

# HIV and AIDS in the European Union, 2009

G Likatavicius (giedrius.likatavicius@ecdc.europa.eu)<sup>1</sup>, M JW Van de Laar<sup>1</sup>

1. European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

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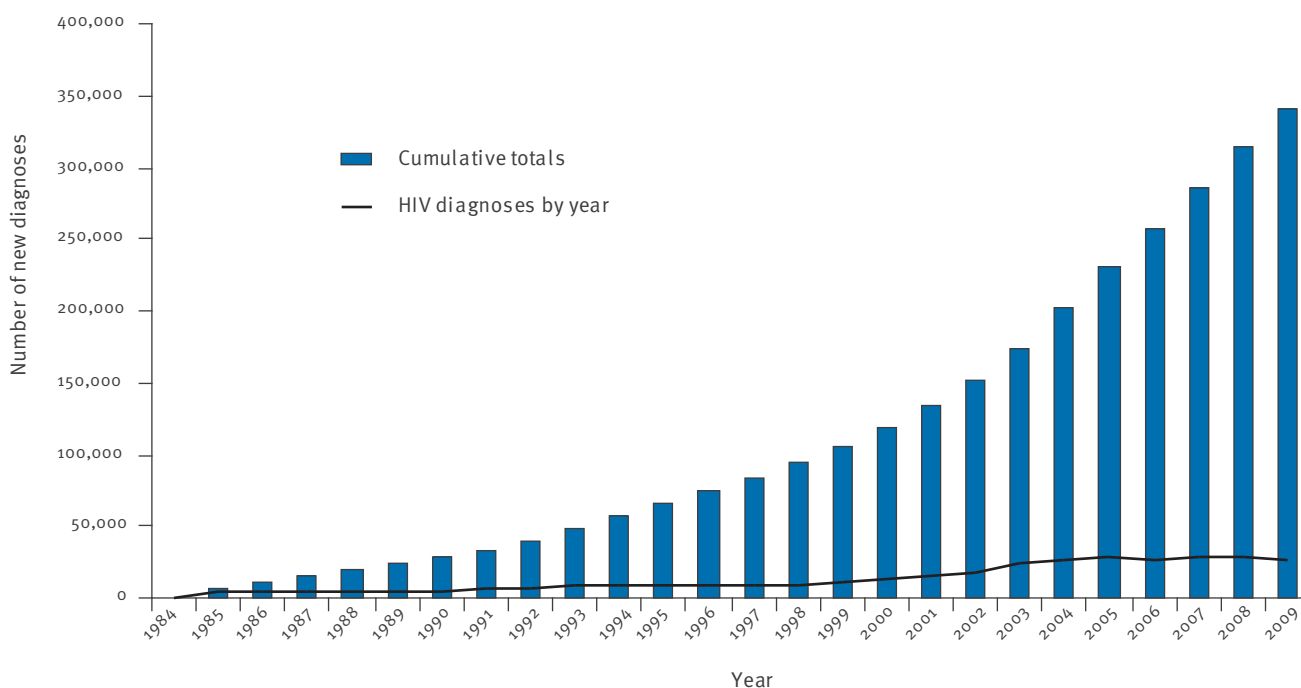
In 2009, 28 European Union and European Economic Area (EU/EEA) countries reported 25,917 newly diagnosed cases of human immunodeficiency virus (HIV). Sex among men who have sex with men was the most common transmission mode (35%) followed by heterosexual contact (24%). Overall, the number of HIV cases in 2009 increased while the number of reported acquired immunodeficiency syndrome (AIDS) diagnoses continued to decline. It is of concern that a high proportion of the patients with known CD4 cells count at the time of HIV diagnosis had a CD4 cell count below 350cells/ $\mu$ l suggesting no timely access to treatment and care.

## Human immunodeficiency virus (HIV) cases in the European Union and European Economic Area (EU/EEA), 2009

In the EU/EEA, 25,917 people were newly diagnosed with HIV in 2009, reported by 28 countries, a rate of 5.7

per 100,000 population. Data was not reported from Austria or Liechtenstein. The overall rate for men was 8.3 per 100,000 male population and 3.2 for women. The highest rates of new HIV diagnoses were reported by Estonia (30.7), Latvia (12.2), the United Kingdom (UK) (10.7) and Belgium (10.3). The lowest rates (<1.0) were reported by Romania and Slovakia. Twelve per cent of new HIV diagnoses were reported in 15–24 year-old individuals and 28% were female. Sex among men who have sex with men (MSM) is the predominant reported mode of transmission in EU/EEA, accounting for 35% of the HIV diagnoses, followed by heterosexual contact (24%) when cases from countries with generalised HIV epidemics are excluded. Five per cent of HIV cases were reported among intravenous drug users (IDU). Transmission mode was unknown for 20.3% of the cases. The highest proportion of cases classified as heterosexually transmitted and originating from countries with generalised epidemics, was observed

**FIGURE 1**  
Number of diagnosed and reported HIV infections, EU/EEA, 1984-2009



EEA: European Economic Area; EU: European Union.

in Norway (70%), Sweden (69%), Ireland (62%) and Belgium (60%).

### Trends in HIV cases in the EU/EEA

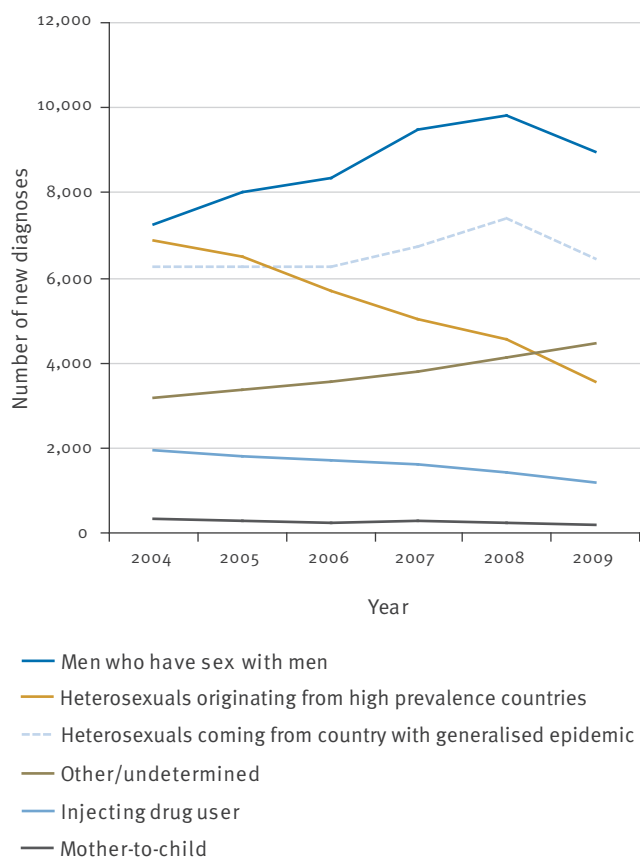
Among the 28 EU/EEA countries that have consistently reported HIV data since 2004, the rate of HIV diagnoses per 100,000 population has been relatively stable, ranging from 6.5 in 2004 to 5.7 in 2009. In recent years, more than 25,000 HIV diagnoses were reported each year, resulting in a cumulative total number of nearly 350,000 diagnoses reported since the beginning of the epidemic (Figure 1). Since 2004, the proportion of newly HIV diagnosed women decreased from 36% to 28% in 2009. HIV diagnoses have tripled in Bulgaria, Iceland and Slovakia and doubled in Hungary and Slovenia. HIV diagnoses have decreased by more than 20% in Denmark, Estonia, Italy, Luxembourg and Romania.

Since 2004, 26 EU/EEA countries have consistently reported data on transmission mode (Estonia and Poland were excluded due to inconsistent reporting). The number of new HIV diagnoses reported as heterosexually acquired decreased by 24% from 13,148

cases to 9,975 cases. The proportion of heterosexually acquired HIV diagnoses from countries with a generalised epidemic, varied from 52% in 2004 to 38% in 2009. In the same period, the number of cases among MSM increased by 24% in, from 7,263 cases to 8,974 cases and declined among IDU by 40% from 1,952 cases to 1,171 cases. The number of cases for which the transmission category was unknown increased by 40% (Figure 2). There are reporting delays for a number of countries which overall limits the ability to interpret the trends in recent years.

In 2009, a total of 4,650 cases of AIDS diagnoses were reported in 27 EU/EEA countries (no data from Austria, Liechtenstein, Sweden), representing a rate of 1.0 cases per 100,000 population. The highest rates were reported by Latvia (4.3), Estonia (2.8), Portugal (2.8), and Spain (2.3). In the EU/EEA, a decline was observed from 9,012 in 2004 to 4,650 in 2009 in all but four countries of the 27 countries reporting AIDS diagnoses consistently. An increase in AIDS diagnoses was reported only in Bulgaria from 22 cases to 30 cases (36%), Estonia 29 cases to 38 cases (31%), Latvia 89 cases to 96 cases (8%) and Lithuania 21 cases to 37 cases (76%).

**FIGURE 2**  
HIV infection by transmission group and origin in EU/EEA countries<sup>a</sup> 2004-2009



EEA: European Economic Area; EU: European Union.  
<sup>a</sup> Data from Austria, Estonia and Poland not included

### Proportion of late presenters

Late presenters are defined as patients with a CD4 cell count below 350 cells/ $\mu$ l at time of HIV diagnosis [1]. Data on CD4 cell counts at the time of diagnosis were available for cases in 18 countries, ranging from 1.2% in Bulgaria to 87% in Spain. For 11 countries, CD4 count information was available for more than 50% of the cases (Table). Half of these were reported as late presenters, also taking into account possible reporting bias for more advanced HIV diagnoses. A slightly higher proportion of female cases (54.4%) were reported as late presenters compared with male cases (49.6%), with high heterogeneity among females across countries ranging from 33% in Cyprus and Luxembourg to 68% in Denmark. Among males, the proportion of late presenters ranged from 20% in Luxembourg to 60% in Denmark.

Among new diagnoses acquired heterosexually the proportion of late presenters ranged from 20% in Luxembourg to 67% in Slovakia, while seven countries reported more than 50% of the newly diagnosed cases as late presenters (Table). For MSM, the proportion of late presenters varied from 25% in Luxembourg to 50% in Slovenia (Table). Among IDU, the proportion of late presenters ranged from 49% in the UK to 60% in Denmark. All countries but Spain and the UK reported more than half of their cases with unknown risk factor as late presenters.

Figure 3 shows that among 10 222 cases with CD4 cell count reported, 51% were "late presenters". The largest proportion of late presenters is among individuals originating from sub-Saharan Africa and southeast/

TABLE

Proportion of CD4 cell counts reported for all HIV diagnosed cases in 2009, CD4 cell counts <200 among all reported, CD4 cell counts <350 among all reported and CD4 cell counts <350 by transmission mode by reporting country, 11 EU Member States<sup>a</sup>, 2009

Country	2009			CD4 <350 mm <sup>3</sup> blood in 2009											
	Number of cases with CD4 cell count	Completeness (%) CD4	Number of cases CD4 <350	Cases classified as						Unknown					
				Hetero		IDU		MSM		MTCT		Unknown			
				N	%	N	%	N	%	N	%	N	%	N	%
Cyprus	29	76	12	21	42.9	8	37.5								
Czech Republic	117	75	48	34	64.7	78	28.2	4	75.0					1	100.0
Denmark	181	77	91	105	57.6	108	39.0	14	60.0					8	100.0
France	2624	54	1350	1367	56.8	916	40.9	71	53.5	22	40.9			245	60.8
Luxembourg	33	70	8	15	20.0	16	25.0							2	50.0
Netherlands	653	80	306	179	61.5	435	39.3	1	0.0					37	64.9
Romania	114	80	45	72	30.6			1	0.0					41	56.1
Slovakia	41	77	17	6	66.7	32	34.4	1	100.0					2	50.0
Slovenia	42	88	22	6	33.3	28	50.0							8	75.0
Spain	1968	87	987	709	58.8	899	42.3	152	59.2	7	42.9			197	47.7
United Kingdom	4365	66	2268	2205	62.5	1771	39.5	89	49.4	12	75.0			264	46.6

EU: European Union; IDU: injecting drug user; MSM: men having sex with men; MTCT: mother-to-child transmission.

<sup>a</sup> Member states not included in table: Belgium, Bulgaria, Finland, Germany, Latvia, Lithuania, Portugal.

eastern Asia, followed by cases from the Caribbean and Latin America. The proportion of late presenters is slightly higher in eastern Europe compared with central and western Europe. The areas are defined in the most recent ECDC/WHO HIV/AIDS surveillance report [4].

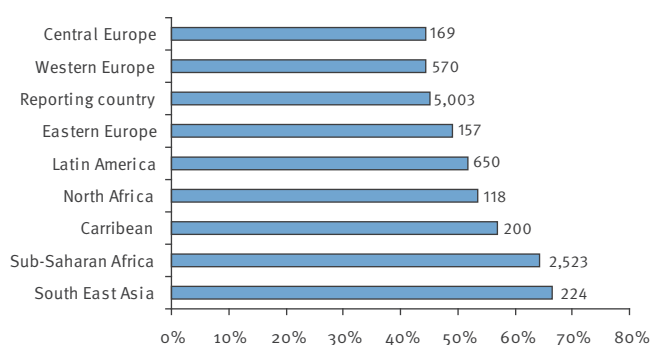
## Conclusions

As in previous years, the highest proportion of the total number of new HIV diagnoses in 2009 in EU/EEA countries was reported among MSM, followed by heterosexuals. For the known transmission modes, a substantial increase was reported only in MSM. Heterosexual HIV transmission continues to be frequently reported; the proportion of cases classified as heterosexually acquired in persons originating from countries with generalised epidemics is decreasing, although it is still high in several countries. Although there is an apparent decline in the number of HIV diagnoses among IDU, injecting drug use is still the predominant transmission mode in several Eastern European countries. The transmission mode for a significant proportion of cases was reported as unknown, highlighting the importance of the improvement of surveillance data to better target public health interventions. The number of AIDS cases is decreasing in most of the countries except Bulgaria and Baltic States.

It is important to obtain more rigorous HIV surveillance data to better reflect changing epidemiological conditions. Inclusion of CD4 cell count at diagnosis provides an opportunity to interpret the data in greater depth. However, the reporting of CD4 cell counts needs to be improved as it was reported only for 40% of all new HIV diagnoses in 2009. Half of those were diagnosed as late presenters, and it appears that late presenters are more often from outside of Europe. Timely HIV diagnosis is beneficial for the patient as it decreases morbidity and mortality and reduce HIV transmission [2-3]. Many factors influence the interpretation of the data such as the stage of the epidemic in the region, migration patterns and reporting bias. However the data suggest that access to testing and treatment needs to be improved among those at risk. Recently, ECDC has launched guidance in HIV testing to support

FIGURE 3

All cases with CD4 cell count reported, proportion of late presenters by region of origin (n=10,222)



## Member States in the increasing the uptake of HIV testing in Europe [4-7]

Surveillance of HIV and AIDS in Europe provides the large scale picture of the HIV epidemics within its regions and of its main characteristics and risk groups affected, which is necessary to monitor the epidemic and guide the public health response to control HIV transmission of infections. Ensuring high quality of the data is of utmost importance to follow up and achieve the objectives set up in the EU Commission communication and action plan 'Combating HIV/AIDS in the European Union and Neighbouring countries, 2009-2013'.

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