Seirbhís Sláinte Níos Fearr á Forbairt | Building a Better Health Service

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Annual Epidemiological Report

November 2018

HIV in Ireland, 2017

Key Facts

- There were 492 diagnoses of HIV notified in 2017, a rate of 10.3 per 100,000 population. The HIV rate in Ireland has been relatively stable between 2015 and 2017 (10.1-10.5 per 100,000).
- 39% of HIV diagnoses were in people who were previously diagnosed HIV positive abroad.
- Three quarters of HIV diagnoses were in men.
- The median age of adult cases at HIV diagnosis was 35 years. Eight percent of HIV diagnoses were in young people (15-24 years) and 14% were in those aged 50 years and older.
- The highest proportion of diagnoses (53%) was among men who have sex with men (MSM). Notifications among MSM decreased by 4% between 2016 and 2017.
- Heterosexuals accounted for 33% of diagnoses, an increase of 13% compared to 2016.
- Transmission due to injecting drug use accounted for 4% of diagnoses.
- 63% of people diagnosed with HIV in 2017 were born abroad, 26% were born in Ireland, and 11% did not have information on country of birth.
- 41% of people diagnosed with HIV presented late including 22% with advanced HIV infection. Excluding those who were previously diagnosed positive abroad increased the proportion presenting late to 55% and the proportion with advanced infection to 32%.
- The groups with the highest proportion presenting late were: females; those aged 50 years and over; those born in Central and Eastern Europe and sub-Saharan Africa; those living outside HSE East; and people who inject drugs (PWID).

Suggested citation: HSE Health Protection Surveillance Centre. HIV in Ireland, 2017. Dublin: HSE HPSC; 2018

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Background

HIV is of major public health importance in Ireland and worldwide. In 2011, it became a notifiable disease in Ireland under the Infectious Disease Regulations. Since 2012, all diagnoses of HIV are reported using the national Computerised Infectious Disease Reporting system (CIDR). Further information on HIV can be found at www.sexualwellbeing.ie.

This report provides the latest data on the epidemiology of HIV in Ireland. A slide set on the latest trends of HIV in Ireland which accompanies this report is also available at http://www.hpsc.ie/a-z/hivstis/hivandaids/hivdataandreports/. Data for this report were extracted from CIDR on 9th October 2018 and were correct at the time of publication. For further details on methods, see page 20 of this report.

Epidemiology

HIV diagnoses and rates

In 2017, there were 492 diagnoses of HIV notified in Ireland, a rate of 10.3 per 100,000 population[1]. See Table 1 for a summary of 2017 HIV diagnoses. Between 2016 and 2017, there was a slight (2%) decrease but overall the rate has been relatively stable between 2015 and 2017 (10.1-10.5 per 100,000 population) (see Figure 1). This follows a large increase (30%) between 2014 and 2015 and a smaller increase (5%) between 2015 and 2016.

Since the early 1980's and to the end of 2017, 8,826 people have been diagnosed with HIV in Ireland. Through modelling work done by the Health Protection Surveillance Centre (HPSC) and UNAIDS, it is estimated that 7,205 people (95% confidence intervals: 6,456-8,056) were living with HIV in Ireland at the end of 2017 with 13% of these people unaware of their infection [1].

Completed enhanced surveillance forms were received for 87% of HIV notifications in 2017 (as of 9th October 2018). Data completeness of key variables is described in Table A1 in the Appendix. Further data completeness reports are available here.

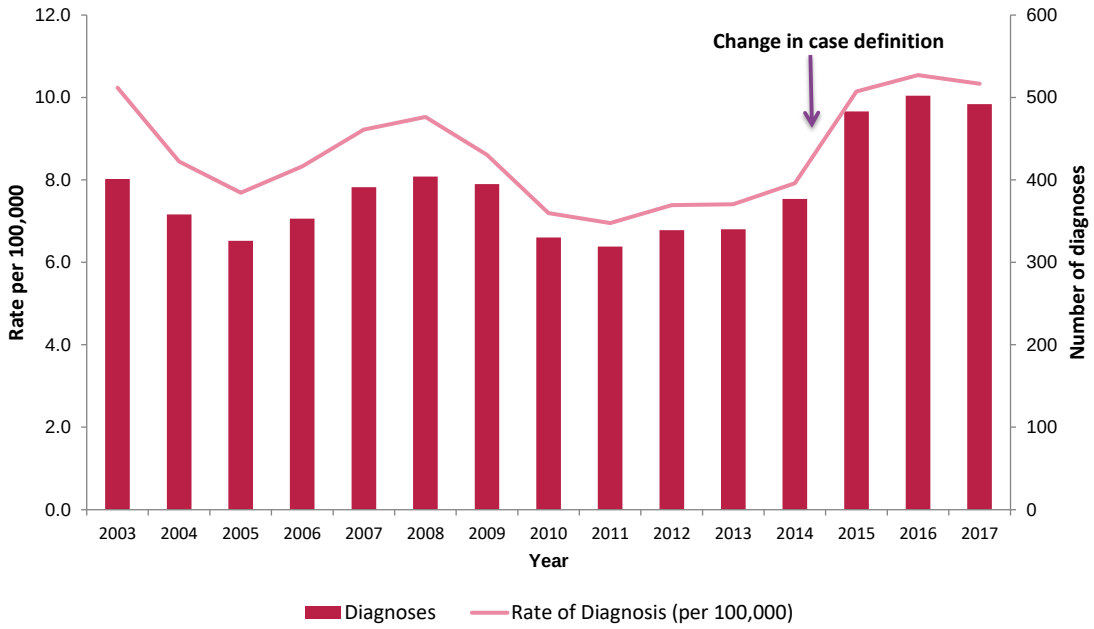
[1]Based on 2016 census

Table 1. Summary of HIV diagnoses in 2017

		No.	%
Number of HIV diagnoses		492	-
Rate of diagnoses (per 100,000 population)		10.3	-
Sex	Males (%)	376	76.4
	Females (%)	116	23.6
	Male to female ratio	3.2	-
Age	Median age of adult cases (years)	35	-
	Age range of adult cases (years)	18-75	-
	Young people aged 15-24 years (%)	41	8.3
	Aged 50 and older (%)	69	14.0
Probable Route of Transmission	MSM (%)	262	53.3
	Heterosexual (%)	163	33.1
	Injecting Drug Use (%)	17	3.5
	Mother to Child transmission (%)	0	0.0
	Other (%)[2]	7	1.4
	Unknown (%)	43	8.7
Region of Birth	Born in Ireland (%)	130	26.4
	Born Abroad (%)	308	62.6
	Unknown (%)	54	11.0
Co-infections	Acute STI (%)	67	13.6
	TB (%)	17	3.5
Previous history of testing	Previously tested positive abroad (%)	190	38.5
	Transfer of care (% among those previously positive abroad)	167	87.9

[2] For the remainder of the report, those in the "other" category are included with unknowns due to small numbers

Figure 1. Trend in HIV diagnoses and rates of diagnosis, 2003 to 2017



Age and Sex

The majority of diagnoses (76%) in 2017 were among men, resulting in a male-female ratio of 3.2 (see Table 2 for breakdown of diagnoses by age and sex). Over half of diagnoses (59%) were among those aged 25-39 years and the median age of adult cases was 35 years (range: 18-75 years); 34 years in men (range: 18-75 years) and 36 years in women (range: 19-72 years). Eight percent were in young people (15-24 years) and 14% in those aged 50 and older.

Figure 2 shows age specific rates by sex. The rate of HIV diagnoses was three-fold higher among men (15.9 per 100,000) compared to women (4.9 per 100,000) in 2017 and men had higher age-specific rates than women in all age groups. The highest rate in men was in those aged 25-29 years while the highest rate in women was in those aged 35-39 years (see Figure 2).

Figure 3 and 4 shows the trend in HIV rates by age group in males and females. In males, the largest increase in 2017 was in those aged 25-29 years while in females, the largest increase in 2017 was in those aged 40-44 years.

Table 2. HIV diagnoses by age group and sex, 2017

Age Group (yrs)	Male		Female		Total	
	N	%	N	%	N	%
<15	0	0.0	0	0.0	0	0.0
15-19	2	0.5	1	0.9	3	0.6
20-24	33	8.8	5	4.3	38	7.7
25-29	91	24.2	16	13.8	107	21.7
30-34	74	19.7	24	20.7	98	19.9
35-39	55	14.6	28	24.1	83	16.9
40-44	43	11.4	24	20.7	67	13.6
45-49	22	5.9	5	4.3	27	5.5
50+	56	14.9	13	11.2	69	14.0
Total	376	100.0	116	100.0	492	100.0

Figure 2. Age- and sex- specific rates of HIV diagnoses, 2017

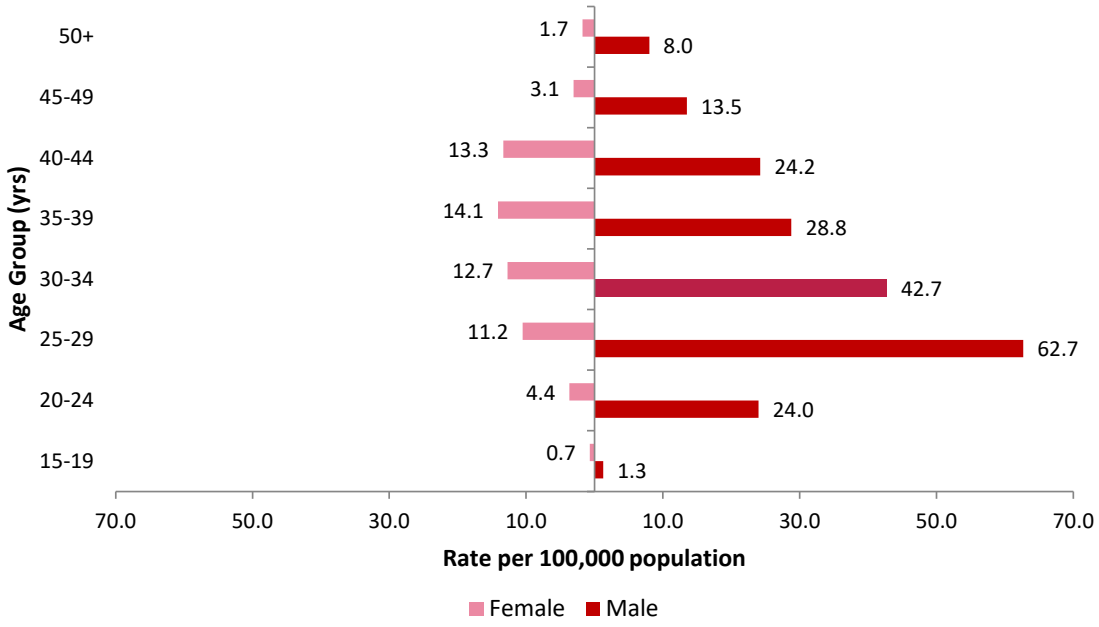


Figure 3. Trend in HIV rates in males by age group, 2017

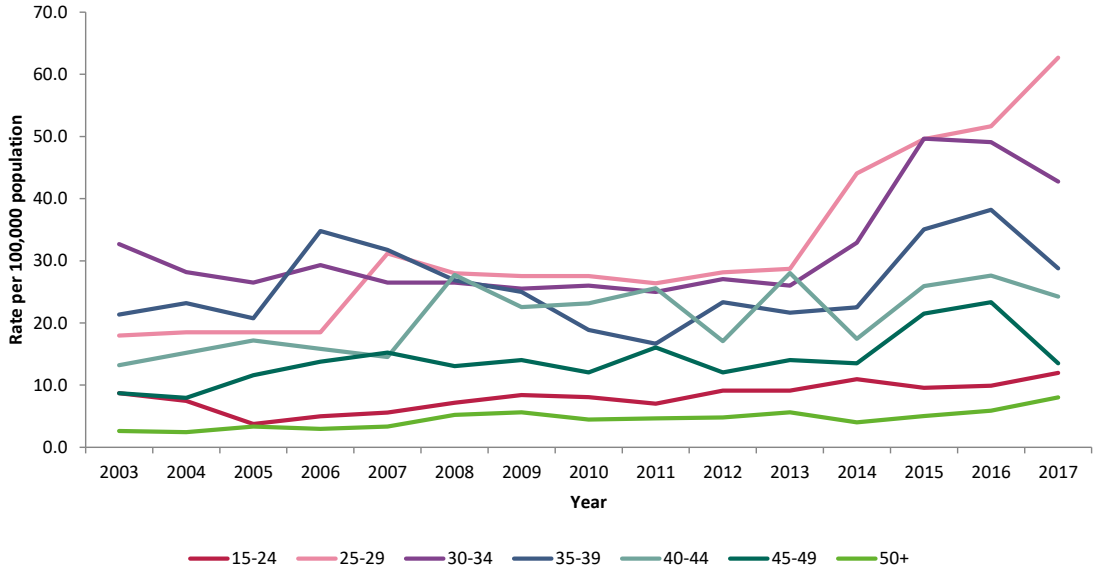
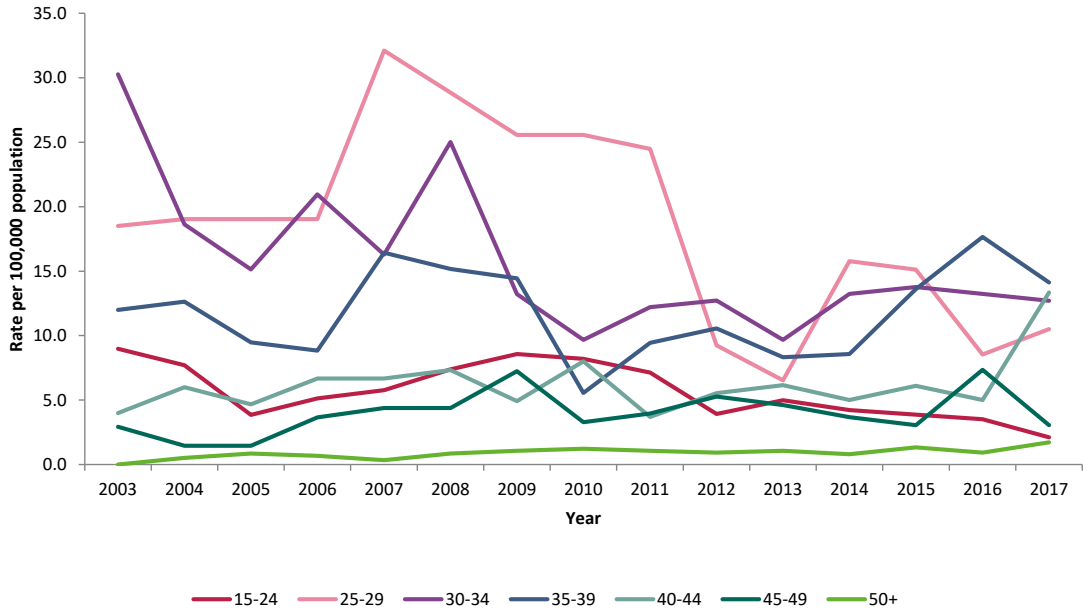


Figure 4. Trend in HIV rates in females by age group, 2017



Probable route of transmission

Similar to previous years, the highest proportion (53%) of HIV diagnoses was among men who have sex with men (MSM) (see Table 3 and Figure 4). This is a slight decrease (4%) compared to 2016.

Heterosexual transmission accounted for 33% of HIV diagnoses in 2017. There were 100 diagnoses (61%) in women and 63 (39%) in men, making heterosexual contact the most common HIV transmission method in women and the second most common in men. Compared to previous years, the number of diagnoses in heterosexuals increased in 2017 (see Figure 5).

There were 17 diagnoses among people who inject drugs (PWID) in 2017, accounting for 4% of diagnoses. This was very similar to the number of notifications in 2016. There were 14 diagnoses in men and three in women.

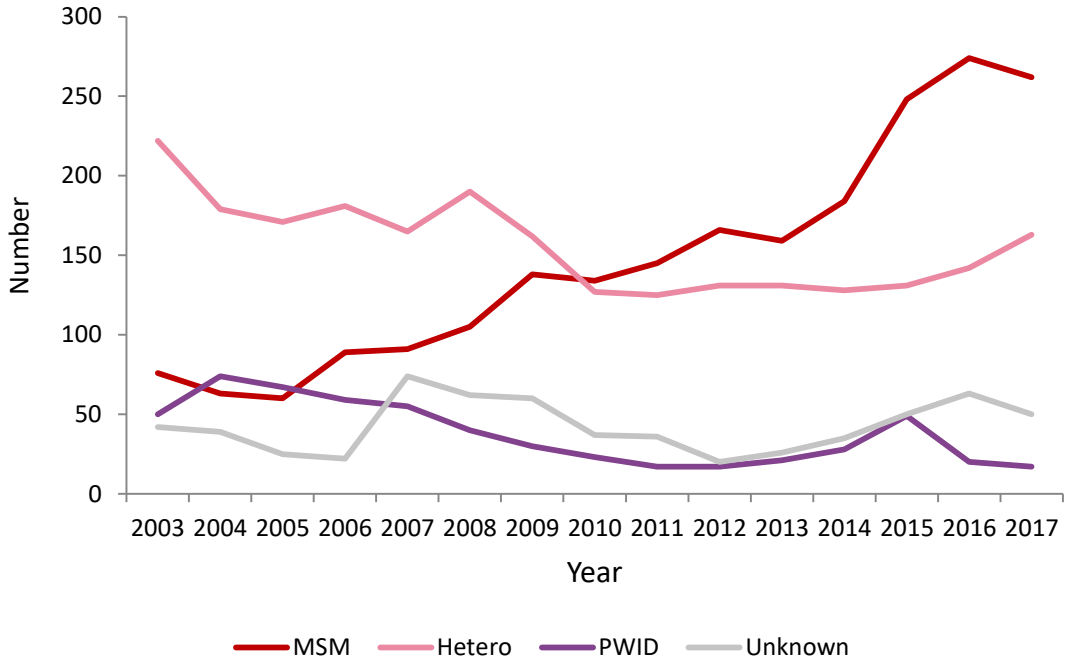
Transmission was not reported or reported to be unknown for 9%. Further information on diagnoses in MSM, heterosexuals and PWID is available on pages 16-17.

Table 3. HIV diagnoses by probable route of transmission, 2012 to 2017

Year	MSM		PWID		Hetero		MTCT[3]		Unk/Other		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
2012	166	49.0	17	5.0	131	38.6	5	1.5	20	5.9	**339**
2013	159	46.8	21	6.2	131	38.5	3	0.9	26	7.6	**340**
2014	184	48.8	28	7.4	128	34.0	2	0.5	35	9.3	**377**
2015	248	51.3	49	10.1	131	27.1	5	1.0	50	10.4	**483**
2016	274	54.6	20	4.0	142	28.3	3	0.6	63	12.5	**502**
2017	262	53.3	17	3.5	163	33.1	0	0.0	50	10.2	**492**

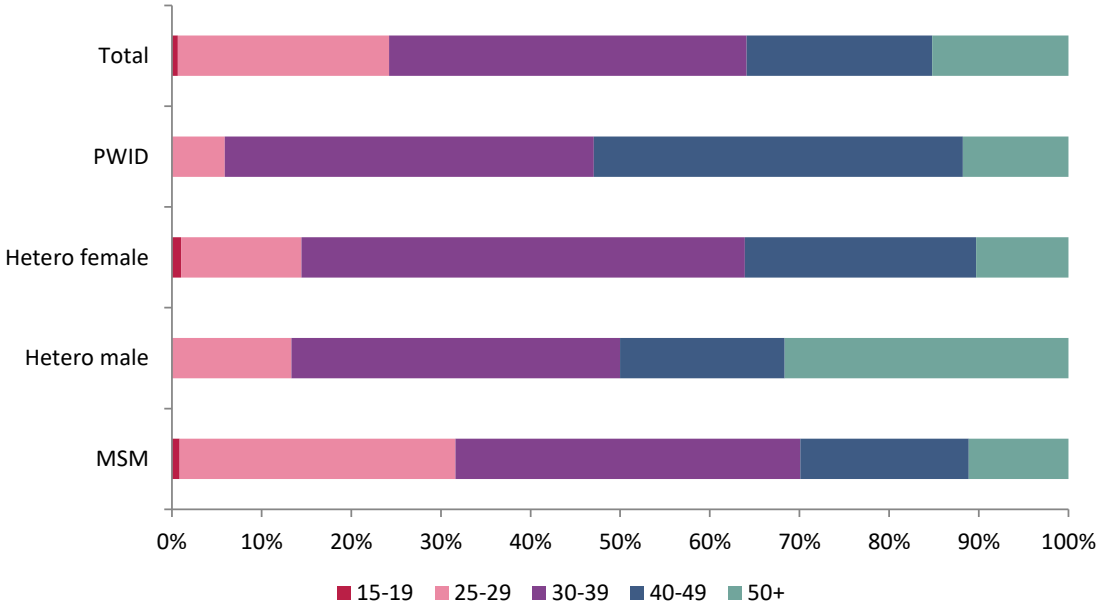
[3] Mother to Child Transmission

Figure 5. Trend in HIV diagnoses by probable route of transmission, 2003 to 2017



Analysis of the 2017 diagnoses by probable route of transmission and age group is shown in Figure 6. MSM were younger at diagnosis than those in other risk groups with a median age of 32 years and almost 40% aged under 30 years. This compared to a median age of 37 years and 17% under 30 years in heterosexuals and a median age of 41 years and 6% under 30 years in PWID.

Figure 6. HIV diagnoses by age group and probable route of transmission, 2017



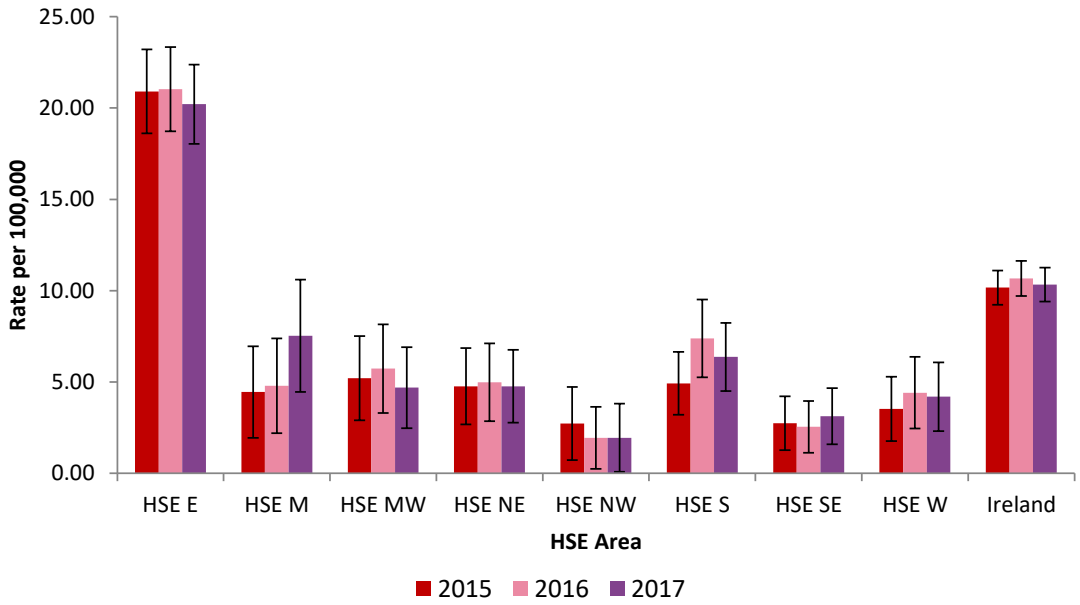
HSE area[4]

There were HIV diagnoses in all HSE areas, with the majority (70%) reported in HSE East (Table 4). The highest age-standardised notification rate (ASNR) was in HSE East (20.2/100,000) which was almost twice the national rate. The ASNR in all other areas in 2017, except the Midlands, was significantly lower than the national rate. Figure 7 shows the trend in ASNR by HSE area from 2015 to 2017.

Table 4. HIV diagnoses by HSE area of residence[5], 2017

HSE Area	Number	%	Rate per 100,000
East	346	70.3	20.2
Midlands	22	4.5	7.5
Midwest	18	3.7	4.7
Northeast	22	4.5	4.8
Northwest	5	1.0	1.9
Southeast	16	3.3	3.1
South	44	8.9	6.4
West	19	3.9	4.2
Total	**492**	**100.0**	**10.3**

Figure 7. Trend in the HIV ASNR by HSE area of residence, 2015 to 2017



[4] Data on HSE area should be interpreted with caution. Where patient address is not known, the HSE area is based on the location of the clinc. Consequently, numbers and rates by HSE area may be a reflection of the location of services.

[5] See technical notes on page 20 for counties in each HSE area

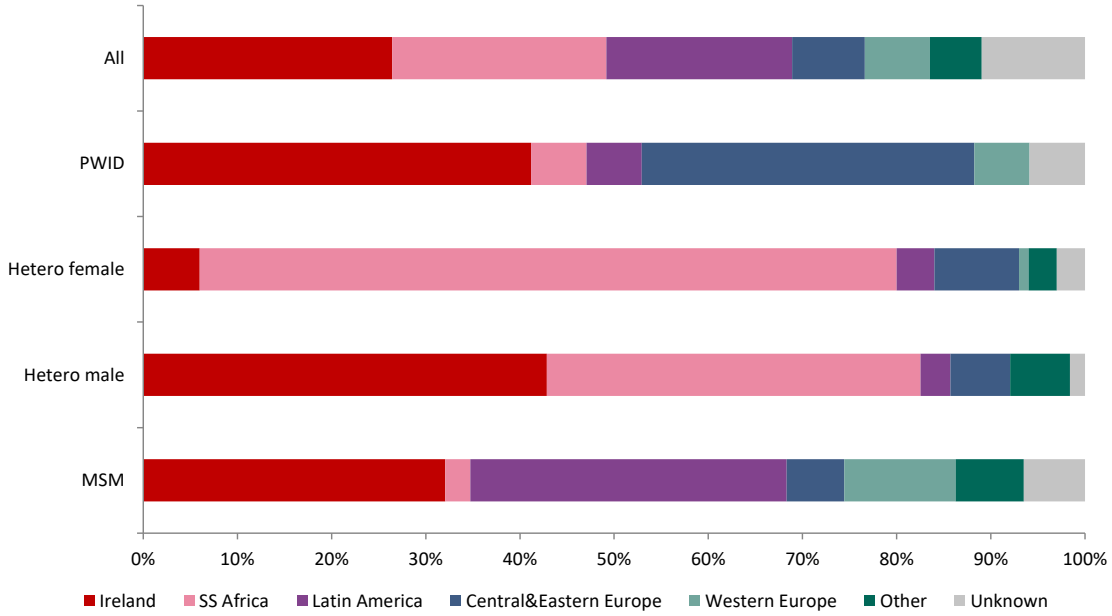
Region of birth

In 2017, 26% (n=130) of people diagnosed with HIV were born in Ireland, 63% (n=308) born outside Ireland and 11% (n=54) did not have information on country of birth. Twenty three percent originated from countries in sub-Saharan Africa, 20% from countries in Latin America, 8% from countries in Central and Eastern Europe and 7% from countries in Western Europe.

Geographic origin varied by route of transmission as shown in Figure 8. The majority (66%) of MSM were born in Ireland or Latin America. The majority of heterosexual females (74%) were born in sub-Saharan Africa with roughly equal proportions of heterosexual males born in Ireland (43%) and sub-Saharan Africa (40%). The majority of PWID (76%) were born in Ireland or Central and Eastern Europe.

The rate of HIV diagnosis among those born in Ireland has remained stable since 2003, ranging from 3.4 to 4.2 per 100,000 population (see Figure 9). There has been a much greater fluctuation in the rate among migrants[6] which increased from 18.4 in 2011 to 38.4 per 100,000 in 2016[7]. In 2017, the rate remained stable at 38.0 per 100,000 population.

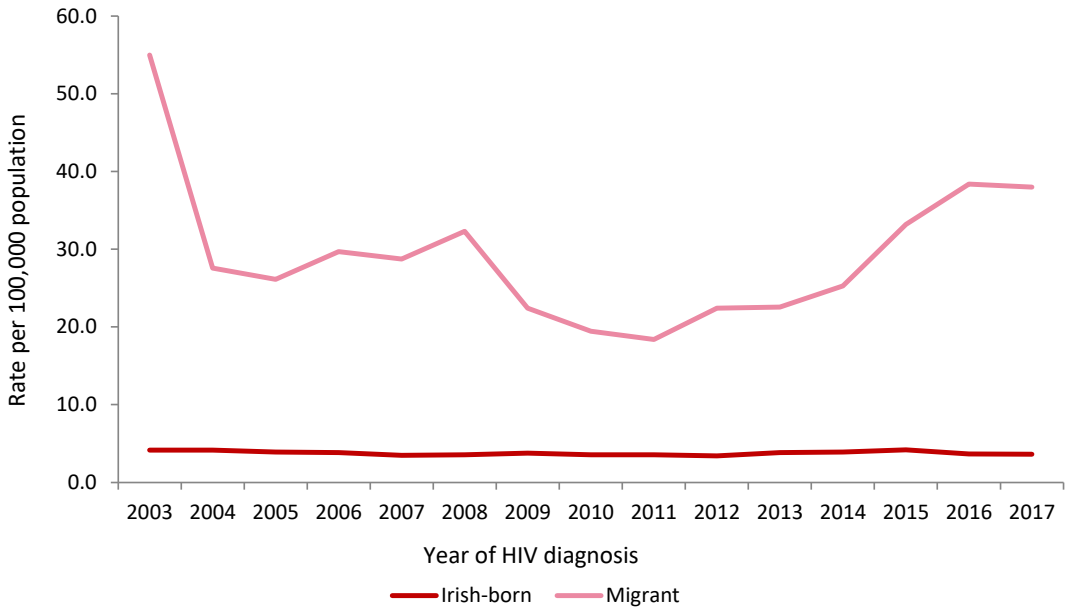
Figure 8. HIV diagnoses by region of birth and probable route of transmission, 2017



[6] Migrants defined as those living in Ireland who were born outside Ireland

[7] Rates based on total Irish born and migrant populations taken from the 2006, 2011 and 2016 census

Figure 9. Trend in rate of HIV diagnosis by migrant status, 2003 to 2017



Previously tested positive abroad

Notifications of HIV in Ireland include both people who are diagnosed HIV positive for the first time and people who have been previously diagnosed HIV positive abroad but diagnosed in Ireland for the first time.[8] Figure 10 shows the trend in those who were previously diagnosed HIV positive abroad compared to those who were not previously diagnosed HIV positive (including unknowns). Among the diagnoses in 2017, 39% were previously diagnosed with HIV abroad. This was a very similar proportion in 2016 (38%). In 2017, the number of cases with no previous history of HIV diagnosis abroad (new diagnoses) decreased by 4% compared to 2016 (from 313 to 302 cases).

Thirty four percent of people diagnosed in 2017 were reported to have transferred their HIV care from abroad to Ireland, which is 88% of those who were previously diagnosed HIV positive abroad.

[8] Data on this variable collected since 2012

Figure 10. Trend in HIV diagnoses by history of previous positive diagnosis, 2012 to 2017

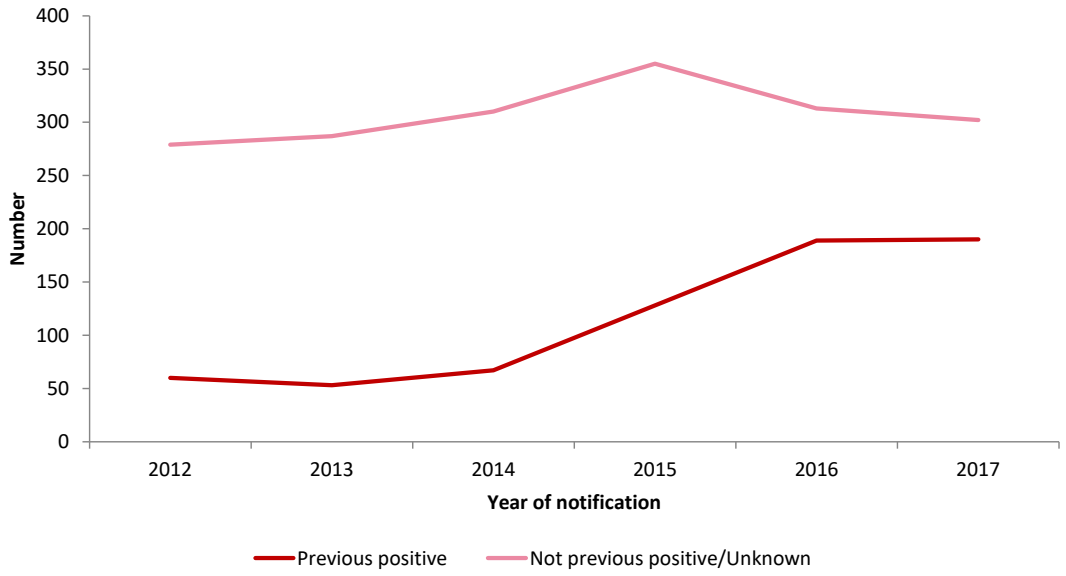
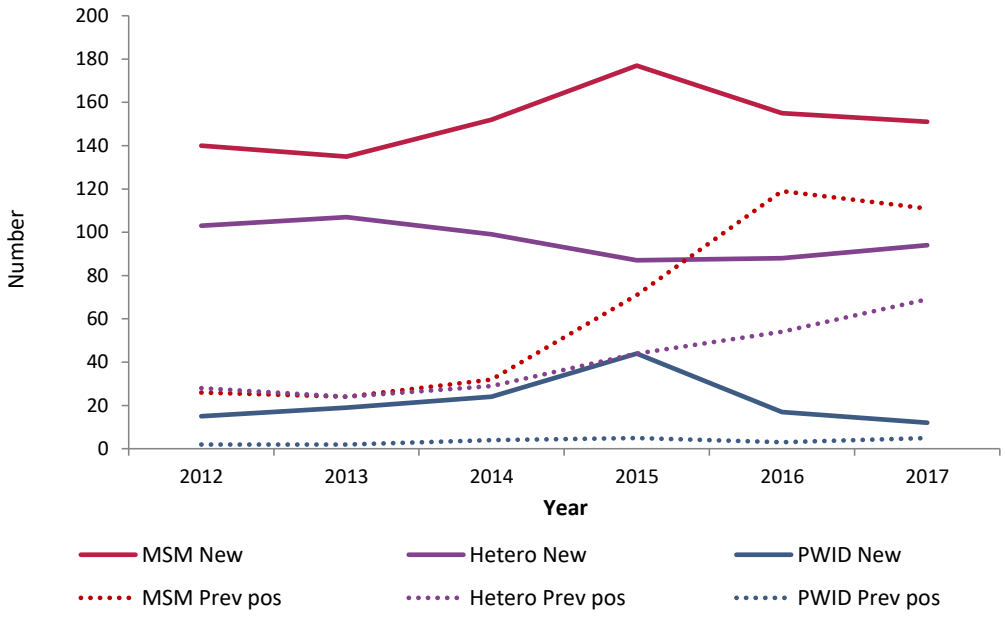


Figure 11 shows the trend in those previously positive compared to those not previously positive or unknown by route of transmission. Among heterosexuals and MSM, 42% of people diagnosed in 2017 were previously diagnosed HIV positive abroad. This proportion was 29% among PWID. New diagnoses (not previously diagnosed abroad) in MSM dropped slightly (3%) in 2017 compared to 2016 as did those who were previously positive (7%). Among heterosexuals, there was an increase in those previously diagnosed abroad between 2016 and 2017 (from 54 to 69) and a slight increase in new diagnoses (from 88 to 94).

Figure 11. Trend in HIV diagnoses by history of previous positive diagnosis and route of transmission, 2012 to 2017



Stage of HIV infection

Clinical stage of Infection

Of people diagnosed with HIV in 2017, 52% (n=255) were asymptomatic, 12% (n=61) were symptomatic (non-AIDS), 6% (n=29) had an AIDS-defining illness at the time of HIV diagnosis and 2% (n=11) had an acute sero-conversion illness. Clinical stage was not reported for the remaining 27% (n=135). Of the 29 people with an AIDS defining illness at the time of HIV diagnosis in 2017, 13 were MSM, 12 were heterosexuals and one was a PWID (three unknown/other risk group).

Late presentation and Advanced HIV infection

CD4 cell count at HIV diagnosis can be an indication of how long a person has had HIV before being diagnosed. For surveillance puroposes, late HIV diagnosis is defined as CD4 cell count less than 350 cells/µl at diagnosis or an AIDS defining illness at diagnosis.[9] Advanced HIV Infection is defined as a CD4 count of less than 200 cells/µl at diagnosis or an AIDS defining illness at diagnosis.[7]

Of those diagnosed with HIV in Ireland in 2017, 41% presented with late infection including 22% with advanced HIV infection (among the 382 individuals where information on CD4 count or AIDS defining illness at diagnosis was available). The proportion presenting late is higher than in 2016 (38%) but lower than previous years (range 46-49% in 2012-2015). The proportion presenting with advanced infection is similar to previous years (range 20-27% in 2012-2016). See Table 5 for a breakdown by sex, age group, region of origin, area of residence and route of transmission.

Considering the high proportion of people diagnosed with HIV in Ireland who were previously diagnosed HIV positive abroad, it is helpful to exclude these people who have been previously diagnosed abroad and who may have been on treatment when analysing the proportion presenting late. Among the people who did not have a previous positive diagnosis, the proportion who presented late was 55% including 32% who presented with advanced HIV infection. See Table 5 for a breakdown by sex, age group, region of origin, area of residence and route of transmission.

The groups with the highest proportion presenting late and with advanced HIV infection were females, those aged 50 years and over, people born in Central and Eastern Europe and sub-Saharan Africa, people outside HSE East and PWID.

[9] excluding those with evidence of acute infection - P24 antigen positive or clinical diagnosis of acute sero-conversion illness

Table 5. Frequency of late presentation in all HIV diagnoses and in new HIV diagnoses by sex, probable route of transmission, age group and region of origin, 2017

		All diagnoses		New diagnoses*	
		% late	% advanced	% late	% advanced
Total		40.5	22.2	54.8	32.2
Sex	Female	46.8	28.7	59.6	38.5
	Male	40.0	20.1	50.0	30.1
Age Group (yrs)	20-29	32.1	9.6	43.1	19.0
	30-39	40.0	24.1	55.1	34.6
	40-49	45.8	30.6	55.5	36.1
	50+	53.8	33.3	75.8	48.5
Region of origin	Ireland	49.1	31.8	52.8	34.8
	Western Europe	23.3	13.3	46.7	26.7
	Central & Eastern Europe	61.3	29.0	66.7	38.1
	Latin America	23.3	8.9	54.2	20.8
	Sub-Saharan Africa	45.4	24.7	60.5	32.6
Area of residence	HSE East	37.2	19.7	51.9	29.5
	Non HSE-East	47.9	27.7	59.5	36.7
Route of transmission	MSM	32.4	15.5	48.2	24.1
	PWID	80.0	40.0	90.0	60.0
	Hetero- male	50.0	28.6	59.4	37.5
	Hetero - female	47.7	29.1	62.2	40.0

*Excludes those previously positive

Co-infections

Overall, 14% of people diagnosed with HIV in 2017 were co-infected with an acute bacterial STI (chlamydia, gonorrhoea and/or early infectious syphilis). This proportion was higher among MSM (23%). Seventy one percent of PWID were co-infected with hepatitis C and 7% of heterosexuals were co-infected with TB (see Table 6 for data on co-infections by probable route of transmission).

Table 6. Co-infections at the time of HIV diagnosis by probable route of transmission, 2017

Co-infection with	MSM		Hetero		PWID		Total	
	No.	%	No.	%	No.	%	No.	%
Acute STI	59	22.5	5	3.1	2	11.8	67	13.6
Chlamydia	26	9.9	2	1.2	1	5.9	29	5.9
Gonorrhoea	15	5.7	1	0.6	1	5.9	17	3.5
Early Infectious Syphilis	29	11.1	4	2.5	2	11.8	36	7.3
TB	5	1.9	11	6.7	1	5.9	17	3.5
Hepatitis B	6	2.3	6	3.7	0	0.0	12	2.4
Hepatitis C	5	1.9	4	2.5	12	70.6	22	4.5

Deaths due to HIV and AIDS in 2017

Data on deaths are obtained from (a) clinician reports via the enhanced surveillance form at time of HIV diagnosis and (b) data reported to the Central Statistics Office (CSO). It is not possible to link the two sources of information.

(a) Data from enhanced surveillance forms

Among the HIV notifications in 2017, three deaths were reported at the time of HIV diagnosis. All three were male.

(b) Data from CSO Vital Statistics report [10]

There were 11 deaths reported to the CSO in 2017 where the cause of death was AIDS or HIV, seven males and four females.

Men who have sex with men (MSM)

MSM are the population in Ireland most affected by HIV in Ireland and accounted for 53% of diagnoses in 2017. Of the diagnoses among MSM in 2017, 42% were previously diagnosed abroad (91% of these people transferred their care to Ireland) and 58% were not known to be previously diagnosed abroad. Table 7 provides a summary of the 2017 diagnoses among all MSM, among those not previously diagnosed HIV positive abroad and among those who were previously positive.

Table 7. Characteristics of HIV diagnoses among MSM, 2017

		All diagnoses	New diagnoses (not previous positives)	Previously positive
Total (n)		262	151	111
Age	Median Age (years)	32	34	30
	Range (years)	18-71	18-71	21-63
	Young people aged 15-24 years (%)	11.5	13.2	9.0
	Aged 50 and older (%)	9.9	12.6	6.3
Region of Birth	Ireland (%)	32.1	45.7	13.5
	Latin America (%)	33.6	17.9	55.0
	Europe (%)	17.9	18.5	17.1
	Other (%)	9.9	7.3	13.5
	Unknown (%)	6.5	10.6	1.0
Co-infections	Acute STI (%)	22.5	17.2	29.7

[10] Source: Vital Statistics Reports, CSO available at https://www.cso.ie/en/releasesandpublications/ep/p-vsys/vitalstatisticsyearlysummary2017/

Heterosexuals

There were 163 new diagnoses in 2017 among heterosexuals, 100 (61%) among women and 63 (39%) among men. Of note, 41% were previously diagnosed positive in another country, of whom 85% had transferred their HIV care to Ireland. Table 8 provides a summary of the diagnoses among male and female heterosexuals.

Table 8. Characteristics of HIV diagnoses among heterosexuals by sex, 2017

		Male	Female	Total
Total		63	100	163
Age	Median age (years)	38	36	37
	Range (years)	24-75	19-72	19-75
	Young people aged 15-24 years (%)	4.8	4.0	4.3
	Aged 50 and older (%)	30.2	10.0	17.8
Region of Birth	Ireland (%)	42.9	6.0	20.2
	Sub-Saharan Africa (%)	39.7	74.0	60.7
	Europe (%)	6.3	10.0	8.6
	Other (%)	9.5	7.0	8.0
	Unknown (%)	1.6	3.0	2.5
Co-infections	Acute STI (%)	6.3	1.0	3.1
	TB (%)	4.8	8.0	6.7
Previous history of testing	Previously tested positive abroad (%)	41.3	43.0	42.3
	Transfer of care (among those previously positive) %	84.6	86.1	85.5

People who inject drugs (PWID)

There were 17 diagnoses among PWID in 2017, 14 among men and three among women. The median age among PWID was 41 years. Over 75% of PWID diagnosed with HIV in 2017 were either born in Ireland (41%) or Central and Eastern Europe (35%). Twelve PWID (71%) were known to be co-infected with hepatitis C.

HIV testing data

In 2017, there were 223,609 HIV tests carried out in 13 laboratories in Ireland[11], giving a testing rate of 47.0 per 1,000 population. This compares to 40.5 per 1,000 in 2016, however data were provided by an extra laboratory in 2017 (Cork University Hospital).

There were 134,926 tests among females and 87,880 tests among males (803 sex unknown), giving a testing rate of 56.0 per 1,000 among females and 37.3 per 1,000 among males. The higher rate of testing in females reflects the HIV antenatal screening programme. It is important to note that the calculated testing rates are likely to over-estimate the true rate of testing in the population as the numbers reported are not of individuals who have been tested but of tests performed and can include repeat tests on the same individual.

Discussion

The HIV notification rate in Ireland has remained relatively stable between 2015 and 2017. This follows a large increase between 2014 and 2015 which was due to an improvement in the HIV case definition for surveillance, which increased the sensitivity and timeliness of reporting, and also to increasing numbers among MSM. Whilst the stabilisation of HIV diagnoses in recent years is welcome, the number in 2018 is higher compared to the number for the same time period in 2017 (459 versus 433 as of 21/11/2018). If the numbers continue, the notification rate for 2018 may increase again.

The rate of HIV in Ireland is also high compared to other countries in Western Europe, many of which have seen declines in their HIV rates in recent years [2]. It is vital therefore that a focus on combination HIV prevention approaches is maintained in order to halt transmission of HIV. This includes increasing the availability of HIV testing, continued provision of condoms, post-exposure prophylaxis (PEP), treatment as prevention (TasP) and harm reduction interventions for PWID. Currently pre-exposure prophylaxis (PrEP) is available to purchase privately in pharamacies in Ireland. At the request of the Department of Health, the Health Information Quality Authoriity (HIQA) is carrying out a Health Technology Assessment (HTA) of introducing a PrEP programme in Ireland. The aim of the HTA is to establish the clinical and cost effectiveness of providing a PrEP programme in Ireland and the Minister for Health has stated that he is committed to rolling out a PrEP programme in 2019 as outlined in the National Sexual Health Strategy 2015-2020 [3, 4]. Considerable work has already been carried out by the HSE to prepare for the introduction of a PrEP programme that meets appropriate standards.

[11] Laboratories which provided HIV testing data: Biomnis Laboratory, Dublin; Bon Secours, Cork; Galway Clinic; Galway University Hospital; Mercy University Hospital; University Hospital Limerick; National Virus Reference Laboratory; Portiuncula Hospital; Rotunda Maternity Hospital; St James's Hospital; University Hospital Waterford; Sligo Regional Hospital

The proportion of people diagnosed at a late stage of infection remains high overall and is particularly high in older age groups, in PWID and in those from Central and Eastern Europe and Sub-Saharan Africa. This is of concern as late diagnosis is associated with a ten-fold increased risk of short-term mortality (within a year of diagnosis) and an increased risk on onward transmission [5]. This highlights the need to increase awareness of testing; of the importance of knowing your status, and how an undetectable viral load on treatment means no HIV transmission; to expand the groups for whom community based rapid testing for HIV is available; and to strengthen indicator based HIV testing. HIV testing is available free of charge in many locations (for a list of services, see https://www.sexualwellbeing.ie/sexual-health/hse-sti-services-in-ireland.html).

As in previous years, the highest proportion of HIV diagnoses were among MSM, although there was a slight decrease in 2017. Continued focus on implementing and sustaining the evidence based actions outlined in the MSM action plan 2017 is needed. The number of diagnoses among heterosexuals increased in 2017, particularly among females. This may in part be due to improved data collection from some services in 2017.

A significant proportion of diagnoses in Ireland are among people who have previously been diagnosed HIV positive in other countries, the majority of whom have transferred their HIV care to Ireland. For these people as well as for those newly diagnosed for the first time, it is essential to focus on early engagement in care and immediate continuation or initiation of antiretroviral therapy (ART) both for direct clinical benefit and to prevent onward transmission. Further information on access to ART in Ireland is available at http://www.hpsc.ie/a-z/hivstis/hivandaids/hivtreatmentandprep/.

Technical notes

- In January 2015, there was a change to the surveillance case definition for HIV for HSE East (Dublin, Kildare and Wicklow). Previously, confirmatory testing by the NVRL was required on two separate samples prior to notification. From January 2015 onwards, confirmatory testing by NVRL on one sample was sufficient prior to notification. This change was applied to notifications from all other HSE areas in January 2016.
- Data are presented by date of notification
- Data from previous years are updated on an ongoing basis in CIDR, and so data from previous years in this report represents our most up to date data, and may not correspond with what was reported previously. Similarly, data for 2017 may be updated further in due course and will be reported on in subsequent reports.
- While efforts are made to remove duplicate records from these data, it is not always possible to link and remove all duplicate records and some patients or disease events may be counted more than once.
- Rates were calculated using census data; 2016 census data for 2014-2017; 2011 census data for 2009-2013; and 2006 census data for 2003-2008.
- Age standardised notification rates were calculated using the direct method in which the national population was taken as the standard population. Population data were taken from Census 2016 from the Central Statistics Office (www.cso.ie). Data were aggregated into the following age groups for analysis: 0-4 years, 5-9 years, 10-14 years, 15-19, 20-24, 25-34, 45-54, 55-64 and ≥65 years.
- Percentages are rounded up in the text and provided to one decimal place in tables.

Further information available on HPSC website

Weekly, 6 monthly and annual reports on the epidemiology of HIV in Ireland: http://www.hpsc.ie/a-z/hivstis/hivandaids/hivdataandreports/

Case definition for HIV: www.hpsc.ie/a-z/hivstis/hivandaids/casedefinitions/

HIV enhanced surveillance form: http://www.hpsc.ie/notifiablediseases/notificationforms/

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In order to accurately track the HIV epidemic in Ireland and to assess the impact of HIV prevention programmes, it is essential to have good quality surveillance data. The production of this annual report is the result of a huge amount of work carried out by many people in collecting and collating the data. We would like to sincerely thank all of the data providers and all who have contributed to this report including:

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- Departments of Public Health
- Consultants in Infectious Disease/Genitourinary Medicine
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- GPs
- HIV clinical nurse specialists
- Health Advisors
- All other clinical staff involved.

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Appendix: Extra Tables

Table A1. Data completeness of key variables, 2017

	No.	%
Probable route of transmission	449	91.3
Country of birth	438	89.0
Previously HIV positive	402	81.7
CD4 count at diagnosis	382	77.6
Viral load at diagnosis	394	80.1
Clinical stage	357	72.6

Table A2. HIV diagnoses by probable route of transmission and sex, 2017

	Male		Female		Total	
	No.	%	No.	%	No.	%
MSM	262	69.7	-	-	262	53.3
Heterosexual	63	16.8	100	86.2	163	33.1
PWID	14	3.7	3	2.6	17	3.5
Unknown/Other	37	9.8	13	11.2	50	10.2
Total	**376**	**100.0**	**116**	**100.0**	**492**	**100.0**

Table A3. HIV diagnoses by probable route of transmission and age group, 2017

Age Group	MSM		Hetero		PWID		Unk/Other		Total	
	N	%	N	%	N	%	N	%	N	%
15-19	2	0.8	1	0.6	0	0.0	0	0.0	3	0.6
20-24	28	10.7	6	3.7	0	0.0	4	8.0	38	7.7
25-29	72	27.5	21	12.9	1	5.9	13	26.0	107	21.7
30-34	57	21.8	33	20.2	3	17.6	5	10.0	98	19.9
35-39	33	12.6	37	22.7	4	23.5	9	18.0	83	16.9
40-44	34	13.0	23	14.1	4	23.5	6	12.0	67	13.6
45-49	10	3.8	13	8.0	3	17.6	1	2.0	27	5.5
>50	26	9.9	29	17.8	2	11.8	12	24.0	69	14.0
Total	**262**	**100.0**	**163**	**100.0**	**17**	**100.0**	**50**	**100.0**	**492**	**100.0**

Table A4. HIV diagnoses by region of birth and sex, 2017

Region Of Birth	Male		Female		Total	
	No.	%	No.	%	No.	%
Ireland	122	32.4	8	6.9	130	26.4
Sub Saharan Africa	37	9.8	75	64.7	112	22.8
Latin America	91	24.2	6	5.2	97	19.7
Central & Eastern Europe	29	7.7	9	7.8	38	7.7
Western Europe	33	8.8	1	0.9	34	6.9
South and South East Asia	14	3.7	2	1.7	16	3.3
Other	10	2.7	1	0.9	11	2.2
Unknown	40	10.6	14	12.1	54	11.0
Total	**376**	**100.0**	**116**	**100.0**	**492**	**100.0**