

HIV/AIDS

Surveillance in Europe



EuroHIV

**European Centre for the Epidemiological Monitoring of HIV/AIDS
WHO and UNAIDS Collaborating Centre on HIV/AIDS**



**FRENCH INSTITUTE
FOR PUBLIC HEALTH
SURVEILLANCE**

HIV/AIDS Surveillance in Europe

HIV/AIDS Surveillance in Europe is a half-yearly report prepared by EuroHIV (European Centre for the Epidemiological Monitoring of HIV and AIDS) and presents information provided by the national coordinators for the surveillance of HIV/AIDS in the WHO European Region.

Single copies and regular mailing can be requested from the address below; the report is also accessible on EuroHIV web site: www.eurohiv.org.

All data are provisional.

HIV/AIDS Surveillance in Europe may be used and copied without permission.
Citation of the source is, however, appreciated.

Suggested citation:

EuroHIV. HIV/AIDS Surveillance in Europe. Mid-year report 2007. Saint-Maurice: Institut de Veille Sanitaire, 2007. No. 76.

EuroHIV

Jane Alix, Scientific Assistant
Isabelle Devaux, Epidemiologist
Rosina Fletcher, Bilingual Assistant
Giedrius Likatavičius, Medical Epidemiologist
Anthony Nardone, Epidemiologist – programme lead

EuroHIV receives financial support from the European Commission (DG-SANCO).

Neither the European Commission nor any person acting on behalf of the Commission is liable for the use that may be made of the information contained in this report.

EuroHIV – French Institute for Public Health Surveillance
Institut de Veille Sanitaire – Département des maladies infectieuses
12 rue du Val d’Osne – 94415 Saint-Maurice cedex – France
Telephone: +33 (0)1 41 79 68 13
Fax: +33 (0)1 41 79 68 02
Email: eurohiv@invs.sante.fr – Internet: www.eurohiv.org

Contents

- Foreword**.....5

- Section 1** Prevalence of HIV infection among injecting drug users.....7
 - Annexes 1.1-1.4**
 - 1.1 HIV infections newly diagnosed in injecting drug users by country and year (2002-2006).....19
 - 1.2 HIV prevalence studies and diagnostic testing among injecting drug users (2001-2006), West.....20
 - 1.3 HIV prevalence studies and diagnostic testing among injecting drug users (2001-2006), Centre.....24
 - 1.4 HIV prevalence studies and diagnostic testing among injecting drug users (2001-2006), East.....26

- Section 2** HIV prevalence in blood donations.....31
 - Annexes 2.1-2.3**
 - 2.1. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations (first-time or candidate donors included) by country, 2001-2006.....38
 - 2.2. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations from first-time donors by country, 2001-2006.....40
 - 2.3. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations from repeat donors by country, 2001-2006.....42

- Technical note**45

Foreword

This report, the last issue of *HIV/AIDS Surveillance in Europe*, turns an important page for the EuroHIV project since, from January 2008, the coordination of the surveillance of HIV/AIDS in Europe will be carried out jointly by the European Centre for Disease Prevention and Control (ECDC) in Stockholm and the WHO Regional Office for Europe (WHO Euro) in Copenhagen.

The first report on the surveillance of AIDS in Europe, issued in April 1984 by the forerunner of EuroHIV – the WHO Collaborating Centre on AIDS, presented information on AIDS cases reported in 11 countries. The number of countries increased progressively in subsequent years to reach 53 in 2006 and a wide range of topics have been covered including the estimation of AIDS under-reporting, mortality data, analysis of reporting delays, European AIDS surveillance case definition, estimates of HIV cumulative incidence and prevalence, HIV testing, HIV prevalence in specific populations. Results from studies included in the European HIV Prevalence Database have been presented regularly since 1991. The European HIV case reporting system was set up in 1999 with most countries participating.

In this last EuroHIV report, we focus on the prevalence of HIV in blood donations and present an overview of recent HIV prevalence studies performed among injecting drug users in the WHO European Region. We hope that this will contribute to a better understanding of the HIV epidemic in Europe.

Finally, we would like to acknowledge the outstanding work of Jean-Baptist Brunet who, with the support of many other devoted people, established and ensured the continuation of the EuroHIV project here in France for over 20 years. We owe a debt of gratitude to past and present members of the EuroHIV Steering Group who were instrumental in directing our scientific priorities, to the national correspondents who participated actively in the European HIV network and to the personnel of Institut de Veille Sanitaire (InVS) and WHO Euro, who constantly supported EuroHIV over the years.

Giedrius Likatavičius
on behalf of the EuroHIV team

1. Prevalence of HIV infection among injecting drug users

Key points

- Very high levels (>50%) of HIV prevalence were found in seroprevalence studies in cities of many Eastern countries, although sub-national HIV prevalence varied substantially;
- Much lower levels of epidemic were reported in the West, mainly confined to Portugal, Spain and Italy and in the Centre, mainly attributed to Poland.

Recommendations for public health

- Target IDU in HIV testing campaigns;
- Scale up preventive interventions known to be effective among IDU;
- Target measures to prevent increasing sexual HIV transmission among partners of IDU.

Recommendations for surveillance

- Include the collection of behavioural data in HIV surveillance of IDU;
- Monitor HIV testing among IDU;
- Consider the usefulness of implementing HIV incidence testing in order to assess recent infections for evaluation of interventions and more appropriate targeting of actions.

1.1 Introduction

This section presents the following data reported to the end of 2006 for the 53 countries of the WHO European Region:

- Newly diagnosed HIV cases reported among IDU;
- HIV prevalence studies among IDU.

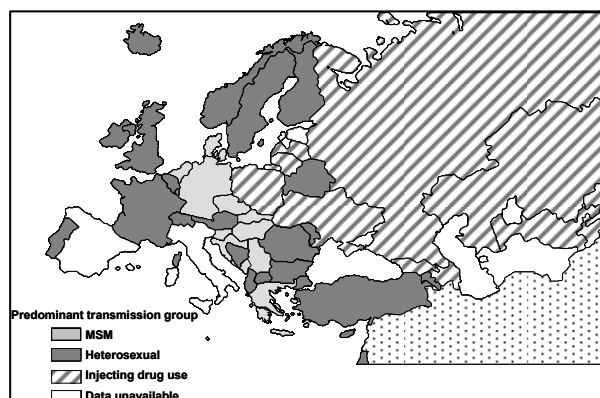
1.2 Reporting of HIV cases among IDU

By the end of 2006, 50 of the 53 countries in the WHO European Region had reported national HIV data on newly diagnosed HIV cases which were presented in the EuroHIV report No. 75

[1]. The three countries not reporting national HIV data were Italy, Monaco and Spain, although data from a number of Italian and Spanish regions have been included.

In 2006, a total of 86,912 newly diagnosed HIV cases were reported from 50 countries in the WHO European Region. Of these, 24,102 cases of HIV were reported among IDU (Annex 1.1). The status of the HIV epidemic among IDU varies according to the region and country.

Figure 1.1: *Predominant route of transmission of newly diagnosed HIV cases in WHO European Region, 2006*

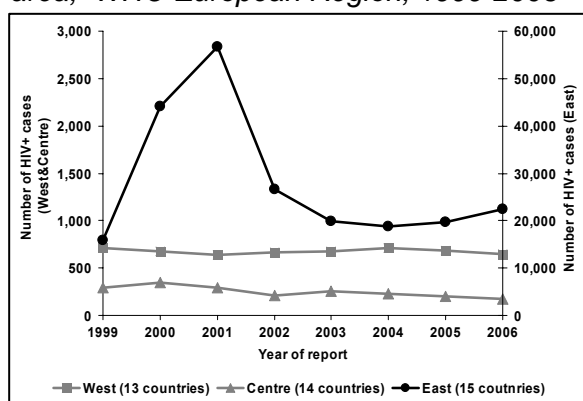


A major epidemic among IDU occurred in the East during the last decade. Of the 59,866 newly diagnosed cases reported in 2006 (a rate of 210.8 per million population), 22,376 (62%) were among IDU (data on transmission group missing for 23,936 cases). IDU represented the predominant transmission group in 11 of the 14 countries that reported route of transmission, (Figure 1.1). A peak in new HIV diagnoses reported among IDU occurred in 2001 (100,578 cases) (Figure 1.2), of which the majority (95,253 cases, 95%) were reported from the Russian Federation (88%) and Ukraine (7%). Since then, the number of cases among IDU has declined, most notably in the Russian Federation (from 48,231 in 2001 to 11,161 in 2006) and Latvia (from 665 to 108). However, since 2001, large increases have been observed in the number of HIV cases reported among IDU in eight countries: Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova,

Tajikistan, Ukraine and Uzbekistan (Annex 1.1) [1].

In the Centre, the HIV epidemic has remained at a low level, with 1,805 newly diagnosed cases reported in 2006 (a rate of 9.4 per million population), of which 177 (17%) were among IDU (data on transmission group missing for 711 cases). Since 1999, the number of reports of new diagnoses among IDU has declined from 295 to 177 in 2006.

Figure 1.2: HIV infections newly diagnosed among injecting drug users, by geographic area, WHO European Region, 1999-2006



In the West the HIV epidemic among IDU is much older and peaked in mid 1980s [2]. In 2006, 25,241 newly diagnosed cases of HIV infection were reported (a rate of 82.5 per million population) of which 1,549 (8%) were among IDU (data on transmission group missing for 5,332 cases). Since 1999, in 13 countries with consistent HIV reporting systems, the number of new HIV diagnoses reported among IDU has declined by 12.5% (from 710 in 1999 to 643 in 2006). However, these trends do not include data for Italy, Spain and Portugal, where extensive epidemics among IDU have been reported in the past. Nonetheless, recent national data from Portugal and regional data from both Italy and Spain do corroborate this decline in HIV diagnoses among IDU (Annex 1.1).

1.3 HIV prevalence studies

Information on HIV prevalence studies conducted among injecting drug users has been collected since 1992 and published

in four reports, the most recent being report No. 70 which was published in 2004 and covered the period 1998 to 2003 [3]. The data presented in this report cover the period 2001 to 2006.

Information on HIV prevalence studies among IDU included in the European HIV Prevalence Database (see Technical note) have been supplemented by data obtained from the European Monitoring Centre for Drugs and Drug Addiction [4]. For the period 2001-2006, data from over 80 studies or data collection systems in 40 countries, together with details of the tested populations, surveillance methods used and references [4-42] are presented in Annexes 1.2-1.4. The three most commonly reported types of studies are:

- **Seroprevalence studies (SP):** based either on testing of serum or saliva. In some studies, these data are based on unlinked anonymous testing (SP-UAT), which have a reduced sampling bias compared to diagnostic testing results.
- **Diagnostic testing (DT):** refers here to the systematic reporting of results of all testing carried out with the primary objective of providing individuals with their serostatus. HIV testing may have been offered by the clinician, either as part of routine testing or in the context of clinical care, or it may have been initiated by the individuals themselves. Results from diagnostic testing are the most difficult to interpret as they depend on a variety of factors, including HIV testing patterns and policies, and are subject to strong participation biases, which can increase over time as persons already known to be HIV-positive are excluded. Data with national coverage are frequently, though not always, the results from diagnostic testing.
- **Self-reported studies (SR):** HIV status is reported by the individual patient. The validity of a self-reported HIV status is less than that obtained by the testing of a biological sample. Nonetheless, self-reported status is more easily employed in the field as it avoids the difficulties of collecting biological samples in a community setting.

It is not only the type of study methodology, but also the setting of the study that can have a major impact on the interpretation of the results and hinder comparisons between different studies. For example, the prevalence of HIV will vary depending on whether the sample of IDU is recruited from specialised centres providing treatment for drug addiction (where patients may have a longer history of IDU and thus a higher prevalence) or from outreach programmes (where individuals may have a shorter history of IDU and thus a lower prevalence). Some studies include not only current or former IDU but also drug users who have never injected and are thus less at risk for HIV infection. Furthermore, in three studies, HIV prevalence was estimated by testing used syringes and, in three other studies, HIV prevalence was determined from autopsies of drug related deaths.

1.3.1 HIV prevalence in the West

For the period 2001-2006, data were available from 15 of the 23 countries with geographical coverage ranging from cities to regional or national level (countries provided the data only for specific sub-populations not included, see paragraph 1.4). Data were most often obtained from drug treatment centres and rehabilitation facilities. In addition, specific prevalence studies have been conducted in needle exchange facilities (Annex 1.2). Data from other studies were obtained in both treatment and community settings.

In three countries, HIV prevalence levels greater than 20% have been found in at least one city or region:

- Spain: diagnostic testing data from IDU starting treatment in Catalonia provided the highest reported HIV prevalence in western Europe (38% in 2001). Although only about 17% of IDU tested were female, HIV prevalence was consistently higher among female than male IDU (41% versus 37% in 2001);
- Italy: HIV prevalence among drug users attending treatment centres

nationally was 14% in 2005 and varied from 3% in Campania to 28% in Sardinia;

- France: in three studies on drug use, self-reported HIV prevalence was 14-24% in 2001-2003 and in a UAT sero-prevalence study in 2004 levels varied from 1% in Lille to 32% in Marseille (national average 11%).

HIV prevalence of between 10%-20% were reported in three other countries:

- Ireland: in a part of greater Dublin sero-prevalence study of IDU in treatment reported a prevalence of 11% in 2002;
- Portugal: national diagnostic testing data collected annually from drug users starting treatment revealed a high prevalence of 15% in 2003;
- Germany: in a study conducted annually between 2002 and 2004 among IDU recruited from the streets of Frankfurt, the highest prevalence of self-reported HIV status was 17% in 2003.

In the remaining countries, HIV prevalence reported among IDU was generally low (<5%), although local HIV prevalence of between 5 and 10% were reported in four countries:

- Belgium: in 2004, the self-reported prevalence of HIV among IDU recruited from drug treatment centres in the French-speaking community was 9% in 2004 and the sero-prevalence of HIV was 7% among drug users recruited from drug treatment centres and needle exchange programmes in Antwerp in 2005;
- Luxembourg: a self-reported HIV prevalence of 5% among drug users recruited from a variety of settings in 2005;
- Netherlands: an HIV prevalence of 10% in a UAT study conducted in Rotterdam among IDU recruited from the street and drug treatment centres in 2002;
- Norway: a prevalence of 6% in a study among IDU starting drug treatment in the eastern region of Norway in 2005.

Data for young IDU (<25 years) or for recent injectors (<2 years) were available for three countries and show levels consistently lower than those for IDU who are older or who have injected for more than 2 years. Nevertheless, among young IDU (<25 years of age) in Catalonia the reported prevalence of HIV was 13% in 2001 and in Spain (excluding Madrid and Rioja), the prevalence among new IDU (injecting history of <2 years) was 18% in 2002 (Annex 1.2).

1.3.2 HIV prevalence in the Centre

Data were available from 20 studies (studies on specific sub-populations not included, see paragraph 1.4) or systems in nine of the 15 countries of the Centre. Among these, seven systems in five countries (Croatia, Czech Republic, Hungary, Poland, Slovenia) have national coverage, while seroprevalence studies (HIV status determined by either testing serum or saliva) at city or regional level have been conducted in seven countries (Bosnia and Herzegovina, Bulgaria, the Czech Republic, Hungary, Poland, Slovenia and Slovakia) (Annex 1.3). As in the West, drug treatment centres are the main source of data, but data have also been collected through harm reduction and outreach programmes, hospitals and clinics, prisons and voluntary counselling and testing sites.

Reported prevalence levels in diagnostic studies remained below 1% in all countries except Croatia (1.3% in 2002), Serbia (1.2% in 2002) and in Poland, where a maximum of 9% was reported nationally among IDU seeking treatment in 2001, and a prevalence of 36% was reported in 2002 among IDU at drug treatment centres in the Gdansk region.

1.3.3 HIV prevalence in the East

Data were available from 36 studies or systems in 14 of the 15 countries (studies on specific sub-populations not included, see paragraph 1.4) of the East. Most

countries collected the results of diagnostic testing nationally, with most data coming from drug treatment centres, hospitals or voluntary counselling and testing sites. Over the past five years however, there has been a marked increase in the number of specific seroprevalence studies in the East, usually conducted at local level in the context of harm reduction or street outreach programmes.

National data were reported from ten of the 15 countries in eastern Europe, and the highest HIV prevalence was reported in Georgia (22%) in 2001, although data were collected not only from drug treatment facilities but also prisons. HIV prevalence levels in the range of 10-20% for at least one year in the period 2001-2006 were reported by four countries (Belarus, Estonia, Latvia and Ukraine) (Table 1.1, Annex 1.4). In the remaining four countries (Azerbaijan, Lithuania, Moldova and the Russian Federation), reported prevalence did not exceed 5%, except in Armenia (7%) in 2002 and the Russian Federation (6%) in 2001.

Table 1.1: *Highest reported HIV prevalence among IDU from national diagnostic testing (DT) studies in eastern Europe, 2001-2006*

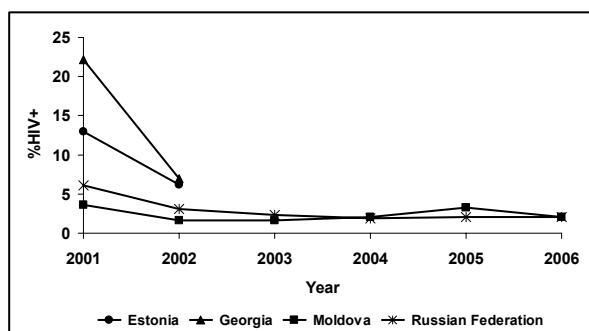
Country	Testing Site	Year	%
Armenia	Health services	2002	7.1
Azerbaijan	Health services	2006	2.2
Belarus	Health services	2006	16.7
Estonia	Health services, NEP	2001	13.0
Georgia	Health, justice services, NEP	2001	22.2
Latvia	Health and justice services	2002	14.6
Lithuania	Health services, NEP	2005	3.5
Moldova	Health services	2001	3.6
Russian Fed.	NS	2001	6.1
Ukraine	NS	2006	16.5

NEP - needle exchange programme; NS – non specified.

Trends in reported HIV prevalence have decreased since 2001 in four countries (Figure 1.3):

- Russian Federation: from 6% in 2001 to 2% in 2006
- Estonia: from 13% in 2001 to 6% in 2002,
- Georgia: from 22% in 2001 to 7% in 2002,
- Moldova: from 4% in 2001 to 2% in 2006.

Figure 1.3: Decreasing HIV prevalence from national diagnostic testing studies in the East

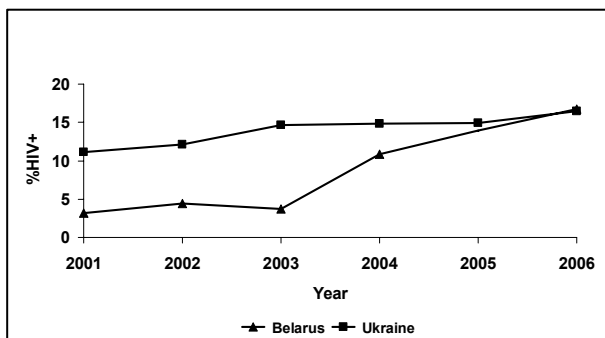


In contrast, an increase in HIV prevalence was reported in two countries (Figure 1.4):

- Belarus: from 3% in 2001 to 17% in 2006,
- Ukraine from 11% in 2001 to 17% in 2006.

No clear trend was seen in Armenia, Azerbaijan and Lithuania.

Figure 1.4: Increasing HIV prevalence from national diagnostic studies in the East, 2001-2006

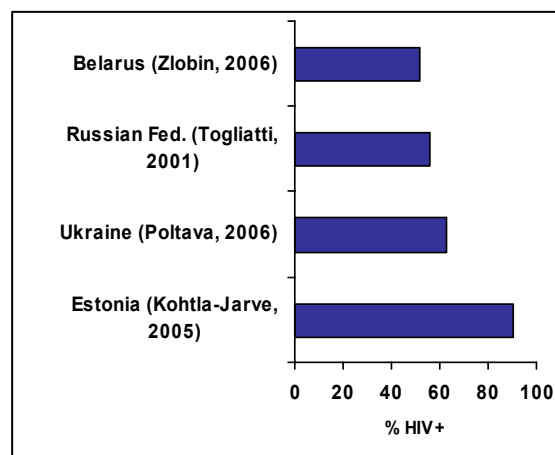


Large national studies can sometimes mask the true situation in the regions or cities. At sub-national level in many cities and regions in eastern Europe, very high prevalences of HIV have been reported,

and local HIV prevalence of >50% have been observed (Figure 1.5):

- Estonia: the highest prevalence of 90% HIV+ in a small sample of high-risk behaviour IDU in a needle exchange programme was reported in Kohtla-Jarve in 2005. In the capital, Tallinn, HIV prevalence was 54%.
- Ukraine: studies conducted among IDU participating in harm reduction and outreach programmes since 2001 found prevalence levels of >50% in Poltava, Odessa, Simferopol and Nikolaiev.
- Russian Federation: 56% of 418 IDU tested in community settings in Togliatti in 2001 and 47% of 412 IDU in Saint Petersburg in 2006 were HIV-positive.
- Belarus: in 2006 the HIV prevalence among IDU in harm reduction programmes in the city of Zlobin was 52%.

Figure 1.5: HIV prevalence >50% in selected cities in the East, 2001-2006

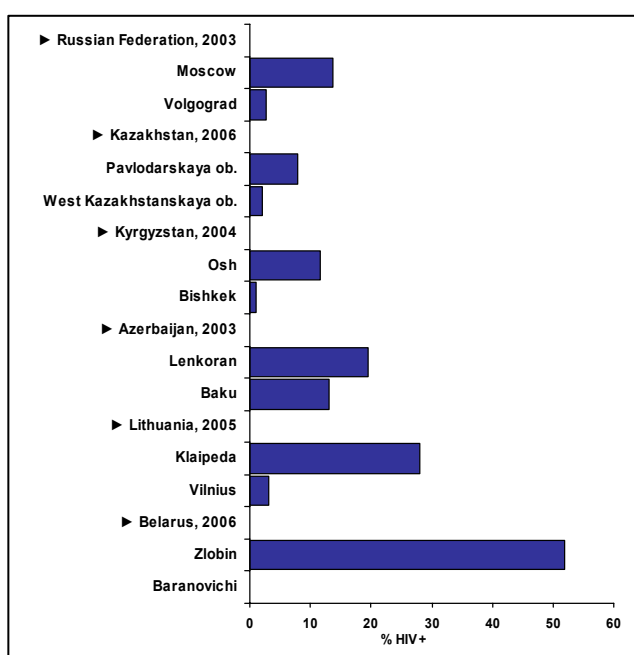


Levels of HIV prevalence between 10-30% were found in:

- Moldova: a prevalence of 22% was reported in five cities in Moldova, which contrasts strongly with levels of <5% found in national diagnostic testing.
- Latvia: in 2002-2005, an HIV prevalence of 22% was reported among successive samples of around 200-350 IDU in harm reduction programmes in and around Riga.

- Azerbaijan: in 2003, prevalence levels of 13-20% were reported from two cities (Baku, Lenkoran)
- Tajikistan: in 2006 levels of 24% were found in Dushanbe and 23% in Khujand.

Figure 1.6: HIV prevalence in selected cities, in the East, 2003-2006



Large differences of HIV prevalence between cities and/or regions within a country may suggest localised HIV spread (Figure 1.6). For example, in the Russian Federation, wide variations in HIV prevalence between different cities have been reported in one study [40], ranging from 3% in Volgograd to 14% in Moscow. These wide variations between cities and regions indicate the possibility of local HIV outbreaks. In contrast, in Ukraine, in 10 cities where HIV prevalence was assessed, levels were higher than 20% in 2004-2006 in all except Makeevka (Annex 1.4), which suggests a widely spread HIV epidemic, reaching high levels in many cities and regions.

Two studies reported HIV prevalence separately for young people: in Latvia and the Russian Federation. In Riga, Latvia in 2002, the prevalence of HIV among young IDU (<25 years of age) was higher (25%) than among older IDU (14%). In Togliatti City in the Russian Federation, HIV

prevalence in younger IDU was 58% compared to 51% among older IDU in 2001. In contrast to the situation in the West, these two studies suggest that HIV prevalence was at least as high, if not higher, among young IDU (<25 years) than among older IDU in the East.

1.4 HIV prevalence assessed in specific sub-populations

Some HIV prevalence studies were conducted in specific sub-populations of IDU and data are presented for two such populations:

- Prisons: separate results on HIV prevalence in prisons were available for 5 countries (Sweden, Bulgaria, Czech Republic, Armenia, Latvia) and are presented in Annexes 1.2-1.4. The study population was not clearly defined in all studies and the prevalence could have been underestimated in some that included non-injecting drug users in the denominator. Self-reported prevalence from IDU prisoners in Sweden was >5% and, in other diagnostic testing studies from the other countries, HIV prevalence was less than 5% except in in seroprevalence study in Armenia (Annex 1.4).
- Autopsies: data from studies of prevalence among deceased IDU were reported from three countries (Austria, Denmark and Germany), although the data from Austria also included IDU recruited from emergency services. In these studies, prevalence was >4% and in Austria and Germany, where results were available for several years, HIV prevalence levels have been reported as increasing (Annex 1.2).

1.5 Conclusion

The overall picture of HIV prevalence among IDU in Europe remains highly heterogeneous. In many western and central European countries, HIV prevalence is low and the proportion of new HIV diagnoses reported among IDU is <10% and decreasing. However, in

southern Mediterranean countries, although the number of newly diagnosed cases reported among IDU is declining, reported HIV prevalence remains high. The high long-lasting HIV prevalence reported among young IDU (<25 years of age) in Catalonia reflect the ongoing transmission in this population [3]. Thus, despite the declines in the number of diagnosed cases of HIV among IDU in many western European countries, there is a need to continue to support and maintain the public health interventions that have been proven to control HIV in this population.

In some countries in the East, the HIV epidemic started to spread intensively more than a decade ago, and large and increasing numbers of new HIV diagnoses in several countries may reflect possible continuing transmission of HIV in this population, especially among younger IDU [1]. In the East, increasing heterosexual HIV transmission partly is attributed to IDU partners [43]. There is a need to implement, more widely, public health interventions (e.g. needle exchange programmes and opiate substitution therapy) that have proven effective in the control of HIV and other infectious diseases, reducing risk behaviours and producing better outcomes in terms of drug consumption and other illicit activities [44-47].

National surveillance systems should inform policy makers and implementers of prevention programmes of the extent of the HIV epidemic and changes in the spread of HIV. At sub-national levels, surveillance should be integrated in the local level in order to supply data to support and develop local interventions. The existence of complex effective public health measures such as: interventions for the control of HIV among IDU (e.g. needles exchange programmes and opiate substitution therapy) [44;46;48-51] combined with delivery of health care services including antiretroviral treatment [52] provide policy makers with a viable response to control HIV in the population.

The sites from where studies recruit IDU may have an impact on the HIV prevalence reported. Thus, IDU recruited from drug treatment centres often represent a population frequently using drugs but who are not representative of the whole drug-using population. In contrast, IDU recruited from community settings are important as they may include IDU who do not seek healthcare services, thereby reflecting a wider IDU population.

There were regional differences in the surveillance sites across the WHO European Region. In the West, data were collected mainly from drug treatment sites, reflecting the developed network of health-care services for drug users. While in the East, more studies were performed in community settings and data from drug treatment centres were available only from a few countries.

Caution must be exercised in the interpretation of trends data from seroprevalence studies, as a number of biases may operate, which are difficult to control. For example, at the beginning of an outreach programme, contact may be made with high risk IDU whereas, later, IDU at lower risk may be recruited. Thus, simple monitoring of HIV may indicate a reduction in prevalence which may not reflect the true situation [53].

The surveillance of HIV in specific sub-populations provides additional important information about the epidemic and valuable insight into certain sub-populations. The data on IDU-related deaths include a proportion of individuals who did not seek healthcare services. Surveillance activities performed within prisons are not always easy to interpret as the data do not often describe the population clearly and may be sensitive to changes in the testing policy. In addition, the prison environment can lead to increased risk behaviour of certain prisoners compared to the general population. The possibility of confidential HIV testing should be assured for all prisoners. However, data obtained from prison settings for surveillance purposes raises certain ethical issues as voluntary

testing and confidentiality of HIV results may not always be assured. Therefore, using testing data for surveillance in prisons should be weighted carefully in order to avoid harm, and prisoners should benefit from the available interventions related to the reduction of the high risk behaviour [54].

Second-generation surveillance among IDU, including behavioural surveys, needs to be encouraged in many European countries to support the development of HIV prevention interventions at both national and European levels. As the lack of consistency in the indicators of high risk behaviour employed hinders the comparison of the situation in different countries, the establishment of a core set of standardised sexual and injecting risk behaviour measures would contribute to international comparisons and provide better information for the development and evaluation of national approaches for HIV prevention among IDU. Surveillance data, including behavioural data, are important to formulate public health strategy, to support and expand HIV prevention programmes, drug and HIV treatment services.

Novel methods for the detection of recent HIV infection such as detuned or avidity of anti-HIV antibodies tests, which are still under development, are important for surveillance as they provide information on incident HIV cases, giving valuable information on the efficiency of different interventions and on the course of the epidemic [55-57].

Injecting drug use remains one of the major transmission routes of HIV in Europe. The need to ensure good surveillance is highlighted by the explosive epidemics that have been reported in the past [37;58;59] as well as by the ability of the infection to cross national boundaries by a mobile population [60]. Thus, the surveillance of the HIV epidemic among IDU at the European level is needed to provide a better understanding of transmission and to guide the response to the epidemic.

References

1. EuroHIV. HIV/AIDS surveillance in Europe. End-year report 2006. Saint-Maurice: Institut de veille sanitaire, 2007. No. 75.
2. Downs AM, Heisterkamp SH, Rava L, Houweling J, Jager JC, Hamers FF. Back-calculation by birth cohort, incorporating age-specific disease progression, pre-AIDS mortality and change in European AIDS case definition. European Union Concerted Action on Multinational AIDS scenarios. *AIDS* 2000;14:2179-89.
3. EuroHIV. HIV/AIDS surveillance in Europe. End-year report 2003. Saint-Maurice: Institut de veille sanitaire, 2004. No. 70.
4. European Monitoring Centre for Drugs and Drug Addiction. Annual report 2006 - the state of the drugs problem in the European Union. Lisbon: EMCDDA, 2006.
5. Reitox Focal Point Austria, Bericht zur drogensituation. Gesundheit Österreich GMBH, Geschäftsbereich Öbig 2007.
6. Plasschaert S, Ameye L, et al. Study on HCV, HBV and HIV seroprevalence in a sample of drug users in contact with treatment centres or in prisons in Belgium 2004-2005. Brussels: Scientific Institute of Public Health, 2005. No. 2005-029.
7. Christensen PB, Kringsholm B, Banner J, Thomsen JL, Cowan S, Stein GF, et al. Surveillance of HIV and viral hepatitis by analysis of samples from drug related deaths. *European Journal of Epidemiology* 2006;21:383-7.
8. Emmanuelli J, Jauffret-Roustide M. Etude multicentrique multisites sur les frequences et les determinants des pratiques à risque de transmission des VIH et VHC chez les usagers de drogues (étude Coquelicot): phase de faisabilité, Janvier 2001 - Septembre 2002. Saint-Maurice: Institut de veille sanitaire, 2007.
9. Guichard A, Lert F, Calderon C, et al. Illicit drug use and injection practise among drug users on Methadone and buprenorphine maintenance treatment in France. *Addiction* 2003;98:1585-97.
10. Jauffret-Roustide M, Couturier E, Le Strat Y, Barin F, Emmanuelli J, Semaille C, et al. Estimation de la séroprévalence du VIH et du VHC et profils des usagers de drogues en France, étude InVS-ANRS Coquelicot, 2004. *Bulletin Epidemiologique hebdomadaire* 2006;33:244-7.
11. Jauffret-Roustide M, Emmanuelli J, Quaglia M, Barin F, Arduin P, Laporte A, et al. Impact of a Harm-Reduction Policy on HIV and Hepatitis C virus Transmission among Drug Users: Recent french Data - the ANRS - Coquelicot Study. *Subst Use and Misuse* 2006;41:1603-21.
12. de Boer IM, Op de Coul ELM, Koedijk FDH, van Veen MG, van Sighem AI, van de Laar MJW. HIV and Sexually Transmitted Infections in the Netherlands in 2005. Bilthoven, Netherlands: RIVM, Center for Infectious Disease Control, 2006. No. 441100024/2006.
13. Waal H, Clausen T, Aamodt C, Lillevaold PH. LAR i Norge. Statusrapport 2006 [report in Norwegian]. Oslo: SKR, 2007.
14. Steen K, Kvalvåg G, Dalgard O, Skau K, et al. Vaksinasjonskamje og undersøkelse blant sprøytemisbrukere i Oslo [in Norwegian]. MSIS Newsletter Norwegian Institute of Public Health 2003;31-2.
15. Project EPI-VIH: Evolution of HIV prevalence in the eleven centres of sexual transmission diseases and/or HIV diagnosis, 1991-2004. Madrid: Institute de Salud Carlos III, Ministry of Health, 2005.
16. Barrasa A, Castilla J, del Romero J, Pueyo I, de Armas C, Varela JA, et al. Sentinel surveillance of

- HIV infection in HIV test clinics, Spain 1992-2002. *Euro Surveill* 2004;9(27):29.
17. SIVES. Informe anual 2003. (Technical Document CEESCAT 16). Barcelona: Generalitat de Catalunya, Departament de Sanitat i Seguretat Social, 2003.
 18. Health Protection Agency, Health Protection Scotland, National Public Health Service for Wales CNI, CRDHB, UASSG. Shooting Up: Infections among injecting drug users in the United Kingdom 2005. An Update: October 2006. London: Health Protection Agency, 2007.
 19. Codere G. Focus: HIV prevalence among non-IDU heterosexuals, IDUs, and men who have sex with men who undergo attributable HIV testing in Scotland: 2006 update. *HPS Weekly report* 2007;41:249-50.
 20. Vassilev ZP, Hagan H, Lyubenova A, Tomov N, Vasilev G, Krasteva D, et al. Needle exchange use, sexual risk behavior, and the prevalence of HIV, hepatitis B virus, and hepatitis C virus infections among Bulgarian injection drug users. *International Journal of STD & AIDS* 2006;17(9):621-6.
 21. Rosi M, Werbi B. AIDS and HIV infection in Poland in 2002. *Przegląd Epidemiologiczny* 2004;58:171-81.
 22. Rosínska M, Zielinski A. Oszacowanie występowania chorób zakaźnych (wirusowe zapalenie wątroby typu C i B, HIV) wśród narkomanów przyjmujących środki odurzające w iniekcji w miastach o różnym stopniu realizacji programów redukcji szkód. Warsaw: National Institute of Hygiene, 2004.
 23. Klavs I, Polijak M. Unlinked anonymous monitoring of human immunodeficiency virus - prevalence in high and low risk groups in Slovenia, 1993-2002. *Croatian Medical Journal* 2003;44(5):545-9.
 24. Grigoryan S, Hakobyan A, Papoyan A, Manukyan A, et al. Results of behavioral and biological HIV surveillance in the Republic of Armenia 2002 and 2005. Yerevan: Armenian National AIDS Foundation, 2006.
 25. Smolskaya TT, Yakovleva AA, Kasumov VK, Gheorgitsa SI. HIV sentinel surveillance in high risk groups in Azerbaijan, Republic of Moldova and in the Russian Federation. Copenhagen: WHO, 2004. No. EYR/03/5057956.
 26. Meleshko. Annual Report 2006. Minsk: AIDS Prevention Department of the National Centre for Hygiene, Epidemiology and Health, 2006.
 27. Meleshko LA, Kechina EA, Zhadanovskaya OM, Sergeenko SV, Zeliutkin VP. Results of sentinel surveillance of HIV in the Republic of Belarus [in Russian]. Minsk: Republic centre of Hygiene, Epidemiology and Public Health, 2007.
 28. Platt L, Bobrova N, Rhodes T, Uuskula A, Parry JV, Rützel K, et al. High HIV prevalence among injecting drug users in Estonia: implications for understanding the risk environment. *AIDS* 2006;20:2120-3.
 29. Uuskula A, Heimer R, DeHovitz J, Fischer K, McNutt L. Surveillance of HIV, hepatitis B virus and hepatitis C virus in an Estonian injection drug-using population: sensitivity and specificity testing syringes for public health surveillance. *Journal of Inf Dis* 2006;193:455-7.
 30. OCC programme monitoring database. HIV prevalence among IDUs - clients of OCCs in capital city area by year. Riga, 2007.
 31. Selakova L, Upmace I, Dievberna I. Large fall in new HIV diagnoses in Latvia in 2002. *Eurosurveill* 2003;(6) 030206.
 32. Drug Control Department. 2006 National report to EMCDDA by Reitox National Focal Point. Vilnius: Drug Control Department, 2007.
 33. Malinauskaite A. Improvement and integration of health care delivery of city health care system to injecting drug users, infected HIV, HCV, HBV. survey report 2006 [in Lithuanian]. Vilnius: Vilnius Centre for Addictive Disorders, 2006.
 34. National Scientific Center for Preventive Medicine AIDS center. HIV sentinel surveillance study. Chisinau: AIDS center, 2004.
 35. Pokrovskij VV, Ladnaya NN, Sokolova EV, Buravtsova EV, Kravtchenko AV. HIV infection , informational biuletein No.30 [in Russian]. Moscow: Federal scientific-methodological centre of prophylactic and fight against AIDS, 2007.
 36. Abdala N, Carney JM, Durante AJ, Klimov N, Ostrovski D, Somlai AM, et al. Estimating the prevalence of syringe-borne and sexually transmitted diseases among injection drug users in St Petersburg, Russia. *International Journal of STD & AIDS* 2003;14:697-703.
 37. Rhodes T, Lowndes CM, Judd A, Mikhailova LA, Sarang A, Rylkov A, et al. Explosive spread and high prevalence of HIV infection among injecting drug users in Togliatti City, Russia. *AIDS* 2002;16:F25-F31.
 38. Molotilov V, Sofronova V, Gusseyanova N, Laricheva N. Rapid increase in HIV rates - Orel Oblast, Russian Federation 1999-2001. *MMWR* 2003;52:657-60.
 39. Niccolai LM, Toussova O, Verevchkin S, Heimer R, Kozlov A. Updated estimates of HIV incidence and prevalence in St.Petersbourg, Russia: continued growth of an explosive epidemic. 10th IUSTI World congress: Seattle, 2007. No. [Abstract P-264].
 40. Rhodes T, Platt L, Maximova S, Koshkina E, Latishevskaya N, Hickman M, et al. Prevalence of HIV, hepatitis C and syphilis among injecting drug users in Russia: a multi-city study. *Addiction* 2006;101:252-66.
 41. Booth RE, Kwiatkowski CF, Brewster JT, Sinitzyna L, Dvoryak S. Predictors of HIV sero-status among drug injectors at three Ukraine sites. *AIDS* 2006;20:2217-23.
 42. Usmanova SU. Results of sentinel surveillance among injecting drug users and commercial sex workers in Tashkent. Building Public Health Capacity and Integration of Disease Control programs in Central Asia: CDC: Tashkent, 2005.
 43. Wiessing L, Nardone A. Ongoing HIV and viral hepatitis infections in IDUs across the EU, 2001-2005. *Euro Surveill* 2006;11(061123).
 44. Wodak A, Cooney A. Do needle syringe programs reduce HIV infection among injecting drug users: a comprehensive review of the international evidence. *Subst Use Misuse* 2006;348:987-91.
 45. Hurley SF, Jolley DJ, Kaldor JM. Effectiveness of needle-exchange programmes for prevention of HIV infection. *Lancet* 1997;349:1797-800.
 46. Sorensen JL, Copeland AL. Drug abuse treatment as an HIV prevention strategy: a review. *Drug and alcohol dependence* 2000;59:17-31.
 47. Emmanuelli J, Desenclos JC. Harm reduction interventions, behaviours and associated health outcomes in France, 1996-2003. *Addiction* 2005;100:1690-700.
 48. WHO. Effectiveness of drug dependence treatment in preventing HIV among injecting drug users. Geneva: World Health Organisation, 2005.
 49. WHO. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Geneva: World Health Organisation, 2004.
 50. Connock M, Juarez-Garcia A, Jowett S, Frew E, Liu Z, Taylor RJ, et al. Methadone and buprenorphine for the management of opioid dependence: a systematic review and economic

- evaluation. *Health Technology Assessment* 2007;11.
51. Cabasés JM, Sanchez E. Costs and effectiveness of a syringe distribution and needle exchange program for HIV prevention in a regional setting. *Eur J Health Econ* 2003;4:203-8.
 52. Donoghoe MC, Bollerup AR, Lazarus JV, Nielsen S, Matic S. Access to highly active antiretroviral therapy (HAART) for injecting drug users in the WHO European Region 2002-2004. *International Journal of drug policy* 2007;18:271-80.
 53. Iguchi MY, Bux DA, Lidz V, Kushner H, French JF, Platt JJ. Interpreting HIV seroprevalence data from a street-based outreach program. *Journal of AIDS* 1994;7:491-9.
 54. Sarang A, Rhodes T, Platt L, Kirzhanova V, Shelkownikova O, Volnov V, et al. Drug injecting and syringe use in the HIV risk environment of Russian penitentiary institutions: qualitative study. *Addiction* 2006;101:1787-96.
 55. Kothe D, Byers RH, Caudill SP, Satten GA, Janssen RS, Hannon WH, et al. Performance characteristics of a new less sensitive HIV-1 enzyme immunoassay for use in estimating HIV seroincidence. *Journal of AIDS* 2003;33:625-34.
 56. Suligoi B, Galli C, Massi M, Di Sora F, Sciandra M, Pezzotti P, et al. Precision and accuracy of a procedure for detecting recent human immunodeficiency virus infections by calculating the antibody avidity index by an automated immunoassay-based method. *J Clinical Microbiol* 2002;40:4015-20.
 57. Barin F, Meyer L, Lancar R, Deveau C, Gharib M, Laporte A, et al. Development and validation of an immunoassay for identification of recent human immunodeficiency virus type 1 infections and its use on dried serum spots. *J Clinical Microbiol* 2005;43:4441-7.
 58. Uuskula A, Kalikova A, Zilmer K, et al. The role of injection drug use in the emergence of human immunodeficiency virus infection in Estonia. *Int J Infect Dis* 2002;6:23-7.
 59. Kivela P, Krol A, Slmola S, vaattovaara M, Tuomola P, brummer-Korvenkontion H, et al. HIV outbreak among injecting drug users in the Helsinki region: social and geographical pockets. *European Journal of Public Health* 2007;17:381-6.
 60. Hamers FF, Devaux I, Alix J, Nardone A. HIV/AIDS in Europe: trends and EU-wide priorities. *Euro Surveill* 2006;11(11).

Annexes 1.1-1.4
HIV among IDU
2001-2006

Annex 1.1 HIV infections newly diagnosed in injecting drug users by country and year of report (2002-2006), and cumulative totals, WHO European Region, data reported by 31 December 2006

Geographic area	Year of report					Cumulative total reported *	Change in no. reported HIV cases among IDU: 2002-2006
	Country	2002	2003	2004	2005		
West							
Andorra †	–	–	8	1	0	9	–
EU Austria ‡	75	80	102	92	62	656 ‡	-17%
EU Belgium	22	32	25	13	11	703	-50%
EU Denmark	32	23	14	19	9	427	-72%
EU Finland	26	23	10	16	10	323	-62%
EU France §	–	127	198	174	167	666	–
EU Germany	131	135	133	135	168	2,635	28%
EU Greece	17	11	11	20	17	301	0%
Iceland	1	1	1	0	1	21	0%
EU Ireland	50	49	71	66	57	1,327	14%
Israel	65	41	56	51	37	662	-43%
EU Italy	239	207	190	138	–	774	–
EU Luxembourg	5	4	3	7	4	105	-20%
EU Malta †	–	–	2	0	2	4	–
Monaco ¶	–	–	–	–	–	–	–
EU Netherlands **	182	81	46	30	17	616	-91%
Norway	13	15	17	15	12	528	-8%
EU Portugal	1,125	860	985	846	703	8,082	-38%
San Marino	0	0	0	0	0	11	–
EU Spain ††	–	209	180	130	–	519	–
EU Sweden	31	32	31	25	35	1,001	13%
Switzerland	68	109	83	71	50	3,513	-26%
EU United Kingdom	147	132	169	177	187	4,593	27%
Total West	2,229	2,171	2,335	2,026	1,549	27,476	
Centre							
Albania	1	0	0	0	0	1	-100%
Bosnia & Herzegovina	1	0	3	2	3	19	200%
EU Bulgaria	2	0	7	13	34	66	1600%
Croatia	1	2	4	1	4	35	300%
EU Cyprus	0	0	0	1	0	6	–
EU Czech Republic	1	4	7	4	5	43	400%
EU Hungary	1	1	2	2	0	17	-100%
Macedonia, F.Y.R.	0	0	0	2	1	9	–
Montenegro	0	0	0	0	0	3	–
EU Poland	184	223	187	157	112	5,461	-39%
EU Romania	3	4	0	2	3	16	0%
Serbia ††	15	18	15	11	7	66 ††	-53%
EU Slovakia	0	0	0	0	1	3	–
EU Slovenia	0	0	0	0	1	13	–
Turkey	5	5	6	8	6	124	20%
Total Centre	214	257	231	203	177	5,882	-17%
East							
Armenia	27	14	33	46	24	224	-11%
Azerbaijan	39	43	61	110	186	573	377%
Belarus	581	448	359	276	242	4,928	-58%
EU Estonia	702	346	247	192	191	2,396	-73%
Georgia	64	64	105	128	156	716	144%
Kazakhstan	500	502	433	636	1,162	5,422	132%
Kyrgyzstan	129	110	126	103	168	807	30%
EU Latvia	397	233	145	114	108	2,368	-73%
EU Lithuania	379	85	101	85	62	928	-84%
Moldova, Republic of	140	138	182	228	236	2,099	69%
Russian Federation	18,503	12,174	10,200	10,283	11,161	166,044	-40%
Tajikistan	17	33	105	142	99	435	482%
Turkmenistan	0	0	0	0	0	0	–
Ukraine	4,587	4,815	5,778	6,270	7,127	59,619	55%
Uzbekistan	631	918	831	1,140	1,454	5,571	130%
Total East	26,696	19,923	18,706	19,753	22,376	252,130	-16%
Total European Union (EU)	3,751	2,901	2,866	2,458	1,966	34,049	-48%
Total WHO European Region	29,139	22,351	21,272	21,982	24,102	285,488	-17%

EU Countries which constitute the European Union as of 1 January 2007.

* Cumulative totals available since the beginning of reporting (see Reference no. 1 in Commentary).

† New HIV reporting system started in 2004

‡ Cumulative total since 1998 (data not available by transmission group prior to 1998).

§ New HIV reporting system started in 2003 (data March-December for 2003).

|| HIV reporting exists in 10 regions/provinces (Bolzano, Friuli Venezia-Giulia, Lazio, Liguria, Modena, Piemonte, Rimini, Sassari, Trento, Veneto); data (presented by year of diagnosis) available for all 10 regions/provinces for 2002-2005 only.

¶ Data not available.

** New HIV reporting system started in 2002; 2002 data include many cases diagnosed in previous years. Data prior to 2002 are from a national cohort of HIV positive adults receiving antiretroviral therapy.

†† HIV reporting exists some of the 19 Autonomous regions but data (presented by year of diagnosis) are only available for 8 regions (Balearic Islands, Basque Country, Canary Islands, Catalonia, Ceuta, Extremadura, La Rioja, Navarre) comprising 32% of the total Spanish population

‡‡ Cumulative total since 2002 (data not available by transmission group prior to 2002); data not available from Kosovo from 1999.

Annex 1.2 HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, West

Country	Surveillance methods and population studied			2001	
	Coverage	Data	Population	Site	N tested %HIV+
Austria					
National	DT	Drug-related deaths/emergencies	Autopsies, emergency services		139 5.8
Vienna	DT	IDU	NEP, LTS		153 1.3
Belgium					
French Community	SR	IDU	DTC		267 3.4
Flemish Community	DT	IDU	DTC		118 1.7
Flemish Community: Antwerp	SP	IDU	DTC, NEP		254 5.9
Denmark					
National	SP	IDU	Autopsies		– –
Finland					
Helsinki, Tampere, Vantaa	DT	IDU	NEP		
- Helsinki					615 1.5
- Tampere, Vantaa *					516 0.0
Helsinki, Vantaa	SP (UAT) †	IDU	NEP		139 0.7
- Helsinki					59 0.0
France					
Marseille	SP (UAT) ‡	Drug users (current & former) §	DTC, NEP, street, GP, residential c		– –
Paris, Montpellier, Mulhouse	SR	Drug users in drug treatment ¶	DTC, GP, NEP		– –
12 cities **	SR	IDU	NEP, LTS, street		350 13.7
5 cities	SP-UAT	IDU	DTC, GP, street, residential centre		– –
- Bordeaux					– –
- Lille					– –
- Marseille					– –
- Paris					– –
- Strasbourg					– –
Germany					
National	SR	IDU	DTC		219 4.1
National	DT	Drug-related deaths	Autopsies ††		– –
Frankfurt	SR	IDU	Street		– –
Greece					
National	DT	IDU	DTC, LTS, STI, VCT		1,099 1.5
- Attica (Athens)					1,040 1.4
- <25 years					– –
National	DT	IDU	DTC		– –
- Attica (Athens)					– –
Ireland					
Greater Dublin (South-west region)	SP	IDU	DTC		– –
Italy					
National ††	SP	Drug users in drug treatment §§	DTC		71,769 14.8
- Campania					9,161 3.6
- Lombardy					14,670 26.1
- Sardinia					1,889 26.5
- Tuscany					4,170 10.0
National	SP	STI patients	STI clinic		– –
Luxembourg					
National	SR	IDU	DTC, NEP, prison		205 3.4

Data:
DT: Diagnostic testing
SP: Seroprevalence study
SR: Self-reported HIV serostatus
UAT: Unlinked anonymous testing

Site:
DTC: Drug treatment centres
GP: General practitioners
LTS: Low threshold services for drug users
NEP: Needle exchange programmes
STI: Sexually transmitted infection clinics
VCT: HIV voluntary counselling & testing centres

* 2002, 2004 & 2005: data for Vantuaa only; 2003: Tampere only
† Saliva testing
‡ Dried blood spots
§ 22% current injectors (2002)
¶ Self-reported prevalence = 23% (36/159)
¶¶ 26% injected in last month (2002)
** Cities not specified
†† Autopsy rates 25-100% by state
‡‡ Data from 21 regions (4 shown separately to reflect range of levels and trends)
§§ Drug users attending public DTC; 5-10% non-injectors

Ref.: References, see Commentary

Annex 1.2 HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, West

(Cont.)

2002		2003		2004		2005		2006		Country	
tested	%HIV+	tested	%HIV+	tested	%HIV+	tested	%HIV+	tested	%HIV+	Ref.	Coverage
Austria											
139	3.6	130	8.5	130	8.5	118	11.9	112	7.1	5	National
151	4.0	151	4.0	159	6.3	163	3.1	113	1.8	5	Vienna
Belgium											
180	0.0	239	4.6	122	9.0	–	–	–	–	4	French Community
62	1.6	82	1.2	97	4.1	–	–	–	–	4,6	Flemish Community
259	6.2	287	5.6	295	6.1	340	7.1	–	–	4,6	Flemish Community: Antwerp
Denmark											
–	–	–	–	214	4.2	–	–	–	–	7	National
Finland											
–	–	–	–	–	–	–	–	–	–	4	Helsinki, Tampere, Vantaa
555	0.4	475	0.4	564	0.7	416	0.0	–	–	–	- Helsinki
227	0.0	257	0.0	302	0.0	373	0.0	–	–	–	- Tampere, Vantaa *
296	0.7	–	–	231	1.7	–	–	–	–	4	Helsinki, Vantaa
212	0.9	–	–	148	2.7	–	–	–	–	4	- Helsinki
France											
133	21.8	–	–	–	–	–	–	–	–	8	Marseille
326	23.0	–	–	–	–	–	–	–	–	9	Paris, Montpellier, Mulhouse
358	13.7	563	13.7	–	–	–	–	–	–	4	12 cities **
–	–	–	–	817	11.0	–	–	–	–	10,11	5 cities
–	–	–	–	123	3.3	–	–	–	–	–	- Bordeaux
–	–	–	–	100	1.0	–	–	–	–	–	- Lille
–	–	–	–	129	31.8	–	–	–	–	–	- Marseille
–	–	–	–	335	11.0	–	–	–	–	–	- Paris
–	–	–	–	130	3.8	–	–	–	–	–	- Strasbourg
Germany											
608	6.2	785	3.7	843	3.7	–	–	–	–	4	National
933	4.6	1,927	3.9	1,077	4.0	1,326	5.3	–	–	4	National
141	12.8	145	17.2	147	12.2	–	–	–	–	4	Frankfurt
Greece											
1,328	0.4	1,378	0.8	1,377	0.7	1,023	0.3	–	–	4	National
996	0.5	1,062	0.8	884	0.8	687	0.2	–	–	–	- Attica (Athens)
354	0.0	251	0.0	317	0.3	185	0.0	–	–	–	- <25 years
258	0.8	653	0.2	738	0.3	739	0.3	–	–	4	National
127	0.0	169	0.0	447	0.2	445	0.2	–	–	–	- Attica (Athens)
Ireland											
307	10.7	–	–	–	–	–	–	–	–	–	Greater Dublin (South-west region)
Italy											
70,075	14.7	71,989	14.2	67,683	13.9	65,848	13.8	–	–	4	National ††
8,636	2.8	9,804	3.0	9,485	2.6	7,708	2.5	–	–	–	- Campania
14,039	27.2	14,300	25.6	13,067	24.8	13,075	23.2	–	–	–	- Lombardy
1,528	25.7	1,364	29.6	1,702	24.7	1,542	27.6	–	–	–	- Sardinia
4,237	11.9	3,972	11.4	3,193	13.7	3,464	9.1	–	–	–	- Tuscany
–	–	259	13.1	254	10.6	–	–	–	–	–	National
Luxembourg											
245	4.1	221	4.5	196	5.1	227	4.0	–	–	4	National

Annex 1.2 HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, West

Country	Surveillance methods and population studied			2001		
	Coverage	Data	Population	Site	N tested	%HIV+
(Cont.)						
Netherlands						
Rotterdam		SP (UAT) *	Current IDU	DTC, street	-	-
Norway						
National		SP	IDU †	DTC, rehabilitation	-	-
- Eastern Health Region					-	-
- Southern health Region					-	-
- Western Health Region					-	-
- Central Health Region					-	-
- Northern Health Region					-	-
Oslo		SP	IDU	NEP	186	0.5
Portugal						
National		DT	Drug users (IDU status unknown)	DTC, rehabilitation	2,683	13.6
- Lisbon					728	19.6
- North					877	17.4
- Centre					908	6.1
- Algarve					133	7.5
National		DT	Drug users (IDU status unknown)	DTC, therapeutic community	3,863	17.8
National		DT	Drug users (IDU status unknown)	DTC, detoxification unit	2,694	16.8
Spain						
National (18 cities) §		DT	IDU seeking HIV testing	VCT, STI	899	14.1
National, excl. Madrid, La Rioja		DT	IDU	DTC	7,528	33.7
- <25 years					809	14.0
- new injectors (<2 years)					179	21.2
Catalonia		DT	IDU	DTC	1,244	37.5
- male					1,038	36.9
- female					206	40.8
- <25 years					120	13.3
Sweden						
Stockholm		SR	IDU	Prison	-	-
Switzerland						
National		DT	IDU seeking HIV testing	VCT	73	2.7
United Kingdom						
England & Wales		SP (UAT) ¶	IDU	DTC, NEP, LTS, street, hosp	2,855	1.0
- London					515	4.5
- outside London					2,340	0.3
- <25 years					629	0.5
- new injectors (<3 years)					551	0.4
Scotland **		DT	IDU seeking HIV testing	VCT, DTC, STI, hospital, GP, priso	2,154	0.8
- Greater Glasgow					660	0.5
- Lothian (Edinburgh)					337	2.4
- Tayside (Dundee)					146	2.1
- <25 years					686	0.3

Data:

DT: Diagnostic testing
SP: Seroprevalence study
SR: Self-reported HIV serostatus
UAT: Unlinked anonymous testing

Ref.: References, see Commentary

Site:

DTC: Drug treatment centres
GP: General practitioners
LTS: Low threshold services for drug users
NEP: Needle exchange programmes
STI: Sexually transmitted infection clinics
VCT: HIV voluntary counselling and testing centres

* Serum or saliva testing

† IDU tested for HIV at entry into drug assisted rehabilitation

§ "EPI-VIH prospective" study: current and former IDU tested for the first time;

|| N. Ireland included from 2002

¶ Saliva testing

** "Denominator study"

Annex 1.2 HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, West

(Cont.)

2002		2003		2004		2005		2006		Country	
tested	%HIV+	tested	%HIV+	tested	%HIV+	tested	%HIV+	tested	%HIV+	Ref.	Coverage
Netherlands											
452	9.5	-	-	-	-	-	-	-	-	12	Rotterdam
Norway											
-	-	-	-	-	-	2,786	3.6	3,349	3.2	13	National
-	-	-	-	-	-	1,076	6.2	1,322	5.4		- Eastern Health Region
-	-	-	-	-	-	752	2.5	869	2.0		- Southern health Region
-	-	-	-	-	-	612	1.5	762	1.7		- Western Health Region
-	-	-	-	-	-	231	2.2	272	2.2		- Central Health Region
-	-	-	-	-	-	115	0.0	114	0.0		- Northern Health Region
410	1.2	229	0.9	264	0.4	258	0.4	231	1.3	14	Oslo
Portugal											
1,688	10.8	1,443	15.0	1,154	12.0	917	12.0	-	-	4	National
-	-	-	-	-	-	-	-	-	-		- Lisbon
-	-	-	-	-	-	-	-	-	-		- North
-	-	-	-	-	-	-	-	-	-		- Centre
-	-	-	-	-	-	-	-	-	-		- Algarve
3,930	16.0	3,966	16.0	3,993	17.0	3,962	16.0	-	-	4	National
2,764	13.3	-	-	-	-	-	-	-	-	4	National
Spain											
759	9.7	673	11.1	599	11.5	534	10.1	-	-	15,16	National (18 cities) §
5,268	32.0	8,033	27.2	7,046	25.4	-	-	-	-	4	National, excl. Madrid, La Rioja
555	12.1	862	3.8	614	3.6	-	-	-	-		- <25 years
114	17.5	-	-	-	-	-	-	-	-		- new injectors (<2 years)
961	33.0	-	-	-	-	-	-	-	-	17	Catalonia
805	32.2	-	-	-	-	-	-	-	-		- male
156	37.2	-	-	-	-	-	-	-	-		- female
98	11.2	-	-	-	-	-	-	-	-		- <25 years
Sweden											
-	-	-	-	-	-	379	5.5	358	6.4	4	Stockholm
Switzerland											
97	3.1	79	1.3	72	1.4	-	-	-	-		National
United Kingdom											
2,796	0.9	2,702	1.2	2,686	1.4	3,176	1.6	3,240	1.3	18	England & Wales
608	3.6	801	2.9	645	3.9	628	3.2	593	4.0		- London
2,188	0.2	1,901	0.5	2,040	0.6	2,548	1.3	2,646	0.7		- outside London
465	0.4	462	0.4	460	0.0	475	1.1	455	0.4		- <25 years
400	0.3	386	0.8	345	0.6	397	1.3	388	0.8		- new injectors (<3 years)
2,040	0.4	2,008	0.4	1,947	0.6	2,117	0.5	2,140	0.7	19	Scotland **
615	0.0	553	0.5	406	0.2	432	0.5	441	0.7		- Greater Glasgow
371	1.1	373	0.3	589	0.7	662	1.2	574	0.7		- Lothian (Edinburgh)
170	0.0	148	2.0	151	0.0	157	1.3	135	2.2		- Tayside (Dundee)
649	0.2	584	0.2	-	-	-	-	-	-		- <25 years

**Annex 1.3. HIV prevalence studies and diagnostic testing among injecting drug users (IDU):
numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, Centre**

Country	Surveillance methods and population studied			2001		
	Coverage	Data	Population	Site	N tested	%HIV+
Bosnia & Herzegovina						
	Sarajevo, Mostar	DT	IDU	DTC, hospital	–	–
Bulgaria						
	Cities *	SP	IDU	NEP, street, mobile medical unit	–	–
	Sofia	SP	IDU	DTC, NEP	–	–
	Sofia	DT	IDU	DTC, NEP, LTS,VCT	689	0.0
	Sofia	DT	IDU	Prison	–	–
Croatia						
	National	DT	IDU	STI, hospital, VCT, DTC, NEP	724	0.7
Czech Republic						
	National	DT	IDU	DTC, NEP, LTS, STI, hospital	2,169	0.05
	National	DT	IDU	Prison	–	–
	National	SR	IDU	DTC †	–	–
	- <25 years				–	–
	National	DT	Drug users (IDU status unknown)	LTS	–	–
	Prague, Bohemia, Moravia	SP ‡	IDU	DTC§, NEP, LTS, street	961	0.0
Hungary						
	National	SP	IDU	DTC	315	0.0
Poland						
	National	DT	IDU seeking HIV testing	VCT, DTC, STI	2,952	9.1
	Gdansk region	SP	IDU	DTC, street	–	–
	- drug treatment centres				–	–
	3 regions ¶	SP	IDU	DTC, NEP, street	–	–
	Regional	SP	IDU	DTC, NEP, street	–	–
	- Lubuskie				–	–
	- Slaskie				–	–
	- Warsaw				–	–
Serbia						
	Belgrade	DT	Drug users seeking medical assistance	DTC	902	0.4
	Belgrade, Vojvodina **	DT	IDU	VCT	–	–
Slovakia						
	Bratislava, Kosice	DT	Drug users seeking medical assistance	DTC	590	0.0
Slovenia						
	National	DT	IDU	DTC	–	–
	Ljubljana and Koper regions ††	SP (UAT) ‡	Drug users	DTC	153	0.0
	Ljubljana	SP (UAT) ‡	IDU	NEP	–	–

Data:

DT: Diagnostic testing
SP: Seroprevalence study
SR: Self-reported HIV serostatus
UAT: Unlinked anonymous testing

Ref.: References, see Commentary

Site:

DTC: Drug treatment centres
GP: General practitioners
LTS: Low threshold services for drug users
NEP: Needle exchange programmes
STI: Sexually transmitted infection clinics
VCT: HIV voluntary counselling and testing centres

* 2004: Sofia, Plovdiv, Burgas, Pleven, Varna; 2005: Sofia, Plovdiv, Burgas, Pleven, Varna, Blagoevgrad, Pazardzhik, Rousse

† Opiate substitution centres

‡ Saliva testing

§ At first or repeat (6 monthly) visits

|| Data from all HIV testing labs

¶ Dolnoslaskie, Lubuskie, Warminsko-Mazurskie

** 50% of the country population

†† Ljubljana only in 2003

Annex 1.3. HIV prevalence studies and diagnostic testing among injecting drug users (IDU):
 (Cont.) **numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, Centre**

2002		2003		2004		2005		2006		Country	
N	%HIV+	N	%HIV+	N	%HIV+	N	%HIV+	N	%HIV+	Ref.	Coverage
tested		tested		tested		tested		tested			
Bosnia & Herzegovina											
-	-	255	0.8	-	-	-	-	-	-		Sarajevo, Mostar
Bulgaria											
-	-	-	-	675	0.6	1,199	0.5	-	-		Cities *
-	-	312	0.3	-	-	-	-	-	-	20	Sofia
719	0.1	992	0.1	1,203	0.7	827	0.4	-	-	4	Sofia
-	-	-	-	-	-	115	2.6	-	-	4	Sofia
Croatia											
785	1.3	-	-	-	-	-	-	-	-		National
Czech Republic											
1,536	0.0	985	0.1	1,609	0.0	1,374	0.1	-	-	4	National
674	0.4	-	-	-	-	-	-	-	-	4	National
307	1.3	-	-	-	-	-	-	-	-	4	National
173	0.0	-	-	-	-	-	-	-	-		- <25 years
522	0.0	-	-	-	-	-	-	-	-	4	National
735	0.0	652	0.0	222	0.0	449	0.2	-	-	4	Prague, Bohemia, Moravia
Hungary											
607	0.3	331	0.0	-	-	-	-	-	-	4	National
Poland											
2,626	6.8	-	-	-	-	-	-	-	-	21	National
166	29.5	-	-	-	-	-	-	-	-		Gdansk region
105	36.2	-	-	-	-	-	-	-	-		- drug treatment centres
-	-	-	-	-	-	338	24.9	-	-		3 regions ¶¶
-	-	-	-	418	12.9	-	-	-	-	22	Regional
-	-	-	-	158	8.9	-	-	-	-		- Lubuskie
-	-	-	-	60	13.3	-	-	-	-		- Slaskie
-	-	-	-	200	16.0	-	-	-	-		- Warsaw
Serbia											
853	1.2	-	-	-	-	-	-	-	-		Belgrade
-	-	368	0.8	1,099	0.4	795	0.8	1,281	0.2		Belgrade, Vojvodina **
Slovakia											
911	0.0	970	0.0	469	0.0	554	0.0	580	0.0		Bratislava, Kosice
Slovenia											
648	0.0	707	0.0	476	0.4	-	-	-	-	4	National
182	0.0	333	0.0	233	0.0	300	0.0	-	-	23	Ljubljana and Koper regions ††
-	-	148	0.0	233	0.0	188	0.0	-	-	4	Ljubljana

Annex 1.4. HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, East						
Country	Surveillance methods and population studied			2001		
	Coverage	Data	Population	Site	N tested	%HIV+
Armenia						
National	DT	IDU	DTC		–	–
4 cities *	SP (UAT)	IDU	VCT, DTC, street		–	–
Prisons	SP	Prisoners †	Prisons		–	–
Azerbaijan						
National	DT	IDU	DTC, hospital		2,831	2.2
Cities	SP	IDU				
- Baku			DTC, hospital, street		–	–
- Lenkoran			Street		–	–
Belarus						
National	DT	IDU	DTC, hospital		5,558	3.2
- Gomel region					1,269	7.2
- Minsk region					1,953	3.3
Cities or regions	SP (UAT) ‡	IDU	NEP, street			
- Baranovichi					–	–
- Borisov					–	–
- Brest					–	–
- Minsk					–	–
- Mogilev					–	–
- Molodechno					–	–
- Pinsk					–	–
- Soligorsk					–	–
- Svetlogorsk					–	–
- Vitebsk					–	–
- Zlobin					–	–
- Rethitsa					–	–
- Grodno					–	–
- Gomel					–	–
Estonia						
National	DT	IDU	DTC, NEP, GP, STI, hospital, VCT		2,078	13.0
2 cities	SP ‡	IDU	NEP			
- Tallinn					–	–
- Kohtla-Jarve §					–	–
Tallinn	SP	IDU	NEP		–	–
Georgia						
National	DT	IDU	DTC, prison		207	22.2
National	SP	IDU	DTC, NEP, hospital, VCT, prison		–	–
Kazakhstan						
Prisons	DT	Prisoners ¶	Prison		–	–
4 regions	SP ‡	IDU	NEP, street		–	–
- Karagandinskaya					–	–
- Pavlodarskaya					–	–
- South Kazakhstanskaya					–	–
- West Kazakhstanskaya					–	–
Kyrgyzstan						
2 cities	SP ‡	IDU	Street		–	–
- Bishkek					–	–
- Osh					–	–

Data:

DT: Diagnostic testing
SP: Seroprevalence study
SR: Self-reported HIV serostatus
UAT: Unlinked anonymous testing

Ref. References, see commentary

Site:

DTC: Drug treatment centres
GP: General practitioners
LTS: Low threshold services for drug users
NEP: Needle exchange programmes
STI: Sexually transmitted infection clinics
VCT: HIV voluntary counselling and testing centres

* 2002 and 2005: Yerevan, Shirak, Syunik, Ararat Marzes; 2006: Yerevan, Shirak, Syunik, Lori
† HIV prevalence among IDU prisoners = 10%
‡ Dried blood spots
§ Small sample size, high risk population included
|| Residual blood in used needles
¶ 45% are IDU

Annex 1.4. HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, East

(Cont.)

2002		2003		2004		2005		2006		Country	
N	%HIV+	N	%HIV+	N	%HIV+	N	%HIV+	N	%HIV+	Ref.	Coverage
Armenia											
226	7.1	-	-	-	-	-	-	-	-	-	National
201	14.9	-	-	-	-	280	9.3	151	9.3	24	4 cities *
438	5.5	-	-	-	-	-	-	-	-	24	Prisons
Azerbaijan											
2,931	0.0	2,964	0.8	2,164	1.2	3,120	1.8	3,568	2.2	-	National
-	-	200	13.0	-	-	-	-	-	-	25	Cities
-	-	200	19.5	-	-	-	-	-	-	-	- Baku
-	-	-	-	-	-	-	-	-	-	-	- Lenkoran
Belarus											
4,604	4.4	3,589	3.7	2,749	10.9	-	-	2,492	16.7	26	National
746	8.4	518	8.3	-	-	-	-	-	-	-	- Gomel region
1,618	5.9	1,328	4.7	-	-	-	-	-	-	-	- Minsk region
100	6.0	-	-	-	-	-	-	100	0.0	27	Cities or regions
100	1.0	-	-	-	-	-	-	101	3.0	-	- Baranovich
200	5.0	-	-	-	-	-	-	150	8.0	-	- Borisov
400	23.0	-	-	-	-	-	-	317	11.7	-	- Brest
133	4.5	-	-	-	-	-	-	170	1.2	-	- Minsk
112	2.7	-	-	-	-	-	-	-	-	-	- Mogilev
-	-	-	-	-	-	-	-	150	18.7	-	- Molodechno
-	-	-	-	-	-	-	-	200	23.0	-	- Pinsk
-	-	-	-	-	-	-	-	200	37.5	-	- Soligorsk
-	-	-	-	-	-	-	-	150	8.7	-	- Svetlogorsk
-	-	-	-	-	-	-	-	150	52.0	-	- Vitebsk
-	-	-	-	-	-	-	-	100	20.0	-	- Zlobin
-	-	-	-	-	-	-	-	150	1.3	-	- Rethitsa
-	-	-	-	-	-	-	-	200	17.5	-	- Grodno
-	-	-	-	-	-	-	-	-	-	-	- Gomel
Estonia											
1,186	6.2	-	-	-	-	-	-	-	-	4	National
-	-	-	-	-	-	350	54.3	-	-	28	2 cities
-	-	-	-	-	-	99	89.9	-	-	-	- Tallinn
-	-	-	-	159	56.0	-	-	-	-	29	- Kohtla-Jarve § Tallinn
Georgia											
572	7.0	-	-	-	-	-	-	-	-	-	National
-	-	1,660	3.9	-	-	-	-	-	-	-	National
Kazakhstan											
-	-	17,845	0.7	19,374	0.7	21,928	1.0	22,428	1.6	-	Prisons
-	-	1,040	3.9	2,904	2.8	3,775	3.4	4,553	3.4	-	4 regions
-	-	270	2.2	350	1.1	282	2.1	708	4.1	-	- Karagandinskaya
-	-	250	6.4	252	7.1	250	10.4	600	7.8	-	- Pavlodarskaya
-	-	270	5.9	390	8.5	300	8.0	300	7.3	-	- South Kazakhstanskaya
-	-	250	1.2	250	1.2	250	0.8	250	2.0	-	- West Kazakhstanskaya
Kyrgyzstan											
-	-	-	-	264	1.1	250	2.4	250	0.8	-	2 cities
-	-	-	-	250	11.6	250	13.6	250	14.0	-	- Bishkek
-	-	-	-	-	-	-	-	-	-	-	- Osh

Annex 1.4. HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, East

Country	Surveillance methods and population studied			2001		
	Coverage	Data	Population	Site	N tested	%HIV+
(Cont.)						
Latvia						
	National	DT	IDU	DTC, hospital	2,203	13.7
	National	DT	IDU	Hospital, police (arrests)	687	12.2
	Riga	DT	IDU	VCT	1,068	17.3
	Riga (region) and Tukums	SP	IDU	NEP, street	–	–
	- <25 years				–	–
	Riga, Olaine	SP	IDU			
	12 cities *	SR	IDU	NEP, VCT	–	–
	Prisons	DT	Prisoners †	Prison	7,267	4.7
Lithuania						
	National	DT	IDU	DTC, NEP, hospital	1,543	1.7
	- Vilnius				–	–
	Vilnius	SP	IDU	NEP	–	–
	Klaipėda	SP	IDU	LTS	–	–
Moldova, Republic						
	National	DT	IDU	DTC, VCT	3,865	3.6
	5 cities ‡	SP §	IDU	NEP	1,053	27.6
Russian Federation						
	National	DT	IDU	–	491,526	6.1
	Saint-Petersbourg	SP (UAT)	IDU	NEP	252	35.7
	Togliatti City	SP (UAT)	IDU	Community	418	56.0
	- <25 years				197	58.4
	Orel region	DT	IDU	DTC, prison	2,700	11.6
	Saint-Petersbourg	SP	IDU	Street	–	–
	3 cities	SP(UAT)	IDU	Street	–	–
	- Moscow				–	–
	- Volgograd				–	–
	- Barnaul				–	–
Tajikistan						
	2 cities	SP(UAT)	IDU	Street	–	–
	- Dushanbe				–	–
	- Khujand				–	–
Ukraine						
	National	DT	IDU	–	40,747	11.1
	- Kiev region				3,015	22.1
	- Nikolaiev				1,637	27.3
	- Odessa				964	15.4
	Cities or regions	SP ¶	IDU	NEP, street	–	–
	- Donetsk				–	–
	- Kharkiv				–	–
	- Luck				–	–
	- Nikolaiev				–	–
	- Odessa				–	–
	- Poltava				–	–
	- Simferopol				–	–
	Cities	SP	IDU	Street	–	–
	- Makeevka (Donetsk)				–	–
	- Kiev				–	–
	- Odessa				–	–
Uzbekistan						
	Tashkent	SP	IDU	Street	–	–

Data:

DT: Diagnostic testing
SP: Seroprevalence study
SR: Self-reported HIV serostatus
UAT: Unlinked anonymous testing

Ref.: References, see Commentary

Site:

DTC: Drug treatment centres
GP: General practitioners
LTS: Low threshold services for drug users
NEP: Needle exchange programmes
STI: Sexually transmitted infection clinics
VCT: HIV voluntary counselling and testing centres

* Riga, Kuldīga, Tukums, Olaine, Bauska, Jelgava, Jekabpils, Liepāja, Jūrmala, Talsi, Ogre, Kekava
† Proportion of IDU among HIV+: 60-90%
‡ Chisinau, Balti, Falesti, Soroca, Orche
§ Residual blood in used needles
|| Dried blood spots
¶ Residual blood in used needles, serum

Annex 1.4. HIV prevalence studies and diagnostic testing among injecting drug users (IDU): numbers tested and HIV prevalence by country, 2001-2006, WHO European Region, East

(Cont.)

2002		2003		2004		2005		2006		Country	
N tested	%HIV+	N tested	%HIV+	N tested	%HIV+	N tested	%HIV+	N tested	%HIV+	Ref.	Coverage
Latvia											
1,178	13.1	987	6.6	212	10.4	363	8.5	349	11.2		National
185	14.6	-	-	-	-	-	-	-	-		National
832	13.5	447	15.2	256	2.0	518	12.5	293	4.4	30	Riga
250	20.8	205	22.0	-	-	325	21.8	-	-	31	Riga (region) and Tukums
159	24.5	107	19.6	-	-	-	-	-	-		- <25 years
											Riga, Olaine
								382	13.9		12 cities *
6,684	4.4	6,209	3.6	5,369	3.4	3,094	4.5	2,600	4.4		Prisons
Lithuania											
2,831	1.0	1,112	2.4	1,420	1.2	1,375	3.5	1,105	1.3		National
641	0.6	375	1.1	469	0.2	345	1.2	-	-	32	- Vilnius
-	-	-	-	-	-	681	3.2	158	1.3	32,33	Vilnius
-	-	-	-	-	-	171	27.5	-	-	32	Klaipėda
Moldova, Republic											
4,697	2.0	4,648	1.6	3,720	2.1	3,516	3.3	4,277	2.1		National
		524	22.1	-	-	-	-	-	-	34	5 cities ‡
Russian Federation											
331,112	3.2	279,509	2.2	257,889	1.9	265,696	2.1	281,952	2.1	35	National
-	-	-	-	-	-	-	-	-	-	36	Saint-Petersbourg
-	-	-	-	-	-	-	-	-	-	37	Togliatti City
-	-	-	-	-	-	-	-	-	-		- <25 years
-	-	-	-	-	-	-	-	-	-	38	Orel region
-	-	-	-	-	-	-	-	412	47.1	39	Saint-Petersbourg
-	-	403	13.6	-	-	-	-	-	-	40	3 cities
-	-	477	2.7	-	-	-	-	-	-		- Moscow
-	-	499	8.8	-	-	-	-	-	-		- Volgograd
											- Barnaul
		1,379									
Tajikistan											
-	-	-	-	-	-	-	-	-	-		2 cities
-	-	-	-	-	-	403	17.9	400	24.0		- Dushanbe
-	-	-	-	-	-	200	11.5	200	23.0		- Khujand
Ukraine											
21,472	12.1	33,004	14.7	32,184	14.8	32,291	14.9	33,094	16.5		National
1,956	23.5	2,493	30.7	2,166	33.1	2,613	24.4	2,800	38.3		- Kiev region
840	24.5	1,476	26.1	1,320	30.1	1,721	25.8	1,979	22.7		- Nikolaiev
612	14.7	945	18.6	1,646	21.3	1,129	19.5	1,571	15.0		- Odessa
											Cities or regions
250	40.0	-	-	250	41.6	250	40.8	265	34.0		- Donetsk
250	16.8	-	-	100	14.0	100	23.0	103	18.4		- Kharkiv
250	32.0	-	-	250	32.8	300	26.0	250	37.6		- Luck
250	53.2	-	-	-	-	250	66.4	250	46.0		- Nikolaiev
259	58.3	-	-	363	58.1	269	41.3	256	54.7		- Odessa
250	31.6	-	-	250	28.4	250	19.6	250	62.8		- Poltava
250	28.0	-	-	244	59.0	380	51.1	248	49.2		- Simferopol
										41	Cities
-	-	-	-	-	-	287	14.3	-	-		- Makeevka (Donetsk)
-	-	-	-	-	-	267	23.6	-	-		- Kiev
-	-	-	-	-	-	224	36.6	-	-		- Odessa
Uzbekistan											
-	-	-	-	401	21.9	403	17.9	400	24.0	42	Tashkent

2. HIV prevalence in blood donations

Key points

- In most central and western European countries, the prevalence of HIV in blood donations remains low (<5 per 100,000);
- In many eastern European countries, high and increasing levels of HIV prevalence in blood donations (>10 per 100,000) have been reported.

Recommendations for surveillance

- Ensure regular reporting of data from blood screening;
- Report, separate data on HIV prevalence in first time and repeat blood donors.

Recommendations for public health

- Ensure that basic screening measures are available for all blood donations in all European countries, including implementation of quality-assured testing procedures and improved performance standards;
- Strengthen measures to guarantee the safety of the blood supply, especially the improvement of donor selection.

2.1 Introduction

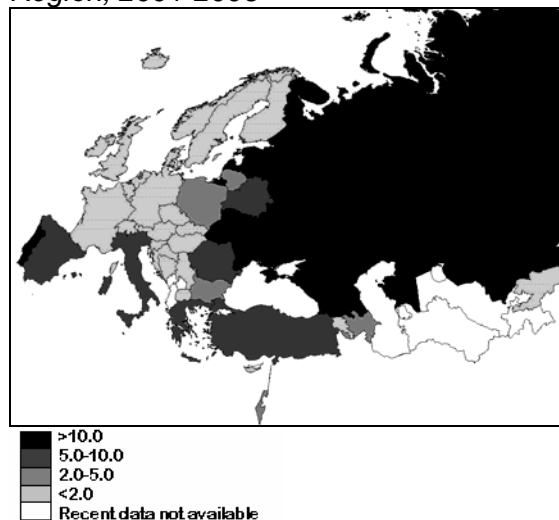
Monitoring HIV prevalence in blood donations is important for surveillance as it provides an indication of the relative safety of the blood supply across countries and over time. In addition, it provides some indication of HIV trends in the population, although trends in prevalence in blood donations are also clearly affected by changes in the effectiveness of donor selection.

The data presented in this section cover the period 1990 to 2006 and update those presented in report No. 72 published in 2006 [1]. Annex tables present data on HIV prevalence in blood donations by country for 2001-2006 (Annex 2.1) and, for certain countries, separate data on HIV prevalence in donations from first-time and repeat donors are available (Annexes 2.2. and 2.3).

2.2 HIV prevalence in blood donations

In 2006, the overall HIV prevalence in blood donations in the WHO European Region was 10.3 per 100,000 donations (data from 36 of the 53 countries, Annex 2.1)[2-13]. However, wide variations were observed, with much higher levels in eastern European countries (Figure 2.1). In 2006, the prevalence of HIV ranged from 0 (i.e. no HIV positive blood donations detected) in six countries to 49.0 per 100,000 donations in the Republic of Moldova and 127.1 per 100,000 donations in Ukraine (Figure 2.1, Annex 2.1).

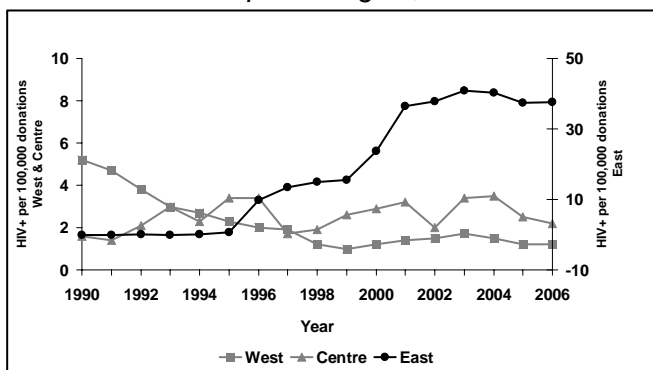
Figure 2.1: HIV prevalence in blood donations (per 100,000) WHO European Region, 2001-2006 *



* Latest available data. For Albania and Uzbekistan data were available for 2000, but were not included in this map

In western European countries, the prevalence of HIV among blood donations has declined from 5.2 (22 countries reporting) in 1990 to 1.2 per 100,000 donations in 2006 (12 countries) (Figure 2.2). In central European countries, during the same period, the prevalence of HIV among blood donations rose from 1.6 (11 countries reporting) in 1990 to a maximum of 3.8 per 100,000 donations in 2006 (12 countries) (Figure 2.2). In contrast, in eastern Europe, the prevalence of HIV in blood donations has increased dramatically from <1 in 1995 (10 countries reporting) to 37.6 per 100,000 blood donations in 2006 (11 countries) (Figure 2.2).

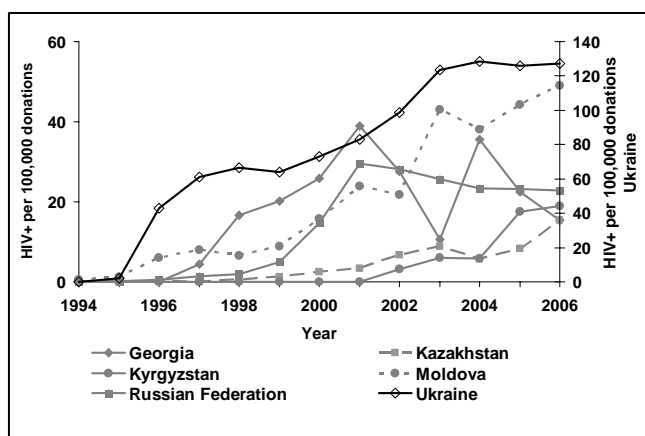
Figure 2.2: HIV prevalence in blood donations per 100,000 blood donations in the WHO European Region, 1990-2006.



2.2.1 Eastern Europe

The most dramatic rise in the number of HIV positive donations was in Ukraine, where the rate of HIV positive donations has increased from 2.1 per 100,000 donations in 1995 to 128.4 in 2004, and has since stabilised with a reported prevalence of 127.1 per 100,000 in 2006 (Figure 2.3, Annex 2.1).

Figure 2.3: HIV prevalence in blood donations (per 100,000) in six eastern European countries, 1994-2006.



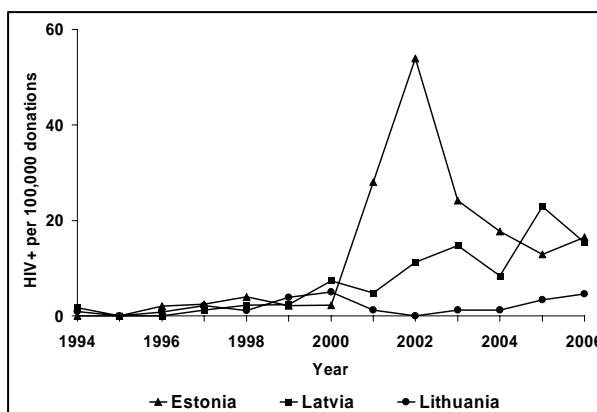
Important increases in the prevalence of HIV in blood donations have also been observed in other eastern European countries (Figures 2.3, 2.4; Annex 2.1). In 2006, the second highest prevalence after the Ukraine was reported from Moldova (49.0 per 100,000 donations) following rapid increases since the mid 1990s.

Other countries with high (>15/100,00) prevalence of HIV in blood donations

include Georgia, Kazakhstan, Kyrgyzstan and the Russian Federation, where rapid increases in HIV have been reported in recent years (Figure 2.3). For example, in the Russian Federation, between 1999 and 2001, HIV prevalence doubled each year, reaching 29.6 per 100,000 in 2001, since when it has declined to 22.8 in 2006.

Of note, data on HIV prevalence in blood donations have not been available since 1998 for Tajikistan and Turkmenistan and since 2000 for Uzbekistan.

Figure 2.4: HIV prevalence in blood donations (per 100,000) in the Baltic States, 1994-2006.



Rapid increases in HIV prevalence in blood donations have also been reported in the Baltic States (Estonia and Latvia). In Estonia, prevalence increased from 4.0/100,000 donations in 1998 to a maximum of 54.0/100,000 in 2002, since when it has declined to 16.5/100,000 in 2006 (Figure 2.4). In Latvia, a smaller increase has been reported, from 2.3/100,000 in 1998 to 11.8/100,000 in 2006, with a peak observed in 2005 (22.9/100,000). In Lithuania, HIV prevalence has remained low (<5/100,000).

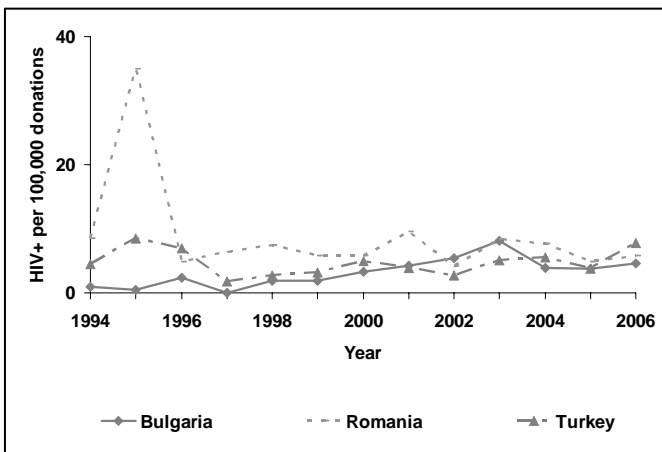
2.2.2 Central Europe

In the central European countries, the prevalence of HIV-positive blood donations has remained stable, at below 5 per 100,000 donations in most countries (Figure 2.2). In 2006, four countries reported zero HIV-positive donations:

Bosnia & Herzegovina, Cyprus, Slovenia and Slovakia (Annex 2.1).

HIV prevalence of >5 HIV+ per 100,000 donations have been reported for at least one year in Bulgaria (8.1 in 2003), Romania (5.8 in 2006), Serbia (9.5 in 2004), and Turkey (7.8 in 2006) (Annex 2.1). In Romania, after the peak level reported in 1995 (35/100,000), prevalence ranged from 4.8/100,000 to 9.5/100,000 in 2001 and then decreased to 5.8/100,000 in 2006 (Figure 2.5). In Bulgaria, prevalence has been increasing steadily since 1997 reaching 8.1 per 100,000 in 2003, then declined in 2006 to 4.6/100,000 (Figure 2.5). In Turkey, an increase in the prevalence of HIV in blood donations has been reported, rising from 2.7 per 100,000 donations in 2002 to 7.8 in 2006.

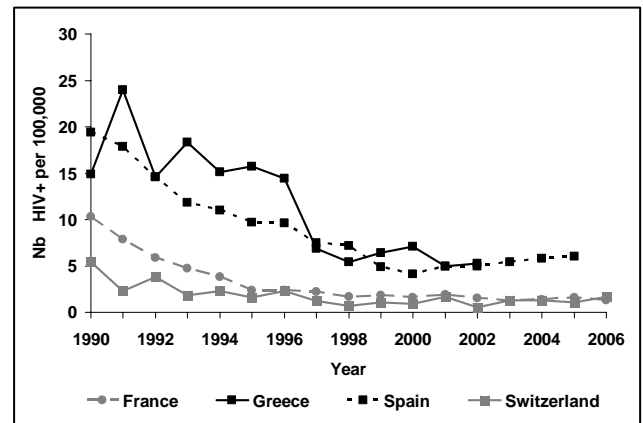
Figure 2.5: HIV prevalence in blood donations (per 100,000) in three central European countries, 1994-2006.



2.2.3 Western Europe

In the West, HIV prevalence in blood donations has declined steadily since 1990 (Figures 2.2, 2.6; Annex 2.1). Since 2001, prevalence has been lower than 2 per 100,000 donations in all countries except Greece (5.3 in 2002), Spain (6.0 in 2005), Italy (2.7 in 2003), Israel (2.1 in 2006) and in three major cities in Portugal (10.4 in 2004).

Figure 2.6: HIV prevalence in blood donations (per 100,000) in four selected western European countries, 1990-2006.



2.3 HIV prevalence among first-time and repeat donors, 2001-2006

Information on HIV prevalence among first-time/candidate donors and donations from repeat donors was available for at least one year in the period 2001-2006 for 18 countries; 14 from western, 4 from central and none from eastern Europe (Annexes 2.2, 2.3).

Data for these 18 countries indicate that HIV prevalence is consistently up to five times higher in donations from first-time donors than from repeat donors. HIV prevalence in first-time or candidate donors was >5 per 100,000 in Finland (5.5 in 2006), France (6.5 in 2001, decreased to 3.7 in 2006) and Germany (8.2 in 2003, decreased to 6.3 in 2006). Prevalence was greater than 10 per 100,000 in Poland (15.5 in 2001, decreased to 8.0 in 2006), Romania (36.8 in 2001 and 16.8 in 2006), Greece (18.1 in 2002) and Switzerland (15.6 in 2003). The rate of positive donations among repeat donors is more reflective of incidence than prevalence. It was <1/100,000 in all countries except Croatia (2.8 in 2003), France (1.1 in 2005), Greece (1.0 in 2002), Romania (3.1 in 2001), Switzerland (1.6 in 2001) and also Luxembourg and Montenegro but, due to small population in those two countries, numbers of blood donations were subsequently small.

2.4 Discussion

Increasing levels of HIV prevalence in blood donations have been reported from several countries in eastern Europe and, most alarmingly, in the Ukraine and Moldova [14]. These high levels reflect the intensified transmission of HIV in the donors' source population. The epidemics of HIV among injecting drug users [15] in some eastern European countries (e.g. Estonia and the Russian Federation) have been mirrored in the trends in prevalence of HIV positive blood donations, which raises important concerns regarding the security of the donors' source population in these countries.

One of the critical components of blood safety is the screening of blood for infectious agents, which became a mandatory key complementary measure. However, some countries have experienced difficulties in ensuring the proper screening for HIV of all donations, the implementation of quality-assured testing procedures and improved performance standards, often due to economic constraints [14,16,17]. Few cases of HIV infection transmitted through blood transfusion have been reported from eastern European countries [1,10,13,18], although recent outbreaks in Kazakhstan and Kyrgyzstan have been linked to blood transfusions [19,20].

Another important component of blood safety is the selection of donors. In many countries of the East, family replacement or paid donations [16,21,22], which are at increased risk of HIV infection [23], are often used. Furthermore, blood services may, paradoxically, attract some individuals at increased risk of HIV as studies have shown that the primary objective of a certain proportion of persons donating blood is to test for HIV [12]. Therefore, the lack of voluntary counselling and testing facilities in the East may contribute to the prevalence of HIV in blood donations as blood centres may serve as unofficial HIV testing sites [24,25].

In contrast, countries in the West have adopted a strict list of donor deferral criteria which have been formally included in an European Union directive [26,27]. In the West, persons with high risk behaviour have been excluded from donating blood for more than two decades, including permanent deferral of men who have sex with men in many countries [28].

Yet another important component of blood safety is the maintenance of a pool of regular donors, since HIV positive donations are much lower among them. This requires more resources than existing healthcare systems in transition can provide and alternative approaches such as family replacement or paid donation are used in eastern Europe [29]. Although recent information on first-time/repeat donors is not available, this proportion is believed to be much lower in the eastern countries.

Furthermore, the probability of HIV transmission by blood transfusion depends also on infected blood being donated during the window period. The proportion of HIV infected individuals who are in the window period will be higher in countries with intense on-going HIV transmission. Several, mostly western, European countries have implemented HIV nucleic acid testing (NAT), which decreases the residual risk of such HIV positive donations entering the blood supply [7,30]. However, as the residual risk in the West is very low, the relative gain of this expensive technique is of limited benefit [31]. On the other hand, in some countries of the East with high levels of HIV-infected blood donations and recent epidemics (e.g. Ukraine), such an approach could identify recently infected blood donations not yet detectable by the usual screening methods. Nonetheless, national authorities need first to ensure that good quality screening services are firmly established and that prior to the possible introduction of new technologies such as NAT, they are thoroughly evaluated for cost-effectiveness as well as transferability.

We have reported the number of HIV positive donations per 100,000, a measure that is dependent on the proportion of first-time donors and on the frequency of donations made by repeat donors, both of which may vary between countries and over time. Recent guidelines, effective from July 2005 and applicable to EU countries only, recommend that HIV prevalence should be reported among first-time donors and HIV incidence among repeat donors [32]. However, many countries, especially in central and eastern Europe, have not provided this breakdown of data. Such information should be readily available as to enable national health authorities to evaluate the success of measures to encourage repeat donors, and thereby contribute to the safety of the blood supply.

The control of transfusion-transmitted infectious diseases is a key public health issue. The regular reporting of HIV prevalence data from blood donations should be assured by all countries. Even if they are incomplete for some countries, these data show that improvements of blood safety should be implemented urgently in several countries in the East.

References

1. EuroHIV. HIV/AIDS Surveillance in Europe. Mid-year report 2005. Saint-Maurice: Institut de veille sanitaire, 2006. No. 72.
2. Høy G, Smith E. Blood donor screening 2000. *Epi-News* [Denmark] 2002; 3: 2002.
3. Pillonel J, Laperche S. Surveillance épidémiologique des donneurs de sang homologues et risque résiduel en France entre 2003 et 2005. *Bull Epidemiol Hebd.* 2006;No.51-52:411-414.
4. Pillonel J, Laperche S, Saura C, Desenclos JC, Courouce AM. Trends in residual risk of transfusion-transmitted viral infection France between 1992 and 2000. *Transfusion* 2002; 4: 980-988.
5. Stark K, Werner E, Seeger E, *et al.* Infection with HIV, HBV, HCV among blood donors in Germany 1998 and 1999. *Infus Ther Transfus Med* 2002; 30: 305-307.
6. Offergeld R, Ritter S, Faensen D, Hamouda O. Infektionsepidemiologische Daten von Blutspendern 2003-2004. Bericht des Robert Koch-Instituts zu den Meldungen nach 22 Transfusionsgesetz. *Bundesgesundheitsbl - Gesundheitsforsch - Gesundheitsschutz* 2005; 48: 1273-1288.
7. Offergeld R, Faensen D, Ritter S, Hamouda O. Human immunodeficiency virus, hepatitis C and hepatitis B infections among blood donors in Germany 2000-2002, the risk of virus transmission and the impact of NAT testing. *Euro Surveill* 2005, 10(2):13-14.
8. Hemmer R, *et al.* Rapport d'activité 2006, Comité de surveillance du SIDA. Luxembourg, 2006.
9. Bruckova M. Detekce infekce HIB u krevních darů. *Transfuze dnes* 2001; 7: 15-18.
10. Busel A, Grigoryan S, Hakobyan A *et al.* HIV surveillance in the Republic of Armenia 2000-2002. Yerevan: Tigran Mets 2002 145.
11. Meleshko L. AIDS Prevention Department, Annual Report. Minsk: National Centre for Hygiene, Epidemiology & Health, 2003;
12. Ustina V, Raukas M, Tammai L, Zilmer K. HIV infection and blood donations in Estonia. 3rd Baltic Region Conference. Together against AIDS, Riga, September 2003 [Abstract p. 50].
13. Pokrovskij VV, Ladnaya NN, Sokolova EV, Buravtsova EV, Kravtchenko AV. HIV infection, informational biuletin No.30. Moscow: Federal scientific-methodological centre of prophylactic and fight against AIDS, 2007.
14. Likatavičius G, Hamers FF, Downs AM, Alix J, Nardone A. Trends in HIV prevalence in blood donations in Europe, 1990-2004. *AIDS* 2007; 21:1011-1018.
15. Hamers FF, Downs AM. HIV in central and Eastern Europe. *Lancet* 2003; 361:1035-1044.
16. WHO. Intercountry meeting on quality management for directors of blood services in the European region. Report on a WHO meeting. Slovenia, September 2002. Geneva: WHO, 2002.
17. Gibbs WN, Corcoran P. Blood safety in developing countries. *Vox Sang* 1994; 67:377-381.
18. EuroHIV. HIV/AIDS Surveillance in Europe. End-year report 2004. Saint-Maurice: Institut de veille sanitaire, 2005. No.71.
19. Central and Eastern European Harm Reduction Network. Kazakhstan: As the number of HIV cases among children rises, causes of virus transmission are identified. CEEHRN News Digest, August, 2006.
20. International Herald Tribune. 4 Kyrgyz doctors fired for infecting 10 children, 1 adult with HIV. The Associated Press: July 30, 2007.
21. Mascaretti L, James V, Barbara J, *et al.* Comparative analysis of national regulations concerning blood safety across Europe. *Transfus Med* 2004; 14:105-111.
22. Buciniene I, Stoniene L, Blazeviciene A, Kazlauskaitė R, Skudienė V. Blood donors' motivation and attitude to non-remunerated blood donation in Lithuania. *BMC Public Health* 2006; 6:166.
23. Van der Poel CL, Seifried E, Schaasberg WP. Paying for blood donations: still a risk? *Vox Sang* 2002; 83:285-293.
24. Barcal K, Schumacher JE, Dumchev K, Moroz LV. A situational picture of HIV/AIDS and injection drug use in Vinnitsya, Ukraine. *Harm Reduct J.* 2005; 2:16.
25. USAID, UNAIDS, WHO, UNICEF, and the Policy Project. Coverage of selected services for HIV/AIDS prevention, care and support in low and middle income countries in 2003. Washington, 2004.
26. European Commission Directive 2002/98/EC. Official Journal L 033,08/02/2003 P. 0030-0040.
27. European Commission Directive 2004/33/EC. Official Journal L 091, 30/03/2004 P. 002-0039.
28. Soldan K, Sinka K. Evaluation of the de-selection of men who have had sex with men from blood donation in England. *Vox Sang.* 2003; 84:265-73.
29. Ruutel K, Uuskula A. HIV epidemic in Estonia in the third decade of the AIDS era. *Scand J Infect Dis.* 2006; 38:181-6.
30. Laperche S. Blood safety and nucleic acid testing in Europe. *Euro Surveill* 2005; 10:2.
31. Pillonel J, Laperche S. Trends in risk of transfusion-transmitted viral infections (HIV, HCV, HBV) in France between 1992 and 2003 and impact of nucleic acid testing (NAT). *Euro Surveill* 2005; 10:5-8.

32. Committee for medicinal products for human use. Guidelines on epidemiological data on blood transmissible infections. European Medicines Agency, London, 2005. EMEA/CPMP/BWP/125/04.

Annexes 2.1-2.3
HIV prevalence in blood donations
2001-2006

Annex 2.1: Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations (first-time or candidate donors included) by country, 2001-2006, WHO European Region

Geographic area Country	2001			2002			2003		
	N	HIV+ /100,000	HIV+	N	HIV+ /100,000	HIV+	N	HIV+ /100,000	HIV+
West									
Andorra	–	–	–	–	–	–	–	–	–
EU Austria	525,602	7	1.3	520,485	3	0.6	521,248	3	0.6
EU Belgium	705,023	0	0.0	704,946 †	0	0.0	693,271	3	0.4
EU Denmark	376,755	1	0.3	403,399	2	0.5	393,840	0	0.0
EU Finland	322,357	0	0.0	312,455	2	0.6	300,748	2	0.7
EU France	2,429,484	45	1.9	2,459,663	36	1.5	2,468,038	30	1.2
EU Germany	5,713,060	53	0.9	6,632,434	86	1.3	7,089,129	100	1.4
EU Greece	537,858	27	5.0	543,485	29	5.3	–	–	–
Iceland	14,717	0	0.0	15,598	0	0.0	–	–	–
EU Ireland	147,068	1	0.7	162,502	0	0.0	151,812	2	1.3
Israel	270,093	5	1.9	276,118	6	2.2	272,669	7	2.6
EU Italy	1,910,430	41	2.1	1,918,846	62	3.2	2,104,199	57	2.7
EU Luxembourg	21,195	1	4.7	21,282	0	0.0	21,773	0	0.0
EU Malta	16,851	0	0.0	16,173	0	0.0	16,688	0	0.0
Monaco ‡	1,478 ‡	0	0.0	2,767	0	0.0	–	–	–
EU Netherlands ¶	872,000	3	0.3	927,800	8	0.9	–	–	–
Norway	199,730	0	0.0	201,607	0	0.0	209,253	0	0.0
EU Portugal	–	–	–	–	–	–	105,869	12	11
San Marino	1,062	0	0.0	784	0	0.0	883	0	0.0
EU Spain	1,505,415	76	5.0	1,506,376	73	4.8	1,621,339	88	5.4
EU Sweden ¶	710,400	1	0.1	708,300	2	0.3	676,900	4	0.6
Switzerland	415,151	7	1.7	415,905	2	0.5	394,495	5	1.3
EU United Kingdom	2,831,951	16	0.6	2,844,465	33	1.2	2,822,807	42	1.5
Total West	19,527,680	284	1.5	20,595,390	344	1.7	19,864,961	355	1.8
Centre									
Albania	14,000	1	7.1	–	–	–	–	–	–
Bosnia & Herzegovina	48,174	0	0.0	48,834	0	0.0	47,620 ¶	0	0.0
EU Bulgaria	144,071	6	4.2	147,405	8	5.4	148,041	12	8.1
Croatia	156,513	2	1.3	166,784	0	0.0	166,124	4	2.4
EU Cyprus	43,327	0	0.0	44,705	0	0.0	44,849	0	0.0
EU Czech Republic	466,774	1	0.2	510,389	1	0.2	508,127	1	0.2
EU Hungary	491,820	2	0.4	494,600	2	0.4	494,637	5	1.0
Macedonia, F.Y.R.	50,052	0	0.0	52,145	0	0.0	53,716	0	0.0
Montenegro	13,463	0	0.0	13,489	2	14.8	–	–	–
EU Poland	932,182	28	3.0	967,090	20	2.1	1,036,010	26	2.5
EU Romania ‡	364,732	35	9.6	365,455	15	4.1	347,227	29	8.4
Serbia ¶¶	–	–	–	196,397	3	1.5	229,539	8	3.5
EU Slovakia	139,167	0	0.0	118,722	1	0.8	132,474	1	0.8
EU Slovenia	91,221	0	0.0	89,934	3	3.3	86,697	0	0.0
Turkey	1,067,337	42	3.9	1,053,724	28	2.7	1,245,996	64	5.1
Total Centre	4,022,833	117	2.9	4,269,673	83	1.9	4,541,057	150	3.3
East									
Armenia ¶¶	10,449	2	19.1	10,686	1	9.4	11,304	1	8.8
Azerbaijan	12,557	0	0.0	13,944	0	0.0	17,063	1	5.9
Belarus	347,142	3	0.9	311,672	11	3.5	328,716	14	4.3
EU Estonia	42,655	12	28.1	48,116	26	54.0	61,964	15	24.2
Georgia ¶¶	20,573	8	38.9	21,720	6	27.6	27,977	3	10.7
Kazakhstan	335,407	11	3.3	338,435	23	6.8	342,836	30	8.8
Kyrgyzstan	34,613	0	0.0	31,608	1	3.2	31,847	2	6.3
EU Latvia	83,183	4	4.8	79,909	9	11.3	81,449	12	14.7
EU Lithuania	84,440	1	1.2	82,876	0	0.0	81,784	1	1.2
Moldova, Republic of	50,147	12	23.9	50,715	11	21.7	62,800	27	43.0
Russian Federation	4,008,116	1,183	29.5	3,855,814	1,084	28.1	3,811,675	979	25.7
Tajikistan	–	–	–	–	–	–	–	–	–
Turkmenistan	–	–	–	–	–	–	–	–	–
Ukraine	980,770	816	83.2	939,108	927	98.7	958,205	1,182	123.4
Uzbekistan	–	–	–	–	–	–	–	–	–
Total East	6,010,052	2,052	34.1	5,784,603	2,099	36.3	5,817,620	2,267	39.0
Total European Union	21,509,021	361	1.7	22,631,812	421	1.9	22,010,920	445	2.0
Total WHO European Region	29,560,565	2,453	8.3	30,649,666	2,526	8.2	30,223,638	2,772	9.2

EU Countries which constitute the European Union as of 1 January 2007.

* Ref.= References, see Commentary

† Incomplete data (95% of donations)

‡ Blood donors (not donations)

|| Data from regional blood centres in the three main cities (Coimbra, Lisbon and Oporto); do not represent the country as a whole

Annex 2.1: Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations
(Cont.) **(first-time or candidate donors included) by country, 2001-2006, WHO European Region**

2004			2005			2006			Ref.*	Geographic area Country
N	HIV+ /100,000	HIV+ /100,000	N	HIV+ /100,000	HIV+ /100,000	N	HIV+ /100,000	HIV+ /100,000		
West										
—	—	—	—	—	—	—	—	—	—	Andorra
514,326	7	1.4	495,663	5	1.0	492,230	7	1.4	EU	Austria
747,331	3	0.4	715,546	4	0.6	—	—	—	EU	Belgium
391,910	3	0.8	378,750	0	0.0	375,768	3	0.8	2 EU	Denmark
285,794	0	0.0	274,870	1	0.4	278,220	2	0.7	EU	Finland
2,498,298	35	1.4	2,512,795	41	1.6	2,575,273	34	1.3	3,4 EU	France
6,370,671	77	1.2	6,258,680	87	1.4	6,456,802	80	1.2	5-7 EU	Germany
—	—	—	—	—	—	—	—	—	EU	Greece
—	—	—	—	—	—	—	—	—	—	Iceland
157,346	1	0.6	160,560	2	1.2	156,502	1	0.6	EU	Ireland
281,879	3	1.1	282,955	6	2.1	240,009	5	2.1	—	Israel
—	—	—	—	—	—	—	—	—	EU	Italy
21,017	0	0.0	21,998	0	0.0	—	—	—	8 EU	Luxembourg
15,292	0	0.0	14,380	0	0.0	14,806	0	0.0	EU	Malta
—	—	—	—	—	—	—	—	—	—	Monaco
919,300	4	0.4	878,500	3	0.3	851,270	5	0.6	EU	Netherlands ¶¶
214,278	0	0.0	210,717	0	0.0	215,000	1	0.5	—	Norway
115,862	12	10	—	—	—	—	—	—	EU	Portugal
1,078	0	0.0	—	—	—	—	—	—	—	San Marino
1,610,824	93	5.8	1,606,407	97	6.0	—	—	—	EU	Spain
624,900	2	0.3	557,000	3	0.5	568,000	1	0.2	EU	Sweden ¶¶
377,288	5	1.3	365,828	4	1.1	361,387	6	1.7	—	Switzerland
2,779,863	18	0.6	—	—	—	—	—	—	EU	United Kingdom
17,927,257	263	1.5	14,734,649	253	1.7	12,585,267	145	1.2	Total West	
Centre										
—	—	—	—	—	—	—	—	—	—	Albania
42,483	0	0.0	64,987	0	0.0	101,729	0	0.0	—	Bosnia & Herzegovina
152,813	6	3.9	158,950	6	3.8	151,976	7	4.6	EU	Bulgaria
147,802	4	2.7	157,502	3	1.9	156,624	1	0.6	—	Croatia
46,847	0	0.0	50,252	0	0.0	49,275	0	0.0	EU	Cyprus
514,523	1	0.2	524,892	1	0.2	501,877	2	0.4	9 EU	Czech Republic
505,344	3	0.6	494,351	1	0.2	467,407	1	0.2	EU	Hungary
54,758	0	0.0	—	—	—	—	—	—	—	Macedonia, F.Y.R.
—	—	—	—	—	—	—	—	—	—	Montenegro
1,006,639	17	1.7	986,631	31	3.1	979,686	27	2.8	EU	Poland
362,486	28	7.7	352,837	17	4.8	327,050	19	5.8	EU	Romania ‡
230,812	22	9.5	225,563	7	3.1	216,902	2	0.9	—	Serbia ††
95,899	0	0.0	103,946	0	0.0	116,348	0	0.0	EU	Slovakia
84,684	2	2.4	85,344	2	2.3	84,882	0	0.0	EU	Slovenia
1,227,085	68	5.5	1,527,834	58	3.8	1,565,626	122	7.8	—	Turkey
4,472,175	151	3.4	4,733,089	126	2.7	4,719,382	181	3.8	Total Centre	
East										
11,957	1	8.4	12,449	1	8.0	13,191	0	0.0	10	Armenia ††
21,053	1	4.7	23,814	2	8.4	27,668	1	3.6	—	Azerbaijan
320,530	15	4.7	321,664	21	6.5	318,286	20	6.3	11	Belarus
62,040	11	17.7	54,221	7	12.9	54,448	9	16.5	12 EU	Estonia
28,156	10	35.5	31,249	7	22.4	32,394	5	15.4	—	Georgia ††
357,814	20	5.6	358,485	30	8.4	318,460	49	15.4	—	Kazakhstan
33,471	2	6.0	33,525	6	17.9	31,192	6	19.2	—	Kyrgyzstan
71,264	6	8.4	56,795	13	22.9	68,076	8	11.8	EU	Latvia
85,559	1	1.2	88,423	3	3.4	65,071	3	4.6	EU	Lithuania
71,161	28	39.3	69,957	31	44.3	83,713	41	49.0	—	Moldova, Republic of
3,803,488	873	23.0	3,719,740	863	23.2	3,489,235	797	22.8	13	Russian Federation
—	—	—	—	—	—	—	—	—	—	Tajikistan
—	—	—	—	—	—	—	—	—	—	Turkmenistan
941,524	1,209	128.4	899,436	1,134	126.1	839,337	1,067	127.1	—	Ukraine
—	—	—	—	—	—	—	—	—	—	Uzbekistan
5,808,017	2,177	37.5	5,669,758	2,118	37.4	5,341,071	2,006	37.6	Total East	
20,040,832	330	1.6	16,831,791	324	1.9	14,634,967	209	1.4	Total European Union	
28,207,449	2,591	9.2	25,137,496	2,497	9.9	22,645,720	2,332	10.3	Total WHO European Region	

¶ Estimate

†† No data for Kosovo

‡ Due to shortage of test reagents, in some years not all blood donations were tested

Annex 2.2. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations from first-time donors by country, 2001-2006, WHO European Region

Geographic area Country	2001			2002			2003		
	N	HIV+	HIV+ /100,000	N	HIV+	HIV+ /100,000	N	HIV+	HIV+ /100,000
West									
EU Belgium	45,849	0	0.0	41,931	0	0.0	39,005	2	
EU Denmark*	36,737	0	0.0	40,019	0	0.0	33,496	0	0.0
EU Finland	22,447	0	0.0	19,990	1	5.0	18,944	1	5.3
EU France	403,094	26	6.5	363,075	20	5.5	381,606	20	5.2
EU Germany	535,324	25	4.7	576,979	43	7.5	572,012	47	8.2
EU Greece†	102,900	18	17.5	105,000	19	18.1	–	–	–
EU Ireland	25,314	0	0.0	25,280	0	0.0	20,767	2	9.6
EU Luxembourg	1,803	0	0.0	758	0	0.0	699	0	0.0
EU Malta	–	–	–	3,091	0	0.0	–	–	–
Monaco	219	0	0.0	–	–	–	–	–	–
EU Netherlands‡	56,000	0	0.0	–	–	–	–	–	–
EU Sweden*‡	45,400	1	2.2	46,300	2	4.3	43,900	2	4.6
Switzerland	31,577	1	3.2	41,772	1	2.4	19,172	3	15.6
EU United Kingdom	275,544	10	3.6	293,208	14	4.8	280,409	22	7.8
Total West	1,582,208	81	5.1	1,557,403	100	6.4	1,410,010	99	7.0
Centre									
Croatia§	11,312	0	0.0	10,347	0	0.0	18,261	2	11.0
Montenegro	5,149	0	0.0	5,544	1	18.0	–	–	–
EU Poland	141,674	22	15.5	150,763	14	9.3	173,250	14	8.1
EU Romania	70,625	26	36.8	–	–	–	–	–	–
Total Centre	228,760	48	21.0	166,654	15	9.0	191,511	16	8.4
European Union (EU)									
	1,762,711	128	7.3	1,666,394	113	6.8	1,564,088	110	7.0
Total WHO European Region									
	1,810,968	129	7.1	1,724,057	115	6.7	1,601,521	115	7.2

EU Countries which constitute the European Union as of 1 January 2007.

* Candidate donors: persons who apply for donating blood and have an initial HIV test before they can be registered as blood donors

† Partial data only

‡ Estimated

§ Data for Zagreb city and Zagreb county (25% of the population)

Annex 2.2. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations from new or candidate do from first-time donors by country, 2001-2006, WHO European Region

(Cont.)

2004			2005			2006			Geographic area Country
N	HIV+	HIV+ /100,000	N	HIV+	HIV+ /100,000	N	HIV+	HIV+ /100,000	
West									
52,422	1	1.9	54,317	0	0.0	–	–	–	EU Belgium
35,762	1	2.8	24,296	0	0.0	29,377	0	0.0	EU Denmark*
16,858	0	0.0	16,322	0	0.0	18,108	1	5.5	EU Finland
377,175	15	4.0	374,053	18	4.8	379,928	14	3.7	EU France
519,403	25	4.8	545,330	33	6.1	511,705	32	6.3	EU Germany
–	–	–	–	–	–	–	–	–	EU Greece†
18,343	1	5.5	16,414	2	12.2	21,642	1	4.6	EU Ireland
801	0	0.0	1,802	0	0.0	–	–	–	EU Luxembourg
–	–	–	–	–	–	–	–	–	EU Malta
–	–	–	–	–	–	–	–	–	Monaco
–	–	–	30,173	1	3.3	–	–	–	EU Netherlands‡
38,900	0	0.0	34,500	0	0.0	39,000	1	2.6	EU Sweden*‡
20,436	0	0.0	20,059	2	10.0	21,298	3	14.1	Switzerland
305,309	7	2.3	–	–	–	–	–	–	EU United Kingdom
1,385,409	50	3.6	1,117,266	56	5.0	1,021,058	52	5.1	Total West
Centre									
–	–	–	–	–	–	–	–	–	Croatia§
–	–	–	–	–	–	–	–	–	Montenegro
164,341	15	9.1	178,646	19	10.6	188,085	15	8.0	EU Poland
–	–	–	–	–	–	83,210	14	16.8	EU Romania
164,341	15	9.1	178,646	19	10.6	271,295	29	10.7	Total Centre
Total European Union (EU)									
1,529,314	65	4.3	1,275,853	73	5.7	1,271,055	78	6.1	
Total WHO European Region									
1,549,750	65	4.2	1,295,912	75	5.8	1,292,353	81	6.3	

Annex 2.3. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations from repeat donors by country, 2001-2006, WHO European Region

Geographic area Country	2001			2002			2003		
	N	HIV+ /100,000	HIV+ /100,000	N	HIV+ /100,000	HIV+ /100,000	N	HIV+ /100,000	HIV+ /100,000
West									
EU Belgium	659,174	0	0.0	663,015	0	0.0	654,266	1	0.2
EU Denmark	340,018	1	0.3	363,380	2	0.6	360,344	0	0.0
EU Finland	299,910	0	0.0	292,465	1	0.3	281,804	1	0.4
EU France	2,026,390	19	0.9	2,096,588	16	0.8	2,086,432	10	0.5
EU Germany	5,177,736	27	0.5	6,055,455	43	0.7	6,517,117	53	0.8
EU Greece*†	205,130	2	1.0	195,500	2	1.0	–	–	–
EU Ireland	121,754	1	0.8	137,222	0	0.0	131,045	0	0.0
EU Luxembourg	19,392	1	5.2	20,524	0	0.0	21,074	0	0.0
EU Malta	–	–	–	13,082	0	0.0	–	–	–
Monaco†	1,259	0	0.0	–	–	–	–	–	–
EU Netherlands‡	816,000	3	0.4	–	–	–	–	–	–
EU Sweden	665,000	0	0.0	662,000	0	0.0	633,000	2	0.3
Switzerland	383,574	6	1.6	374,133	1	0.3	375,323	2	0.5
EU United Kingdom	2,556,407	6	0.2	2,551,257	19	0.7	2,542,398	20	0.8
Total West	13,271,744	66	0.5	13,424,621	84	0.6	13,602,803	89	0.7
Centre									
Croatia§	56,075	0	0.0	57,621	0	0.0	142,900	4	2.8
Montenegro	8,340	0	0.0	8,788	1	11.4	–	–	–
EU Poland	790,508	6	0.8	816,327	6	0.7	862,760	12	1.4
EU Romania	294,107	9	3.1	–	–	–	–	–	–
Total Centre	1,149,030	15	1.3	882,736	7	0.8	1,005,660	16	1.6
Total									
European Union (EU)	13,971,526	75	0.5	13,866,815	89	0.6	14,090,240	99	0.7
Total WHO									
European Region	14,420,774	81	0.6	14,307,357	91	0.6	14,608,463	105	0.7

EU Countries which constitute the European Union as of 1 January 2007.

* Partial data only

† Blood donors (not donations)

‡ Estimated

§ Data for Zagreb city and Zagreb county (25% of the population) for 2001-2002

Annex 2.3. Systematic HIV antibody screening in blood banks: HIV prevalence in blood donations from repeat donors by country, 2001-2006, WHO European Region

(Cont.)

2004			2005			2006			Geographic area Country
N	HIV+ /100,000	HIV+ /100,000	N	HIV+ /100,000	HIV+ /100,000	N	HIV+ /100,000	HIV+ /100,000	
West									
694,909	2	0.3	661,229	4	0.6	–	–	–	EU Belgium
356,148	2	0.6	354,454	0	0.0	346,391	3	0.9	EU Denmark
268,936	0	0.0	258,548	1	0.4	260,112	1	0.4	EU Finland
2,121,123	20	0.9	2,138,742	23	1.1	2,195,345	20	0.9	EU France
5,851,268	52	0.9	5,713,350	54	0.9	5,945,097	48	0.8	EU Germany
–	–	–	–	–	–	–	–	–	EU Greece*†
139,003	0	0.0	144,146	0	0.0	134,860	0	0.0	EU Ireland
20,216	0	0.0	20,196	0	0.0	–	–	–	EU Luxembourg
–	–	–	–	–	–	–	–	–	EU Malta
–	–	–	–	–	–	–	–	–	Monaco‡
875,944	4	0.5	848,327	2	0.2	–	–	–	EU Netherlands‡
586,000	2	0.3	–	–	–	–	–	–	EU Sweden
356,852	5	1.4	345,769	2	0.6	340,298	3	0.9	Switzerland
2,474,554	11	0.4	–	–	–	–	–	–	EU United Kingdom
13,744,953	98	0.7	10,484,761	86	0.8	9,222,103	75	0.8	Total West
Centre									
–	–	–	–	–	–	–	–	–	Croatia§
–	–	–	–	–	–	–	–	–	Montenegro
842,298	2	0.2	807,985	12	1.5	791,601	12	1.5	EU Poland
–	–	–	–	–	–	243,840	5	2.1	EU Romania
842,298	2	0.2	807,985	12	1.5	1,035,441	17	1.6	Total Centre
Total European Union (EU)									
14,230,399	95	0.7	10,946,977	96	0.9	9,917,246	89	0.9	
Total WHO European Region									
14,587,251	100	0.7	11,292,746	98	0.9	10,257,544	92	0.9	

Technical note

All 53 countries of the WHO European Region participate in the HIV/AIDS surveillance activities coordinated by EuroHIV (European Centre for the Epidemiological Monitoring of HIV/AIDS). A single institution in each country (see back cover) reports national data to EuroHIV and is responsible for the quality of the data provided.

Reporting of HIV infection and AIDS

Data collection and management

Data on HIV and AIDS cases are reported to EuroHIV in a standard format. Individual data are reported without personal identifiers and elimination of duplicate reports between countries is therefore not possible. Since linkage between HIV and AIDS databases is not possible in all countries, two separate databases are maintained at European level (see Report no. 75 [1]). New complete databases are provided at each update to allow validation and inclusion of follow-up data on previously reported cases.

For details on AIDS reporting, see Report no. 75 [1].

HIV infection

Reporting of cases of newly diagnosed HIV infection started at different times [1] in European countries and is now implemented in most of them (Annex 1. 1).

Anonymous, individual data on all reported cases are sent annually to EuroHIV, according to a standard data file specification, by countries able to provide individual data. After validation, these data are merged into the European HIV Infection Data Set (EHIDS). From other countries, aggregate data (by sex, age group, transmission group and half-year of report) on new cases reported are provided annually, with no updating of previously reported data.

HIV infection case definition

A case of HIV infection is defined as an individual with HIV infection confirmed according to country definitions and requirements, diagnosed at any clinical stage including AIDS, and not previously reported in that country. For children aged under 18 months at diagnosis, at least one direct detection HIV test (non-antibody based) is also required. Adult/adolescent cases are defined as those aged 13 years and over, and paediatric cases as those under 13 years.

Reported HIV cases represent mostly new diagnoses; only a minority of reported cases has been diagnosed (but not reported) previously and, when this is the case, the previous diagnosis was frequently made anonymously or in another country.

Transmission groups

For surveillance purposes, cases attributable to more than one mode of transmission are counted once only in a hierarchy which is intended to correspond to the most probable route of transmission. This hierarchy varies slightly within the WHO European Region. Likewise, relative risks of infection among different transmission groups vary between countries. Furthermore, the definition for heterosexual transmission varies slightly between countries.

Patterns of HIV diagnosis and reporting

The proportion of newly diagnosed HIV cases infected in previous years and the overall proportion of all prevalent HIV infections that have been diagnosed are unknown, and are believed to differ widely between countries and between sub-populations within countries. They are heavily dependent on HIV testing patterns among high risk populations, access to voluntary counselling and testing, and access to care, all of which vary by country.

HIV prevalence assessment in specific populations

HIV prevalence data from the participating countries are updated regularly and compiled in the European HIV Prevalence Database. This database contains aggregate data on HIV prevalence in various populations (e.g. injecting drug users, pregnant women) in the countries of the WHO European Region. Data included must comply with specific quality criteria and availability of information on the study methods (e.g. representativity of the study population, minimum sample size, availability of data by periods of 1 year or less).

In addition to classical epidemiological surveys where testing may be unlinked and anonymous, prevalence may be assessed through data obtained from HIV testing programmes which, in turn, may be voluntary or mandatory (e.g. testing of blood donations), or through self-reported HIV serostatus (e.g. among participants in behavioural surveys). Studies are conducted nationally, locally or both; some are continuous (notably those based on testing programmes) while others are periodical or occasional.

For each study, the following information is recorded: characteristics of the population tested (target population, geographic coverage, recruitment site); sampling and testing methods; and numbers of subjects tested (or, for self-reported data, ever-tested) and found (or reported) to be HIV positive. For studies which have been published, bibliographical references are also included in the database.

Data presentation

The data in the report are provisional because previously reported data are subject to regular update (e.g. detection and deletion of duplicate cases, inclusion of new information about already reported cases).

Data are presented by geographic area (see below); sub-totals are also shown for

the 27 countries which constitute the European Union as of 1 January 2007 (population 492 million).

Country population denominators used to calculate rates are based on data from the United Nations Population Division [2].

Geographic areas

Based on geopolitical and epidemiological considerations, the 53 countries have been grouped into three geographic areas:

- West: 23 countries with a total population of 408 million: Andorra, Austria*, Belgium*, Denmark*, Finland*, France*, Germany*, Greece*, Iceland, Ireland*, Israel, Italy*, Luxembourg*, Malta*, Monaco, Netherlands*, Norway, Portugal*, San Marino, Spain*, Sweden*, Switzerland, United Kingdom*;
- East: the 15 countries of the former Soviet Union with a total population of 284 million: Armenia, Azerbaijan, Belarus, Estonia*, Georgia, Kazakhstan, Kyrgyzstan, Latvia*, Lithuania*, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan;
- Centre: the 15 remaining countries of the WHO European Region with a total population of 192 million: Albania, Bosnia and Herzegovina, Bulgaria*, Croatia, Cyprus*, Czech Republic*, Hungary*, Former Yugoslav Republic of Macedonia, Montenegro, Poland*, Romania*, Serbia, Slovakia*, Slovenia*, Turkey.

References

1. EuroHIV. HIV/AIDS Surveillance in Europe. End-year report 2006. Saint-Maurice: Institut de veille sanitaire, 2007
2. United Nations, Department of Economic and Social Affairs, Population Division (2005). World Population Prospects: The 2004 Revision. CD-ROM Edition – Extended Dataset (United Nations publications, Sales No. E.05.XIII.12)

* Countries which constitute the European Union as of 1 January 2007

HIV/AIDS surveillance in Europe: participating countries and national institutions

Albania	Institute of Public Health, Tirana
Andorra	Ministry of Health and Welfare, Andorra la Vella
Armenia	National Centre for AIDS Prevention, Yerevan
Austria	Federal Ministry for Health and Women, Vienna
Azerbaijan	Azerbaijan Centre for AIDS Prevention, Baku
Belarus	Republican Centre of Hygiene, Epidemiology and Public Health, Minsk
Belgium	Scientific Institute of Public Health, Brussels
Bosnia & Herzegovina	Federal Ministry of Health, Sarajevo
	National Public Health Institute of Republic Srpska, Banja Luka
Bulgaria	Ministry of Health, Sofia
Croatia	Croatian National Institute of Public Health, Zagreb
Cyprus	Ministry of Health, Nicosia
Czech Republic	National Institute of Public Health, Prague
Denmark	Statens Serum Institute, Copenhagen
Estonia	Health Protection Inspectorate, Tallinn
Finland	National Public Health Institute, Helsinki
France	Institut de Veille Sanitaire, Saint-Maurice
Georgia	Georgian AIDS and Clinical Immunology Research Centre, Tbilisi
Germany	Robert Koch-Institut, Berlin
Greece	Hellenic Centre for Disease Prevention & Control, Athens
Hungary	National Centre for Epidemiology, Budapest
Iceland	Directorate of Public Health, Reykjavik
Ireland	Health Protection Surveillance Centre, Dublin
Israel	Ministry of Health, Jerusalem
Italy	Istituto Superiore di Sanità, Rome
Kazakhstan	Centre for AIDS Prevention and Control, Almaty
Kyrgyzstan	National Centre for AIDS Prevention and Control, Bishkek
Latvia	Public Health Agency – AIDS and STI Prevention Centre, Riga
Lithuania	Lithuanian AIDS Centre, Vilnius
Luxembourg	Direction de la Santé, Luxembourg
Macedonia, Former Yugoslav Republic of	Republic Institute for Health Protection, Skopje
Malta	Department of Public Health, Msida
Moldova, Republic of	National Centre for AIDS Prevention and Control, Chisinau
Monaco	Direction de l'Action Sanitaire et Sociale, Monaco
Montenegro	Institute of Public Health of Montenegro, Podgorica
Netherlands	National Institute for Public Health & the Environment, Bilthoven
Norway	Norwegian Institute of Public Health, Oslo
Poland	National Institute of Hygiene, Warsaw
Portugal	National Institute of Health Dr Ricardo Jorge, Lisbon
Romania	Matei Bals Institute of Infectious Diseases, Bucharest
Russian Federation	Russian Federal AIDS Centre, Moscow
San Marino	Authority Sanitaria e Socio-Sanitaria, San Marino
Serbia	Institute of Public Health of Serbia, Belgrade
Slovak Republic	State Public Health Institute, Bratislava
Slovenia	Institute of Public Health, Ljubljana
Spain	Instituto de Salud "Carlos III", Madrid
Sweden	Swedish Institute for Infectious Disease Control, Solna
Switzerland	Swiss Federal Office of Public Health, Bern
Tajikistan	National AIDS Centre, Dushanbe
Turkey	Ministry of Health, Ankara
Turkmenistan	National AIDS Prevention Centre, Ashgabat
Ukraine	Ukrainian AIDS Centre, Kiev
United Kingdom	Health Protection Agency, London
	Health Protection Scotland, Glasgow
Uzbekistan	Republican Centre for AIDS Prevention and Control, Tashkent