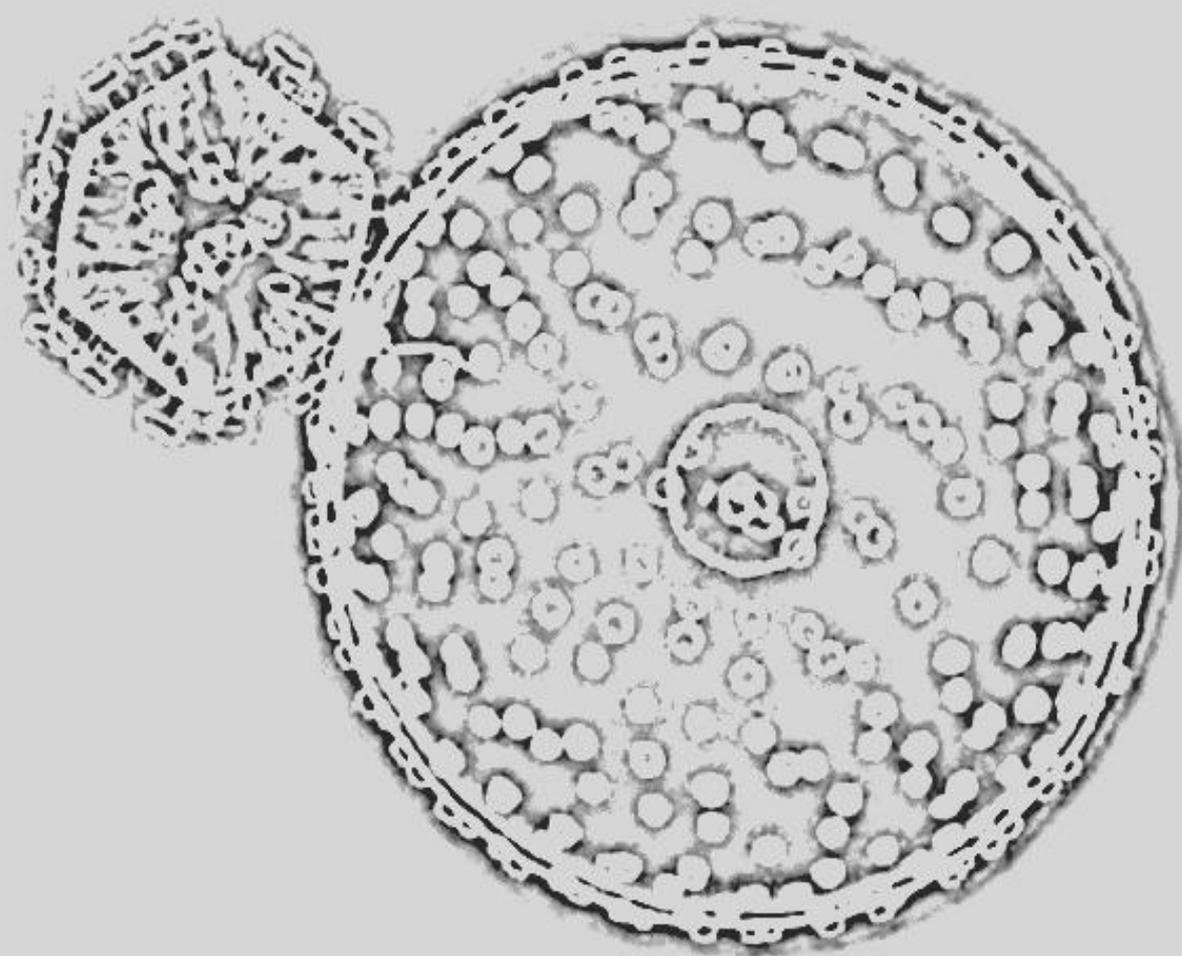


# HIV surveillance in Northern Ireland 2014

An analysis of data for the calendar year 2013



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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 2013.

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
- HIV incidence: Recent Infection Testing Algorithm (RITA) applied to new diagnoses to provide an indication of recently acquired infection
- 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 2013 (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 2013, 6,000 new HIV diagnoses were made in the UK, a decrease of 4% from 6,245 new diagnoses the previous year.<sup>1</sup> 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 2013 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 2013:

- 94 new first-UK cases of HIV were diagnosed in Northern Ireland, a rate of 7.8 per 100,000 population aged 15–59 years (14.1 per 100,000 males and 1.6 per 100,000 females)
- 54 (57%) new HIV diagnoses occurred through MSM transmission. The majority of these cases were born in the UK (72%:39/54) and of those 39, 90% (35/39) acquired their infection in the UK
- 29 (31%) new HIV diagnoses occurred through heterosexual transmission. Forty-five percent (13/29) were born in the UK and of those 13, 46% (6/13) acquired their infection in the UK
- 749 HIV-infected residents of Northern Ireland (as defined when last seen for statutory medical HIV-related care in 2013) received care
- of those receiving care, 54% (408/749) acquired their infection through sexual contact involving MSM and 42% (312/749) acquired their infection through heterosexual contact
- 56,339 HIV tests were carried out in Northern Ireland, of which 25,789 were performed as part of the antenatal screening programme

### 3: Trend information

#### New diagnoses

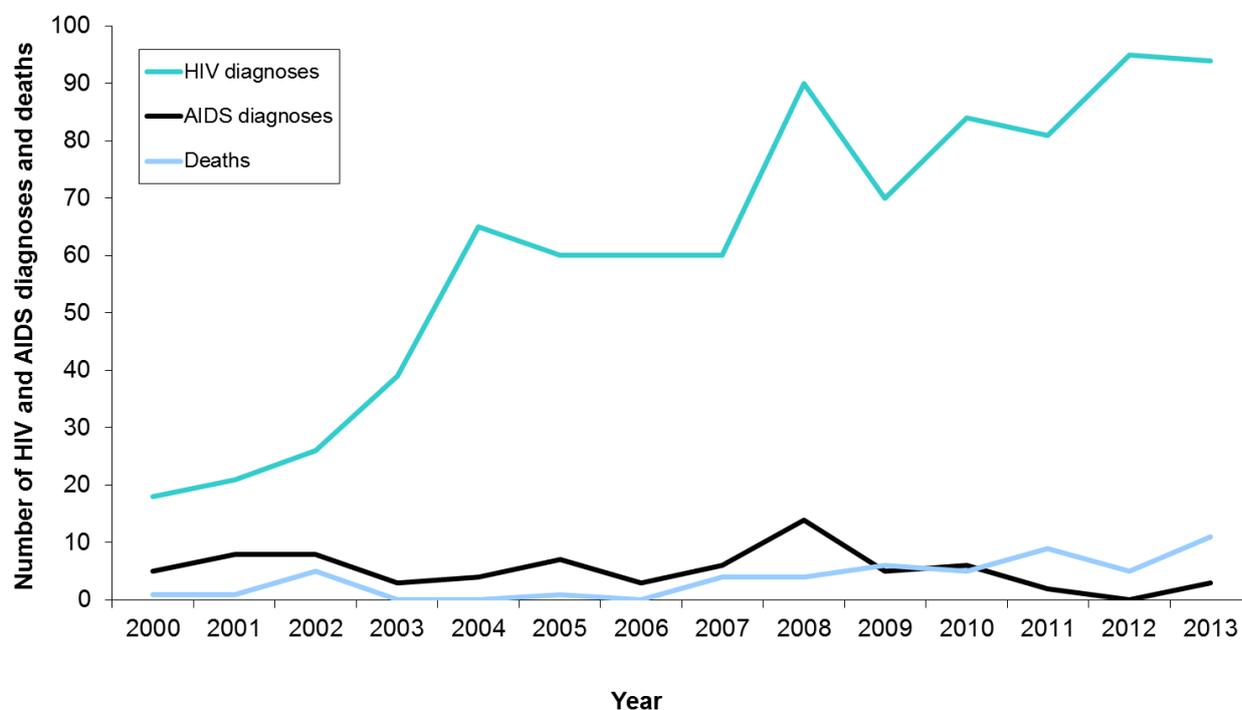
The annual number of new first-UK diagnoses made in Northern Ireland is similar to 2012 (95, 2012; 94, 2013) (Figure 1). Compared with the rest of the UK, Northern Ireland had the largest proportional increase (422%) in new HIV diagnoses between 2000 and 2013 (Table 1).

**Table 1: New HIV diagnoses, by country**

Country	2000	2010	2011	2012	2013	% +/- 2000-2013	% +/- 2012-2013
England	3,727	5,809	5,638	5,731	5,493	47%	-4%
Wales	46	150	159	120	132	187%	10%
Scotland	162	285	286	287	271	67%	-6%
Northern Ireland	18	84	81	95	94	422%	-1%
United Kingdom*	<b>3,954</b>	<b>6,333</b>	<b>6,173</b>	<b>6,245</b>	<b>6,000</b>	<b>52%</b>	<b>-4%</b>

\* Includes 26 cases from the Channel Islands and the Isle of Man, and 11 cases where the region was not known

**Figure 1: New HIV and AIDS diagnoses and deaths among HIV-infected persons, by year of diagnosis or death, Northern Ireland, 2000–2013**



While the number of deaths reported in individuals with HIV has remained relatively low there were eleven deaths reported in 2013 which is the highest annual number since 1998 (Table 2).

**Table 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	172	74	61
1998	9	*	*
1999	18	7	*
2000	18	5	*
2001	21	8	*
2002	26	8	5
2003	39	*	0
2004	65	*	0
2005	60	7	*
2006	60	*	0
2007	60	6	*
2008	90	14	*
2009	70	5	6
2010	84	6	5
2011	81	*	9
2012	95	0	5
2013	94	*	11
<b>Total</b>	<b>1062</b>	<b>158</b>	<b>117</b>

**Table 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	12	*
2002	14	11
2003	10	28
2004	36	27
2005	19	39
2006	28	32
2007	24	31
2008	40	50
2009	40	28
2010	55	28
2011	48	31
2012	57	34
2013	54	29
<b>Total**</b>	<b>560</b>	<b>436</b>

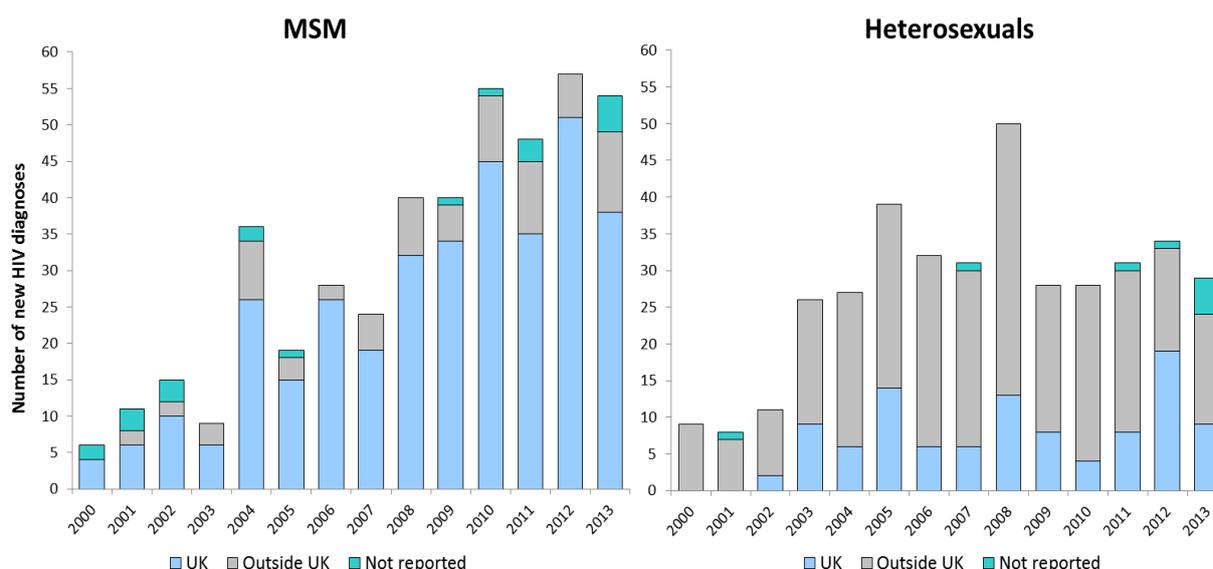
\*\*Excludes other categories

## 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% (996/1062) of new diagnoses to date (Table 3). Heterosexual transmission has assumed increasing importance since 2003 and has now accounted for 41% (436/1062) of new diagnoses made to date. However, MSM exposure accounted for 57% of new diagnoses in 2013 (54/94) and has accounted for 53% (560/1062) of new diagnoses made to date. Nineteen new diagnoses have been acquired through injecting drug use and 47 new diagnoses acquired through other/undetermined causes to date.

Cumulative data from 2000–2013 show that for cases acquired through MSM exposure, the majority were infected within the UK (82%:347/421). In contrast for cases acquired through heterosexual exposure, and where location of exposure was known, the majority were infected outside the UK (72%:270/374). During 2013, the majority of heterosexual acquired cases (63%:15/24), acquired their infection outside the UK (Figure 2).

**Figure 2: New HIV diagnoses in Northern Ireland, by year of diagnosis, by country where infection was acquired, 2000–2013**



## Age and gender

Between 2007-2013 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. Between 2012 and 2013, diagnostic rates fell in all gender/age groups with the exception of males aged 35 and over (Figure 3, Tables 4, 5).

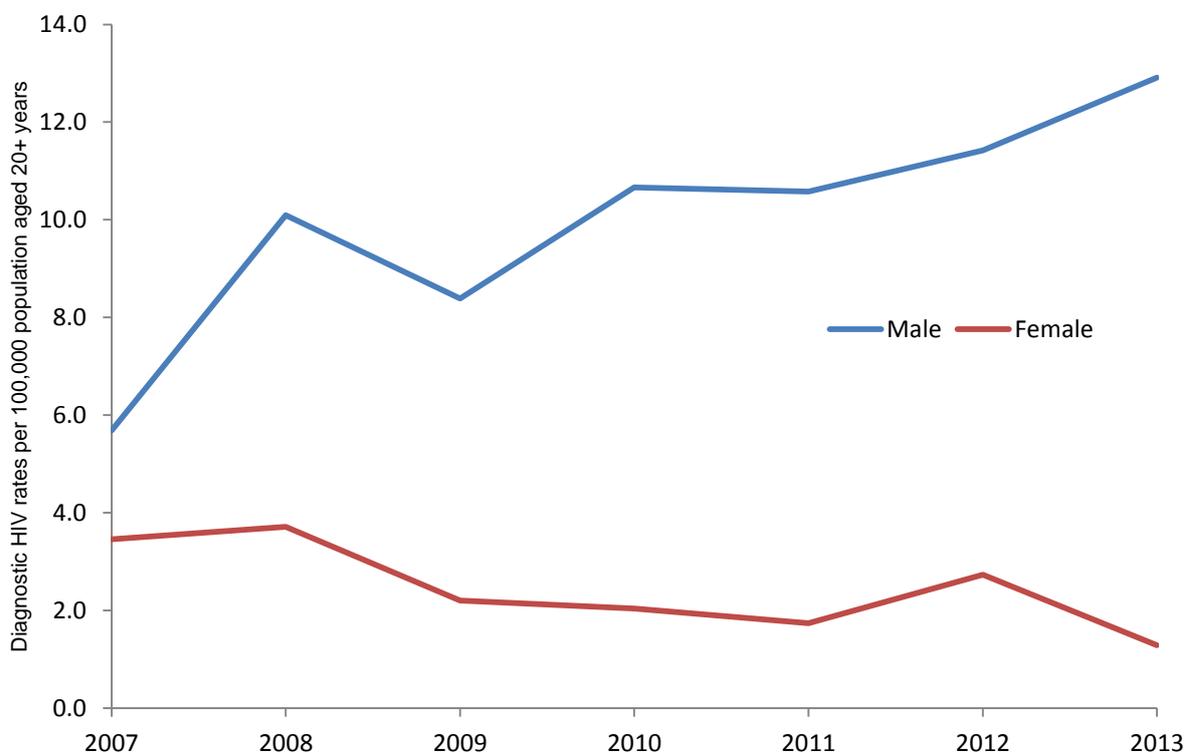
**Table 4: Diagnostic rates of HIV in males in Northern Ireland per 100,000 population aged 20+ years by year of diagnosis, 2007-2013**

Age Group	2007	2008	2009	2010	2011	2012	2013
20-24	3.2	7.9	9.4	14.1	9.5	14.3	6.5
25-34	10.3	15.3	18.5	19.2	18.3	24.0	19.8
35-44	10.8	12.4	13.3	15.1	15.3	14.8	20.2
45+	2.3	7.7	2.5	5.2	6.3	5.3	9.2
20+ years	5.7	10.1	8.4	10.7	10.6	11.4	12.9

**Table 5: Diagnostic rates of HIV in females in Northern Ireland per 100,000 population aged 20+ years, by year of diagnosis, 2007-2013**

Age Group	2007	2008	2009	2010	2011	2012	2013
20-24	6.4	4.8	6.4	0.0	3.2	4.9	0.0
25-34	9.1	10.6	3.2	3.2	4.8	6.3	4.0
35-44	4.5	4.5	4.5	3.8	1.6	3.2	0.8
45+	0.6	0.8	0.3	1.4	0.5	1.1	0.8
20+ years	3.5	3.7	2.2	2.0	1.7	2.7	1.3

**Figure 3: Diagnostic rates of HIV by gender in Northern Ireland per 100,000 population aged 20+ years, 2007–2013**



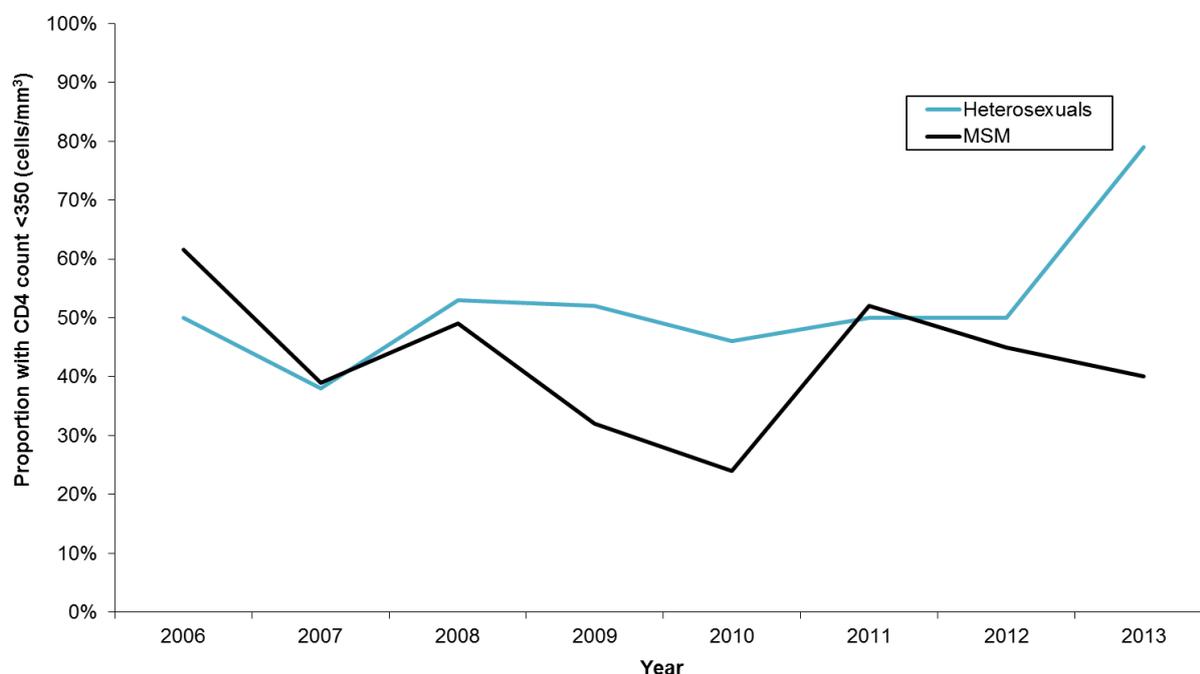
## CD4 surveillance

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.<sup>2</sup> A cell count of less than 350 cells/mm<sup>3</sup> within 91 days of diagnosis is a proxy indicator of a late diagnosis.

CD4 counts within 91 days were available for 74% (70/94) of diagnoses made in 2013. The proportion of MSM diagnoses made at a late stage was 40% (17/43).

**Figure 4: Proportion of HIV-diagnosed adults in Northern Ireland with a CD4 count less than 350 cells/mm<sup>3</sup> within 91 days of diagnosis, by probable route of infection, 2006–2013**



While the proportion of heterosexuals with a late diagnosis has remained relatively stable at around 50% each year since 2008, this increased to 79% (19/24) in 2013.

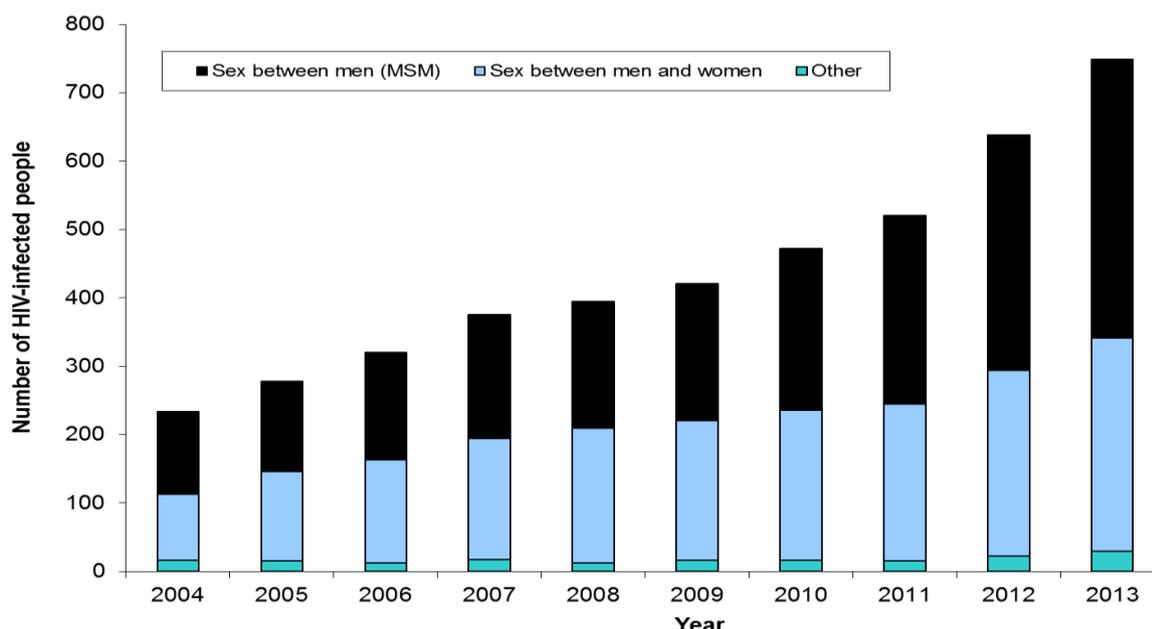
## RITA surveillance

The Recent Infection Testing Algorithm (RITA) was extended to Northern Ireland in 2010.<sup>3</sup> This distinguishes recently acquired infection from long-standing infection and can be used to assess disease incidence.

During 2013, the Northern Ireland coverage rate for RITA surveillance was 74% (70/94). Results showed that 11% (8/70) of the newly diagnosed HIV infections tested were recent infections (most likely acquired in the four or five months preceding HIV diagnosis). This compares with 5% in 2012 (4/87). Of the eight recent infections the majority were in MSM.

# Prevalent infection

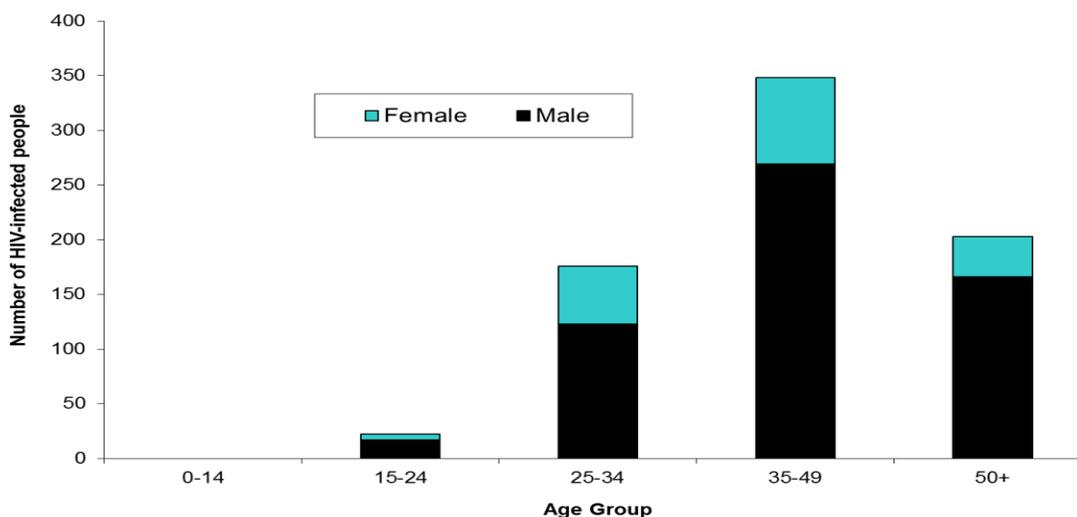
**Figure 5: Annual number of HIV infected individuals accessing HIV-related care in Northern Ireland, by probable route of infection, 2004–2013**



749 residents of Northern Ireland with diagnosed HIV infection (575 men and 174 women) accessed care in 2013. This represents a 17% increase on 2012 (638) and a more than two fold increase since 2004 (234) (Figure 5). These figures reflect both the continued increase in new diagnoses and the role of HAART in increasing survival rates.

The greatest number of people who received HIV-related care in 2013 were in the 35-49 year age group (46%:348/749) (Figure 6). Eighty-one percent of people who received HIV-related care during 2013 were white, 15% were black-African and 4% were classified in other ethnic groups.

**Figure 6: Number of HIV infected individuals accessing HIV-related care in Northern Ireland, by age and gender, 2013**



Of those who received care during 2013, 40% (299/749) were resident in the Belfast LCG area, 19% (146/749) in the Northern LCG area, 15% (114/749) in the South Eastern LCG area, 14% (102/749) in the Southern LCG area, 9% (68/749) in the Western LCG area, and for 3%, the area of residence was unknown or other.

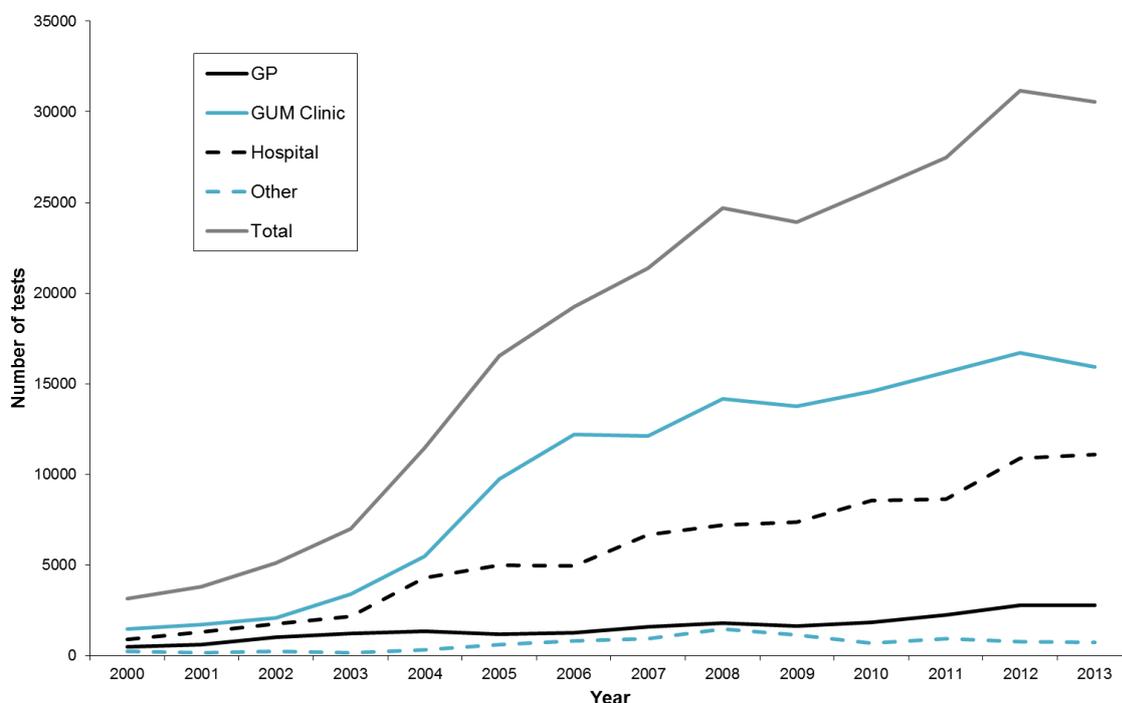
The four Trust areas outside Belfast had similar rates of persons accessing care, 0.4-0.5 per 1,000 population aged 15-59 years, with Belfast Trust rate higher at 1.3 per 1,000 population.

## HIV testing

Recent guidelines have re-emphasised the importance of HIV testing in key healthcare settings.<sup>4</sup> During 2013, 30,550 HIV tests were performed outside the antenatal screening programme in Northern Ireland. Although all settings have shown an increase in testing over time, activity has been consistently highest in GUM clinics (Figure 7). The rate of increase is also highest in GUM clinics, followed by hospitals and primary care.

Notably, during 2013 the number of tests in GUM clinics fell by 5% (15,912) compared with 2012 (16,725). Numbers in primary care showed no significant change while numbers in other hospital settings increased by 2%.

**Figure 7: Annual number of HIV tests performed, by healthcare setting, Northern Ireland, 2000–2013** (excludes antenatal screening programme)



## **4: Summary and conclusions**

- The annual number of new diagnoses has remained stable in 2013 compared with 2012
- Sexual exposure is the predominant route of transmission, with MSM accounting for the majority of new diagnoses each year since 2009
- The majority of heterosexually acquired infections were acquired outside the UK, while the majority of MSM diagnoses were acquired in the UK

## **5: Recommendations**

1. There should be a renewed focus on promoting safer sex messages and the benefits of HIV testing to the general population, young people and MSM.
2. Guidance on HIV testing should continue to be reinforced to health professionals.

## 6: References

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