
ASIA, CENTRAL
## CONTENTS

1. INTRODUCTION

2. CHANGES IN STI PREVENTION AND CONTROL IN NIS
   - Legislative background
   - STI case management
   - Integration of services
   - Dual protection
   - Syndromic approach to STI case management
   - HIV and STI health services
   - Surveillance of STI and HIV
   - Integrated approach

3. CURRENT SITUATION ON STI IN NIS
   - STI trends and possible reasons for decline
   - Congenital syphilis
   - Drug use and sex work
   - Men having sex with men
   - Other risk groups
   - Partner notification
   - Uzbekistan

4. CONCLUSIONS
   - National achievements in control of the STI epidemic
   - Remaining problems
   - Actions for the future

5. RECOMMENDATIONS

Annex
1. INTRODUCTION

During the mid 90s an unprecedented rise in syphilis and other sexually transmitted infections occurred in the newly independent states of eastern Europe and central Asia (NIS). Aiming to rapidly curb the evolving epidemic the WHO Regional Office for Europe, in collaboration with a number of international organizations, convened several international meetings (Copenhagen, 1996; Riga, 1997; St. Petersburg, 1999) and founded the Task Force for the Urgent Response to the Epidemics of STI in 1998 (Copenhagen, 1998; Vilnius, 1998; Copenhagen, 1999; 2000) to address the problem and to control the epidemics. The recommendations of these meetings were successfully utilized by a number of countries in prevention of sexually transmitted infection (STI) and HIV/AIDS. In order to support the national efforts in STI prevention and care a meeting was organized for health officials from these countries to discuss the prospects for the public health approach to the control of STI epidemic. From each country one high level health official responsible for the control of STI epidemic participated in the meeting. A number of professionals from the reproductive health service from some of these countries were also invited to attend the meeting. A questionnaire prepared especially for this meeting was filled in by all participants prior to the meeting so that national data could be analysed and discussed at the meeting. See the list of participants in the Annex.

The main goals of the meeting were:

- to review the current situation in the countries, progress, obstacles and perspectives in control and prevention of STI/HIV/AIDS in the Region;
- to identify the potential for better coordination and integration of STI services with other health services, particularly reproductive health services;
- to re-evaluate the priority given to disease prevention in the provision of family planning services;
- to discuss problems and ways for implementation of the syndromic approach in STI case management;
- to discuss the ways of promoting the principle of “dual protection” for prevention of STI/HIV/AIDS and unplanned pregnancies;
- to explore the feasibility, identification of conditions and criteria under which the condom could and should be promoted as the primary contraceptive and STI preventive tool;
- to share the experience of national programmes in addressing client’s needs in a more integrated way;
- to recommend further actions on control and prevention of STI/HIV/AIDS in the Region.

2. CHANGES IN STI PREVENTION AND CONTROL IN NIS

Legislative background

The explosive epidemic of STI in the Region gave a powerful stimulus to initiation of important changes of the routine traditional system of STI prevention and care. Undoubtedly, in disrupting
such systems there is always a place for resistance to innovations, which would require and justify a well-balanced comprehensive approach and at the same time support the sustainability of the initiated changes. Actually, the countries have initiated the process of modernization of STI control starting with legislative changes, challenging stereotypes and creating new approaches and methods. This includes to change and adjust the basic principles of dermatovenerological care in accordance with WHO recommendations crystallized at previous meetings.

The innovative legislative approaches in STI case management (preference to outpatient treatment, abolishment of obligatory hospitalization, shortening duration of treatment, etc.) have lead to a change of the traditional routine practice of the dermato-venerological medical establishments and introduction of new forms of medical care and, as a consequence, creation of new structures – clinics or sites for anonymous examination and treatment and establishment of special sites for medical care for groups of population vulnerable to STI (Table 1).

**Table 1. Changes in the structure of the dermato-venerological facilities**

<table>
<thead>
<tr>
<th>Reduction in number of beds</th>
<th>Anonymous examination and treatment</th>
<th>Special facilities for groups with high risk behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
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The changes in STI case management which were introduced in the countries have been formulated in the form of national recommendations and guidelines which have practically incorporated the WHO recommendations.

**Table 2. STI case management**

<table>
<thead>
<tr>
<th>Obligatory treatment of syphilis and gonorrhoea persists</th>
<th>Obligatory treatment of syphilis and gonorrhoea abolished</th>
<th>Counselling is part of STI care</th>
<th>Syndromic approach approved and introduced at national level</th>
<th>National guidelines on STI case management have been developed (based on WHO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>Armenia</td>
<td>Azerbaijan</td>
<td>Azerbaijan</td>
<td>Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Republic of Moldova, Tajikistan, Estonia</td>
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<td>Uzbekistan</td>
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<td>Republic of Moldova</td>
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<td>Estonia</td>
<td></td>
<td>Armenia</td>
<td>Kyrgyzstan</td>
<td>Uzbekistan, Tajikistan, Estonia, Estonia</td>
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</tbody>
</table>
After the dissolution of USSR the STI medical care is no longer free of charge. But due to the severe epidemiological situation and taking into account that the main reservoir of the infection is in the most vulnerable groups with regard to STI and economically weak part of the population, a decision was made in most of the countries to continue to provide STI care totally or partially on a free-of-charge basis and to finance the STI care from several sources including state budget, federal budget, municipality budget, insurance programmes and other sources. For example, in Latvia inpatient and outpatient medical care for HIV infected patients or patients with AIDS or syphilis, as well as medical care for children with STI, is free of charge; the outpatient care for other STI is being provided on payment basis: patients have to pay for their consultation with a physician, for medicaments and in some districts they cover the cost of laboratory screening for chlamydia.

**STI case management**

Provision of care based on the principle of anonymity/confidentiality has been introduced in most of the countries which is a great achievement since it leads to radical changes in traditional approaches to the STI case management.

*Table 3. Provision of STI care*

<table>
<thead>
<tr>
<th>Free of charge</th>
<th>Anonymous</th>
<th>Confidential</th>
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</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
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<tr>
<td>Estonia</td>
<td>Republic of Moldova</td>
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</table>

In order to increase the response of health services to control the STI epidemic many countries have decided to integrate STI care into the related health care systems starting with obstetrical/gynaecological and urological services followed by involvement of the primary health care system. In practice this change has become the initial step in a radical change of what used to be a strongly vertical system on its way to work horizontally through links with other services actively involved in STI prevention and care. This is a new approach dictated by the current situation and in most of the countries it is now becoming supported by appropriate legislative acts. However, this is a rather long process which is characterized by some resistance from the dermato-venereological service which considers that delegating the responsibilities of the STI service to other health services will lead to the loss of routine functions to diagnosis and care of STI and as a consequence reduction of STI service infrastructure and growing unemployment of STI specialists in the near future. However, the reality of the situation dictates a necessity of integration and reforms, e.g. in western countries such fears have been unfounded. For example, in Moldova, the family planning service has introduced voluntary examination of HIV and STI to newly married couples. In Armenia a significant proportion of persons with syphilis are detected by antenatal clinics and delivery houses (3.6% in 1996 and 12.5% in 2000). In Georgia,
in the state programme on STI prevention and care, all patients with urogenital tract inflammation are examined free of charge in obstetrical/gynaecological or reproductive health facilities for presence of STI.

**Integration of services**

As shown in Table 5 the process of integration has been initiated in most of the countries and in some countries even treatment of syphilis has been allowed to be performed by other services than the STI facilities which in most countries still constitutes an unresolved problem difficult to be accepted by national health authorities.

**Table 4. Integration of STI care into various health services**

<table>
<thead>
<tr>
<th>Health services</th>
<th>Medical services integrated</th>
<th>Syndromic approach introduced</th>
<th>Treatment of STI (including syphilis) allowed at non-STI facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary health care</td>
<td>Azerbaijan Georgia Kyrgyzstan Lithuania Republic of Moldova Tajikistan Uzbekistan Estonia</td>
<td>Azerbaijan Kyrgyzstan Tajikistan</td>
<td>Azerbaijan Tajikistan Estonia</td>
</tr>
<tr>
<td>Reproductive health service</td>
<td>Azerbaijan Armenia Georgia Kazakhstan Kyrgyzstan Lithuania Republic of Moldova Tajikistan Uzbekistan Estonia</td>
<td>Azerbaijan Armenia Kyrgyzstan Tajikistan</td>
<td>Azerbaijan Tajikistan Estonia</td>
</tr>
<tr>
<td>Obstetrician/gynaecological service</td>
<td>Azerbaijan Armenia Georgia Kazakhstan Kyrgyzstan Lithuania Republic of Moldova Tajikistan Uzbekistan Estonia</td>
<td>Azerbaijan Armenia Kyrgyzstan Tajikistan</td>
<td>Azerbaijan Tajikistan Estonia</td>
</tr>
<tr>
<td>HIV/AIDS control service</td>
<td>Kyrgyzstan Lithuania Estonia</td>
<td></td>
<td>Lithuania</td>
</tr>
<tr>
<td>Other services</td>
<td>Armenia Republic of Moldova Estonia</td>
<td>Armenia</td>
<td>Republic of Moldova Estonia</td>
</tr>
</tbody>
</table>
Some countries have reported on successful integration of STI care with other health services such as urological or other services dealing with sexual disorders (Armenia, Estonia). In Moldova there is a close cooperation with sectoral health services such as the medical service of the Ministry of Internal Affairs infrastructure, the medical service of the railroad system, the civil aviation, and the penitentiary system.

Moreover the dermato-venerological service itself has started to provide care in relation to the reproductive health as well as to HIV/AIDS. The dermato-venerological service has actually always been involved in resolving the problem of infertility. However, there is a need of involvement of dermato-venerological service in dealing with problems of family planning where the priority should not only be decrease of STI incidence but reduction of unwanted pregnancies. The high rate of abortions practically persists in all countries together with the growth of frequency of PID, particularly of chlamydial or gonorrhoeal ethiology. Of particular interest is the experience of the Latvian family planning service where the work of the family planning centre is based on providing all necessary information, ensuring access to contraceptives (to condoms as a first priority) and possible treatment if necessary. Such principles are widely promoted among the physicians of related disciplines, particularly among gynaecologists, physicians of adolescent care, and general practitioners including family doctors. The main problems for the specialists working in family planning centres are lack of national standards of STI case management, high cost of treatment and absence of care for male partners. Another problem is the absence of family planning centres in rural areas.

**Dual protection**

Participants paid significant attention to discussing the dual protection principle which re-emphasizes the condom as a STI prevention tool and as an effective means of prevention of unwanted pregnancies. It was agreed that the dermato-venerological service should not only be used for prevention of STI and effective treatment but the service should also be actively involved in family planning services. The participants agreed that there is a need to identify the effective approaches for promotion of dual protection methods both in STI service as well as in the gynaecological service. It was agreed that it is time to initiate a dialogue and to discuss the necessity of introduction of contraceptive counselling and skills in the practice of STI service, which would enable the STI specialists to provide professional services with a special attention to male patients, who are traditionally ignored by the obstetrical/gynaecological service. Undoubtedly, this would facilitate reproductive health in the Region. Actually the meeting was an initiation of a dialogue on this extremely acute problem and participants agreed that there is a need for continuation of the dialogue.

Table 5 presents data on accessibility of condoms. Participants agreed to facilitate development of wide and comprehensive accessibility of condoms in the Region. Numerous examples have shown that due to WHO advocacy actions and projects the use of condoms has been significantly increased. For example, Armenia reports a very high percentage of sex workers using condoms regularly.
Table 5. Distribution of condoms

<table>
<thead>
<tr>
<th>Is a part of the free of charge medical care</th>
<th>Condoms are available outside of the health system infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Free of charge</td>
</tr>
<tr>
<td>NGO</td>
<td>Shops, educational institutions</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>Armenia</td>
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<tr>
<td>Armenia</td>
<td></td>
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<td>Kazakhstan</td>
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</tbody>
</table>

Syndromic approach to STI case management

In some countries the question of introducing the syndromic approach in STI case management still persists. In all countries the traditions of having etiological diagnosis of STI before initiation of treatment as well as using laboratory diagnosis for monitoring of treatment effectiveness are very strong features in the mentality of STI specialists as well as in the national legislative guidelines. Therefore there is a need for continuing the dialogue. In many countries there are areas as well as some groups where use of the syndromic approach would facilitate the provision of STI care at the first appearance of the patient to the medical care service. Some countries have started to introduce this approach for some marginalized groups or in areas where there is no efficient laboratory support for the diagnosis of STI, e.g. Ukraine has started to actively introduce the approach, especially in the reproductive health care facilities. It was noted that the demographic situation in Ukraine at present time is characterized by the domination of death rate over birth rate and the country is trying to attempt to reverse the situation. Under the order of the President of the country the national programme “Reproductive health” has been adopted which aims to decrease the incidence of STI and HIV/AIDS.

The main goal of the planned activities is preservation of the reproductive health of the population through increased accessibility and quality of medical care and in this respect the syndromic approach in STI case management is playing the major role. According to the programme a wide involvement of family doctors who are closest to the population in STI prevention and care should facilitate implementation of the planned activities. The application of syndromic approach is recommended, particularly in those instances where specialized medical services are not available or when it is uncertain that a patient would appear for treatment after some period when the results of the laboratory diagnosis might be available. The programme also specifies other directions for action:

- to increase awareness on STI and HIV/AIDS, particularly among young people;
- to promote healthy life styles;
to promote condom use, especially taking into account that condom use in Ukraine is now at the third place after the traditional methods of contraception and the use of intra-uterine-devices;

- to create favourable conditions for testing STI and HIV/AIDS at the time of the first visit of the patient even if a patient will come to reproductive health services;

- to initiate treatment at the first visit of the patient;

- to promote outpatient instead of inpatient treatment of syphilis and gonorrhoea.

In case of successful implementation of this national programme the Ukrainian colleagues expect improvement of the epidemiological situation, namely decrease of STI and HIV incidence, decrease of speed of HIV transmission, improvement of the current unfavourable demographic situation, particularly decrease in infant mortality, perinatal and maternal mortality, number of abortions and number of unwanted pregnancies. The experience of the Ryazan Region (Russian Federation) has shown that introduction of the syndromic approach has lead to the decrease of syphilis incidence by 17% and thus eased the epidemiological tension in a number of districts of the region and improved self-attendance to medical services in relation to STI prevention and care.

The experience of Ukraine and Ryazan region as well as other countries and regions where the syndromic approach has already been successfully introduced presents an opportunity to use the experience for analyses and introduction into other countries of the Region. In order to facilitate this process it would be necessary to make widely available the appropriate WHO documents and guidelines in Russian and other national languages and to provide active support to the countries through training and pilot project development.

**Table 6. Integration of STI care with other health services**

<table>
<thead>
<tr>
<th>Dermato-venerological service has been involved into provision medical care in</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproductive health</td>
<td>Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Tajikistan, Uzbekistan, Estonia</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Republic of Moldova, Tajikistan, Uzbekistan, Estonia</td>
</tr>
</tbody>
</table>
Interaction and cooperation between the dermato-venerological service and the HIV/AIDS service remains a difficult and unsolved problem.

**HIV and STI health services**

The participants have emphasized that everywhere in the NIS the epidemiological situation of HIV is very complex and has an explosive tendency. Recent socio-economic changes facilitating the spread of the epidemic are very similar in these countries: changes in sexual behaviour such as growth of prostitution, number of sex partners, earlier age of sexual debut, and growth of drug use. The drugs at the beginning were mostly rather cheap home produced drugs which facilitated the spread of addiction. It lead to the marginalization of youth and weakening and disruption of families. Moreover, young women were beginning to take drugs, which increased the number of drug dependant women and the appearance of abandoned HIV-infected children. Practically in all newly independent states injection of drugs has become the dominant route of HIV infection during the last few years. In the Russian Federation, Ukraine, Belarus, Kazakhstan, and the Republic of Moldova, 60-80% of known cases of HIV infection were acquired through drug injection. In the Russian Federation out of 524 000 drug users tested for HIV, 237 000 were found to be infected with HIV. Most of the HIV-infected persons are 15-30 years of age. A very serious phenomenon is the explosive growth of HIV incidence in some countries. For example in Estonia before the year 2000 not more than 10-13 cases of HIV infection were registered annually, then for 9 months of 2000, 105 new cases were detected but for 9 months of the year 2001, 1162 cases of HIV infection were notified. A critical situation is developing in Latvia: since 1997 the number of newly diagnosed cases of HIV infection has increased in an explosive way (in 1997 – 25 cases, in 1998 – 163, in 1999 – 241, in 2000 – 466).

**Table 7. Number of newly diagnosed cases of HIV infection in some newly independent states (NIS), 1996-2000**

<table>
<thead>
<tr>
<th>Country</th>
<th>Year 1996</th>
<th>Year 1997</th>
<th>Year 1998</th>
<th>Year 1999</th>
<th>Year 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian Federation</td>
<td>1 546</td>
<td>4 397</td>
<td>3 947</td>
<td>14 950</td>
<td>51 952</td>
</tr>
<tr>
<td>Estonia</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>390</td>
</tr>
<tr>
<td>Latvia</td>
<td>17</td>
<td>25</td>
<td>162</td>
<td>242</td>
<td>466</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>48</td>
<td>437</td>
<td>299</td>
<td>185</td>
<td>227</td>
</tr>
<tr>
<td>Republic of Moldova</td>
<td>48</td>
<td>404</td>
<td>408</td>
<td>155</td>
<td>175</td>
</tr>
<tr>
<td>Belarus</td>
<td>1 021</td>
<td>653</td>
<td>554</td>
<td>410</td>
<td>527</td>
</tr>
</tbody>
</table>

In Ukraine, since 1995 the incidence of HIV infection has continued to increase and in the year 2000 the incidence was 73.6 per 100 000 of population. The number of pregnant women infected with HIV has also increased and in 2000, 997 pregnant women were HIV- infected. The predominant way of HIV transmission is through intravenous route. Most of the participants of the meeting emphasized that the intravenous drug users in NIS are mostly young people with a high or middle level of education with the median age of 22 plus minus 6.5 years. Most of them (approximately 60%) have started to take the drugs in school. Parents have become aware of that in average 2.7 years later, which is too late.
The data accumulated by countries indicate a high probability of a possible growth of sexual HIV transmission. For example, only 50% of street sex workers in the Russian Federation use condoms, they have 3-4 casual partners for the last 30 days. A very high percentage of prostitutes in Lithuania do not use condoms. There is a high growth in the number of drug using women. All these features predispose the possible spread of HIV through sexual route of HIV/AIDS transmission in this Region.

**Surveillance of STI and HIV**

A number of participants have emphasized that the absence of reliable surveillance data on the transmission trends, particularly among specific vulnerable groups practicing risk behaviour, is due to insufficient accessibility and affordability of medical services, particularly for risk groups and social-economically weak groups, inadequate or even absent preventive interventions and counselling services, lack of social marketing of condoms and their accessibility. The lack of other actions on prevention and care could facilitate the development of a devastating effect with regard to the spread of HIV/AIDS in the Region.

A wide participation of the STI services in prevention and control of HIV/AIDS is necessary and an important issue. Unfortunately, almost everywhere the STI and HIV/AIDS services function in a strongly separate vertical manner. On both sides there is practically no willingness to cooperate closely. But it is clear that the dermato-venerological services are important sites for sentinel surveillance for HIV/AIDS. These facilities could also be a source of information for behavioural surveillance and could be important entry points for development of 2nd generation HIV/AIDS surveillance. The dermato-venerological service should be actively involved in the process of the national strategic planning for HIV/AIDS prevention and care. No doubt that control of the HIV/AIDS epidemic requires massive involvement of various health services. Participants of the meeting called for a dialogue with the HIV/AIDS control service and WHO could play an important role in advocating the close cooperation.

**Integrated approach**

The Ryazan (Russian Federation) experience has been presented as a way for a successful solution of the long time pending problem of verticalism of HIV/AIDS and STI health services. The regional HIV/AIDS centre is actually a structural division of the regional dermato-venerological centre. Such unit facilitates implementation of control and preventive, organizational, and diagnostic interventions in an effective, economically rational and well-targeted manner. This centre has combined efforts of various governmental and nongovernmental institutions as well as related agencies from outside such as the Ministry of Health and the Russian Association on Control of STI “SANAM” to address the problem of growing incidence of HIV/AIDS, sexually transmitted infections and unwanted pregnancies culminating in abortions. The project called “Integrated approach to prevention, diagnosis, treatment and management of STI and HIV/AIDS in Ryazan Region” has been supported by WHO and has become an excellent example in combing various health systems in control of the STI/HIV/AIDS epidemic. The project included:

- various training seminars for family planning and reproductive health services, urologists, as well as for workers of non medical sectors such as social workers, psychologists, teachers in counselling, social support, social rehabilitation, for nongovernmental organizations on their involvement in prevention of HIV/AIDS among vulnerable groups;
• introduction of the syndromic approach in STI case management. A special training seminar was organized for medical staff working in rural areas. Besides, a study has been conducted on the sensitivity of the main causative STI pathogens present;

• in the centre of the city a special facility has been established for sex workers where they could receive hygienic service, information, and examination for presence of STI and treatment on a totally anonymous basis. Besides, the centre has two sites open for exchange of syringes for injecting drug users, and in cooperation with narcological service, a normative document for a legal basis for such sites has been developed;

• special TV information campaigns have been initiated;

• 15% of known HIV positives in Ryazan Region are inmates of the penitentiary system which comprises jails, colonies, and pre-trial detention facilities. The centre has developed and implemented special HIV/STI preventive interventions for these institutions;

• information and training programmes in school have been introduced;

• the centre on HIV/STI prevention, education and information interventions has been involved in prevention activities in the military system of the Region.

The project has become a vivid example of unification and coordination of efforts of various sectors including non-medical sectors in reaching the common goal to curb the epidemic and to prevent further spread of STI/HIV/AIDS in the Region. Such approach has brought wide public attention to the problem and contributed to the increased awareness of the population. The implementation of the project has facilitated the adoption by the administration of the Region of two regional programmes on prevention of STI/HIV/AIDS. Undoubtedly, implementation of these programmes will be a further important move towards effective prevention of HIV/AIDS/STI in the Region.

3. CURRENT SITUATION ON STI IN NIS

![Fig. 1. Incidence of syphilis in Belarus, Estonia, Kazakhstan, the Republic of Moldova, Russian Federation, Ukraine, 1990-2001 (rate per 100 000)](image-url)
**STI trends and possible reasons for decline**

Participants discussed the possible reasons for the observed decline in the newly diagnosed cases of syphilis reported by countries during the last two-three years. They agreed that the decline can be explained by the following reasons:

- increased awareness of population with regard to STI due to improved information and strengthening of primary prevention actions;
- introduction of new forms of medical care (anonymous examination and treatment, outpatient treatment, availability of private care) and improved accessibility to user-friendly public health services;
- more early detection of infections due to screening of certain groups for syphilis;
- introduction of modern methods of diagnosis and treatment;
- improved access to vulnerable groups and provision of care and information for these groups;
- STI control is now very high on the agenda of the governments and has become a governmental priority;
- intersectoral approaches to control the STI epidemic;
- under-recognition and under-reporting of cases, particularly in the private sector;
- low attendance to public clinics due to increased self-treatment.

However, it was also expressed that the registered incidence does not reflect the true epidemiological situation. The basis was a discussion on a number of factors, which were brought to the attention of the audience by some participants. For example, 92% of syphilis cases in Armenia were notified by the dermato-venerological service (185 physicians work in this service), 2.8% by obstetricians/gynaecologists (845 specialists work in the country) and 0.45 by urologists (104 specialists of this discipline in the country) which emphasizes a very low quality of work of related health services or an absence of registration and notification system in these services. In Tbilisi (capital of Georgia), for example, during 7 years of work of the obstetrical gynaecological service only 14 cases of gonorrhoea were registered and notified which is undoubtedly an unrealistic figure if a comparison is made with the registration data and the attendance data from the dermato-venerological service for the same period of time. A sharp decrease of notified cases of syphilis and gonorrhoea in Tajikistan, according to the opinion of STI specialists, is not reflecting the real trends since many patients with these infections receive treatment from specialists of other health services without proper registration and notification. The level of self-treatment is also very high in the country.

More and more private sites are being involved in provision of care to STI patients in these countries. As a rule these institutions do not notify the cases they treat but the proportion of these unreported cases seems to be rather high in some countries considering the rather high attendance of these facilities (Azerbaijan, Latvia); in some countries even state institutions, which are treating patients on an anonymous basis, do not notify cases (Kazakhstan); in some countries the forms of registration of anonymously treated STI patients have not been developed yet (Armenia). Introduction of the syndromic approach also contributes to the under-reporting because the etiological diagnosis has not been made while registration of syndromes has not been accepted at the national level. Thus the cases treated on the base of syndromic manifestations have not been notified.
As reported by participants, besides the decline of officially notified cases of syphilis, the incidence of other STI infections remains high. For example in Latvia the proportion of STI infections among all registered infectious diseases is at the level of 46.2%. In Kazakhstan the STI incidence is 3 times higher than the incidence of tuberculosis. In the Russian Federation the incidence of other STI, apart from syphilis, (gonorrhoea, chlamydia, trichomoniasis) has practically not changed during the last few years. In some countries there is no official registration of STI apart from syphilis and gonorrhoea. Moreover, even where the registration of other STI exists the etiological diagnosis of these infections (Herpes, hepatitis B, and sometimes chlamydia) is implemented only in capitals or large cities, and even in these areas sometimes is difficult to perform. The decline of incidence of chlamidiosis registered for example in Moldova could not be considered as a reliable phenomenon since etiological diagnosis was only performed in large cities. Many participants have reported that there were no reliable date on STI incidence among rural populations which actually might be rather high considering the limited accessibility of medical care, low ability to pay for the medical service and medical ignorance of the population. Even in districts where care is accessible as for example in some districts of Latvia the quality of care remains very low.

Many countries have reported a change in the proportion of latent/active forms of syphilis. For example in Armenia in 1991 this ratio was 7:1 while in 2000 - 1:2. A decrease of manifested forms of syphilis and an increase of latent forms has been also noticed in Tajikistan. An increase of latent forms of the diseases indicates the existence of hidden foci of infection and in an epidemiological context constitutes a very unfavourable prognostic sign since these foci could facilitate further spread of the infection.

**Congenital syphilis**

Congenital syphilis remains a very serious problem. In some countries such as Azerbaijan, Kazakhstan, Kyrgyzstan, Latvia, and the Russian Federation a marked increase of the incidence of congenital syphilis has been noted during the last years. It has been suggested that the registered incidence of congenital syphilis does not reflect the real situation and the real incidence is significantly higher. Not in all delivery houses women are tested for syphilis and even not all suspected cases are being properly examined.

*Fig. 2. Incidence of congenital syphilis*

The once well functioning system for a continuous observation of pregnant women (“patronaz”) has been totally disrupted, the antenatal care is not accessible to all women, there is no screening for STI or it is done only once at the first visit of pregnant women to the antenatal clinic, and
treatment is also not always available. These problems are particularly very acute among refugees, migrants and other socially not well adapted groups of population. In a number of instances there are difficulties with proper diagnosis of congenital syphilis. In most of the countries there is no possibility to perform specific diagnostic test for presence of IgM. Participants have pointed out that discussion of the problems and items related to congenital syphilis and its prevention merit international discussion under WHO leadership at training seminars or meetings like the present one.

In spite of the observed decline of officially notified cases of syphilis, the incidence of syphilis cases registered among particular groups of population practising risky behaviour and particularly among sex workers remains high. Considering the size of such groups and preservation of conditions facilitating marginalization, preventive activities among these groups should be very high on the agenda of national health authorities. Representatives from practically all participating countries emphasized that risk behaviour drives the epidemic further and sex workers, men having sex with men and persons having sex with numerous partners are those who mostly facilitate the spread of the STI epidemic.

Risks groups do practically not seek medical care due to a number of reasons: absence of confidentiality, low level of services, absence of social security, and others.

**Drug use and sex work**

In 1999, the incidence of STI among women injecting drugs and engaged in street sex work in Vilnius (Lithuania) was 95% (32.6% were infected with Hepatitis C, 21.7% with syphilis, 28.8% were serologically positive for syphilis, 1.6% had HIV infection, 17.4% had gonorrhoea, 24.4% trichomoniasis). Due to extensive preventive efforts it was possible to decrease the incidence in this particular risk group in 2000 to the level of 45%. However, the epidemiological situation in this group remains rather complicated. Results of interviews with 26 sexually active females 9-15 years old living in school boarding houses have shown that the sexual debut was in average at the age of 13.1 years. From 14 years they started to be involved in prostitution; a third of them is ill with STI. 40.9% women have experienced sexual violence in the age 9-12 years. Examination of sex workers in Georgia has revealed that about 50% are infected with syphilis and more than 30% have gonorrhoea or other STI. Examination of street sex workers in Erevan (Armenia) has shown that 7.5% of street sex workers have HIV infection and a high level of STI. One of the main problems in Estonia now is the growth of the groups practicing risk behaviour.

**Men having sex with men**

Men having sex with men remains one of the groups with high-risk behaviour and most difficult to access. Among them there is a well-established network of communication but at the same time they are keeping themselves very isolated from the environment. It was emphasized that there is a necessity to develop effective methods of work with this group and to establish a training process using peer education as it has been successfully demonstrated in Lithuania and Georgia. The other example is an internet site organized by the Lithuanian AIDS Centre. For 1.5 years, 60 persons from this group have referred themselves to the medical care service. Those who agreed to be interviewed have also received free-of-charge testing for HIV infection. The internet site contains multi-level information on the problems of STI diagnosis and treatment.
Other risk groups

Some countries pointed out the importance of other groups in relation to STI transmission. For example in Moldova a special problem constitutes the women repatriated mostly from the countries of southeast Europe (The Former Yugoslav Republic of Macedonia, Bosnia and Herzegovina, and Albania) where they have been engaged in prostitution. Examination of these women has revealed a high presence of HIV infection and other STI. These are socially non-adapted women and most of them were unemployed at the time when they departed from Moldova (63.6 %). Examination of 124 repatriated women has revealed that 12 of them had syphilis, 6 gonorrhoea, 2 HIV, and 14 other STIs. These women, after repatriation, represent a potential source for further spread of these infections.

In the Russian Federation a special problem constitutes the growing incidence of STI among incarcerated women. In one site 37.4% of women-inmates were infected with various STIs. The incidence of syphilis among them was 2575/100 000 inmates, while among the general civil population it was 155. The number of women with syphilis is 3.4 times higher than men.

The prevailing epidemiological situation justifies the necessity to develop new innovative approaches in provision of medical care to STI patients, particularly to the most vulnerable groups, taking into account the local specific factors concerning these groups.

Table 8. Provision of medical care for vulnerable groups

<table>
<thead>
<tr>
<th>Vulnerable groups</th>
<th>Medical care is provided free-of-charge on an anonymous/ confidential basis with counselling</th>
<th>Special facilities have been established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex workers</td>
<td>Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Republic of Moldova, Tajikistan, Uzbekistan</td>
<td>Georgia, Kyrgyzstan, Tajikistan</td>
</tr>
<tr>
<td>Men having sex with men</td>
<td>Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Republic of Moldova</td>
<td>Georgia</td>
</tr>
<tr>
<td>Injecting drug users</td>
<td>Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Republic of Moldova, Tajikistan, Uzbekistan</td>
<td>Tajikistan, Uzbekistan</td>
</tr>
<tr>
<td>Adolescents, refugees, migrants, homeless, others</td>
<td>Armenia, Georgia, Republic of Moldova</td>
<td>Georgia</td>
</tr>
</tbody>
</table>
Data in Table 8 shows that in most of the countries the vulnerable groups have access now to affordable, acceptable and free-of-charge service. In some countries special facilities have been established for this purpose.

**Partner notification**

Most countries have introduced the principle of confidentiality and anonymity in partner notification, which is a very positive change. It means that countries have abandoned the practice used in the past when a patient had to report obligatorily the name and place of residence of his/her partner and the health authorities used the police to forcefully bring the partner for treatment. In some countries this practice still persists but as has been explained by the participants these measures are applied in some individual cases on the basis of a epidemiological justification. In most of the countries the call for partners is now done by the patients themselves after counselling and explaining the benefits for the patient of treating partners.

**Table 9. Notification of sexual partners**

<table>
<thead>
<tr>
<th>Anonymous</th>
<th>Confidential</th>
<th>Part of the routine STI case management</th>
<th>Conducted by patients on voluntary basis</th>
<th>Conducted by medical service providers</th>
<th>Conducted with assistance of police</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>Armenia</td>
<td>Azerbaijan</td>
<td>Azerbaijan</td>
<td>Armenia</td>
<td>Azerbaijan</td>
</tr>
<tr>
<td>Georgia</td>
<td>Armenia</td>
<td>Armenia</td>
<td>Armenia</td>
<td>Armenia</td>
<td>Armenia</td>
</tr>
<tr>
<td>Republic of Moldova</td>
<td>Kyrgyzstan</td>
<td>Georgia</td>
<td>Kazakhstan</td>
<td>Georgia</td>
<td>Kazakhstan</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Lithuania</td>
<td>Kazakhstan</td>
<td>Kyrgyzstan</td>
<td>Kazakhstan</td>
<td>Kyrgyzstan</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>Estonia</td>
<td>Lithuania</td>
<td>Republic of Moldova</td>
<td>Lithuania</td>
<td>Republic of Moldova</td>
</tr>
</tbody>
</table>

**4. CONCLUSIONS**

**National achievements in control of the STI epidemic**

According to the presentations made by participants the main achievements of the national STI control services in the countries are as follows:

- abandonment of repressive forceful ways of STI case management;
- introduction of anonymous examination and treatment of patients;
- preparation and implementation of national programmes on STI prevention and care;
- shortening the period of treatment;
- introduction of new methods of diagnosis and treatment;
• application of new effective drugs;
• integration of STI case management into the primary health care level;
• decrease of incidence of notified cases of STI;
• reforms in public health services.

Remaining problems

However, a number of unresolved problems remain which are as follows:

• poor surveillance including surveillance among risk groups;
• not full coverage by free-of-charge services of primarily the most vulnerable groups;
• low level of medical knowledge of the population;
• low level of sexual education;
• insufficient primary prevention, especially in risk groups;
• increase of sex work;
• low quality of laboratory support; low level of STI diagnostic capacities outside of the big cities and centres; low supply of current modern diagnostic tools;
• low financial support of health services; deterioration of material/financial support of STI services from the governmental budget;
• quality of treatment and diagnosis of non-gonococcal infections of the uro-genital tract;
• growth of number of congenital syphilis;
• growth of STI incidence among rural population as well as among unemployed and difficult to reach groups;
• absence of unified approaches in STI management among specialists of various health services.

Actions for the future

• improvement of surveillance, particularly among risk groups;
• wide introduction of anonymous diagnosis and treatment of patients;
• integration of STI case management into related health services such as obstetrician/gynaecological, urological, HIV/AIDS control service, primary health care service;
• raising the sense of responsibility among the population for its own health, awareness of the necessity to seek immediately medical care when signs of STI appear, sexual health education among youth, promotion of healthy life style;
• development and introduction of primary prevention methods;
• improvement of forms and methods of STI prevention among risk groups;
• improvement of legislative background in relation to STI;
• introduction of modern methods of diagnosis and treatment of STI;
• promotion of intersectoral approach to STI prevention.

5. RECOMMENDATIONS

1. Primary prevention of STI should be an integral part of the dermato-venerological service. Noteworthy is the example of the Russian Federation, which introduced primary prevention units in the infrastructure of the dermato-venerological centres.

2. The reproductive health service may play a significant role in the primary prevention. It is important that the principle of using condoms as a dual protection tool for prevention of unwanted pregnancy and STI be promoted as a priority method for contraception.

3. STI services should promote the principle of dual protection through training of reproductive health staff.

4. The implementation of the recommendations of the previous WHO meetings has significantly contributed to the decrease of the notified cases of STI in countries of eastern Europe. Other factors have also played a role in this decrease. Many aspects of the recommended directions of the STI control have not yet been incorporated in the national programmes: for example, the legislative background of STI control, the introduction of the principle of confidentiality, and the introduction of the syndromic approach for certain groups or for difficult-to-reach zones. It is recommended to continue to promote incorporation of these recommendations in the routine work of the dermato-venerological services.

5. Considering the growing influence and involvement of the private sector the efforts of the national health system should be directed towards re-orientation of the governmental health system making it accessible to all levels of the population, introducing client-friendly management, affordable from the cost point of view and acceptable from the proper attitude towards STI patients.

6. It is necessary to widen the involvement of the governmental STI service in its work with vulnerable groups, for example with sex workers. It is noteworthy to promote the experience of Georgia, Lithuania, Kyrgyzstan, and Armenia on provision of medical care, information and education for sex workers on the basis of the principle of anonymity and confidentiality.

7. It is appropriate to improve further STI surveillance systems and behavioural surveillance of populations, especially because of the growing epidemic of HIV/AIDS.

8. Integration of prevention and care of STI and HIV/AIDS and prevention of unwanted pregnancies are promising approaches and should widely be introduced.

9. It is necessary to introduce the general principle of STI case management into the various medical services and monitoring the quality of medical care.
Annex

PARTICIPANTS

Armenia
Professor Karen R. Babayan
    Director, Medico-Scientific Centre of Dermatology and STD, Yerevan

Azerbaijan
Dr Rashad Ismayilov
    Chief Doctor, National Dispensary, c/o WHO Liaison Office, Ministry of Health, Baku

Belarus
Dr Leonid G. Barabanov
    Chair of Dermatology and Venerology, Belarussian Institute for Advanced Medical Training, Minsk

Estonia
Dr Natalja Belova
    Senior Specialist of Disease Prevention Bureau, Ministry of Social Affairs of Estonia, Tallinn

Kazakhstan
Dr Maksut Shakirov
    Director, Republican Research, Dermatovenereological Institute, Almaty

Kyrgyzstan
Dr Djamal Nurgazieva
    Chief Physician, Chief Dermato-Venereologist, National STD Clinic, c/o WHO Liaison Office, Bishkek

Latvia
Dr Ilze Jakobsone
    Director, State Centre for Sexually Transmitted and Cutaneous Diseases, Riga

Lithuania
Dr Saulius Chaplinskas
    Director, AIDS Center of Lithuania, Vilnius

Republic of Moldova
Mr Viorel Calistu
    Head, Republican Dermatological and Venereological Centre, Ministry of Health, Chisinau
**Russian Federation**

Dr M. Gomberg  
Head of the group, Central Research Institute for Skin and Venereal Diseases, Moscow

**Tajikistan**

Dr Azizullo Kasimov  
Chief Physician, Republican Skin Venereological Hospital, Ministry of Health of Tajikistan, Dushanbe

Dr Olimdjon Kosymov  
Chief Specialist, STI Control, Ministry of Health of Tajikistan, Dushanbe

**Turkmenistan**

Mr Biashim Reyimkuliev  
Director, Central Dermato-Venereological Hospital, c/o WHO Liaison Office, Ashgabat

**Ukraine**

Dr Myroslava Zhdanova  
Deputy Head, Main Department of Health Care Provision, Head, Department of Specialized Care, Ministry of Health of Ukraine, Kiev

**Uzbekistan**

Dr Saidkasim Oripov  
Head, Chair of STD, Institute of Postgraduate Education, c/o WHO Liaison Office, Tashkent

**Temporary Advisers**

Dr Tamara Irkina  
Deputy Head, Maternal and Child Health, Ministry of Health of Ukraine, Kiev, Ukraine

Dr Gunta Lazdane  
President, FPA Latvia, Family Planning Association, Medical Academy of Latvia, Riga, Latvia

Dr Marina A. Tarasova  
Chief Dermato-Venereologist, Regional STD Service, Ryazan, Russian Federation

Ms Marina Elian  
Interpreter, Moscow, Russian Federation

Mr Igor Goussakov, Interpreter, Moscow, Russian Federation
Robert Koch Institute

Professor Reinhard Burger
  Vice-President

Dr Osamah Hamouda
  Department of Infectious Disease and Epidemiology

Dr Sonja Kiessling
  Department of Research Coordination

Dr Ulrich Marcus
  Department of Infectious Disease and Epidemiology

World Health Organization

Regional Office for Europe

Dr Alexander Gromyko
  Short-term Professional, Sexually Transmitted Infections/HIV/AIDS

Dr Lali Khotenashvili
  Short-term Professional, Sexually Transmitted Infections/HIV/AIDS

Dr Ulrich Laukamm-Josten
  Coordinator, STI Task Force Secretariat, Sexually Transmitted Infections/HIV/AIDS

Ms Marina Hansen
  Secretary, Sexually Transmitted Infections/HIV/AIDS

Headquarters

Dr Kevin R. O’Reilly
  Family and Community Health Adviser on STI