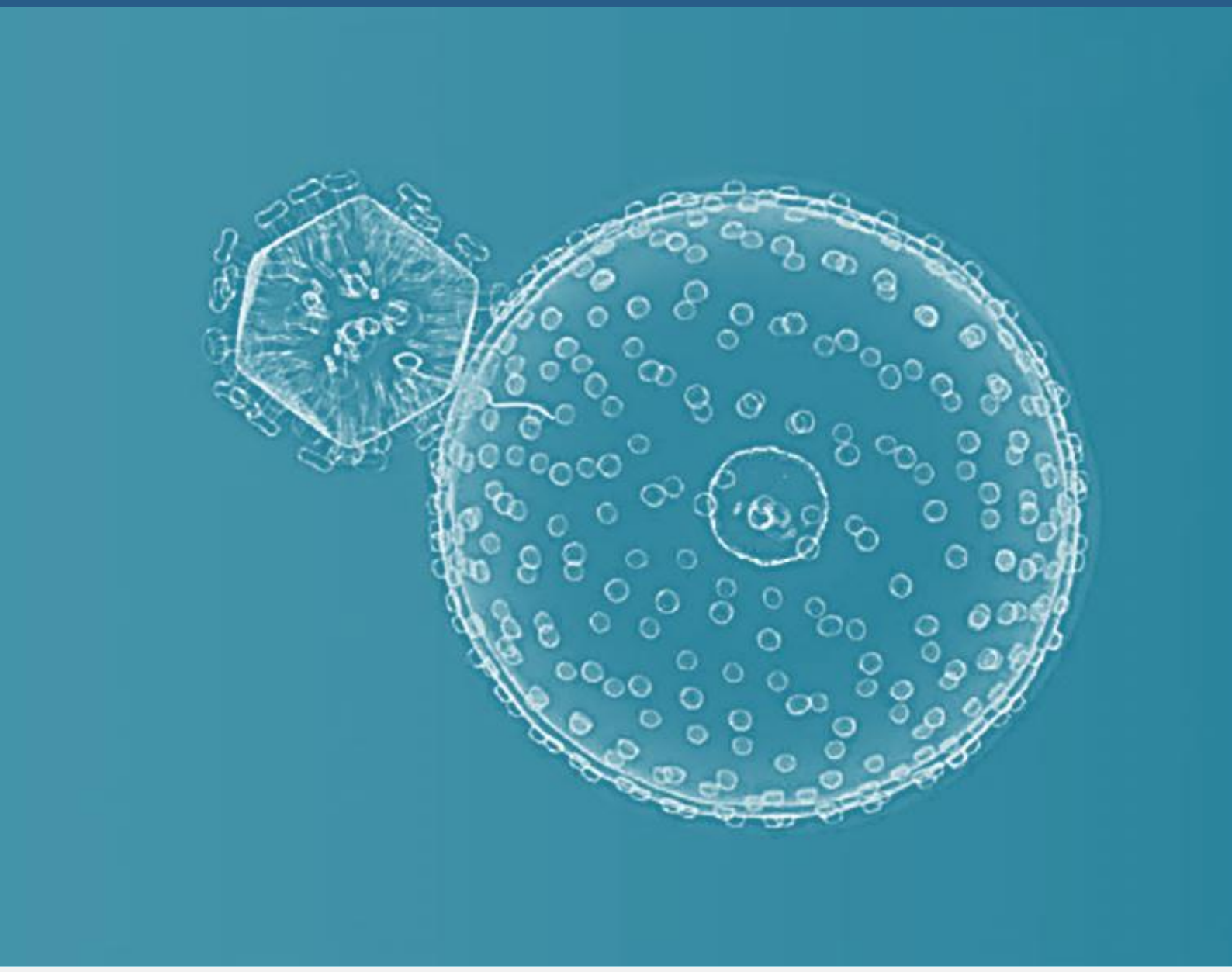
HIV surveillance in Northern Ireland 2013

An analysis of data for the calendar year 2012



HSC Public Health Agency

Contents

This report aims to provide an overview of HIV epidemiology in Northern Ireland by collating and analysing information from a number of sources. Although it reflects epidemiological trends over time, its main focus will be on data collected in 2012.

Following recent ONS guidance on data disclosure, where the number of any category of episodes in any one year is between one and four, this is reported either within a cumulative figure, or as an asterix. In addition, where the anonymised figure can be deduced from the totals, the next smallest figure will also be anonymised.

Where percentage figures are given they may not necessarily add to 100% due to rounding.

1: Surveillance arrangements

Surveillance arrangements for diagnosed HIV/AIDS infection in England, Wales and Northern Ireland are based largely on the confidential reporting of HIV-infected individuals by clinicians to Public Health England Colindale in London. The main surveillance categories are:

- New HIV diagnoses: data relating to individuals whose first UK diagnosis was made in Northern Ireland;
- CD4 T cell data: laboratory reporting of CD4 cell counts on new diagnoses to provide a measure of the stage of an individual's disease around the time of diagnosis
- Accessing HIV care: data relating to individuals who accessed statutory HIV services in England, Wales or Northern Ireland and who were resident in Northern Ireland when last seen for care in 2012 (Survey of prevalent HIV infections diagnosed – SOPHID);
- HIV Testing data: data relating to the number of tests carried out in Northern Ireland is provided by the Regional Virology Laboratory and the Antenatal Screening programme.

2: Introduction and key points

HIV/AIDS is a viral infection caused by type 1 and type 2 HIV retroviruses. Modes of transmission include sexual contact, the sharing of HIV-contaminated needles and syringes, and transmission from mother to child before, during or shortly after birth. Although the risk of HIV transmission through sexual contact is lower than for most other sexually transmitted agents, this risk is increased in the presence of another sexually transmitted illness, particularly where ulcerative. Early treatment of the disease with highly active antiretroviral therapy (HAART) has produced major advances in survival rates.

During 2012, 6,364 new HIV diagnoses were made in the UK, a slight increase on 6,219 new diagnoses the previous year.[1] Although prevalence in Northern Ireland remains lower than in the other UK countries, the percentage increase in annual new diagnoses in Northern Ireland between 2000 and 2012 is highest of the UK countries. The key routes of transmission remain sexual contact involving men who have sex with men (MSM) and sexual contact between men and women.

Early diagnosis has important individual benefits (better prognosis) and population benefits (reduced transmission of infection to others).

During 2012:

- 95 new first-UK cases of HIV were diagnosed in Northern Ireland, a rate of 8.2 per 100,000 population aged 15–59 years (12.8 per 100,000 males and 3.6 per 100,000 females);
- 55 (58%) new HIV diagnoses occurred in MSM. The majority of these cases were born in the UK (84%:46/55), acquired their infection in the UK (75%:41/55) and were of white ethnicity (73%:40/55);
- 639 HIV-infected residents of Northern Ireland (as defined when last seen for statutory medical HIV-related care in 2012) received care;
- of those receiving care, 55% (349/639) acquired their infection through sexual contact involving MSM and 42% (269/639) acquired their infection through heterosexual contact;
- 56,862 HIV tests were carried out in Northern Ireland, of which 25,686 were performed as part of the antenatal screening programme.

3: Trend information

New diagnoses

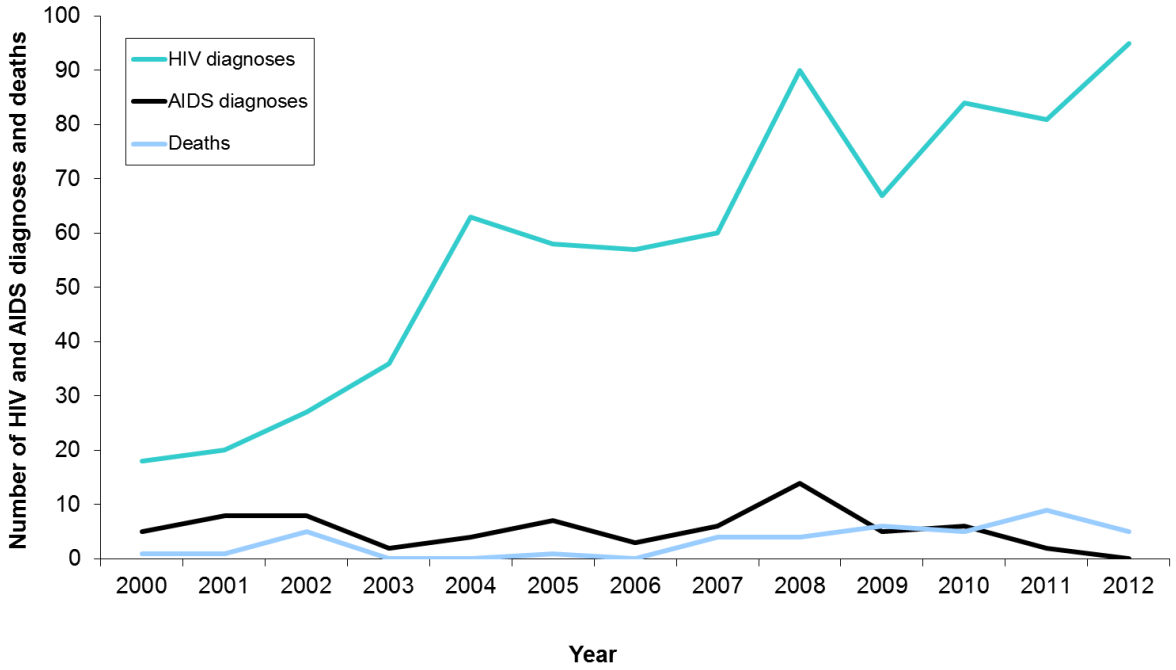
The annual number of new first-UK diagnoses made in Northern Ireland increased by 17% from 81 in 2011 to 95 in 2012 (Figure 8.1). Compared with the rest of the UK, Northern Ireland had the largest proportional increase (428%) in new HIV diagnoses between 2000 and 2012 (Table 8.1).

Table 8.1 New HIV diagnoses, by country

Country	2000	2009	2010	2011	2012	% +/- 2000-2012	% +/- 2011-2012
England	3,774	6,152	5,840	5,674	5,846	55%	3%
Wales	47	141	151	168	125	166%	-26%
Scotland	161	309	283	286	287	78%	0%
Northern Ireland	18	67	84	81	95	428%	17%
United Kingdom*	**4,001**	**6,676**	**6,362**	**6,219**	**6,364**	**59%**	**2%**

* Includes 23 cases from the Channel Islands and the Isle of Man, and ten cases where the region was not known

Figure 8.1: New HIV and AIDS diagnoses and deaths among HIV-infected persons, by year of diagnosis or death, Northern Ireland, 2000–2012



There were no first-UK HIV diagnoses diagnosed as AIDS during 2012. The number of deaths reported in individuals with HIV has remained relatively low, due largely to the influence of HAART. Five deaths were reported in 2012 (Table 8.2).

Table 8.2: New diagnoses of HIV and AIDS in Northern Ireland, by year of diagnosis, and deaths in HIV-infected individuals, by year of death

Year	HIV diagnoses	AIDS diagnoses	Deaths
1997 or earlier	173	74	61
1998	9	*	*
1999	18	7	*
2000	18	5	*
2001	20	8	*
2002	27	8	5
2003	36	*	0
2004	63	*	0
2005	58	7	*
2006	57	*	0
2007	60	6	*
2008	90	14	*
2009	67	5	6
2010	84	6	5
2011	81	*	9
2012	95	0	5
Total	**956**	**154**	**106**

Table 8.3: New diagnoses of HIV in Northern Ireland, by year of diagnosis and probable route of infection

Year	Sex between men (MSM)	Sex between men and women
1997 or earlier	104	39
1998	6	*
1999	7	9
2000	6	9
2001	11	8
2002	15	11
2003	9	26
2004	35	26
2005	18	38
2006	27	30
2007	24	31
2008	40	50
2009	39	26
2010	56	28
2011	49	30
2012	55	36
Total**	**501**	**400**

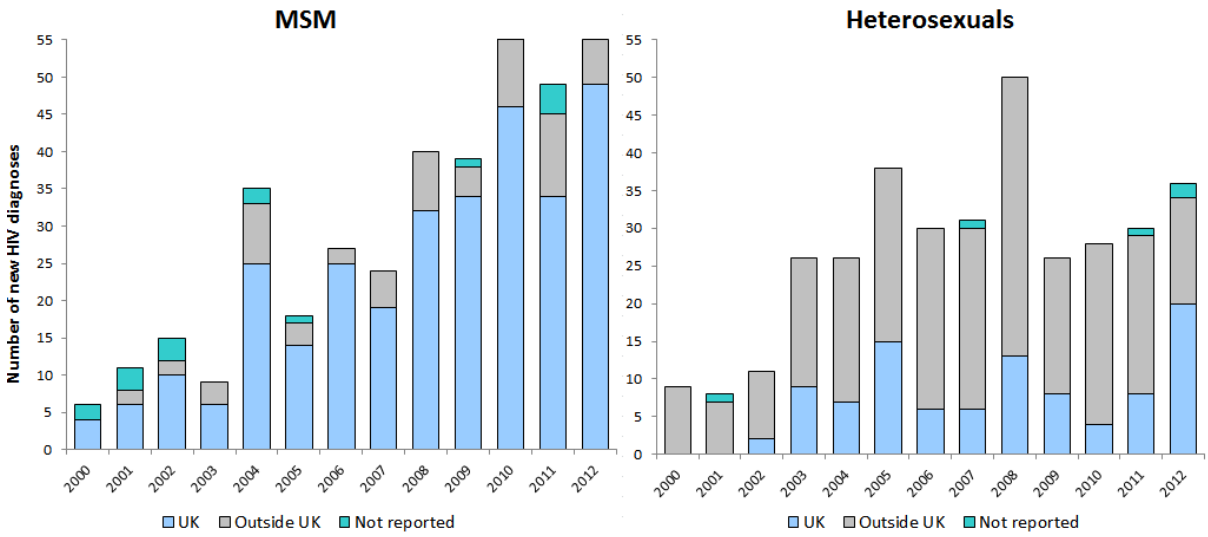
**Excludes other categories

Route of transmission

Sex between men and sex between men and women remain the most significant categories of probable route of infection, accounting for 94% (901/956) of new diagnoses to date (Table 8.3). Heterosexual transmission has assumed increasing importance since 2003 and has now accounted for 42% (400/956) of new diagnoses made to date. However, MSM exposure accounted for 58% of new diagnoses in 2012 (55/95) and has accounted for 52% (501/956) of new diagnoses made to date. Eighteen new diagnoses have been acquired through injecting drug use and 37 new diagnoses acquired through other/undetermined causes to date.

Cumulative data from 2000–2012 show that for cases acquired through MSM exposure, the majority were infected within the UK (83%:304/367). In contrast for cases acquired through . heterosexual exposure, and where location of exposure was known, the majority were infected outside the UK (72%:246/344). During 2012, however the majority of heterosexual acquired cases, acquired their infection within the UK. (Figure 8.2).

Figure 8.2: New HIV diagnoses in Northern Ireland, by year of diagnosis, by country where infection was acquired, 2000–2012



Age and gender

Between 2007-2012 diagnostic rates have been consistently highest in males, with peak rates in the 25–34 and 35–44 years age groups. In females, rates were highest in those aged 25–34 years. There has been a general rise in rates in 2012 compared to 2011 in both male and female age groups. (Tables 8.4, 8.5).

Table 8.4: Diagnostic rates of HIV in males in Northern Ireland per 100,000 population, by year of diagnosis, 2007-2012

Age Group	2007	2008	2009	2010	2011	2012
20-24	3.2	7.9	7.8	14.1	9.5	12.7
25-34	10.3	15.3	18.5	20.0	18.3	24.0
35-44	10.8	12.4	13.3	15.1	15.3	15.6
45+	2.3	7.7	2.2	5.2	6.3	5.0

Table 8.5: Diagnostic rates of HIV in females in Northern Ireland per 100,000 population, by year of diagnosis, 2007-2012

Age Group	2007	2008	2009	2010	2011	2012
20-24	6.4	4.8	6.4	0.0	3.2	4.9
25-34	9.1	10.6	2.4	3.2	4.8	7.9
35-44	4.5	4.5	4.5	3.8	1.6	2.4
45+	0.6	0.8	0.3	1.4	0.5	1.1

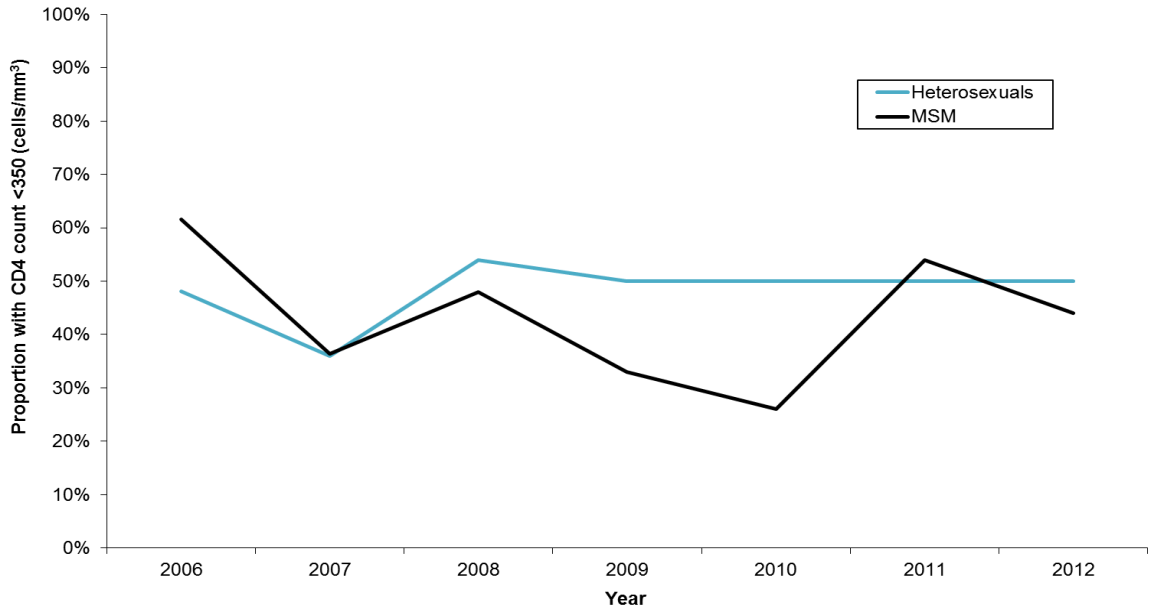
CD4 surveillance

Analysis of CD4 cell counts, combined with other HIV surveillance data, can provide an indication of an individual's stage of disease at diagnosis.

Laboratories across England, Wales and Northern Ireland participate in the surveillance scheme.[2] A cell count of less than 350 cells/mm^3 within 91 days of diagnosis is a proxy indicator of a late diagnosis.

CD4 counts were available for 92% (87/95) of diagnoses made in 2012. The proportion of MSM diagnoses made at a late stage was 44% (21/48) compared to that of heterosexual diagnoses (50%:16/32).

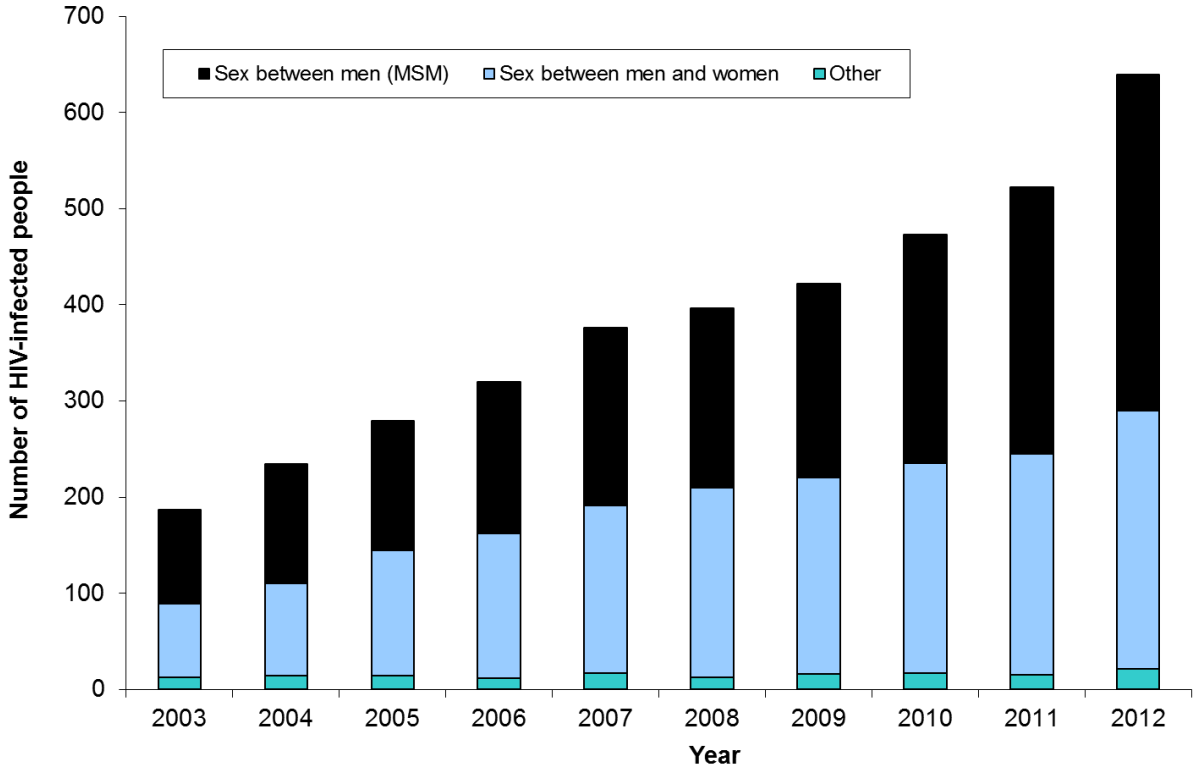
Figure 8.3: Proportion of HIV-diagnosed adults in Northern Ireland with a CD4 count less than 350 cells/mm^3 within 91 days of diagnosis, by probable route of infection, 2006–2012



The proportion of heterosexuals with a CD4 count less than 350 cells/mm^3 has remained relatively stable each year since 2008, whereas that of MSM has shown greater variation (Figure 8.3).

Prevalent infection

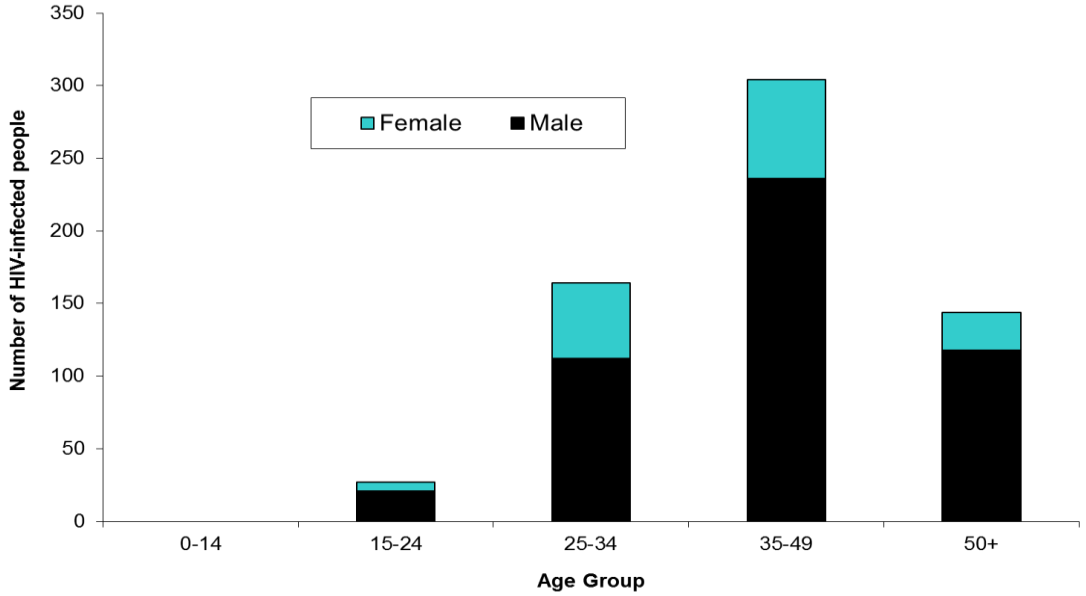
Figure 8.4: Annual number of HIV infected individuals accessing HIV-related care in Northern Ireland, by probable route of infection, 2003–2012



639 residents of Northern Ireland with diagnosed HIV infection (487 men and 152 women) accessed care in 2012. This represents a 22% increase on 2011 (522) and a more than two fold increase since 2003 (187) (Figure 8.4). These figures reflect both the continued increase in new diagnoses and the role of HAART in increasing survival rates.

Of those who received care during 2012, 39% (250/639) were resident in the Belfast LCG area, 17% (108/639) in the Northern LCG area, 17% (106/639) in the South Eastern LCG area, 12% (79/639) in the Southern LCG area, 10% (62/639) in the Western LCG area, and for 5%, the area of residence was unknown or other.

Figure 8.5: Number of HIV infected individuals accessing HIV-related care in Northern Ireland, by age and gender, 2012

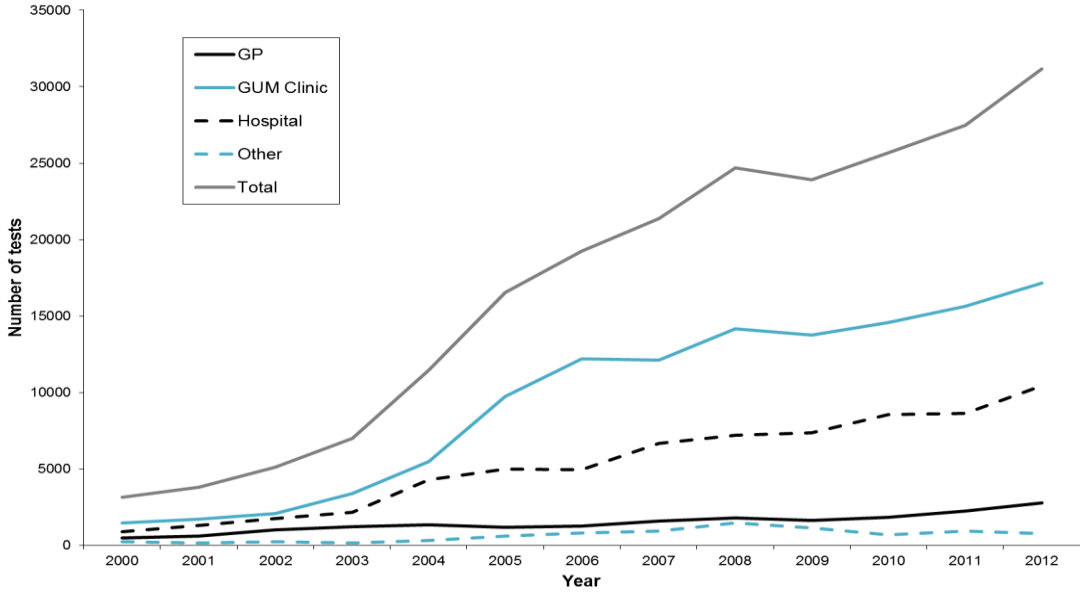


The greatest number of people who received HIV-related care in 2012 were in the 35-49 year age group (48%:304/639) (Figure 8.5). Eighty two percent of people who received HIV-related care during 2012 were white, 14% were black-African and 4% were classified in other ethnic groups.

HIV testing

Recent guidelines have re-emphasised the importance of HIV testing in key healthcare settings.[2] During 2012, 31,176 HIV tests were performed outside the antenatal screening programme in Northern Ireland. Although all settings showed an increase in testing, rates have been consistently highest in GUM clinics (Figure 8.6). The rate of increase is also highest in GUM clinics, followed by hospitals and primary care.

Figure 8.6: Annual number of HIV tests performed, by healthcare setting, Northern Ireland, 2000–2012 **(excludes antenatal screening programme)**



4: Summary and conclusions

- 2012 saw a continuation of the general trend of an increase in the number of annual new HIV diagnoses.
- Sexual exposure is the predominant route of transmission with MSM accounting for the majority of new diagnoses each year since 2009.
- For the first time, the majority of heterosexually acquired infections were acquired within the UK.
- The role of primary care in providing HIV testing remains under developed.

5: Recommendations

- Safer sex messages should continue to be promoted to the general population, young people and MSM.
- The implementation of guidance on HIV testing and the provision of post-exposure prophylaxis should continue to be reinforced.
- There should be a renewed focus on reinforcing prevention messages and promoting regular HIV testing among MSM.

6: References

1. Public Health England. Country and PHE Region HIV Data. Available at: http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/HIV/HIVData/#2._Country_and_PHE_Region_HIV_Data_Tables

2. Department of Health, Social Services and Public Safety. Updated guidance on HIV – including HIV testing, management of HIV infection and post-exposure prophylaxis. 20 October 2008. Available at: www.dhsspsni.gov.uk/hss-md-34-2008.pdf

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