



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive



# HIV in Ireland - 2014 Report

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## KEY FINDINGS– 2014 HIV DATA

In 2014, 377 new HIV diagnoses were notified in Ireland, giving a crude notification rate of 8.2 per 100,000 population. This is an increase of 11% compared to 2013 and can be accounted for by an increasing number of HIV notifications among men who have sex with men (MSM) and people who inject drugs (PWID). Between 2010 and 2013, the annual rate of new HIV diagnoses had been relatively stable in Ireland, ranging from 7.0 to 7.5 per 100,000 population.

Probable route of transmission was known for 89% of new diagnoses in 2014. As in recent years, the highest number of new diagnoses was among MSM (183; 49%); and this is the highest number ever reported in MSM in Ireland. In the 10 years since 2005, the number of new diagnoses among MSM has increased threefold (from 60 to 183) and the median age at diagnosis has dropped from 37 to 31 years.

Heterosexual contact was the second most commonly reported mode of transmission in 2014, (125; 33%). Since 2010, the number of diagnoses among heterosexuals has remained stable, ranging from 125 to 133 diagnoses per year. The majority of heterosexuals (62%) diagnosed in 2014 were born in countries with generalised HIV epidemics<sup>[1]</sup>. The proportion diagnosed late in male heterosexuals (71%) was higher than in previous years (60% in 2013 and 68% in 2012) while in female heterosexual cases, the proportion diagnosed late (56%) was less than previous years (59% in 2013 and 58% in 2012).

There were 27 (7%) new diagnoses among PWID in 2014, the highest number reported in this risk group since 2009. Of the new diagnoses, 85% were Irish-born, 89% were resident in Dublin and 89% were co-infected with hepatitis C. Forty one percent of PWID newly diagnosed in 2014 were recently infected, with documented previous negative HIV tests in either 2013 or 2014; also the proportion diagnosed late in 2014 (44%) was lower than in previous years (53% in 2013 and 56% in 2012). This increase in recently acquired infections since June 2014 among PWID is currently under investigation by the Director of Public Health in Dublin and a detailed review of the mode of transmission for cases diagnosed since 2014 is also being carried out. Ascertainment of injecting drug use as a mode of transmission may be improving and could account for some of the increase, but the data points to transmission of HIV in this population and is of concern.

Information on co-infection with TB was collected for the first time in 2014. Overall 16 people (4%) were reported to be co-infected with TB at the time of their HIV diagnosis; 11% of heterosexual cases were co-infected with TB.

Forty nine percent of new diagnoses in 2014 were late presenters (with CD4 less than 350cells/ $\mu$ l or an AIDS defining illness at diagnosis). This is very similar to the proportion in recent years (50% in 2013 and 49% in 2012). Late presentation was less common among MSM (38%) and PWID (44%) than among heterosexuals (56% in females and 71% in males). Regular testing among MSM and PWID is likely to be a major reason for this as both groups had a much higher proportion reporting ever having had a previous negative test (58% in MSM and

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<sup>[1]</sup> A generalised HIV epidemic is where greater than 1% of the general population is HIV positive

66% in PWID versus 20% in heterosexuals). However, the lower proportion of late diagnoses among MSM and PWID may also be a result of more recently acquired infections in these population groups. Based on previous HIV testing history, 27% of infections in MSM, and 41% in PWID were acquired in the previous 2 years. These figures are likely to be an underestimate, as not all are being tested on a regular basis, and duration of infection information can't be determined using currently available routine tests.

In light of the continued increase in new HIV diagnoses among MSM, effective interventions such as promoting condom use, and peer led outreach interventions that provide information and support to the MSM community, need to be sustained and strengthened.

In addition, more emphasis on the benefits of early testing, and ready access to HIV testing are needed to reduce the proportions presenting late, which will not only benefit the individual detected early, but will also reduce the likelihood of transmission to others. Recent initiatives offering HIV screening to attendees of some emergency departments at large hospitals in Dublin may result in earlier detection of infections in people that may otherwise be unaware of their infection.

**Table 1: New HIV diagnoses 2014, summary table**

Number of HIV diagnoses		<b>377</b>
Rate of diagnoses (per 100,000 population)		8.2
Age	Median age of adult cases	33 years
	Age range of adult cases	18 to 77 years
	Young people (15-24 years)	44 (11.7%)
	Aged 50 and older	32 (8.5%)
Gender	Males	277 (73%)
	Females	100 (27%)
	Male to female ratio	2.8
Route of Transmission	Men who have sex with men (MSM)	183 (49%)
	Heterosexual	125 (33%)
	PWID (People who inject drugs)	27 (7%)
	Mother to Child transmission (MTCT)	2 (0.5%)
	Unknown	40 (11%)
Geographic origin	Born in Ireland	137 (36.3%)
	Born Abroad	203 (53.8%)
	Unknown	37 (9.8%)
Stage of Infection	Late	159 (48.6%)
	Advanced HIV infection	90 (27.5%)
	Concurrent AIDS diagnosis	38 (10.1%)
Co-infections	Acute STI	39 (10.3%)
	TB	16 (4.2%)
	Hepatitis B	18 (4.8%)
	Hepatitis C	31 (8.2%)

## 1. HIV NEW DIAGNOSES - 2014

This report presents data on new HIV diagnoses notified in Ireland during 2014. HIV was made a notifiable disease in Ireland in September 2011 and since January 2012, cases of HIV have been notified via the national Computerised Infectious Disease Reporting (CIDR) system. Further information on the enhanced HIV surveillance system can be found at [http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceDocuments/File\\_13903,en.pdf](http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceDocuments/File_13903,en.pdf).

There were 377 new HIV diagnoses notified in Ireland in 2014, giving a crude notification rate of 8.2 per 100,000 population. This compares with 341 new notifications in 2013 and represents an 11% increase. Between 2010 and 2013, the annual rate of new diagnoses in Ireland was stable ranging from 7.0 to 7.5 per 100,000 (see figure 1). A rate of 5.7 per 100,000, ranging from 2.0 in Croatia to 24.6 in Estonia, was reported in EU/EEA countries in 2013 (1).

Completed surveillance report forms were received for 336 (89%) of new diagnoses (as of May 20th 2015). Please note that information from previous years is updated on an ongoing basis in CIDR, and so information from previous years represents our current understanding and most up to date data, and may not correspond exactly with what was reported in previous annual reports. Similarly, data for 2014 may be updated further in due course and will be reported on in subsequent annual reports

Since the early 1980's and to the end of 2014, 7,353 people have been newly diagnosed with HIV in Ireland. However, this number does not represent the number of people living with HIV (PLHIV) in Ireland, as it does not take factors such as death and migration into account.

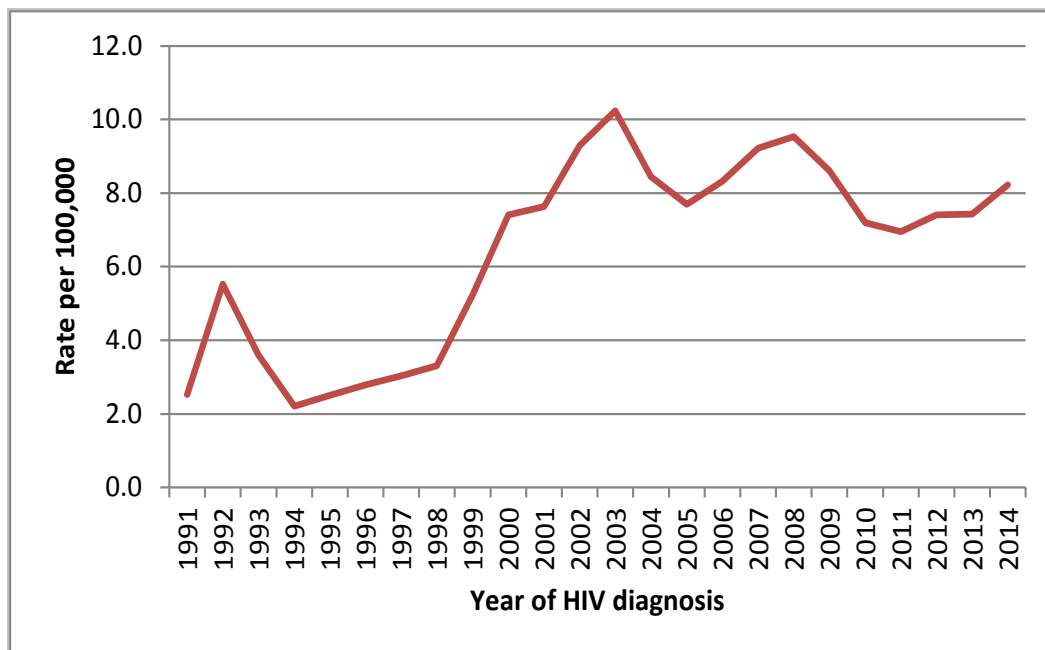


Figure 1: Rate of new HIV diagnoses (per 100,000 population), 1991 to 2014

## 1.1 GENDER AND AGE

In 2014, 277 (73%) new HIV diagnoses were in men (12.2/100,000 population) and 100 (27%) were in women (4.3/100,000 population), with a male to female ratio of 2.8. Figure 2 describes the trends in newly diagnosed HIV infection in males and females from 2003 to 2014. In 77 of the 100 females (where pregnancy status was available), 10 women (13%) were pregnant at HIV diagnosis.

The median age of adult cases at HIV diagnosis was 33 years (range: 18 to 77 years); 33 years in males (range: 19-77 years) and 33 years (range: 18 to 65 years) in females. Figure 3 shows the rate of new diagnoses in 2014 among males and females. The highest rate of new diagnoses in both males and females occurred in those aged 25-29 years at 38 per 100,000 population and 13 per 100,000 population, respectively.

The highest proportion (45%) of new HIV diagnoses was reported in 25-34 year olds, with 12% among young adults (15-24 years) and 9% in those aged 50 and older (see table A1 in Appendix 1).

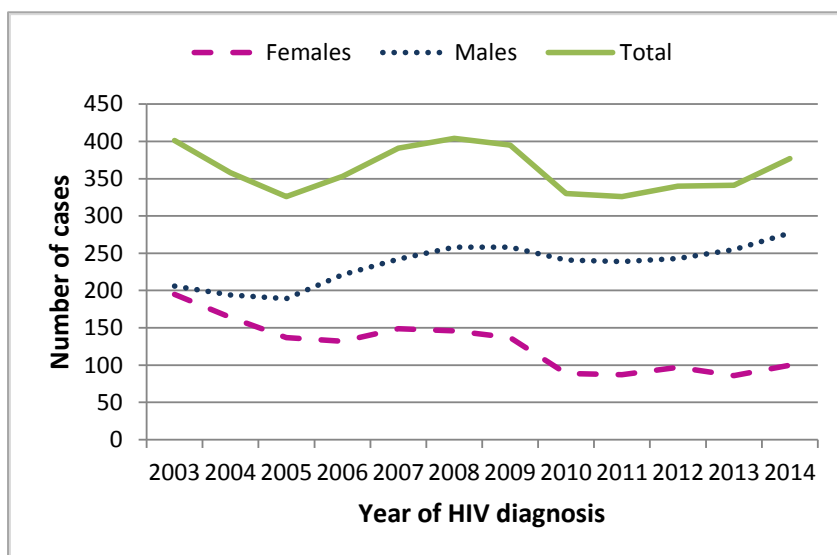


Figure 2: New HIV diagnoses by gender, 2003 to 2014

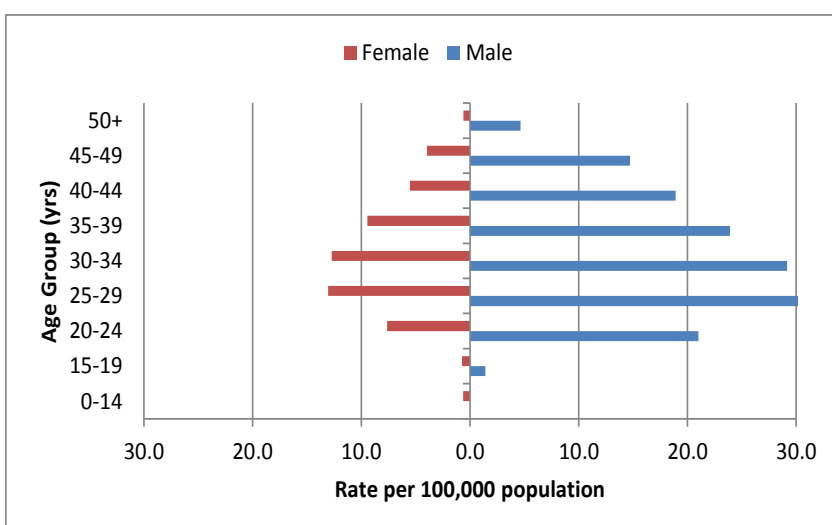


Figure 3: Rate of new HIV diagnoses (per 100,000 population) among male and females, 2014

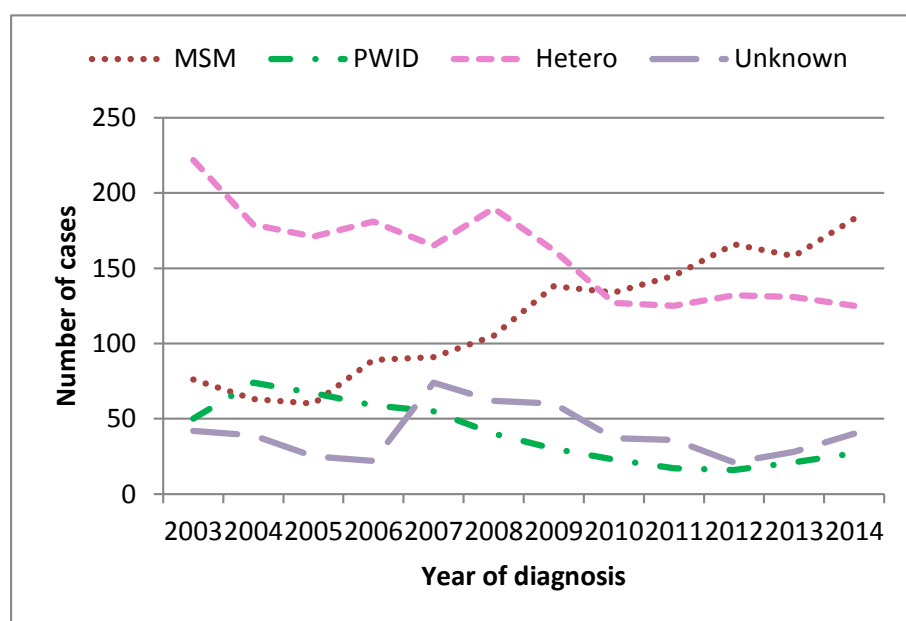
## 1.2 PROBABLE ROUTE OF TRANSMISSION

Information on probable route of transmission was available for 337 (89%) new diagnoses in 2014. MSM accounted for the highest number of new diagnoses (183, 49%) as has been the case since 2009 (table 2 and figure 4). Heterosexual contact accounted for 125 new diagnoses (33%), which is similar to recent years. There were 27 new diagnoses among PWID (7%) which is an increase on recent years. There were two cases reported where the route of transmission was identified as Mother to Child transmission (MTCT).

For the purpose of this report, the category “MTCT” is included in the category “Unk/Other” for most of the tables and figures. Further information on new diagnoses among MSM, heterosexuals and PWID is available later in the report (pages 17-22).

**Table 2: New HIV diagnoses by probable route of transmission, 2003 to 2014**

Probable route transmission	MSM		PWID		Hetero		MCT		Unknown		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
<b>2003</b>	76	19.0	50	12.5	222	55.4	11	2.7	42	10.5	<b>401</b>
<b>2004</b>	63	17.6	74	20.7	179	50.0	3	0.8	39	10.9	<b>358</b>
<b>2005</b>	60	18.4	67	20.6	171	52.5	3	0.9	25	7.7	<b>326</b>
<b>2006</b>	89	25.2	59	16.7	181	51.3	2	0.6	22	6.2	<b>353</b>
<b>2007</b>	91	23.3	55	14.1	165	42.2	6	1.5	74	18.9	<b>391</b>
<b>2008</b>	105	26.0	40	9.9	190	47.0	7	1.7	62	15.3	<b>404</b>
<b>2009</b>	138	34.9	30	7.6	162	41.0	5	1.3	60	15.2	<b>395</b>
<b>2010</b>	134	40.6	23	7.0	127	38.5	9	2.7	37	11.2	<b>330</b>
<b>2011</b>	145	44.5	17	5.2	125	38.3	3	0.9	36	11.0	<b>326</b>
<b>2012</b>	166	48.8	16	4.7	132	38.8	5	1.5	21	6.2	<b>340</b>
<b>2013</b>	158	46.3	21	6.2	131	38.4	3	0.9	28	8.2	<b>341</b>
<b>2014</b>	183	48.5	27	7.2	125	33.2	2	0.5	40	10.6	<b>377</b>



**Figure 4: New HIV diagnoses by probable route of transmission, 2003 to 2014**



### 1.3 GEOGRAPHIC ORIGIN (BASED ON COUNTRY OF BIRTH)

Of the 377 new diagnoses in 2014, 137 (36%) were born in Ireland and 203 (54%) were migrants. Information on country of birth was unavailable for the remaining 37 cases (10%).

Of the 203 migrants, the largest number were born in sub-Saharan Africa (82) followed by Latin America (43), western Europe (23), central Europe (23), eastern Europe (13) and south and southeast Asia (12) (see figure 5).

Geographic origin varied by route of transmission and figure 6 shows the proportions by geographic origin for each route of transmission. Just under half of MSM (48%) were born in Ireland with 21% from Latin America. Fifty eight percent of heterosexual cases were born in sub-Saharan Africa and 15% were Irish born. Eighty five percent of PWID were born in Ireland.

Further information on geographic origin, ethnicity and probable country of infection is available in Appendix 1.

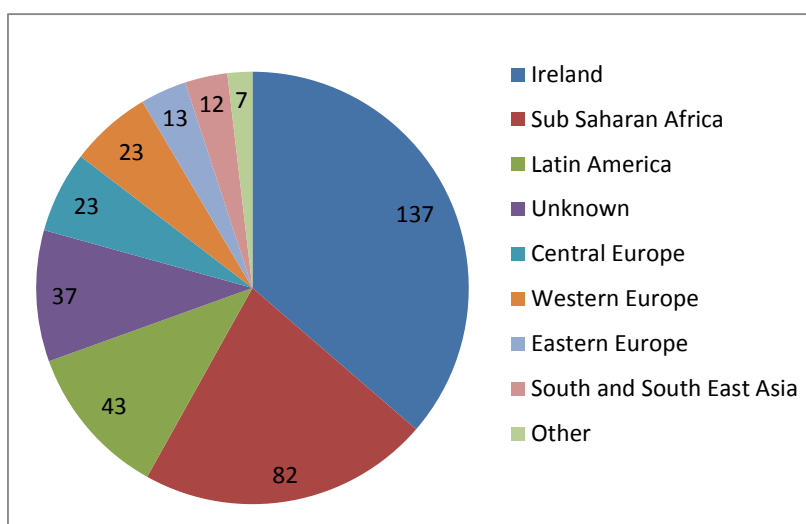


Figure 5: New HIV diagnoses by geographic origin, 2014

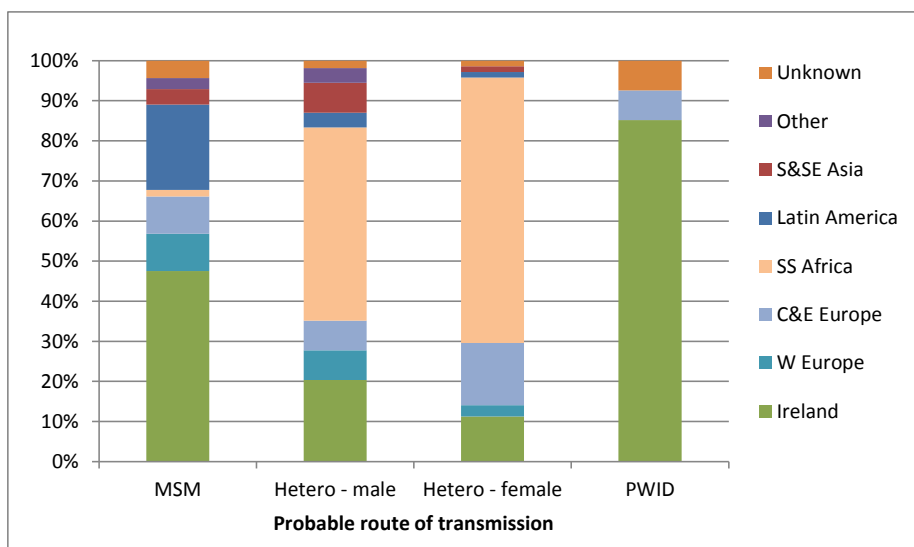


Figure 6: New HIV diagnoses by geographic origin and probable route of transmission, 2014

## 1.4 LATE DIAGNOSIS AND ADVANCED HIV INFECTION

<b>Definition:</b>	
<b>Late diagnosis:</b>	<b>CD4 count of less than &lt;350 cells/<math>\mu</math>l at diagnosis or an AIDS defining illness at diagnosis</b>
<b>Advanced HIV Infection:</b>	<b>CD4 count of &lt;200 cells/<math>\mu</math>l at diagnosis or an AIDS defining illness at diagnosis.</b>

Late HIV diagnosis, where a person is unaware of their HIV status for many years, carries an increased risk of HIV-related illness and death (2). In addition, prompt HIV diagnosis and appropriate treatment can provide an opportunity to prevent further HIV transmission. CD4 count at diagnosis was available for 325 of 377 cases (86%) in 2014. This is slightly less than the proportion with CD4 count available in 2013 (89%).

During 2014, 49% of cases were late presenters (where information on CD4 count or AIDS defining illness at diagnosis was supplied). This is similar to the proportion in recent years (50% in 2013 and 49% in 2012). In 2014, 28% had advanced HIV infection at diagnosis compared with 26% in 2013 and 2012. The proportion of late presenters in EU and EEA countries in 2013 was 47% (1).

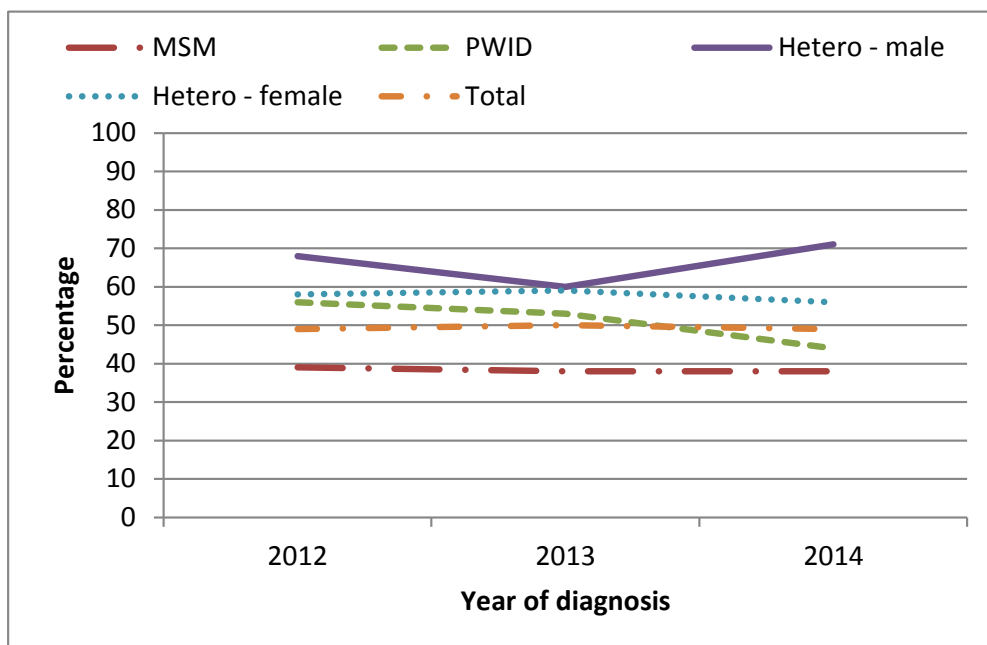
Table 3 presents the 2014 data by CD4 count, gender, probable route of transmission, age group and region of origin.

- By risk group, the proportion diagnosed late was highest among heterosexual males (71%) followed by heterosexual females (56%), PWID (44%) and was lowest among MSM (38%).
- When looking at CD4 count by age group, there is a clear age gradient with increased proportions of late diagnosis among older age categories. Four fifths (82%) of those aged 50 years and older were diagnosed late compared to 31% among those aged 20-24 years.
- By region of origin, the proportion diagnosed late was highest among those born in sub-Saharan Africa (65%) and was lowest among those born in western Europe (30%).

Figure 8 presents the proportion diagnosed late by probable route of transmission between 2012 and 2014 and figure 9 presents the proportion diagnosed with advanced HIV infection by probable route of transmission between 2012 and 2014.

**Table 3: Frequency of late diagnosis and advanced HIV infection by gender, probable route of transmission, age group and region of origin, 2014**

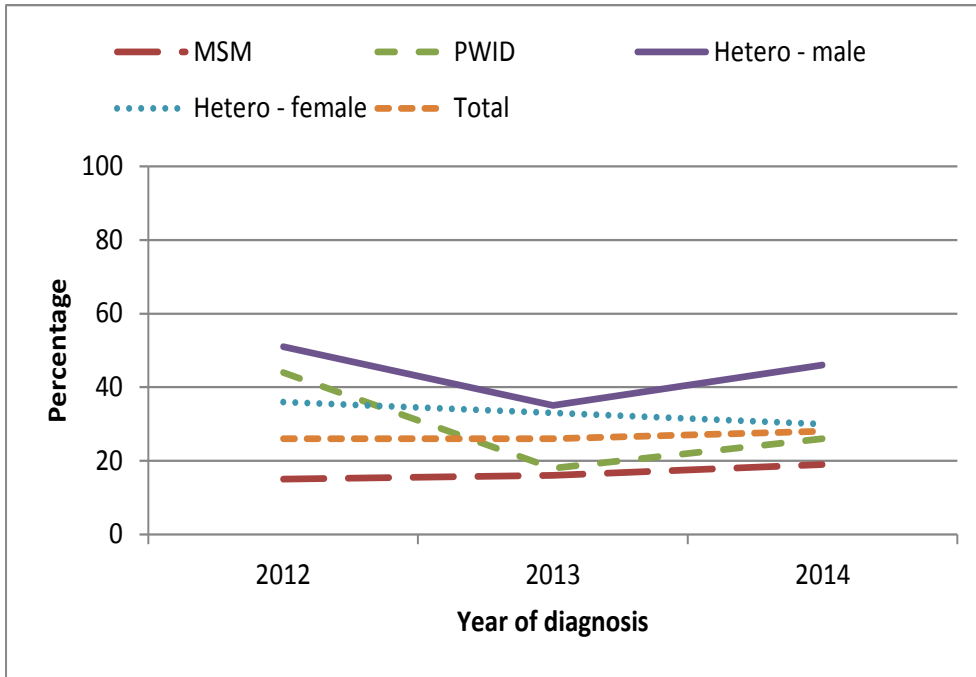
		Proportion diagnosed with advanced HIV infection <sup>1</sup>	Proportion diagnosed late <sup>2</sup>
Total		27.5	48.6
Gender	Female	32.1	54.3
	Male	26.0	46.7
Prob Route of Transmission	MSM	18.7	38.0
	PWID	26.1	43.5
	Hetero- male	46.2	71.1
	Hetero - female	29.7	56.3
Age Group (yrs)	20-24	5.7	31.4
	25-29	19.3	37.3
	30-34	31.0	49.3
	35-39	22.0	50.0
	40-44	35.5	58.1
	45-49	50.0	62.5
	50+	60.0	82.1
Region of origin	Ireland	26.4	46.4
	Western Europe	25.0	30.0
	Central & Eastern Europe	17.1	31.4
	Latin America	19.0	42.9
	Sub-Saharan Africa	33.3	65.3



**Figure 8: Proportion with late HIV diagnosis by probable route of transmission, 2012 to 2014**

<sup>1</sup> CD4 <200 cells/μl or AIDS defining illness at diagnosis

<sup>2</sup> CD4 <350 cells/μl or AIDS defining illness at diagnosis

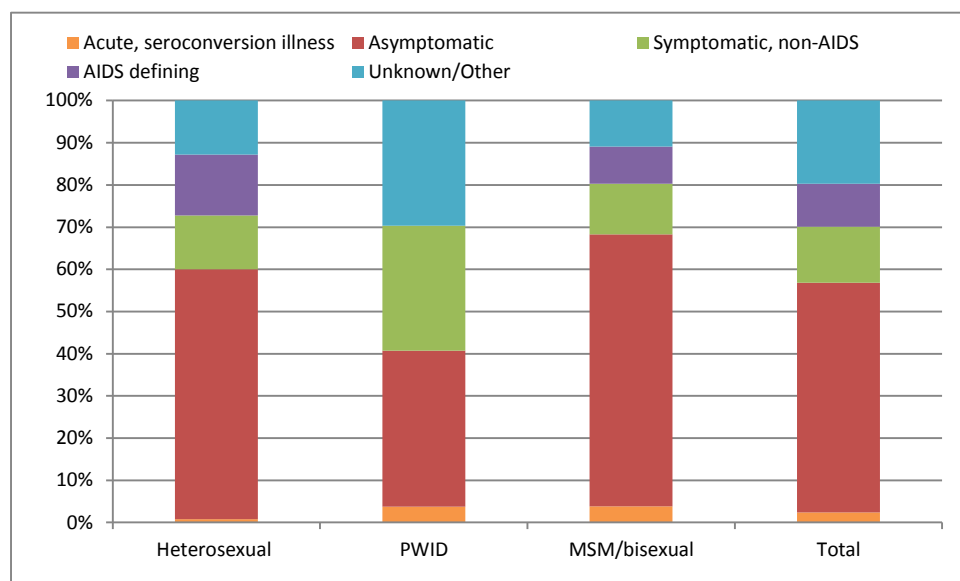


**Figure 9: Proportion with advanced HIV infection by probable route of transmission, 2012 to 2014**

## 1.5 CLINICAL STAGE OF INFECTION

At the time of HIV diagnosis in 2014, 204 people (54%) were asymptomatic, 50 (13%) were symptomatic (non-AIDS), 38 (10%) had an AIDS defining illness and 9 (2%) had an acute seroconversion illness. Information on clinical stage of infection was unavailable for 74 cases (20%).

Figure 10 shows the 2014 cases by probable route of transmission and clinical stage of infection.



**Figure 10: New HIV diagnoses by clinical stage and probable route of transmission, 2014**

### Diagnosis of AIDS at time of HIV diagnosis

Of the 38 cases with an AIDS defining illness at the time of HIV diagnosis

- Eighteen were heterosexual, 16 were MSM and four did not have a reported risk group
- Twenty four were migrants and 14 were Irish. Of the 24 migrants, 10 were born in sub-Saharan Africa.
- The median age of those with an AIDS defining illness at diagnosis was 42 years (range 23-77 years).
- The most commonly reported AIDS defining illnesses were PCP (Pneumocystis pneumonia) (42%) and pulmonary TB (18%). The most common AIDS defining illness among MSM was PCP (63%) and the most common illnesses among heterosexuals were pulmonary TB (33%) and PCP (27%).

## 1.6 CO-INFECTIONS

Table 4 presents data on co-infections with acute infectious syphilis, chlamydia, gonorrhoea, TB, hepatitis B and C by probable route of transmission.<sup>3</sup>

### Co-infection with STIs

People co-infected with HIV and sexually transmitted infections (STIs) are more likely to transmit HIV during sex (3). Of the 377 new HIV diagnoses in 2014, 10% were co-infected with an acute STI (chlamydia, gonorrhoea and/or syphilis).

By risk group, 19% of MSM and 3% of heterosexuals were co-infected with an acute STI. Among MSM, 9% were co-infected with gonorrhoea, 8% with chlamydia and 7% with acute infectious syphilis.

### Co-infection with TB

Information on co-infection with TB was collected for the first time in 2014. Sixteen people (4%) were co-infected with TB at the time of HIV diagnosis. Among heterosexuals, 11% were co-infected with TB.

### Co-infection with Hepatitis

Five percent (18 cases) were co-infected with hepatitis B (including one acute case) and 8% (31 cases) were co-infected with hepatitis C (including one acute case).

Among PWID, 89% were co-infected with hepatitis C at the time of their HIV diagnosis.

**Table 4: Co-infections with HIV by probable route of transmission, 2014**

Co-infection with	MSM		Hetero		PWID		Total	
	No.	%	No.	%	No.	%	No.	%
Acute STI	34	18.6	4	3.2	0	0	39	10.3
Chlamydia	15	8.2	3	2.4	0	0	18	4.8
Gonorrhoea	17	9.3	1	0.8	0	0	18	4.8
Acute Infectious Syphilis	13	7.1	0	0.0	0	0	14 <sup>4</sup>	3.7
TB	2	1.1	14	11.2	0	0	16	4.2
Hepatitis B	7	3.8	10	8.0	0	0	18	4.8
Hepatitis C	2	1.1	8	6.4	24	88.9	31	8.2

<sup>3</sup> Data on co-infections are obtained from data provided on the HIV enhanced surveillance form.

<sup>4</sup> The total includes one person where the risk group was unknown

## 1.7 AREA OF RESIDENCE

The rate of new HIV diagnoses by HSE area of residence<sup>5</sup> is shown in table 5. In 2014, the rate was highest in HSE-East (16.1 per 100,000) and lowest in the HSE-Southeast (2.0 per 100,000).

Eighty nine percent of PWID newly diagnosed in 2014 were resident in Dublin compared to 73% of MSM and 62% of heterosexuals.

**Table 5: Number of new HIV diagnoses and rate by HSE area of residence, 2014**

HSE Area	Counties	Number	Rate per 100,000
East	Dublin Kildare Wicklow	261	16.1
Midlands	Laois Longford Offaly Westmeath	15	5.3
Midwest	Limerick Clare Tipperary North	18	4.7
Northeast	Louth Meath Cavan Monaghan	22	5.0
Northwest	Sligo Leitrim Donegal	7	2.7
Southeast	Wexford Waterford Carlow Kilkenny Tipperary South	10	2.0
South	Cork Kerry	32	4.8
West	Galway Mayo Roscommon	12	2.7
<b>Total</b>		<b>377</b>	<b>8.2</b>

<sup>5</sup> If information on area of residence is not available, cases are assigned to the HSE area of the clinician or the laboratory.

## 1.8 PREVIOUSLY TESTED POSITIVE ABROAD

Notifications of HIV include all people who test HIV positive for the first time in Ireland and include a number of people who have previously tested HIV positive abroad. Among the 377 new diagnoses in 2014, 64 (17%) were reported to have previously tested HIV positive abroad. This compares to 16% in 2013, 17% in 2012 and 14% in 2011 (data on previous positive test was not collected prior to 2011).

Of the 64 cases in 2014 that were previously tested positive abroad, 30 were MSM, 28 were heterosexual, four were PWID and two were infected through MTCT. Table 6 describes the year of diagnosis of cases with a previous positive test in another country.

**Table 6: New diagnoses in Ireland in 2014, with previous HIV positive test abroad**

<b>Cases with a previous positive test</b>	<b>64</b>
In 2013 or 2014	21
In 2008-2012	24
Pre 2008	15
Year unknown	4

## 1.9 HISTORY OF HIV TESTING

Of the new diagnoses in 2014, 154 (41%) were reported to have previously tested negative for HIV, 91 (24.1%) reported that they did not have a previous negative test and information was unavailable for 132 (35%).

Table 7 describes HIV testing history by probable route of transmission. The proportion with a history of a previous negative HIV test was highest among PWID (66%) followed by MSM (58%) and heterosexuals (20%). The proportion who were infected in either 2013 or 2014 (had a previous negative test in either 2013 or 2014) was highest among PWID (41%), followed by MSM (27%) and lowest among heterosexuals (5%).

**Table 7: New diagnoses in Ireland by probable route of transmission and HIV testing history, 2014**

	MSM		Hetero		PWID		Unk/Other		Total	
	No	%	No	%	No	%	No	%	No	%
Previous negative test In 2013/2014	49	26.8	6	4.8	11	40.7	0	0.0	66	17.5
Previous negative test pre 2013/year unknown	57	31.1	19	15.2	7	25.9	5	11.9	88	23.3
No previous negative test	38	20.8	46	36.8	4	14.8	3	7.1	91	24.1
Unknown	39	21.3	54	43.2	5	18.5	34	81.0	132	35.0
<b>Total</b>	<b>183</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>



## 2. MEN WHO HAVE SEX WITH MEN (MSM)

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MSM remain the population most affected by HIV in Ireland. In 2014, there were 183 new HIV diagnoses reported among MSM; this compares to 158 in 2013 (+16%) and is the highest number of new HIV diagnoses in MSM ever reported in Ireland. New HIV diagnoses among MSM accounted for 49% of all diagnoses reported in 2014. In the 10 years since 2005, the number of new diagnoses among MSM has increased threefold (from 60 to 183). Male to male transmission is also the predominant mode of transmission in western Europe, and accounted for 43% of new diagnoses in 2013 (1).

### **Age**

The median age of MSM at HIV diagnosis in 2014 was 31 years (range 19-71 years). The median age among those newly diagnosed has decreased in recent years (from 37 years in 2005). The largest proportion (28%) of new diagnoses among MSM occurred in 25-29 year olds. Figure 11 shows increasing numbers in this age group with a fivefold increase since 2005. Fourteen percent (26 cases) of new diagnoses among MSM were aged 15-24 years and 8% were over 50 years old.

### **Region of origin**

Just under half (48%) of new diagnoses among MSM were born in Ireland, 21% in Latin America, 9% in western Europe and 9% in central and eastern Europe. The number of cases among foreign-born MSM has increased in recent years, largely due to an increase in the number of cases born in Latin America (see figure 12).

### **Stage of infection**

Thirty eight percent of MSM were diagnosed late in 2014. This is the same as the proportion diagnosed late in 2013 and very similar to the proportion late in 2012 (39%). Nineteen percent of MSM were diagnosed with advanced HIV infection.

Sixteen MSM (9%) were diagnosed with an AIDS defining illness at the time of their HIV diagnosis. The most common indicative illness in 2014 among MSM was PCP (63%).

Over a quarter (27%) of MSM newly diagnosed with HIV were infected in either 2013 or 2014

### **Co-infections with an acute STI**

Nineteen percent of MSM (34) were co-infected with an acute STI (chlamydia, gonorrhoea or syphilis) at the time of their HIV diagnosis.

### **Previously positive**

Of the new diagnoses among MSM, 16% (30) had previously tested HIV positive abroad.

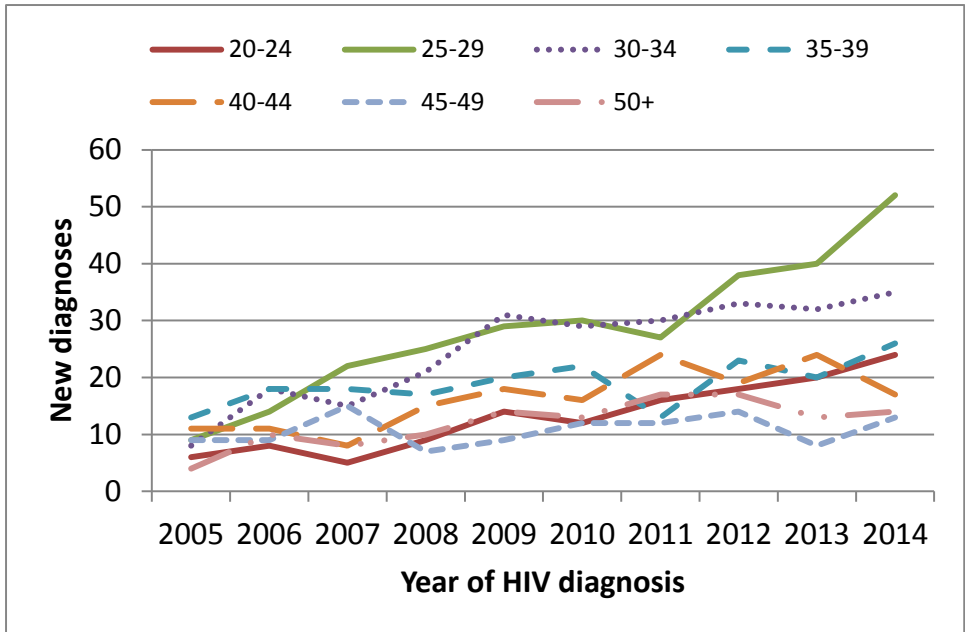


Figure 11: New HIV diagnoses among MSM by age group, 2005 to 2014

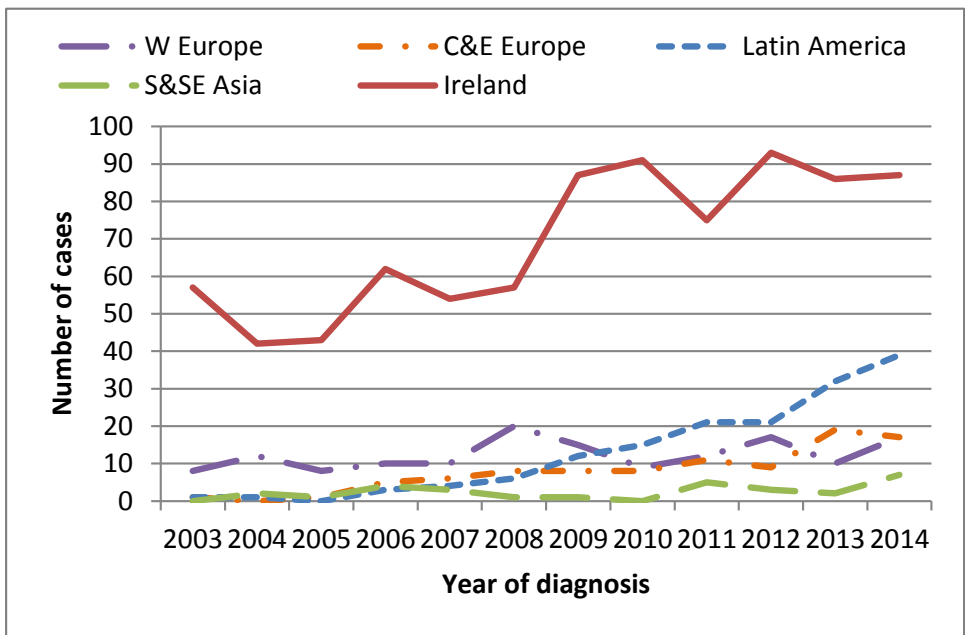


Figure 12: New HIV diagnoses among MSM by region of birth, 2003 to 2014

### 3. HETEROSEXUALS

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People who acquired their infection through heterosexual contact accounted for 125 (33%) of new HIV diagnoses in Ireland in 2014, a decrease of 5% compared to 131 cases in 2013. Since 2010, the number of new diagnoses among heterosexuals has remained fairly stable between 125 and 133 cases.

#### **Age and gender**

Seventy one (57%) new diagnoses among heterosexuals were female and 54 (43%) were male. The median age at diagnosis in 2014 was 35 years (range 18 to 71), 39 years in males (range 24 to 70 years) and 34 years in females (range 23 to 71 years). Among heterosexual males, 18% were aged 50 and older compared to 4% among heterosexual females. Seven percent of heterosexual cases were in young people (15-24 years).

#### **Subcategory of heterosexual risk**

Table 8 describes new HIV diagnoses in persons infected through heterosexual transmission by transmission subcategory. The majority of heterosexual cases (62%) were born in a country with a generalised HIV epidemic<sup>6</sup>. Figure 13 shows the number of heterosexual cases originating in a country with a generalized epidemic and all other heterosexual cases from 2003 to 2014.

#### **Region of origin**

Of the heterosexual cases, 73 (58%) were born in sub-Saharan Africa (26 male and 47 female), 19 (15%) in Ireland (11 male and 8 female), 15 (12%) in central and eastern Europe (4 male and 11 female) and 6 (5%) in western Europe (4 male and 2 female).

#### **Stage of infection**

Sixty three percent of heterosexual cases were diagnosed late in 2014 (71% in males and 56% in females). The proportion diagnosed late in male heterosexuals in 2014 was higher than in 2013 (60%) and 2012 (68%). The proportion diagnosed late in females was similar to the proportion late in 2013 (59%) and 2012 (58%). Thirty seven percent had advanced HIV infection at diagnosis (46% in males and 30% in females).

Eighteen people (14%) were diagnosed with an AIDS defining illness at the time of their HIV diagnosis (11 male and 7 female).

#### **Previously positive**

28 heterosexuals (22%) were previously diagnosed HIV positive in another country.

#### **Co-infection with TB**

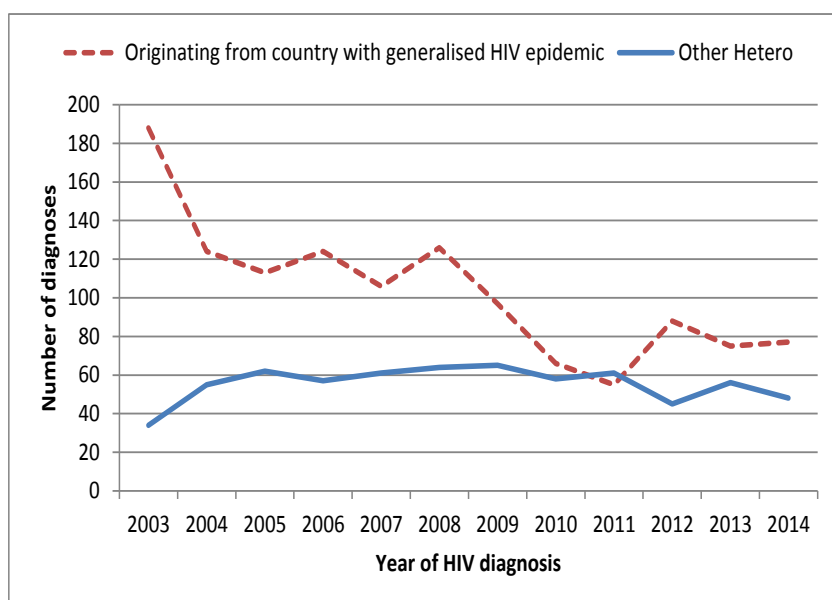
Information on co-infection with TB was collected for the first time in 2014. Among heterosexuals, 11% were co-infected with TB.

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<sup>6</sup> A generalised HIV epidemic is where greater than 1% of the general population is HIV positive

**Table 8: New HIV diagnoses in persons infected through heterosexual transmission by transmission subcategory, 2014**

Subcategory of heterosexual transmission	No.	%
Originating from a country with generalised HIV epidemic	77	61.6
Sex with a person from a country with generalised HIV epidemic	8	6.4
Sex with a person known to be HIV+, none of the above	5	4.0
Sex with a high risk partner	2	1.6
Presumed to be infected heterosexually, no further data on risk factors and HIV status of partners	33	26.4
<b>Total</b>	<b>125</b>	<b>100.0</b>



**Figure 13: Trends in new diagnoses by heterosexual subcategory, 2003 to 2014**

## 4. PEOPLE WHO INJECT DRUGS (PWID)

In 2014, 27 new HIV diagnoses (7%) were among PWID. This is an increase of 29% compared to the number diagnosed in 2013 (21).

### Age and Gender

Of the 27 new diagnoses among PWID, 14 (52%) were female and 13 (48%) were male, giving a male to female ratio of 0.9. Figure 14 describes the changing trend in male and female cases between 2003 and 2014. The number of new diagnoses in females has increased from 3 in 2012 to 14 in 2014. The median age at diagnosis among PWID was 32 years (range: 24 to 49 years) both in males and females.

### Region of Origin

Of the 27 new diagnoses, 85% (23) were born in Ireland and 2 (9%) were born in central and eastern Europe. Country of birth was unknown for the remaining two cases.

### HSE area of residence

89% (24) of PWID were resident in HSE East at diagnosis.

### Stage of infection

Forty four percent of PWID were diagnosed late in 2014 including 26% who were severely immuno-compromised. The proportion diagnosed late in 2014 is lower than in previous years (53% in 2013 and 56% in 2012).

Forty one percent of PWID newly diagnosed with HIV in 2014 were infected in either 2013 or 2014.

### Co-infection with Hepatitis C

89% (24) of PWID newly diagnosed with HIV in 2014 were co-infected with Hepatitis C.

### Duration of drug use

Where information was available (for 11 cases), the median duration of injecting drug use among PWID newly diagnosed with HIV in 2014 was 8 years.

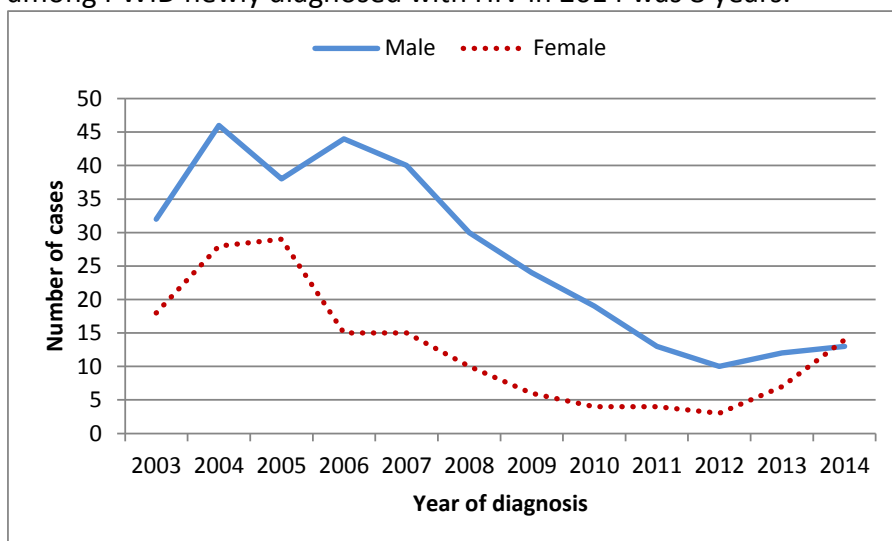


Figure 14: New HIV diagnoses among PWID by gender, 2003 to 2014

## 5. MOTHER TO CHILD TRANSMISSION

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There were two cases notified to CIDR in 2014 where the route of transmission was identified as mother to child transmission (MTCT). The country of infection was sub-Saharan Africa for both children.

The Rainbow Clinic in Our Lady's Children's Hospital in Crumlin reported that there were 70 babies born to HIV infected mothers in Ireland during 2014. At the time of this report, (based on serial HIV PCR testing); 61 of these infants are not infected and 9 remain of indeterminate status (i.e. do not meet the criteria for HIV infection and are <18 months at time of test). There was no mother to child transmissions in Ireland in 2014 (Personal communication; Michelle Goode, May 2015).

## 6. DEATHS DUE TO HIV AND AIDS IN 2014

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Of the 377 HIV notifications made to CIDR in 2014, one person was reported to have died.

The data presented in table 9 are deaths reported to the CSO in 2014 where cause of death is AIDS or HIV and they are taken from the CSO Vital Statistics 2014 Annual Report (available at <http://www.cso.ie/en/releasesandpublications/birthsdeathsandmarriages/>)

There were 9 deaths reported to the CSO in 2014 where the cause of death was AIDS or HIV, 6 in males and 3 in females.

**Table 9: Number of deaths reported in 2014 where cause of death is AIDS or HIV (Source: Vital Statistics Reports, CSO).**

	Age Group (years)					Total
	15-24	25-34	35-44	45-54	55+	
Male	0	1	1	2	2	6
Female	0	1	2	0	0	3
Total	0	2	3	2	2	9

## TECHNICAL NOTES

- Data for this report were extracted from CIDR on May 20<sup>th</sup> 2015 and were correct at the time of publication.
- Percentages are rounded up in the text and are provided to one decimal place in the tables.
- For the purposes of this report, “Mother to Child Transmission” cases were included in the category “Unk/Other” for many of the tables and figures.

## OTHER SOURCES OF DATA

- Weekly, quarterly and annual reports on the epidemiology of HIV in Ireland can be found at <http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceReports/>
- Reports on HIV antenatal screening can be found at <http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/AntenatalHIVTesting/ReportsonAntenatalHIVTestinginIreland/>
- The case definition for HIV can be found on the HPSC website at <http://www.hpsc.ie/NotifiableDiseases/CaseDefinitions/>
- The enhanced surveillance form for HIV can be found at <http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceDocuments/Surveillanceforms/>
- Data on laboratory testing of HIV can be found at <http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceDocuments/>

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2. The UK Collaborative Cohort (UK CHIC) Steering Committee. Late diagnosis in the HAART era: proposed common definitions and associations with mortality. *AIDS* 2010; 24(5): 723-727.
3. Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect* 1999 Feb;75(1):3-17

## APPENDIX 1: 2014 TABLES

**Table A1: HIV diagnoses by age group and route of transmission, 2014**

Age Group	MSM		Hetero - Male		Hetero - Female		PWID		Unk/Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<15	0	0.0	0	0.0	0	0.0	0	0.0	3	7.1	3	0.8
15-19	2	1.1	0	0.0	1	1.4	0	0.0	0	0.0	3	0.8
20-24	24	13.1	1	1.9	7	9.9	3	11.1	6	14.3	41	10.9
25-29	52	28.4	7	13.0	17	23.9	7	25.9	6	14.3	89	23.6
30-34	35	19.1	11	20.4	18	25.4	8	29.6	9	21.4	81	21.5
35-39	26	14.2	8	14.8	13	18.3	7	25.9	6	14.3	60	15.9
40-44	17	9.3	10	18.5	7	9.9	1	3.7	5	11.9	40	10.6
45-49	13	7.1	7	13.0	5	7.0	1	3.7	2	4.8	28	7.4
>50	14	7.7	10	18.5	3	4.2	0	0.0	5	11.9	32	8.5
<b>Total</b>	<b>183</b>	<b>100.0</b>	<b>54</b>	<b>100.0</b>	<b>71</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>

**Table A2: HIV diagnoses by age group and gender, 2014**

Age Group (yrs)	Male		Female		Total	
	N	%	N	%	N	%
<15	0	0.0	3	3.0	3	0.8
15-19	2	0.7	1	1.0	3	0.8
20-24	30	10.8	11	11.0	41	10.9
25-29	65	23.5	24	24.0	89	23.6
30-34	56	20.2	25	25.0	81	21.5
35-39	43	15.5	17	17.0	60	15.9
40-44	31	11.2	9	9.0	40	10.6
45-49	22	7.9	6	6.0	28	7.4
50+	28	10.1	4	4.0	32	8.5
<b>Total</b>	<b>277</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>

**Table A3: HIV diagnoses by route of transmission and geographic origin, 2014**

Geographic Origin	MSM		Hetero - male		Hetero - female		PWID		Unk/Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Ireland	87	47.5	11	20.4	8	11.3	23	85.2	8	19.0	137	36.3
W Europe	17	9.3	4	7.4	2	2.8	0	0.0	0	0.0	23	6.1
C&E Europe	17	9.3	4	7.4	11	15.5	2	7.4	2	4.8	36	9.5
SS Africa	3	1.6	26	48.1	47	66.2	0	0.0	6	14.3	82	21.8
Latin America	39	21.3	2	3.7	1	1.4	0	0.0	1	2.4	43	11.4
S&SE Asia	7	3.8	4	7.4	1	1.4	0	0.0	0	0.0	12	3.2
Other	5	2.7	2	3.7	0	0.0	0	0.0	0	0.0	7	1.9
Unknown	8	4.4	1	1.9	1	1.4	2	7.4	25	59.5	37	9.8
<b>Total</b>	<b>183</b>	<b>100.0</b>	<b>54</b>	<b>100.0</b>	<b>71</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>



**Table A4: HIV diagnoses by gender and geographic origin, 2014**

Region Of Origin	Male		Female		Total	
	No.	%	No.	%	No.	%
Ireland	116	41.9	21	21.0	137	36.3
Sub Saharan Africa	31	11.2	51	51.0	82	21.8
Latin America	42	15.2	1	1.0	43	11.4
Central Europe	19	6.9	4	4.0	23	6.1
Western Europe	21	7.6	2	2.0	23	6.1
Eastern Europe	5	1.8	8	8.0	13	3.4
South and South East Asia	11	4.0	1	1.0	12	3.2
Other	7	2.5	0	0.0	7	1.9
Unknown	25	9.0	12	12.0	37	9.8
<b>Total</b>	<b>277</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>

**Table A5: HIV diagnoses by route of transmission and ethnicity, 2014**

Ethnicity	MSM		Hetero		PWID		Unk/Other		Total	
	N	%	N	%	N	%	N	%	N	%
White	127	69.4	37	29.6	25	92.6	7	16.7	196	52.0
Black African	3	1.6	68	54.4	0	0.0	5	11.9	76	20.2
Mixed background	14	7.7	1	0.8	0	0.0	0	0.0	15	4.0
Other	8	4.4	3	2.4	0	0.0	0	0.0	11	2.9
Not known	31	16.9	16	12.8	2	7.4	30	71.4	79	21.0
<b>Total</b>	<b>183</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>

**Table A6: HIV diagnoses by route of transmission and probable region of infection, 2014**

Probable region of infection	MSM		Hetero		PWID		Unk/Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Ireland	101	55.2	26	20.8	20	74.1	5	11.9	152	40.3
Sub Saharan Africa	1	0.5	55	44.0	0	0.0	5	11.9	61	16.2
Western Europe	12	6.6	6	4.8	2	7.4	0	0.0	20	5.3
Central & Eastern Europe	3	1.6	6	4.8	2	7.4	0	0.0	11	2.9
Latin America	22	12.0	4	3.2	0	0.0	0	0.0	26	6.9
Other	9	4.9	3	2.4	0	0.0	1	2.4	13	3.4
Unknown	35	19.1	25	20.0	3	11.1	31	73.8	94	24.9
<b>Total</b>	<b>183</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>377</b>	<b>100.0</b>

**Table A7: Reason for HIV test by gender and route of transmission, 2014**

Reason for Test	Gender		Probable route of transmission				Total
	Female	Male	MSM	Hetero	PWID	Unk/Oth	
Antenatal	8	0	0	7	0	1	<b>8</b>
Asylum seeker screening	15	11	2	24	0	0	<b>26</b>
Known positive partner	5	20	15	10	0	0	<b>25</b>
STI screen	17	60	52	18	6	1	<b>77</b>
Risky behaviour	3	58	49	6	6	1	<b>61</b>
Symptomatic	27	68	37	39	10	9	<b>95</b>
Other	6	15	8	8	3	2	<b>21</b>
Unknown	19	45	20	13	2	28	<b>64</b>
<b>Total</b>	<b>100</b>	<b>277</b>	<b>183</b>	<b>125</b>	<b>27</b>	<b>42</b>	<b>377</b>