

## HIV/AIDS

Reporting on 2014 data retrieved from TESSy\* on 5 November 2015

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### Key facts

- HIV infection remains a major public health concern in EU/EEA countries, with 30 000 to 33 000 new infections reported each year. In contrast, the overall number of AIDS cases has continued to steadily decline with increasing use of effective antiretroviral treatment.
- In 2014, 29 958 people were diagnosed with HIV in the 31 countries of the EU/EEA, a rate of 5.9 per 100 000 population. This figure underestimates the true rate due to the delay in reporting HIV diagnoses and under-reporting in a number of countries.
- The majority (77%) of people diagnosed with HIV in 2014 were men and the highest proportion of all new diagnoses (42%) were attributed to sex between men. Heterosexual contact accounted for 33% of cases and injecting drug use for 4%.
- When adjusted for reporting delay, the overall rate of HIV diagnoses per 100 000 population has remained fairly stable between 2005 and 2014. However, there is an increase in the proportion of new diagnoses attributed to sex between men, while all other risk group transmission modes have decreased.

### Methods

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- In 2014, all 31 countries of the EU/EEA reported case-based HIV data in accordance with standard EU/EEA case definitions, while 30 countries reported case-based AIDS data.
- All HIV and AIDS data are from case-based surveillance.
- To correct for reporting delay, a statistical approach using historical data from 2005 to 2014 was applied [1]. Countries were excluded from reporting delay adjustment when they: i) showed an inconsistent and non-stationary pattern in their reporting delay distribution during the period 2005–2014, or ii) reported aggregated data during the period 2005–2014. Reporting delays were taken into account for the calculation of graphs on transmission mode and disease trends.

### Epidemiology

In 2014, 29 958 new HIV diagnoses were reported in 31 EU/EEA countries, with a rate of 5.9 per 100 000 population (Table 1). This rate rises to 6.4 per 100 000 when adjusted for the reporting delay. The highest rates were reported by Estonia (22.1; 291 cases), Latvia (17.3; 347 cases), and Luxembourg (12.6; 69 cases). The lowest rates were reported by Slovakia (1.6; 86 cases), Croatia (2.2; 92 cases), and the Czech Republic (2.2; 232 cases) (Table 1, Figure 1).

The rate for men in the EU/EEA was 9.2 per 100 000 population and for women, 2.6 per 100 000 population. The male-to-female rate ratio was 3.5:1.

Men had higher age-specific rates than women in all age groups, except in persons under 15 years, where age-specific rates were similar (Figure 2). The highest rate of new HIV diagnoses per 100 000 population was in the age group 25–29 years (14.6) with the rate in men in this age group at 22.7 per 100 000 population, and the rate in women peaked at 6.8 per 100 000 population in the age group 30–39 years.

**Table 1. New HIV diagnoses by country, EU/EEA, 2010–2014**

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Country*	2010		2011		2012		2013		2014	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Austria	332	4	328	3.9	326	3.9	266	3.1	235	2.8
Belgium	1198	11.1	1183	10.8	1229	11.1	1125	10.1	1039	9.3
Bulgaria	163	2.2	201	2.7	157	2.1	200	2.7	213	2.9
Croatia	70	1.6	77	1.8	74	1.7	85	2	92	2.2
Cyprus	41	5	54	6.4	58	6.7	54	6.2	56	6.5
Czech Republic	180	1.7	153	1.5	212	2	235	2.2	232	2.2
Denmark	275	5	266	4.8	201	3.6	233	4.2	256	4.5
Estonia	376	28.2	366	27.5	315	23.8	325	24.6	291	22.1
Finland	184	3.4	172	3.2	156	2.9	157	2.9	181	3.3
France	5539	8.6	5416	8.3	5668	8.7	5525	8.4	4327	6.6
Germany	2714	3.3	2699	3.3	2978	3.6	3288	4	3525	4.4
Greece	639	5.7	953	8.6	1142	10.3	864	7.9	714	6.5
Hungary	182	1.8	162	1.6	219	2.2	240	2.4	271	2.7
Iceland	24	7.6	23	7.2	19	5.9	11	3.4	11	3.4
Ireland	330	7.3	328	7.2	349	7.6	343	7.5	359	7.8
Italy	4027	6.8	3889	6.6	4144	7	3811	6.4	3695	6.1
Latvia	274	12.9	299	14.4	339	16.6	340	16.8	347	17.3
Liechtenstein	4	11.1	1	2.8	0	0	0	0	1	2.7
Lithuania	153	4.9	166	5.4	160	5.3	177	6	141	4.8
Luxembourg	53	10.6	56	10.9	58	11.1	61	11.4	69	12.6
Malta	18	4.3	21	5.1	30	7.2	36	8.5	40	9.4
Netherlands	1206	7.3	1151	6.9	1062	6.3	1014	6	831	4.9
Norway	258	5.3	269	5.5	242	4.9	233	4.6	268	5.2
Poland	957	2.5	1120	2.9	1098	2.9	1103	2.9	1061	2.8
Portugal	1937	18.3	1685	15.9	1607	15.2	1464	14	920	8.8
Romania	553	2.7	784	3.9	870	4.3	898	4.5	791	4
Slovakia	28	0.5	49	0.9	50	0.9	83	1.5	86	1.6
Slovenia	35	1.7	55	2.7	45	2.2	44	2.1	49	2.4
Spain	3748	11.4	3493	10.6	3732	9.9	3866	8.3	3366	7.2
Sweden	457	4.9	391	4.2	381	4	354	3.7	350	3.6
United Kingdom	6348	10.2	6181	9.8	6247	9.8	6024	9.4	6141	9.5
<b>Total EU-EEA</b>	<b>32303</b>	<b>6.5</b>	<b>31991</b>	<b>6.5</b>	<b>33168</b>	<b>6.6</b>	<b>32459</b>	<b>6.3</b>	<b>29958</b>	<b>5.9</b>

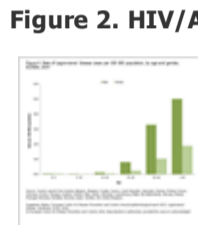
\* HIV diagnosis data from Bulgaria were revised during the production of this report, following the publication of previously validated data in the enhanced 2014 HIV/AIDS surveillance report. For this reason, Bulgaria's number of reported cases and the EU/EEA overall number of reported cases for 2014 differ slightly from earlier publications (213 versus 247 diagnoses in Bulgaria in 2014).

**Figure 1. New HIV diagnoses per 100 000 population, EU/EEA, 2014**



Source: Country reports from Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

**Figure 2. HIV/AIDS male-to-female ratio in 27 EU/EEA countries, 2014**



Source: Country reports from: Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

Data on transmission mode provide information on the groups that are most affected by HIV in the EU/EEA; this information was available for 24 084 HIV diagnoses (80.3%):

- In 2014, sex between men remains the predominant mode of HIV transmission reported in the EU/EEA, accounting for 42% of diagnoses overall, and 53% of HIV diagnoses where the route of transmission was known.
- Sex between men and women is the second most commonly reported mode of transmission in the EU/EEA, accounting for 33% of diagnoses overall, and 41% of HIV diagnoses where the route of transmission was known.
- Four percent of HIV diagnoses overall, and 5% of HIV diagnoses with known route of HIV transmission, were attributed to injecting drug use.
- One percent of diagnoses were reported as mother-to-child transmission; 41% of those cases originated from countries with generalised HIV epidemics. Seventy-one cases (0.2%) were reported to be due to transfusion of blood and its products, and 22 (0.1%) were hospital-acquired infections. The majority of these cases were born outside the EU/EEA and/or are thought to have been acquired outside of the country in which the case was reported.

In 2014, 29 EU/EEA countries provided information on the country of birth, country of nationality or region of origin for 25 445 (85%) HIV diagnoses. Overall, 9 579 of the 25 445 diagnoses with known region of origin (37%) were made among people originating from outside of the reporting country; 4 139 of these 9 579 diagnoses (16% of total diagnoses with known region of origin) were in people originating from countries with generalised HIV epidemics, while the remaining 5 440 diagnoses (21% of total diagnoses with known region of origin) were in people originating from outside the reporting country, but from countries without a generalised epidemic.

Information on CD4 cell count at the time of HIV diagnosis was provided by 23 countries for 18 411 HIV diagnoses (61%) in adults and adolescents. Nearly half (47%) of these cases were diagnosed with a count of less than 350 cells per mm<sup>3</sup>, including 27% of cases with advanced HIV infection (CD4 <200 cells/mm<sup>3</sup>).

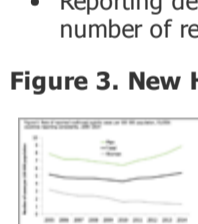
### Trends in HIV diagnoses

The notification rate of 5.9 per 100 000 population in 2014 was slightly below the relatively stable trend observed during the period 2005–2013 when rates fluctuated between 6.3 and 6.9. The notification rate in 2014, however, is likely to be an underestimate due to reporting delay. When adjusted for this delay, it rises to 6.4 per 100 000 population.

Since 2005, 27 EU/EEA countries have consistently reported data on transmission mode. Over the same period, the coverage of disease surveillance systems in these countries was of a comparable standard. Data indicate the following (Figure 3):

- The number of HIV diagnoses reported among MSM increased steadily between 2005 and 2014. The proportion of all HIV diagnoses attributed to sex between men increased from 30% of cases in 2005 to 42% of cases in 2014. Between 2005 and 2014, increases were observed in all but six EU/EEA countries.
- The number of heterosexually acquired cases decreased in both men and women between 2005 and 2014. The proportion of HIV diagnoses attributed to heterosexual transmission decreased from 48% of cases in 2005 to 33% in 2014.
- The number of HIV diagnoses reported among people who inject drugs has been declining since 2005, when infections attributed to injecting drug use comprised 6.4% of new diagnoses. A temporary increase in overall numbers for the EU/EEA was observed in 2011 and 2012 due to localised outbreaks in Greece and Romania, but reported cases in 2014 show a continued downward trend and comprise 4% of all new diagnoses.
- HIV transmitted from mother to child continues to be a rare event and decreased from 288 in 2005 to 215 in 2014.
- The number of cases reported to have an unknown mode of transmission has increased from 13% of new diagnoses in 2005 to 19% in 2014.
- Reporting delays differ significantly between transmission categories for some countries. When standardised adjustments for reporting delay are made, these increase the number of reported HIV cases in all transmission categories by between 8% and 19%, depending on the category. Figure 3 shows the adjusted trends.

**Figure 3. New HIV diagnoses, by transmission mode and year of diagnosis, adjusted for reporting delay, EU/EEA, 2005–2014**



Source: Country reports from Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Sweden and the United Kingdom.

### AIDS diagnoses

Diagnoses of AIDS continued its steady decline. In 2014, 4 020 diagnoses of AIDS were reported by 30 EU/EEA countries (all EU/EEA countries except Sweden), resulting in a rate of 0.8 cases per 100 000 population. The highest rates were reported by Latvia (8.5, 171 cases) and Portugal (2.4, 249 cases). In 2014, the rate of reported AIDS cases has more than halved from the 2.0 per 100 000 (9 203 cases) reported in 2005.

### Threats description for 2014

No HIV or AIDS threats were reported in 2014.

### Discussion

Despite the stable trend of HIV in the EU/EEA, data provide evidence of important changes in the epidemiology of HIV during the past decade. There has been a sustained increase in HIV diagnoses among MSM in all but six EU/EEA countries. MSM account for the largest number of new HIV diagnoses and are the only population in the EU/EEA where HIV cases continue to increase. While some of these increases could be due to decreased stigmatisation resulting in reducing underreporting of sex between men as a transmission mode over time, the data in many countries indicate a pressing need to significantly scale-up more effective multi-component prevention programmes for this at-risk population [2].

There has been a substantial decrease in the number of HIV infections transmitted through sex between men and women during the past decade. However, heterosexual transmission still remains the second most common mode of HIV transmission in the EU/EEA and is the most common transmission mode in some countries. Part of the decline in heterosexual cases is the result of a decline in the number of heterosexually acquired cases and persons originating from countries with generalised HIV epidemics. Further investigation is required in order to understand whether these decreasing trends in HIV diagnoses are mainly driven by decreasing incidence of HIV in these populations, decreased testing, migration trends, or a combination of factors.

In 2014, migrants (or persons originating from outside of the reporting country) constituted a considerable proportion (37%) of new HIV diagnoses in the EU/EEA. There is evidence that a proportion of migrants, even those originating from HIV-endemic areas, acquire HIV after arrival in the EU/EEA [3–5], indicating the need for targeted interventions directed at this vulnerable population.

Transmission among people who inject drugs is declining and remains at a low level in most countries in the EU/EEA. However, sudden increases were observed in recent years in Romania and Greece, countries with previously very low levels of HIV among people who inject drugs [6, 7]. This illustrates the importance of maintaining adequate coverage of harm reduction services and that patterns can change quickly in this at-risk group in the absence of effective prevention [8].

Although few in number, cases infected through mother-to-child transmission continue to occur in some EU/EEA countries. Greater efforts are needed to address these entirely preventable cases through adequate antenatal screening and prevention of mother-to-child transmission.

Despite the clear evidence of the benefits of early introduction of antiretroviral treatment for the health of the HIV-positive individual [9, 10], many persons continue to be diagnosed with HIV at an advanced stage of illness. This suggests problems with access to, and uptake of, HIV testing and counselling by those most at risk in many countries.

### Public health conclusions

The changes in the epidemiology of HIV infections observed in the EU/EEA over the last decade indicate that some progress has been achieved, particularly with regard to reduced infections attributed to heterosexual transmission and injecting drug use. However, these epidemiological trends also indicate that it is crucial to sustain evidence-based HIV prevention interventions that are tailored to the local epidemiological context and targeted at those most at risk.

For most EU/EEA countries, this means a strong focus on reducing the vulnerability of MSM. Migrants, both those from high-endemic countries and other countries, are also a key population that needs specific prevention and control efforts in the majority of EU/EEA countries. Given the increasing evidence of post-migration HIV acquisition, it is important that migrant-sensitive services for prevention and HIV testing, combined with policies which promote and ensure access and linkage to care are delivered in all EU/EEA countries.

Finally, harm reduction programmes among people who inject drugs and their sexual partners are crucial and should be maintained and scaled up where service coverage is low. To decrease the number of people who are diagnosed late, new strategies are required for the delivery of expanded targeted HIV testing services [11, 12]. These services should be tailored to the specific needs of these groups and support timely linkage to HIV prevention, treatment and care. This will ensure earlier diagnoses and treatment initiation and, in turn, improve treatment outcomes and reduce morbidity, mortality and HIV incidence.

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### Additional information

ECDC Surveillance Atlas of Infectious Diseases

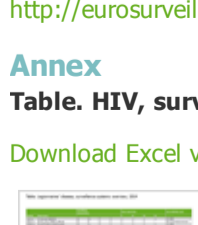
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### Annex

#### Table. HIV surveillance systems overview, 2014

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\* The European Surveillance System (TESSy) is a system for the collection, analysis and dissemination of data on communicable diseases. EU Member States and EEA countries contribute to the system by uploading their infectious disease surveillance data at regular intervals.