



# TECHNICAL REPORT

## HIV INFECTION IN EUROPE: 25 YEARS INTO THE PANDEMIC

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conference “Responsibility and  
Partnership: Together Against HIV/AIDS”  
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## INTRODUCTION

A quarter of a century after the first of the AIDS cases were described, HIV continues inexorably to strike communities and individuals. In western Europe, major advances in treatment have prolonged and improved the lives of infected persons. However, these therapeutic advances have been paralleled with decreasing emphasis on HIV prevention and with a resurgence of high-risk sexual behaviours among gay communities across major European cities. The number of persons living with HIV continues to increase because HIV mortality has declined while HIV transmission goes on without any sign of abating. In eastern Europe, a region initially spared by HIV due to its geo-political isolation from the rest of the world, severe epidemics have emerged among injecting drug users in the late 1990s and early 2000s. Some of these countries are now part of the European Union (EU). At their meetings in Dublin and Vilnius, government representatives from across the EU recognised that there is an urgent need to refocus the attention to HIV prevention in the EU and to scale up efforts in the neighbouring countries of eastern Europe<sup>1,2</sup>.

This paper focuses on the HIV epidemic in the 25 EU countries and the European Economic Area and European Free Trade Association (EEA/EFTA) countries as at the end of 2006, while also providing an overview of the situation in the other European countries (Table); much of the data presented is from EuroHIV<sup>3</sup>, the European surveillance network on HIV. It also presents conclusions from a workshop on HIV prevention organised by the European Centre for Disease Prevention and Control (ECDC) in 2006<sup>1</sup>.

## RECENT TRENDS

### European Union and EEA/EFTA countries

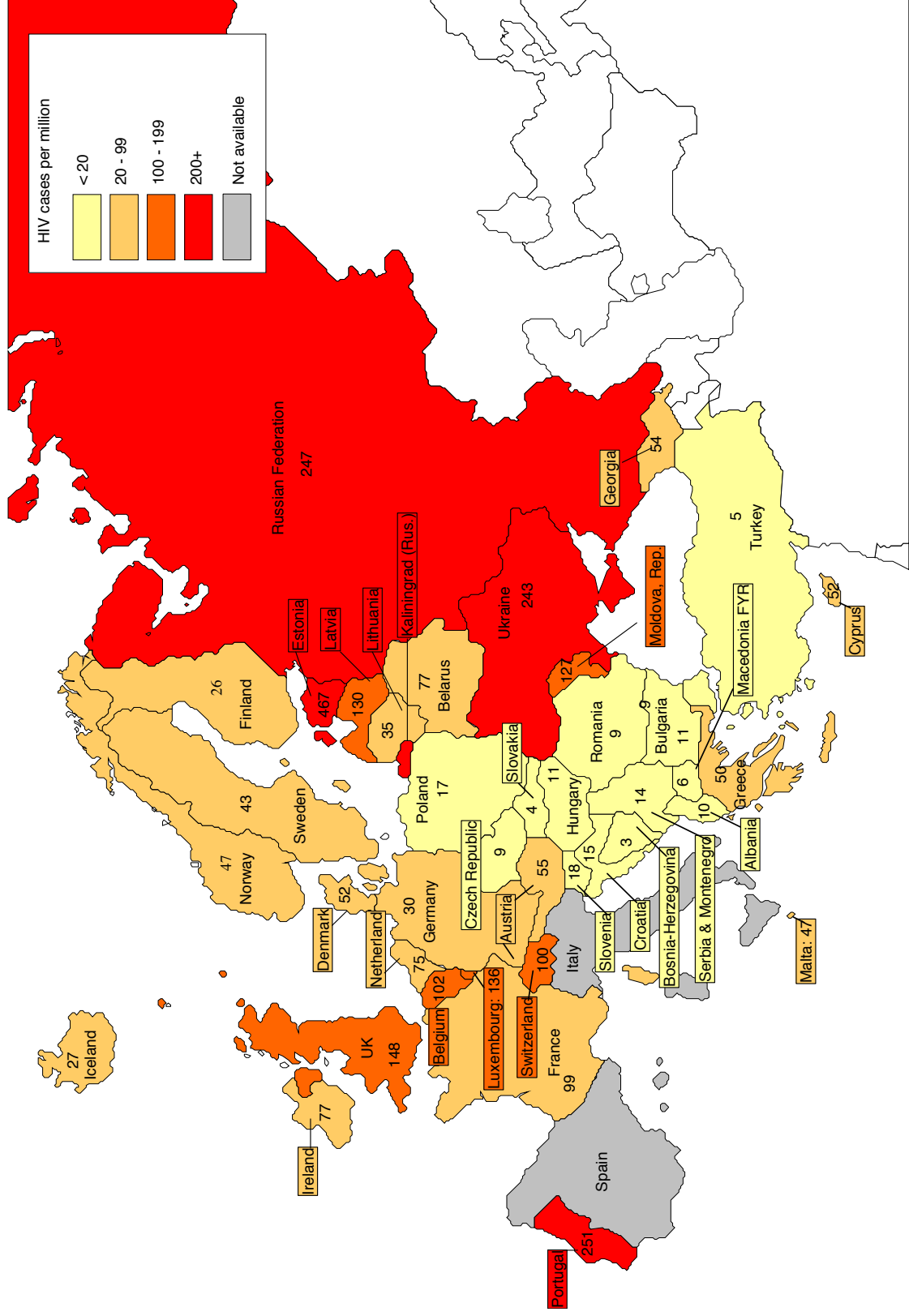
An estimated 740,000 persons were living with HIV in western and central Europe in 2006, a 2.7% increase over the estimated 720,000 in 2005<sup>4,5</sup>. This represents an adult HIV prevalence of 0.3%, with the three countries with highest prevalence being Estonia (1.3%), Latvia (0.8%), and Spain (0.6%) (Table). In the new EU Member States the HIV epidemic is generally of a low level, except in the Baltic States.

In 2005, 27,555 new HIV diagnoses were reported by 26 countries (Table)<sup>3</sup>. National HIV reporting data are not available from Italy or Spain. Overall, nearly two thirds (63%) of diagnoses were in men, 10% were in young people aged 15 to 24 years and 1% in children under 15 years of age. However, in the Baltic States where persons living with HIV are much younger, the age group 15–24 years accounted for 55% of the cases in Estonia and 30% in Latvia.

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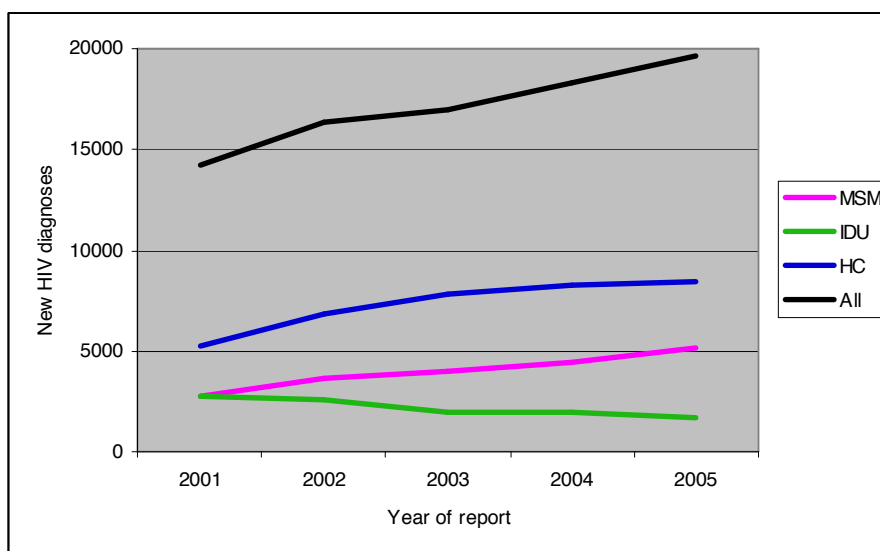
<sup>1</sup> The ECDC workshop was held on 2–3 October 2006 in Stockholm and brought together national surveillance and prevention experts from the 25 EU countries plus Bulgaria, Iceland, Norway, Romania and Switzerland, as well as representatives from the European Commission, World Health Organization, UNAIDS, European Monitoring Centre for Drugs and Drug Addiction, United States Centers for Disease Control and Prevention, and civil society.

Figure 1: New HIV diagnoses per million population reported in 2005, Europe (Source: EuroHIV).





**Figure 2: New HIV diagnoses by modes of transmission, EU and EEA/EFTA countries, 2001–05.**



Source: EuroHIV

Countries with consistent data for the entire 2001–05 period: Belgium, Cyprus, Czech Republic, Denmark, Finland, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Poland, Portugal, Slovakia, Slovenia, Sweden, UK, Iceland, Norway, Switzerland. MSM = Men having sex with men; IDU = Injecting drug users; HC = Heterosexual contact.

The highest rates in new HIV diagnoses were reported in Estonia (467 cases per million) and Portugal (251 cases per million) while the lowest rates were found in the Czech Republic (nine cases per million) and Slovakia (four cases per million) (Figure 1). Over the past five years, new HIV diagnoses have increased by 38% overall in the countries where consistent national data are available (Figure 2). Increases in new HIV diagnoses were particularly marked in the UK (+113%) and in Germany (+87%) (Figure 3).

Heterosexual intercourse has become the predominant mode of transmission in persons diagnosed with HIV in recent years in most countries and in the EU overall (Table; Figure 2). The number of new HIV diagnoses among heterosexuals has increased by 62% over the past five years.

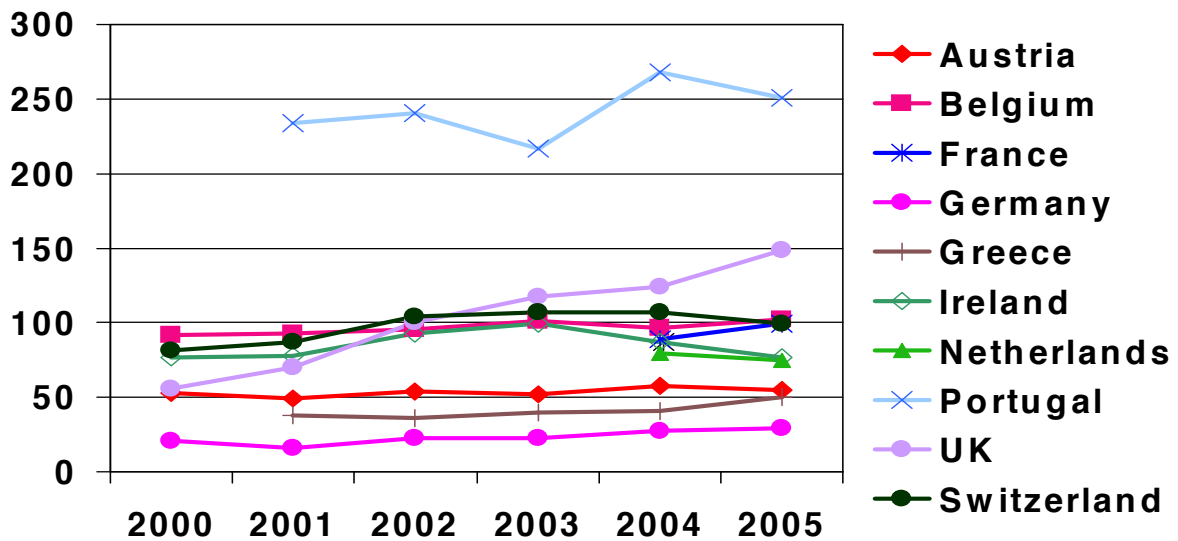
The trends underlying the rapid increase in HIV diagnoses among heterosexuals in the EU are, however, complex and sometimes misinterpreted. Although the number of persons who are becoming infected through heterosexual intercourse within the EU is rising steadily, most of the increase in HIV diagnoses among heterosexuals is among persons originating from, and infected in, high-prevalence countries outside Europe, primarily sub-Saharan Africa. In 2005, overall nearly half (47%) of the newly diagnosed cases of HIV infection acquired by heterosexual contact were among persons originating from countries with generalised epidemics, ranging from 17% in Portugal to over 70% in Sweden and Iceland (Figure 4). Data from several countries suggest that the majority of these persons became infected in their country of origin, although transmission within the host EU country does occur<sup>6</sup>.

**Figures 3a–3d: Trends in new HIV diagnoses reported in EU and EEA/EFTA countries, 2000–2005. (Source: EuroHIV)**

Note. The graphs are on different scales.

Figures 3a and 3b show the EU15 Member States and the EEA/EFTA countries with the Scandinavian countries in figure 3b.

**Figure 3a**



**Figure 3b**



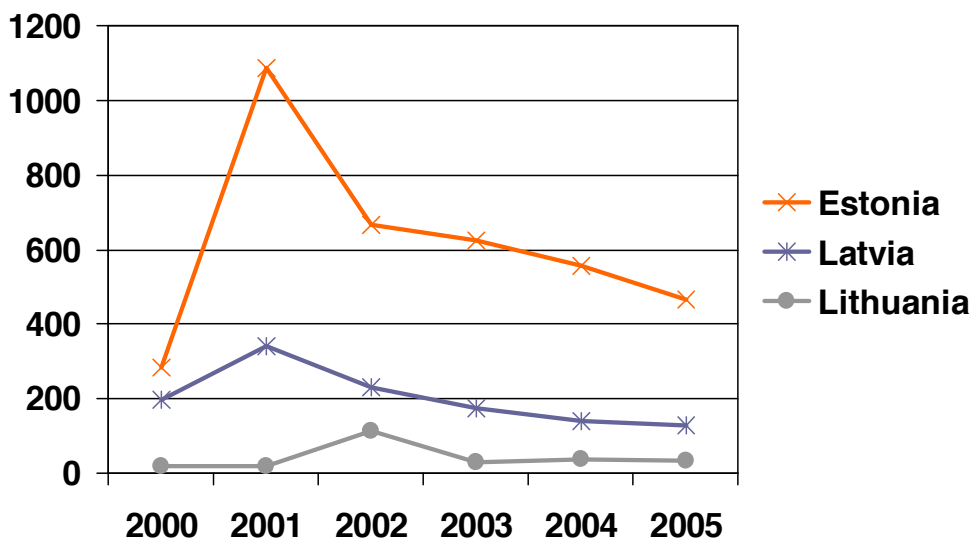


**Figures 3a–3d: Trends in new HIV diagnoses reported in EU and EEA/EFTA countries, 2000–2005, *contd.* (Source: EuroHIV)**

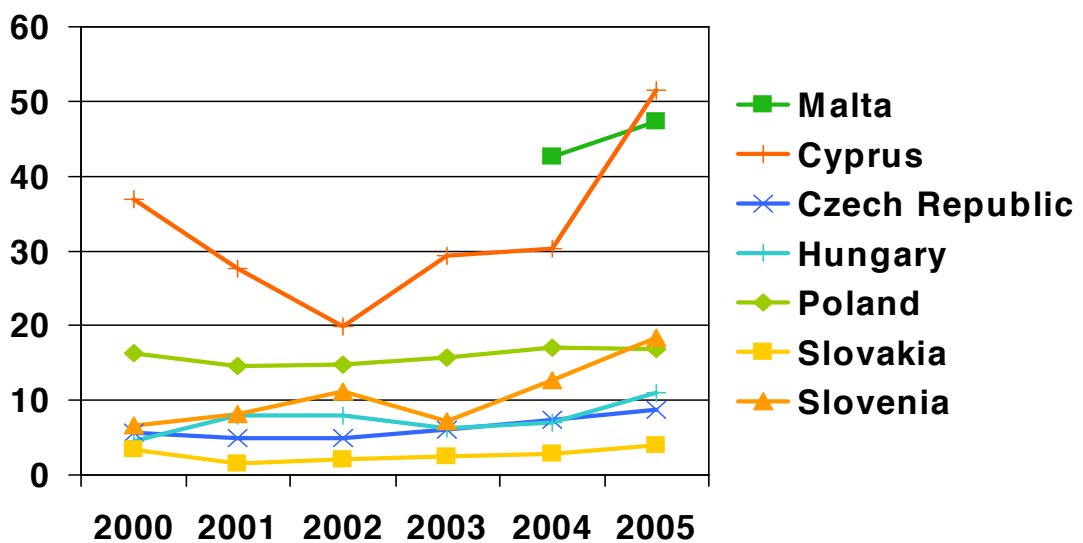
Note. The graphs are on different scales.

Figures 3c and 3d show the new EU Member States with the Baltic States on the left lower graph.

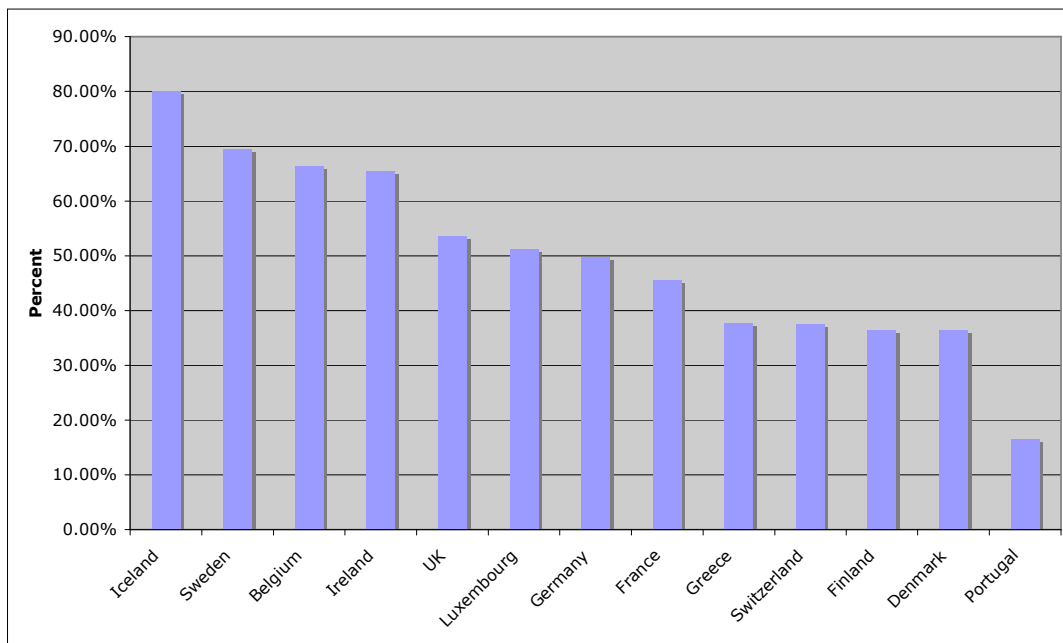
**Figure 3c**



**Figure 3d**



**Figure 4. Percentage of persons newly diagnosed with HIV infection acquired through heterosexual intercourse who originated from a non-European high-prevalence country, cases diagnosed in 2005.**



Source: EuroHIV

It is very difficult to judge the level of heterosexual transmission of HIV within the EU, partly because of the immigrant effect, but it is clear that for most people the risk of acquiring HIV infection through heterosexual intercourse in the EU is low, though not zero. Data on HIV prevalence among pregnant women provide some indication of the spread of HIV in the female heterosexual population. Among the 15 countries with available data, the prevalence of HIV infection among pregnant women was lower than 0.1% in most (ten) countries, it was in the ranges of 0.1% to 0.3% in four countries (Ireland, Latvia, Spain, UK), and it was 0.4% in Estonia. However, in the UK, women born in countries outside Europe with high HIV prevalence accounted for most HIV infections<sup>7</sup>, and in countries such as Estonia, Latvia and Spain, a sizeable proportion of the women are likely to have been infected through injecting drug use.

Mother-to-child transmission (MTCT) accounts for less than 1% (171 cases) of all new HIV diagnoses reported in the EU in 2005. With the wide implementation of screening of pregnant women and prevention of MTCT, the rate of MTCT dropped significantly from 16.1% in 1992–93 to 1.7% in 2002–03 in western and central Europe<sup>8</sup>. Likewise, the number of AIDS cases infected through MTCT decreased sharply from 313 in 1995 to 42 in 2005.

The number of reported HIV diagnoses among men having sex with men (MSM) has nearly doubled over the past five years (Figure 2). MSM account for the largest number of new diagnoses in several countries including Denmark, Germany, Greece, Hungary, Netherlands,





Slovakia, Slovenia, and Iceland. The extent to which the increase in HIV diagnoses among MSM truly reflects an increase in HIV incidence in this population and to which it merely results from an increase in the uptake of HIV testing is, however, uncertain. In the UK, a substantial increase in the uptake of HIV testing appears to explain the rise in HIV diagnoses, while direct estimates of HIV incidence among MSM provided no evidence of a statistically significant change in HIV incidence between 1997 and 2004<sup>7,9,10</sup>.

The spread of HIV through sharing drug injecting equipment has declined substantially in western Europe, following a peak in incidence in the mid to late 1980s. Over the past five years, the number of new HIV diagnoses among injecting drug users (IDU) has decreased by 37% in the countries where consistent data have been available for several years (Figure 2). However, the transmission of HIV among IDU continues in some countries of the EU, despite the wide implementation of harm reduction measures such as substitution treatment and needle and syringe exchange programmes<sup>11</sup>. In the Baltic states the initial spread of HIV among IDU in the late 1990s was linked to epidemics among IDU in neighbouring countries, in particular the Russian Federation<sup>12</sup>. The epidemic remains concentrated among IDU although HIV transmission among IDU appears to have slowed down and at the same time an increasing number of persons are becoming infected through heterosexual intercourse with their IDU sex partner. In Lithuania, the spread of HIV following the initial outbreak detected in 2002 (mainly in one prison) has, so far, remained limited.

## Neighbouring countries of eastern Europe

The epidemic continues in eastern Europe and central Asia (former Soviet Union) where an estimated 270,000 persons became infected with HIV in 2006, bringing the number of persons were living with HIV to about 1.7 million<sup>4</sup>.

HIV predominantly affects young male IDU. One third of the people newly diagnosed with HIV in 2005 were 15–24 years old and 63% were IDU (after excluding those with no risk reported)<sup>3</sup>. Most (80%) IDU were males. However, HIV is now rapidly spreading through heterosexual intercourse in several countries. The number of HIV diagnoses in persons infected heterosexually nearly doubled between 2001 and 2005<sup>3</sup>. Accordingly, women accounted for 41% of reported cases at the end of that period, compared with just 28% in 2001. The increase in heterosexual transmission seems still related to male drug users who infect their female sex partners. Very few HIV diagnoses (100 to 150 per year) are reported among MSM.

In many countries, the number of new AIDS cases is rising rapidly. This is due to the early stage of the epidemic in the region where a large number of persons have been recently infected, and probably also to limited access to HIV treatment. In 2005, only 21,000 (13%) of the estimated 160,000 people in need of antiretroviral therapy were receiving it<sup>13</sup>.

The Russian Federation and Ukraine, the two largest and most affected countries, account for the vast majority of HIV infections in this region. In the Russian Federation, the number of new diagnoses reached a peak in 2001, then remained at high levels at around 35,000 per annum. In Ukraine, the number of new HIV diagnoses keeps rising, with 11,272 cases



reported in 2005. Heterosexual intercourse accounts for a rising proportion of cases. In Ukraine, the rate of MTCT during 2000–04 was 6.7% with no sign of decrease over that 5-year period<sup>8</sup>.

## VULNERABLE GROUPS AND AFFECTED COMMUNITIES

### Men having sex with men

MSM remain the group at highest risk of contracting HIV in most EU countries<sup>18</sup>. HIV prevalence surveys conducted in gay community settings reveals prevalence levels in the order of 10–15% in the EU15<sup>i</sup>, but lower levels in the new Member States where data are available, i.e. Czech Republic: 0.5%, Slovenia: 3%<sup>14</sup>. Studies reveal considerable HIV incidence among MSM: around 3% per year in the UK, Amsterdam, and Valencia, and up to 12% per year in Rome. In Valencia and Rome, HIV incidence in MSM has been rising overall, but in Amsterdam, this trend can only be seen in MSM over 34 years old, and not in younger men<sup>15,16,17</sup>.

High-risk sexual behaviour has increased among MSM in Europe and other industrialised countries since the advent of highly active antiretroviral therapy (HAART) in 1996, although this seems to be leveling off in some cities<sup>18,19</sup>. At the same time, epidemics of sexually transmitted infections other than HIV have occurred among MSM, mostly HIV-infected.

The factors influencing these behavioural changes are complex. They include treatment optimism, prevention fatigue, use of recreational drugs, looking for partners on the internet, as well as having unprotected sex with seroconcordant partners, an alternative risk reduction strategy known as serosorting. The increases of high-risk behaviour concern, however, a minority of MSM, including some men who are infected with HIV.

Male sex workers are at high risk of HIV. In London, 9% of male sex workers recruited in a study during 1994–2003 were HIV-infected, and the proportion of foreign-born men, mostly from central and South America and eastern Europe, increased over time<sup>20</sup>. In Antwerp, HIV prevalence among male sex workers was 11.8% and in Spain, where the majority of men were of foreign origin, mostly from Latin America, it was 12.2%<sup>21,22</sup>.

Only a few cases of HIV infection in MSM have been officially reported in the neighbouring countries of eastern Europe. However, studies suggest that unprotected sex, exchange of sex for money, and bisexuality is common among MSM in the Russian Federation<sup>23</sup>. In most countries in eastern Europe, homosexual behaviour, although no longer illegal, remains highly stigmatised and hidden, and the lack of evidence to indicate increased HIV transmission among MSM could indicate the social vulnerability of MSM in the region rather than the true epidemiological picture.

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<sup>i</sup> The 15 countries which constituted the EU until its expansion to 25 countries in May 2004.



## Female sex workers

The sex industry is undergoing major transformations driven by economic, demographic, ideological and technological changes, and more generally, globalisation. In Europe, there has been a rapid increase in migrants, women and men, selling sex, and, in some countries, a shift to a primarily migrant workforce<sup>24</sup>. Along with the increase in supply, there has been an increase in demand for sex work. In the UK, the proportion of men who reported having paid for sex in the past five years has increased from 2% in 1990 to 4.2% in 2000<sup>25</sup>.

Early studies suggest that sex work has had little effect on the spread of HIV in western Europe, where HIV prevalence among non-injecting drug user female sex workers remained relatively low<sup>26</sup>. More recent, though limited, data tend to confirm that HIV infection among sex workers remains highly associated with injecting drug use, with HIV prevalence among female sex workers being generally less than 2%, except in settings where most HIV-infected sex workers are injecting drug users<sup>27</sup>.

In eastern Europe where there is a close relationship between drug use and sex work among women, sex workers could potentially play a disproportionate role in the spread of HIV into the broad heterosexual population. In the Russian Federation, studies found that 22% to 82% of sex workers inject drugs, and conversely, 15% to 66% of female IDU are involved in sex work<sup>28</sup>.

## Injecting drug users

In most western European countries, steady declines in unsafe injecting practices and in HIV prevalence among injecting drug users occurred throughout the 1990s, reflecting past successful prevention interventions. However, HIV prevalence among IDU varies greatly between, as well as within, countries, and in some countries and regions has remained very high, over 25%<sup>11</sup>. High and increasing HIV prevalence levels are reported in several regions in Italy, Estonia and Latvia. Although nationwide levels are low in Lithuania and the UK, they are increasing.

While HIV infection among IDU in the EU is mainly concentrated in a few high-prevalence countries, hepatitis, and in particular infection caused by the hepatitis C virus (HCV), is much more evenly distributed and more highly prevalent. Co-infection with HIV and HCV is associated with a significantly poorer prognosis regarding the hepatitis infection, and liver disease is currently a leading cause of death among IDU in Europe. HCV antibody levels of over 60% among IDU tested during 2003–04 were reported from several EU countries<sup>11</sup>.

## Young people

Young people (i.e. people aged 15–24 years) are vulnerable to HIV because they have the highest rates of sex partner change; may have difficulties in negotiating safer sex, especially young women; are more likely to experiment with drugs; and have high rates of other sexually transmitted infections. However, most young people have very low HIV prevalence, unless they belong to the key populations at higher risk (i.e. MSM, IDU, sex workers, migrants from high-prevalence countries).



Recent sexual health surveys indicate that condom use has increased markedly and that, today, the majority of young people use a condom at first sexual intercourse. In the UK, 80% of women and men aged 16–24 years and in Slovenia, 80% of men and 68% of women aged less than 22 years used a condom at first sexual intercourse<sup>29,30</sup>. However, young people are at the highest risk of acquiring sexually transmitted infections such as chlamydia, genital herpes and human papilloma virus (HPV), which remain of great concern because of their potential adverse consequences. The prevalence of chlamydia among women aged 15–24 years range between 2% and 6% in European countries<sup>31,32,33</sup>.

Many young people who contracted HIV through mother-to-child transmission have survived to adolescence or young adulthood and are now facing decisions about becoming sexually active.

## **Migrant populations**

The HIV epidemic in Europe is increasingly linked to the global HIV epidemic. High-prevalence countries outside Europe, in particular those in sub-Saharan Africa, are playing an increasing role in Europe's HIV epidemic since they are the source of infection of the immigrants who form the majority of reported heterosexually infected cases newly diagnosed in Europe in many countries. This reflects the worsening of the HIV epidemic in Africa during the 1990s and changing world migration patterns. In 2006, sub-Saharan Africa accounted for 25 million or nearly two-thirds, of the people infected worldwide (40 million). Furthermore, migration often places these same people at heightened vulnerability to HIV and its complications. Several studies indicate that migrants tend to be diagnosed at a late stage of HIV infection<sup>6</sup>.

## **Persons living with HIV**

About two-thirds of the people living with HIV in the EU have been diagnosed with HIV and are aware of their infection (Table). However, a study of new HIV diagnoses in the UK and Ireland showed that many opportunities for earlier diagnosis are missed<sup>34</sup>.

Most HIV-infected people will remain sexually active after they learn that they are infected. Many of them will engage in safer sex practices as studies have shown that high-risk behaviour is markedly lower in persons aware of their infection compared with those who are not<sup>35</sup>. A recent US study indicates that HIV-infected persons unaware of their infection contributed disproportionately to on-going HIV transmission. It also indicates that the rate of HIV transmission was 3.5 times higher from persons unaware than from those aware<sup>36</sup>. This latter finding is explained by the lower viral load in persons aware, which in turn, results, at least in part, from the intake of antiretroviral treatment.

Meanwhile, a substantial proportion of HIV-infected persons aware of their HIV infection continue to engage in high-risk sexual behaviours, which puts others at risk of becoming HIV-infected and themselves at risk of reinfection with HIV and infection with other sexually transmitted infections (e.g. syphilis, gonorrhoea, lymphogranuloma venereum)<sup>19,37</sup>.



## **ACTION NEEDS AND CHALLENGES FOR PREVENTION**

These epidemiological data point to action needs and challenges for prevention in the EU. Key priorities identified at a recent workshop on HIV prevention organised by ECDC include the following<sup>38</sup>.

Firstly, there is a need to increase the uptake of voluntary HIV testing and counselling to reduce the number of HIV-infected persons who are not aware of their infection. Estimates of the undiagnosed fraction of the HIV infected population is around 30% in the EU overall, ranging from about 15% in Sweden to over 50% in Poland (Table). Many HIV-infected persons are diagnosed too late to get optimal benefits from treatment. These people contribute disproportionately to new HIV infections. WHO and UNAIDS have recently issued a draft guidance on provider-initiated HIV testing and counselling using the opt-out approach and are planning to release finalised guidance in 2007. ECDC plans to issue guidance for HIV testing and counselling for the EU.

As HIV-infected persons are diagnosed with HIV infection, there is a need to ensure that these persons are linked to HIV treatment, care and support. In western Europe, an estimated 90% of HIV-infected persons have access to antiretroviral treatment in countries. In some of the new EU Member States, however, coverage of antiretroviral treatment may be much lower. Counselling and support for HIV-infected persons is paramount. People who are known to be HIV-infected are encouraged to behave in ways that reduce the likelihood of transmitting HIV and to be accountable for their actions, but prevention efforts should also aim to provide the social conditions that encourage and reinforce safe behaviour<sup>39</sup>.

Secondly, prevention actions should target the areas and populations at higher risk where HIV is concentrated. The following three major areas where prevention needs to be prioritised were identified: (i) Baltic states; (ii) MSM; (iii) migrants from high-prevalence countries.

Two of the Baltic States, Estonia and Latvia, are faced with severe HIV epidemics. In these countries, the epidemic is driven by IDU but there is evidence that HIV is now spreading from IDU to their sex partners, and possibly beyond. In Latvia, an estimated 1.3% of the adult population aged 15–49 years is infected with HIV<sup>5</sup>. Effective interventions for IDU centre around the availability of harm reduction programmes but actions to prevent heterosexual and mother-to-child transmission should also be intensified. Strategic information on risk behaviours and on the level of HIV transmission in the heterosexual population and in populations at higher risk such as sex workers and MSM, as well as information on access to prevention, treatment and care are needed to tailor interventions.

Men having sex with men are the group at highest risk of getting HIV in most EU countries. New and improved interventions are needed. These interventions should take into account the use of the internet for meeting sex partners, the strategies that have been adopted by MSM to reduce their risk of transmission (e.g. serosorting, strategic positioning), the use of recreational drugs, and the international dimension of the gay identity whereby many MSM meet sex partners when travelling to foreign countries. Information on HIV serostatus should be part of the collected data on MSM behaviour to guide the development of new and improved approaches to risk reduction in this target group.



Migrants are frequently confronted with strong barriers to HIV prevention and care, including cultural, socioeconomic, linguistic and administrative or legal barriers, and more generally, they may face stigmatisation and social hostility. The first challenge is to better define the migrant populations at increased risk of contracting HIV, as 'migrant' is a broad term that relates to many different situations. Publication of data will give greater visibility to the HIV problem among at-risk migrant communities and will help to set up public health interventions. But it might also promote xenophobia and further stigmatisation, and avoiding this problem is yet another challenge. In some countries HIV prevention, treatment and care programmes may need to be adapted to reach migrant populations.

HIV is a global epidemic and the EU response needs to be seen in this context. The development of the epidemic outside the EU is, via travel and migration, one of the key determinants of the epidemic within the Union. Assisting low-income countries with a high HIV burden can be viewed as a prevention strategy of the EU as well as a humanitarian endeavour.



**Table: Estimated number of persons living with HIV and number of new diagnoses reported in 2005 in the EU and EEA/EFTA countries and other European countries.**

Country	Estimated number of persons living with HIV at end 2005		Estimated % of persons living with HIV who are not aware of their infection	New HIV diagnoses reported in 2006		
	Number	Adult (15–49) prevalence (%)		Number	Rate per million population	Predominant transmission group
Austria	12,000	0.3	—	453	44.3	—
Belgium	14,000	0.3	—	1,066	102.3	HC
Cyprus	<500	—	—	43	51.5	HC
Czech Republic	1,500	0.1	20–25	90	8.8	HC
Denmark	5,600	0.2	15–20	285	52.5	MSM
Estonia	10,000	1.3	—	621	467.0	—
Finland	1,900	0.1	—	137	26.1	HC
France	130,000	0.4	30	6,151	99.0	HC
Germany	49,000	0.1	25–30	2,451	29.6	MSM
Greece	9,300	0.2	—	560	50.4	MSM
Hungary	3,200	0.1	—	110	10.9	MSM
Ireland	5,000	0.2	—	318	76.7	HC
Italy	150,000	0.5	25	—	—	—
Latvia	10,000	0.8	50	299	129.6	IDU
Lithuania	3,300	0.2	—	120	35.0	IDU
Luxembourg	<1,000	0.2	—	63	135.5	HC
Malta	<500	0.1	—	19	47.3	HC
Netherlands	18,000	0.2	40	1,216	74.6	MSM
Poland	25,000	0.1	>50	652	16.9	IDU
Portugal	32,000	0.4	—	2,635	251.1	HC
Slovakia	<500	<0.1	20–30	21	3.9	MSM
Slovenia	<500	<0.1	—	36	18.3	MSM
Spain	140,000	0.6	—	—	—	—
Sweden	8,000	0.2	12–20	392	43.4	HC
United Kingdom	68,000	0.2	30	8,868	148.3	MC
<b>Sub-total EU</b>	<b>700,000</b>	<b>0.3</b>	<b>30</b>	<b>26,606</b>	<b>65.5</b>	<b>HC</b>
Iceland	<500	0.2	—	8	27.2	MSM
Norway	2,500	0.1	15	219	47.4	HC
Switzerland	17,000	0.4	—	722	99.6	HC
<b>Total EU + EEA/ EFTA</b>	<b>720,000</b>	<b>0.3</b>	<b>30</b>	<b>27,555</b>	<b>74.1</b>	<b>HC</b>
Bulgaria	<500	<0.1	—	83	10.7	HC
Romania	7,000	<0.1	—	205	9.4	HC
Albania	<1,000	—	—	31	9.9	HC





Bosnia and Herzegovina	<500	<0.1	—	13	3.3	HC
Croatia	<500	<0.1	—	66	14.5	MSM
Macedonia, FYR	<500	<0.1	—	12	5.9	HC
Serbia and Montenegro	10,000	0.2	—	112	13.8	MSM
Turkey	<2,000	—	—	332	4.5	HC
Georgia	5,600	0.2	—	242	54.1	IDU
Moldova	29,000	1.1	—	533	126.7	HC
republic						
Russian Federation	940,000	1.1	—	35,379	247.1	IDU
Ukraine	410,000	1.4	—	11,272	242.5	IDU

Data sources. Estimated number of persons living with HIV: UNAIDS; Number of reported HIV diagnoses: EuroHIV; Estimated percentage of persons living with HIV who are not aware of their infection: personal communication with national HIV correspondants.

EU countries are the 25 countries that constituted the EU at end 2005.

HC = Heterosexual contact; MSM = men having sex with men; IDU = injecting drug users.





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