NSW HIV Strategy 2012 – 2015

2015
Annual and Quarter 4
Data Report

Executive Summary

The *NSW HIV strategy 2012–2015: A New Era* was launched in December 2012 and includes major changes in the way that HIV is detected, treated and prevented in NSW, as well as improved support for people at the time of their HIV diagnosis and throughout their life.

Evidence suggests that antiretroviral therapy (ART) offers improved health benefits for people living with HIV and the potential to dramatically reduce the risk of passing on HIV. This makes treatment a critical part of HIV prevention. Gaining the optimal benefit in NSW relies on early detection of HIV through increased HIV testing, early provision of ART treatment for people diagnosed with HIV, and support for treatment adherence to achieve undetectable viral load.

In brief, the 2015 targets of the NSW HIV Strategy are to:

- Reduce HIV transmission by 60% among men who have sex with men.
- Reduce heterosexual transmission of HIV and transmission of HIV among Aboriginal populations by 50%
- Sustain the virtual elimination of mother to child transmission of HIV
- Sustain the virtual elimination of HIV transmission in the sex industry
- Sustain the virtual elimination of HIV among people who inject drugs
- Reduce the average time between HIV infection and diagnosis
- Increase to 90% the proportion of people living with HIV on ART
- Sustain the virtual elimination of HIV related deaths

The activities NSW Health is engaged in to meet these targets is summarised in the NSW HIV Snapshot. To monitor progress against the Strategy targets, a range of data sources are monitored and reported against via this quarterly data report. Detailed information on NSW residents newly diagnosed with HIV up to 2013 is available in the NSW HIV 2013 Epidemiological Report.

In 2015:

- 350 NSW residents were notified with newly diagnosed HIV infection; similar to the annual average in 2009-2014 (n=347) and 15% fewer than in 2012 (n=411).
- In quarter 4 of 2015, 104 NSW residents were notified with newly diagnosed HIV infection; 27% greater than the quarter 4 average for 2009-2014 (n=82) and 3% greater than for quarter 4 2012 (n=101). This increase was among men who have sex with men (MSM); 79 of the new diagnoses reported being MSM, 27% more than the quarter 4 average 2009-2014 (62 reported MSM).
- 39% of people newly diagnosed with HIV infection had a CD4 at diagnosis of less than 350 cells/µL, which is an indicator of late diagnosis, compared with 36% of the new diagnoses in 2009-2014.
- Of the 283 MSM newly diagnosed in 2015, 50% had evidence of early stage infection, compared with 52% of MSM newly diagnosed in 2009-2014. 25% had evidence of advanced or late stage infection, compared with 21% in 2009-2014.
- In 2015, 499,966 HIV tests were performed; 7% greater than in 2014 (n=465,475), 12% greater than in 2013 (n=447,297) and 19% greater than in 2012 (419,968).
- In quarter 4 of 2015, 11,397 HIV tests were performed across NSW public sexual health clinics; 43% greater than the same period in 2014 (n=7,947). Among MSM, there was a 118% increase in HIV tests compared with the same period in 2014.
- The continued increase in HIV testing may have led to greater detection in 2015 of previously undiagnosed people living with HIV, which is supported by the observed increase in the proportion of new diagnoses being diagnosed late, especially among MSM.
- Progress has been made in reducing the gap between HIV diagnosis and commencement of ART, but continuing efforts are required to support early ART for individual and public health benefits.
- Data from public sexual health and HIV clinics indicate 92% of people living with HIV who attended these services were on antiretroviral therapy (ART).
- Of the 73 NSW residents newly diagnosed with HIV in the most recent quarter (1 April to 30 June 2015), 58 (80%) were reported to have commenced ART within six months of diagnosis.

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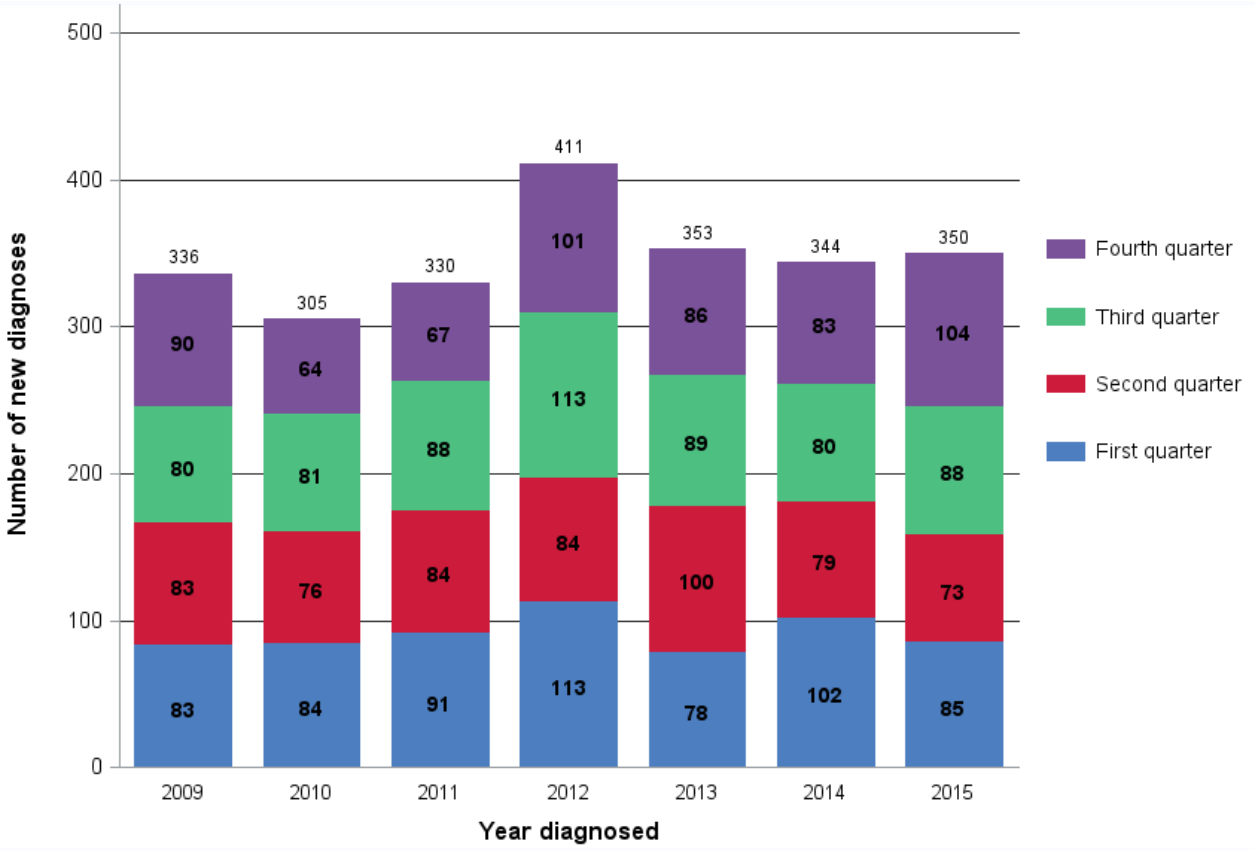
Glossary of Terms

ART	Antiretroviral therapy
HIV	Human Immunodeficiency Virus
LHD	Local Health District
MSM	Men who have sex with men
NSP	Needle and syringe program
NSW	New South Wales
NSWPHS	New South Wales Population Health Survey
PWID	People who inject drugs
PFSHC	Publicly Funded Sexual Health Clinic
SGCPS	Sydney Gay Community Periodic Survey

1. Reduce HIV transmission

1.1 How many cases are notified?

Figure 1: Number of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

From January to December 2015, 350 NSW residents were notified with newly diagnosed HIV infection; similar to the annual average in 2009-2014 (n=347) and 15% fewer than in 2012 (n=411).

In 2015, 283 of 351 (81%) new diagnoses reported being MSM; this count was 4% higher than the annual average in 2009-2014 (n=273) and 15% fewer than the number of MSM newly diagnosed in 2012 (n=334).

From October to December (quarter 4) 2015, 104 NSW residents were notified with newly diagnosed HIV infection; 27 per cent (%) greater than the quarter 4 average for 2009-2014 (n=82) and 3% greater than for quarter 4 2012. This increase was among men who have sex with men (MSM); 79 (76%) of the new diagnoses reported being MSM and this count was 27% more than the quarter 4 average in 2009-2014 (62 new diagnoses reported to be MSM) and 6% less compared with quarter 4 2012 (84 reported to be MSM).

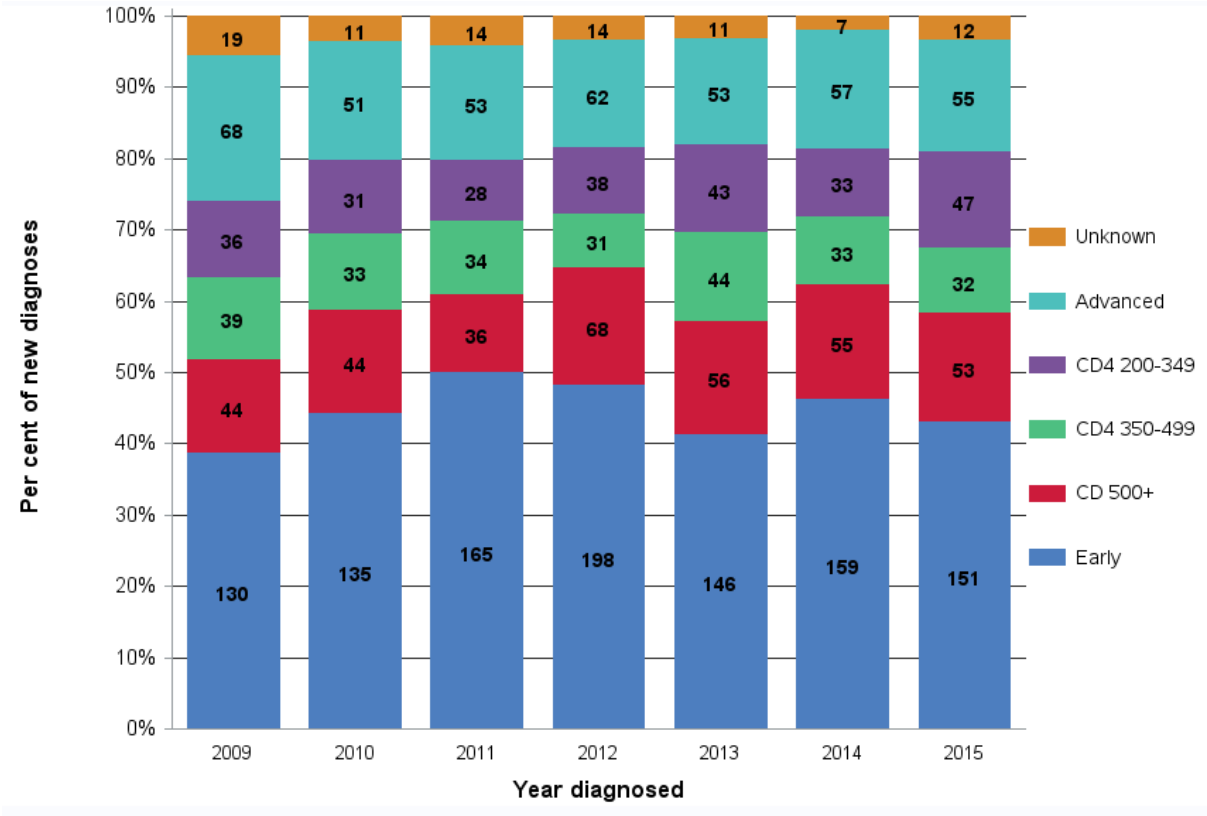
The amount of HIV testing done in NSW has intensified significantly since the implementation of the NSW HIV Strategy 2012 - 2015, with increases in both the total number of HIV tests done across the population and the number of tests in high risk groups. Data from rapid testing sites and PFSHCs is

well targeted with high risk men being tested, and diagnosed. There has also been a marked decrease in the time from diagnosis to ART initiation, particularly in people with a CD4 count at diagnosis of 500 cells/µL or higher. The number of new diagnoses, both overall and in MSM, has remained remarkably steady during this period. It is reassuring that the number of diagnoses, particularly those diagnosed early in infection, has not increased in this context of increased testing and testing frequency in MSM, suggesting that HIV incidence has not increased, despite an increased number of people living with HIV. It appears that addition of PrEP to the HIV prevention took kit is necessary if HIV transmission is to be reduced in NSW.

1.2 What proportion of HIV notifications are newly acquired infections?

Trends in the stage of infection at which people present when newly diagnosed with HIV provide an indication as to the timeliness of diagnosis over time and whether an infection was recently acquired or not. Figure 2a (all new diagnoses) and 2b (only new diagnoses reporting to be MSM) draws on a combination of notification data including clinical symptoms at diagnosis (sero-conversion like illness, AIDS), HIV testing history and CD4 count at diagnosis to describe 'stage of infection'[1] at the time of diagnosis. Figure 3(all new diagnoses) draws only on CD4 count at diagnosis. A CD4 count at diagnosis of less than 350 cells/µL is internationally considered an indicator of late diagnosis.

Figure 2a: Per cent of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 by stage of infection at diagnosis[1]

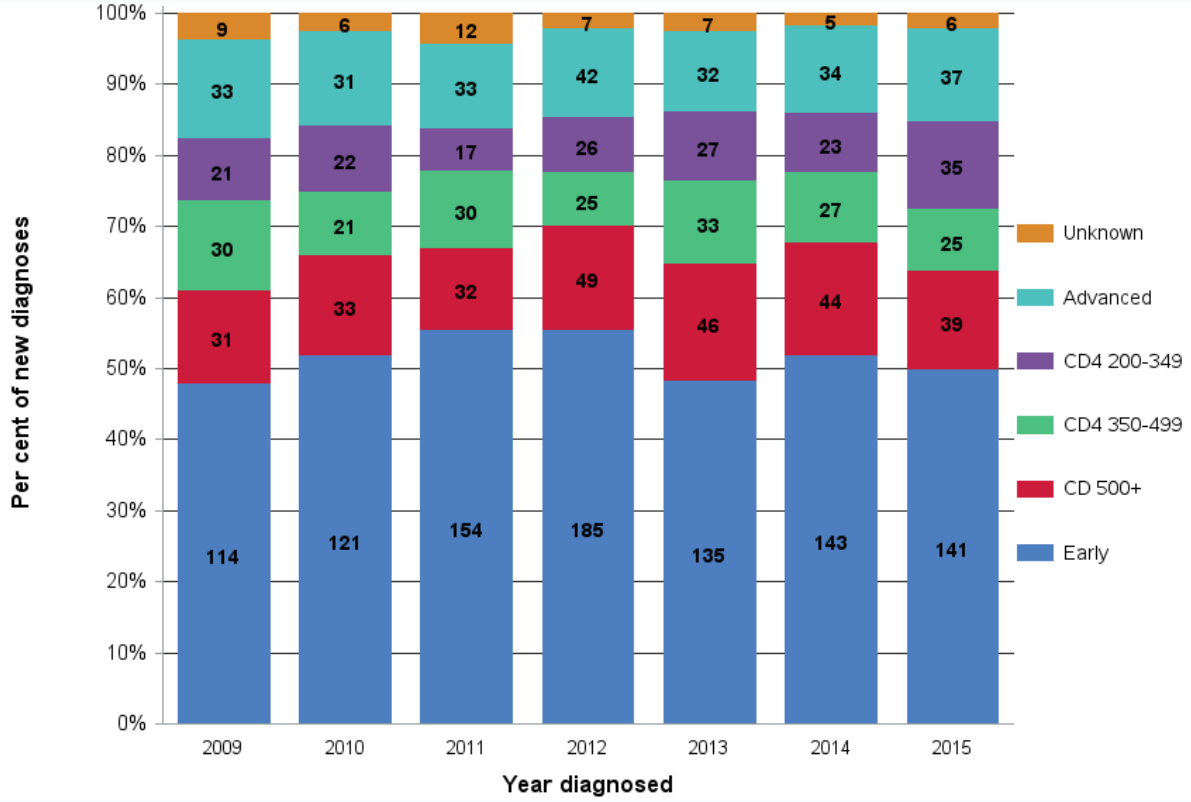


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016
[1]Stage of infection at diagnosis: Early = Evidence of HIV infection acquired within 12 months of diagnosis, which was defined as notification of a sero-conversion like illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or presentation with an AIDS defining illness at diagnosis. CD4 500+, CD4 350 to 499, CD4 200 to 349 each excludes early and advanced categories. Advanced = CD4 count less than 200 or AIDS defining illness in absence of evidence of 'Early' diagnosis

Comment

Of 350 NSW residents notified with newly diagnosed HIV infection in the year 2015, 43% (n=151) had evidence of early stage infection, compared with 45% of new diagnoses in 2009-2014 and 48% of new diagnoses in 2012. Of the 350 new diagnoses in 2015, 29% (n=103) had evidence of advanced or late stage infection, compared with 27% of the new diagnoses in 2009-2014 and 24% of new diagnoses in 2012. In quarter 4 2015, 49 of 104 (47%) NSW residents notified with newly diagnosed HIV infection had evidence of early infection and 29 (28%) had evidence of advanced or late stage infection.

Figure 2b: Per cent of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 reporting to be men who have sex with men (MSM) by stage of infection at diagnosis[1]



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

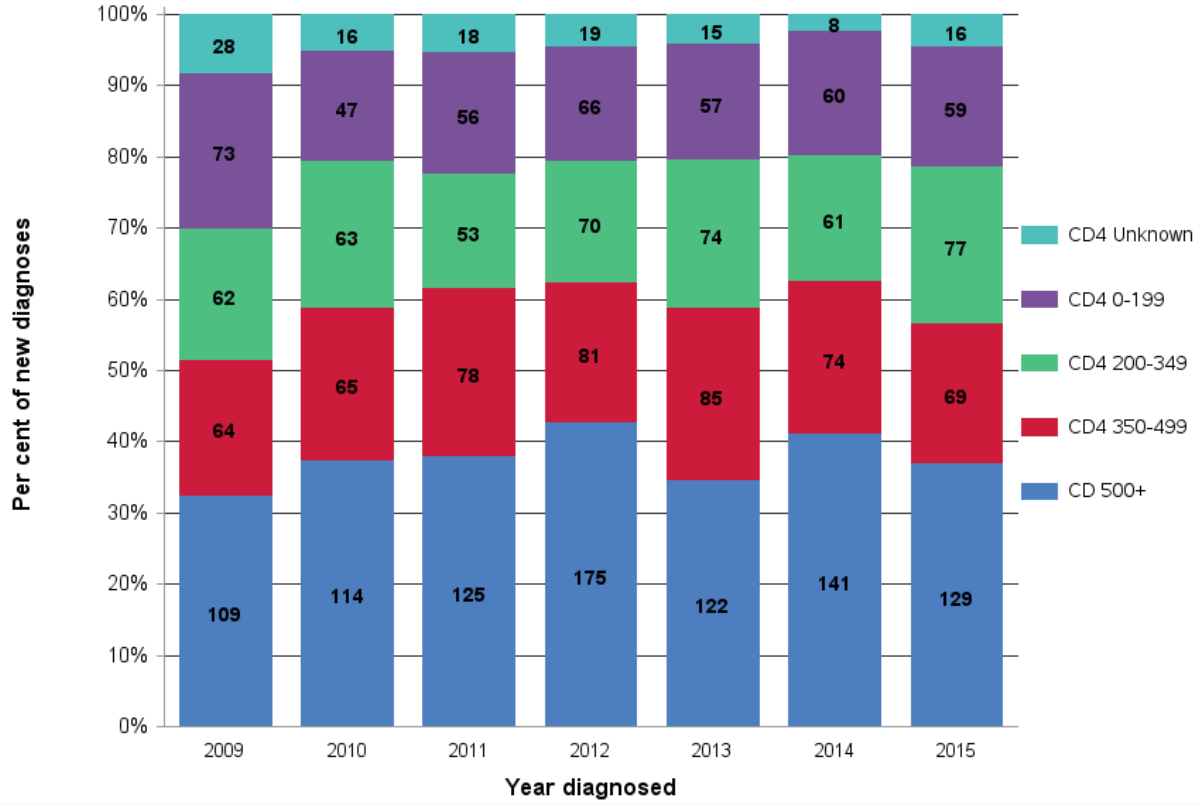
[1]Stage of infection at diagnosis: Early = Evidence of HIV infection acquired within 12 months of diagnosis, which was defined as notification of a sero-conversion like illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or presentation with an AIDS defining illness at diagnosis. CD4 500+, CD4 350 to 499, CD4 200 to 349 each excludes early and advanced categories. Advanced = CD4 count less than 200 or AIDS defining illness in absence of evidence of 'Early' diagnosis

Comment

Of the 283 MSM newly diagnosed in 2015, 50% (n=141) had evidence of early stage infection, compared with 52% of MSM newly diagnosed in 2009-2014 and 55% of those diagnosed in 2012. Of the 283 MSM newly diagnosed in 2015, 25% (n=72) had evidence of advanced or late stage infection, compared with 21% of MSM newly diagnosed in 2009-2014 and 20% of those diagnosed in 2012.

In quarter 4 2015, of 79 NSW residents notified with newly diagnosed HIV infection reported as MSM, 44 (56%) had evidence of early stage infection and 19 (24%) had evidence of advanced infection.

Figure 3: Per cent of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 by CD4 count at diagnosis



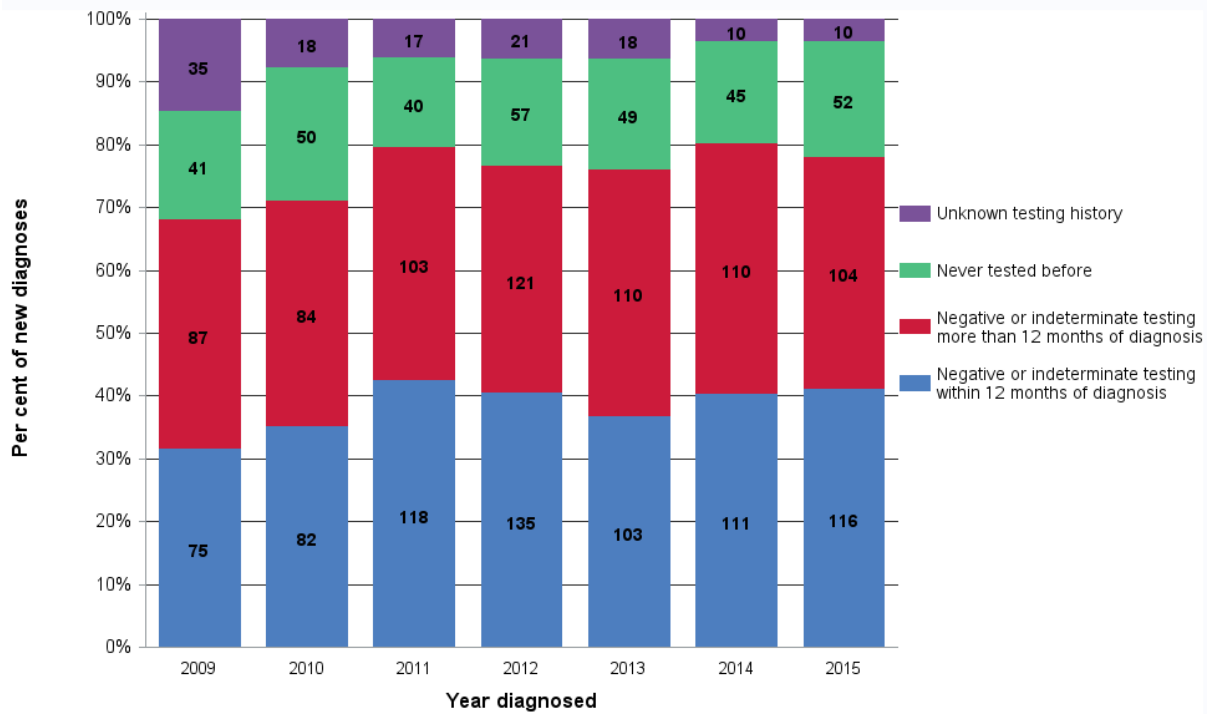
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

In 2015, of the 350 NSW residents notified with newly diagnosed HIV infection, 129 (37%) had a CD4 count (in cells/µL) of 500 or over, 69 (20%) had a CD4 count of 350 to 499, 77 (22%) had a CD4 count of 200 to 349, 59 (17%) had a CD4 count of 0 to 199 and for 16 (5%) the CD4 count was unknown.

In 2015, of the 350 NSW residents notified with newly diagnosed HIV infection, 39% (n=136) had a CD4 at diagnosis of less than 350 cells/µL, an indicator of late diagnosis, compared with 36% of the new diagnoses in 2009-2014 and 33% of those diagnosed in 2012.

Figure 4: Per cent of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 reporting to be MSM by HIV testing history



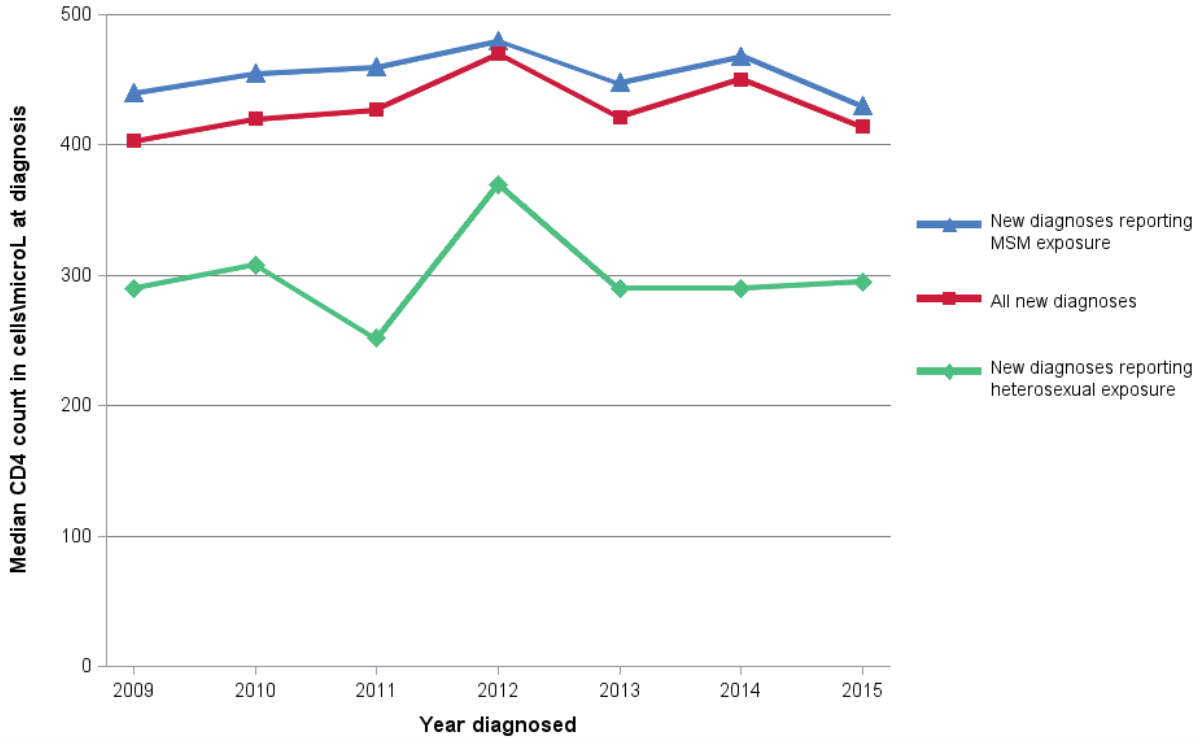
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

Of the 283 new diagnoses in MSM in 2015, 41% (n=116) were reported as having had a negative or indeterminate HIV test within 12 months of diagnosis, compared with 38% of MSM newly diagnosed in 2009-2014 and 40% of those diagnosed in 2012.

Of the 283 new diagnoses in MSM in 2015, 19% (n=53) reported not ever having had an HIV test prior to diagnosis, compared with 17% of MSM newly diagnosed in 2009-2014 and also in 2012.

Figure 6: Median CD4 count at diagnosis of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 for all, for those reporting to be MSM and for those reporting heterosexual acquisition of HIV[1]



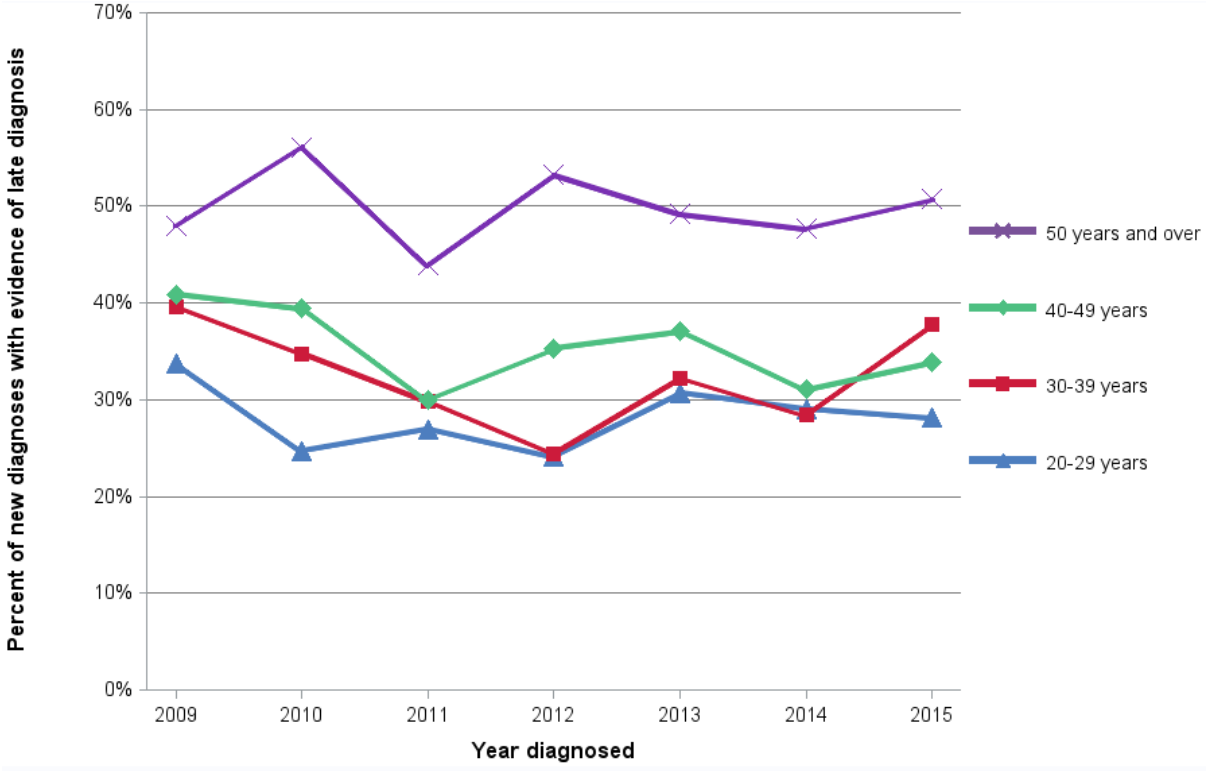
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016
[1]The median CD4 count at diagnosis for other HIV risk exposure groups such as being a person who injected drugs (PWID) are not reported separately due to very low number of cases.

Comment

The median CD4 count at diagnosis for NSW residents notified with newly diagnosed HIV infection in 2015 was 414. For those reporting to be MSM it was 430 and for those reporting only heterosexual exposure to HIV it was 295.

The median CD4 count at diagnosis among those reporting heterosexual exposure to HIV remains consistently low.

Figure 7: Within each age group at diagnosis of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 the per cent with evidence of late diagnosis[1]



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016
[1]Clinical or immunological evidence of a late diagnosis included a CD4 count less than 350 or an AIDS defining illness within three months of diagnosis, in the absence of a laboratory confirmed negative HIV test in the 12 months prior to diagnosis. Please note: this definition of "late" has changed and tightened since the 2013 fourth quarter and annual report.

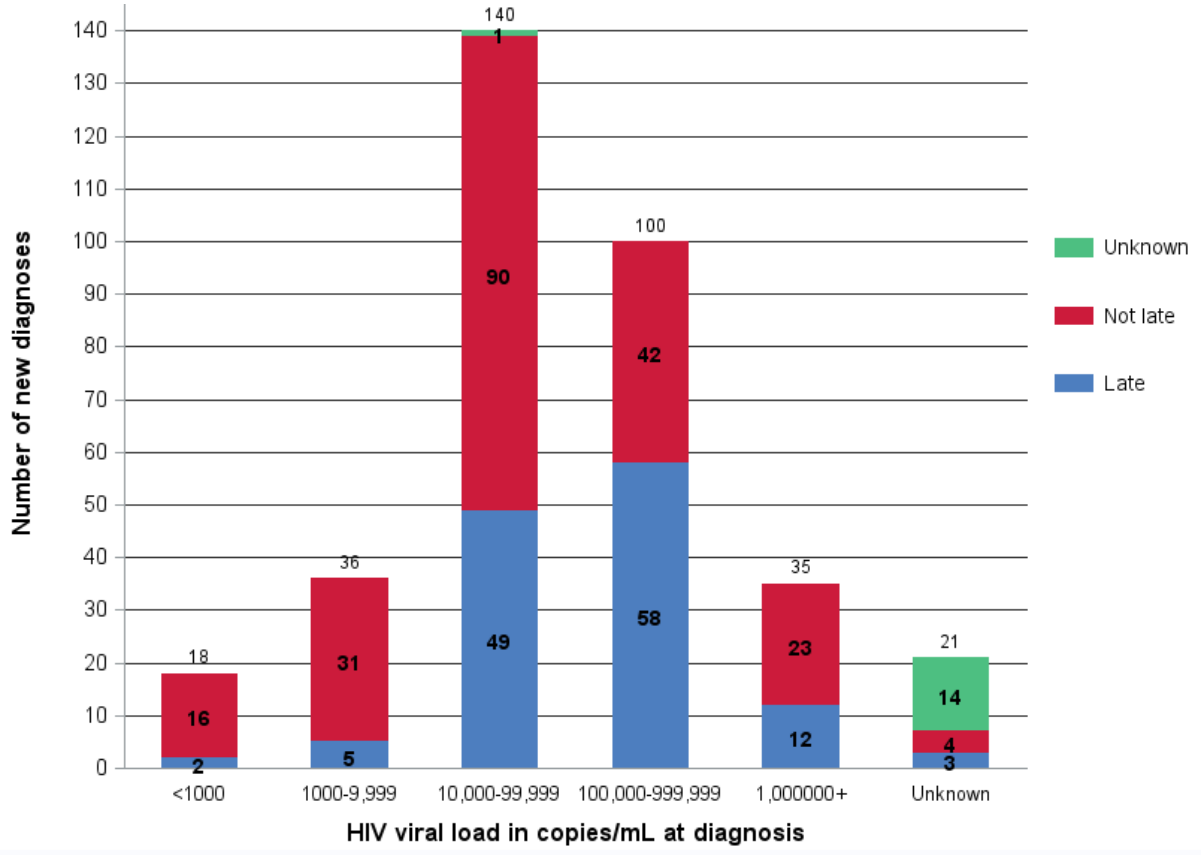
Comment

Of new diagnoses in 2015 aged 50 years or over at diagnosis, 51% had evidence of late diagnosis, a greater proportion than in the younger age groups.

The proportion of new diagnoses in 2015 with evidence of late diagnosis was 28% of those aged 20 to 29 years, 38% of those aged 30 to 39 years and 34% for those aged 40 to 49 years at diagnosis.

New diagnoses aged less than 20 years at diagnosis are few and excluded.

Figure 8: Number of NSW residents notified with newly diagnosed HIV infection in 2015 by HIV viral load at diagnosis and evidence of late diagnosis[1]



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016
[1]Clinical or immunological evidence of a late diagnosis included a CD4 count less than 350 or an AIDS defining illness within three months of diagnosis, in the absence of a laboratory confirmed negative HIV test in the 12 months prior to diagnosis. Please note: this definition of "late" has changed and tightened since the 2013 fourth quarter and annual report.

Comment

Of 350 NSW residents notified with newly diagnosed HIV infection in 2015, 18 (5%) had an HIV viral load of 0-999 copies/mL (HIV VL), 36 (10%) had an HIV VL of 1,000-9,999, 140 (40%) had an HIV VL of 10,000-99,999, 100 (29%) had an HIV VL of 100,000-999,999, 35 (10%) had an HIV VL of 1,000,000 or over and 21 (6%) had an unknown HIV VL at diagnosis.

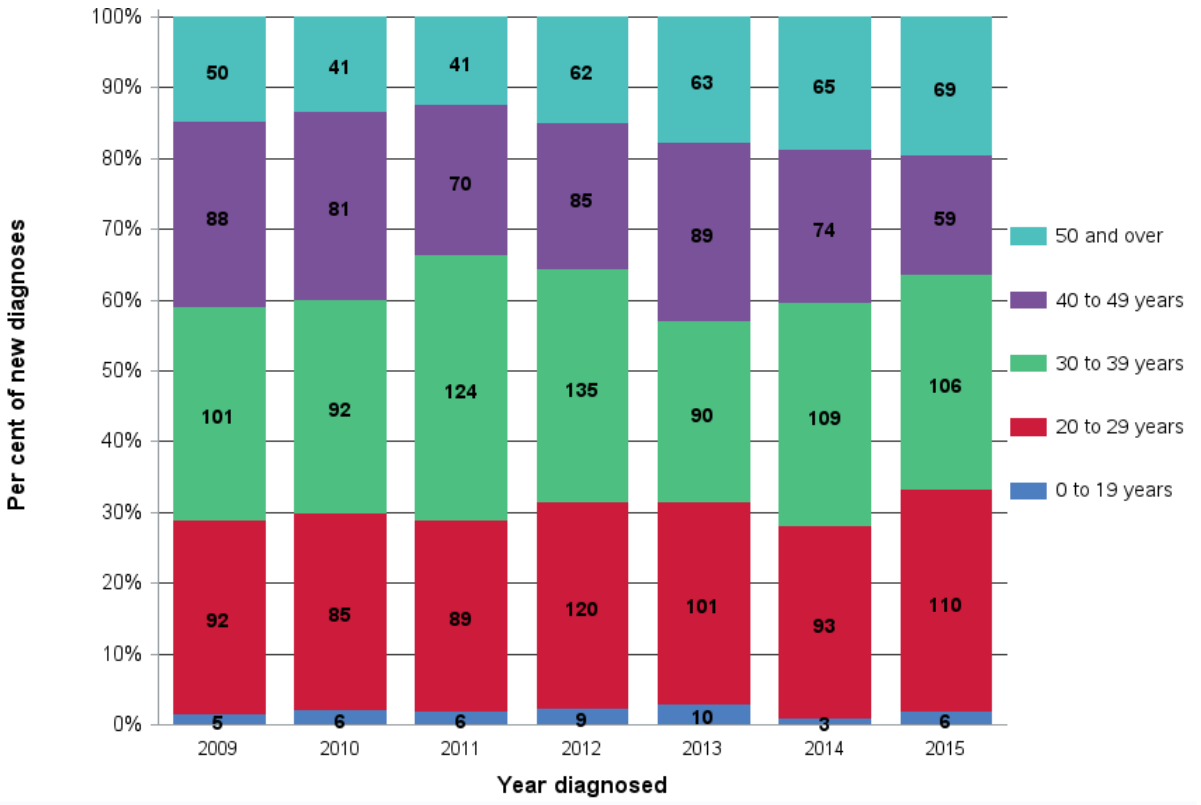
Of 350 NSW residents notified with newly diagnosed HIV infection in 2015, 129 (37%) had evidence of late diagnosis and of these 70 (54%) had an HIV VL 100,000 copies/mL or more at diagnosis.

For the HIV-infected individual, unchecked viral replication is associated with negative clinical outcomes and is a factor in disease progression and death, independent of CD4 count. Higher viral loads are associated with a higher risk of transmission of HIV and lower viral loads are associated with a lower risk of transmission of HIV.

1.3 Which groups are being notified?

Of 350 NSW residents notified with newly diagnosed HIV infection in 2015, 321 (92%) were male, 28 (8%) were female and 1 (<1%) was transgender, similar to previous years (Appendix A). Of these 350 people newly diagnosed, 6 (<2%) were reported to be Aboriginal people, 338 (97%) were reported to be non-Aboriginal people and for 6 (<2%) Aboriginal status was not reported.

Figure 9: Per cent of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 by age at diagnosis

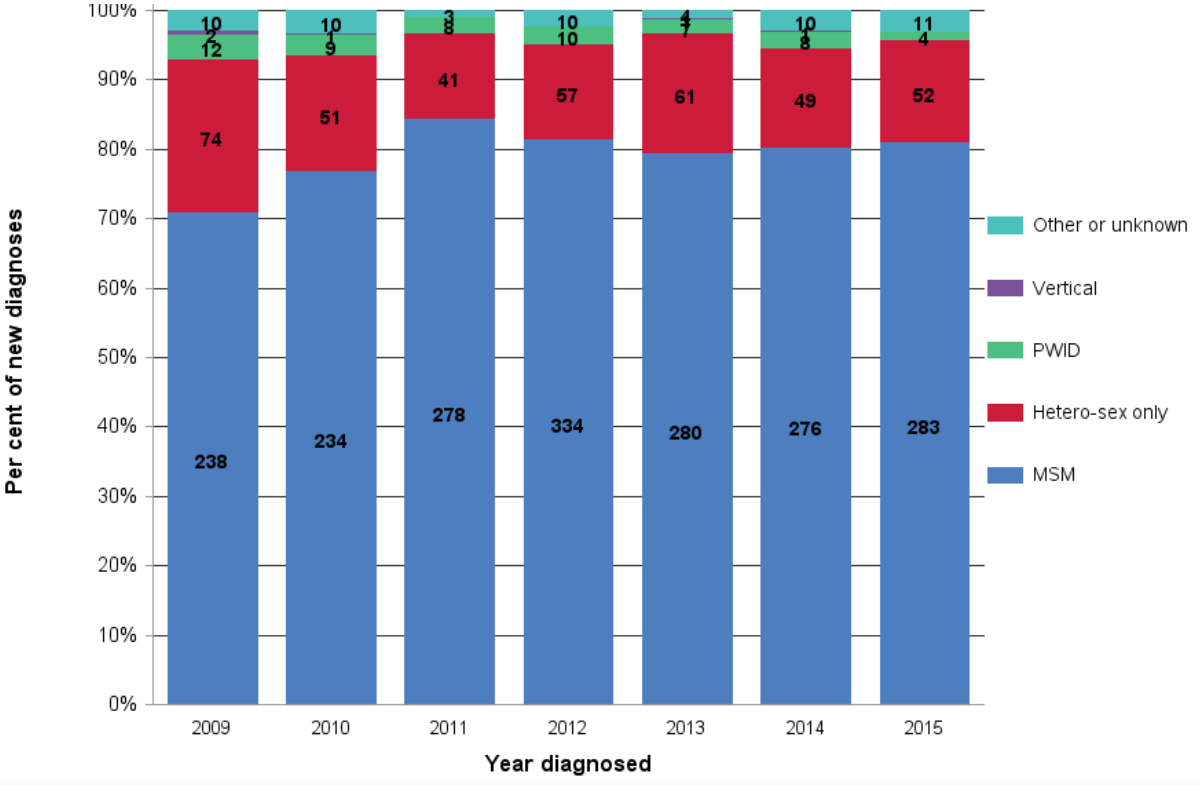


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

Of 350 NSW residents notified with newly diagnosed HIV infection in 2015, six (<2%) were less than 20 years of age, 110 (31%) were 20 to 29 years, 106 (30%) were 30 to 39 years, 59 (17%) were 40 to 49 years and 69 (20%) were 50 years or over. Of new diagnoses in the preceding years 2009-2014, <2% were 0 to 19 years, 28% were 20 to 29 years, 31% were 30 to 39 years, 23% were 40 to 49 years and 15% were 50 years and over.

Figure 10: Per cent of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 by reported HIV risk exposure

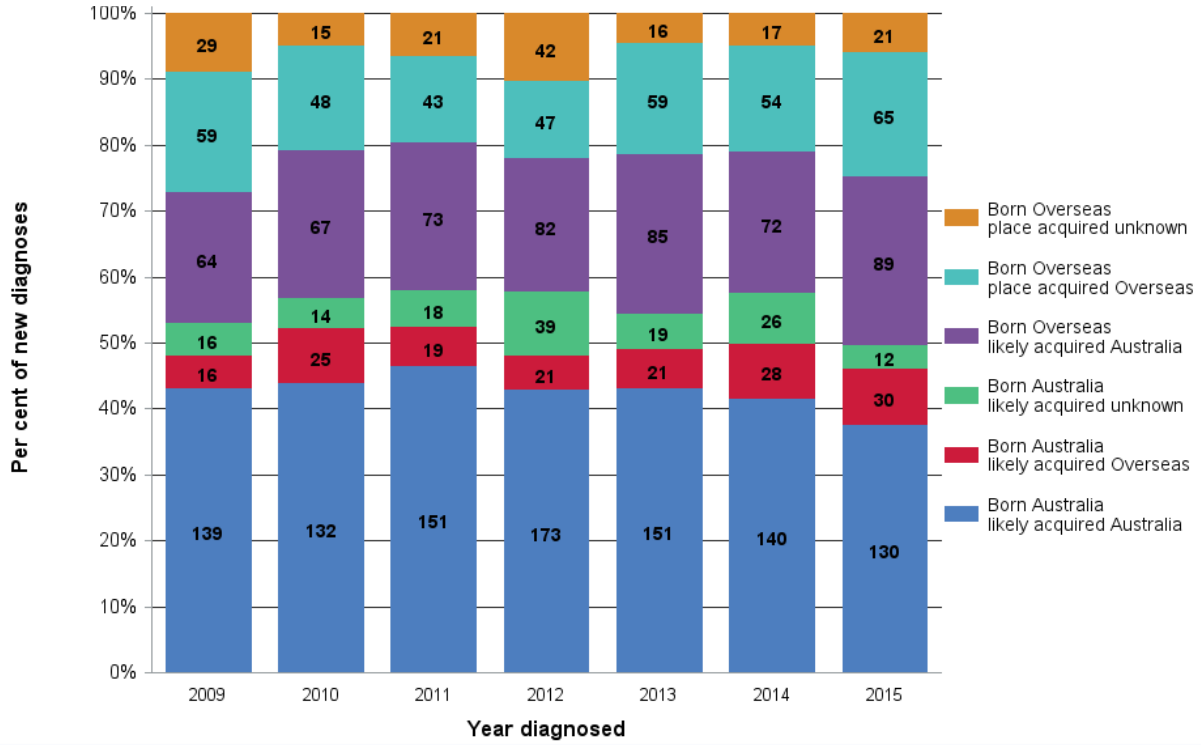


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

Of 350 NSW residents notified with newly diagnosed HIV infection in 2015, HIV risk exposure was reported as male to male sex for 283 (81%), heterosexual sex for 52 (15%), injecting drug use (PWID) for 4 (1%) and another type or unknown exposure for 11 (3%). This was a similar breakdown of HIV risk exposures as was reported for people newly diagnosed 2009-2014. Among the 283 MSM newly diagnosed in 2015, 7% (n=21) also reported to inject drugs, compared with 5% of MSM newly diagnosed 2009-2014 (Appendix A).

Figure 11: Number of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 by place of birth and place most likely acquired HIV*



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016
* Excluded were 41 new diagnoses 2009 to 2015 with unknown country of birth, with three of these in 2015.

Comment

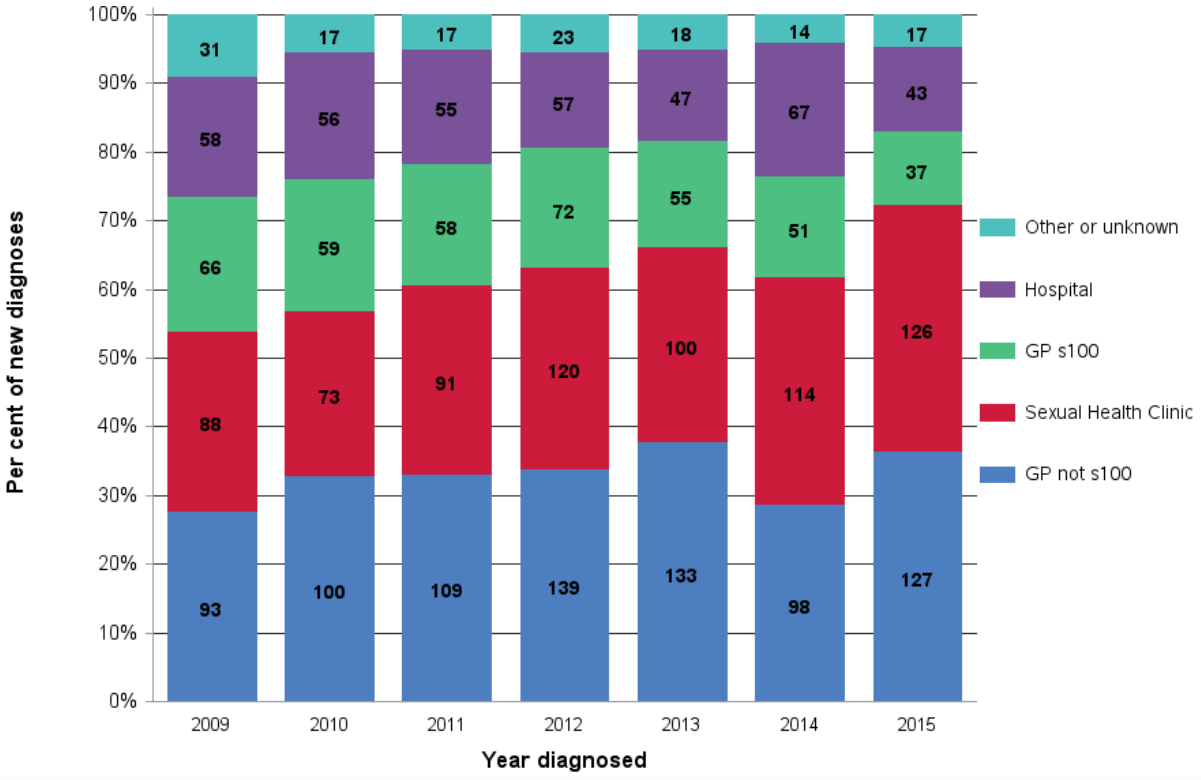
Of 350 new diagnoses in 2015, 37% (n=130) were born in and likely acquired HIV in Australia, compared with 43% of new diagnoses 2009-2014. A further 9% (n=30) were born in Australia but likely acquired HIV overseas, compared with 6% of new diagnoses in 2009-2014. Twelve (3%) were born in Australia with the place they likely acquired their infection unknown.

Of 350 new diagnoses in 2015, 26% (n=89) were born overseas but likely acquired in Australia, compared with 21% of new diagnoses in 2009-2014. A further 19% (n=65) were born overseas and likely acquired HIV overseas, compared with 15% of new diagnoses 2009-2014. Twenty one (6%) were born overseas with place they likely acquired their infection unknown.

Of 350 new diagnoses in 2015, 49% (n=172)) were born in Australia, compared with 55% of those newly diagnosed in 2009-2014 and 57% newly diagnosed in 2012. Of 172 Australian born new diagnoses in 2015, 130 (76%) likely acquired their infection in Australia, 30 (17%) overseas and 12 (7%) had place likely acquired their infection unknown.

Of 350 new diagnoses in 2015, 175 (50%) were born overseas, compared with 43% of those newly diagnosed in 2009-2014 and 42% newly diagnosed in 2012. Of 175 overseas born new diagnoses in 2015, 89 (51%) likely acquired their infection in Australia, 65 (37%) overseas and for 21 (12%) place of acquisition was unknown.

Figure 12: Number of NSW residents notified with newly diagnosed HIV infection from 2009 to 2015 by type of diagnosing doctor



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

Of 350 NSW residents notified with newly diagnosed with HIV in 2015:

- 36% (n=127) were diagnosed by medical general practitioners (GPs) not accredited to prescribe antiretroviral therapy (ART) (GP not-s100), compared with 32% of the new diagnoses in 2009-2014;
- 36% (n=126) were diagnosed by sexual health clinics (SHC) (includes linked community testing sites), compared with 28% of the new diagnoses in 2009-2014;
- 12% (n=43) were diagnosed by hospital located doctors, compared with 16% of the new diagnoses in 2009-2014;
- 11% (n=37) were diagnosed by GP s100 doctors (HIV specialised and accredited to prescribe ART), compared with 17% of the new diagnoses in 2009-2014, and;
- 5% (n=17) were diagnosed by other doctor types such as immigration services, compared with 6% of the new diagnoses in 2009-2014.

Figure 13: Number of NSW residents notified with newly diagnosed HIV infection in 2015 by type of diagnosing doctor and self-reported HIV risk exposure

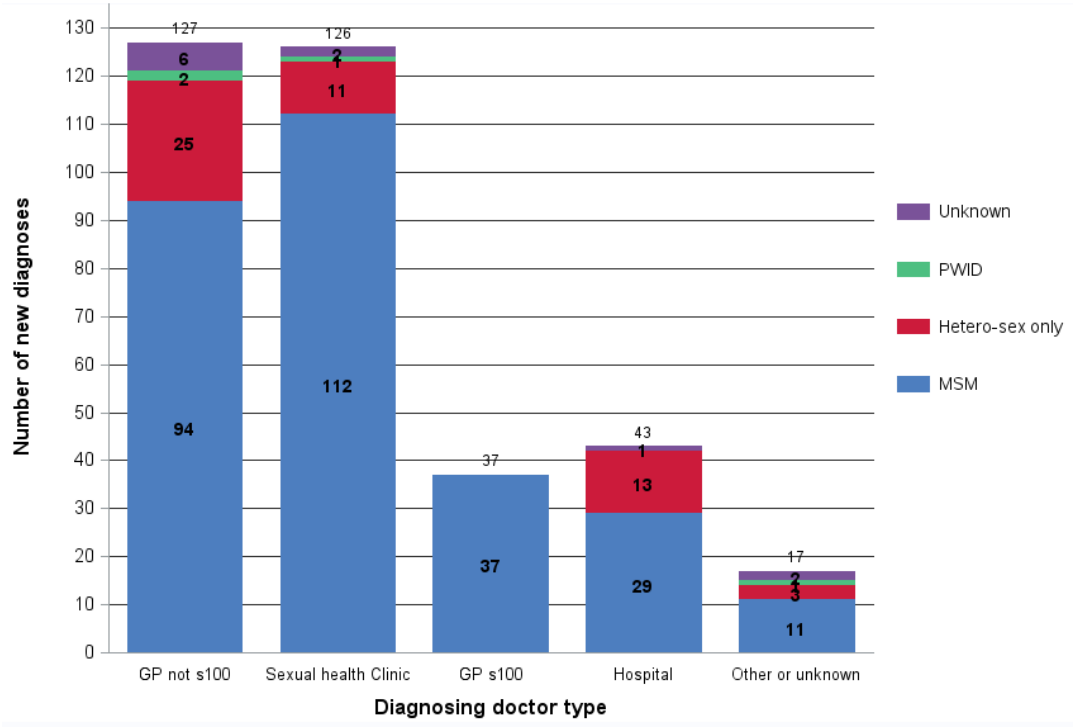
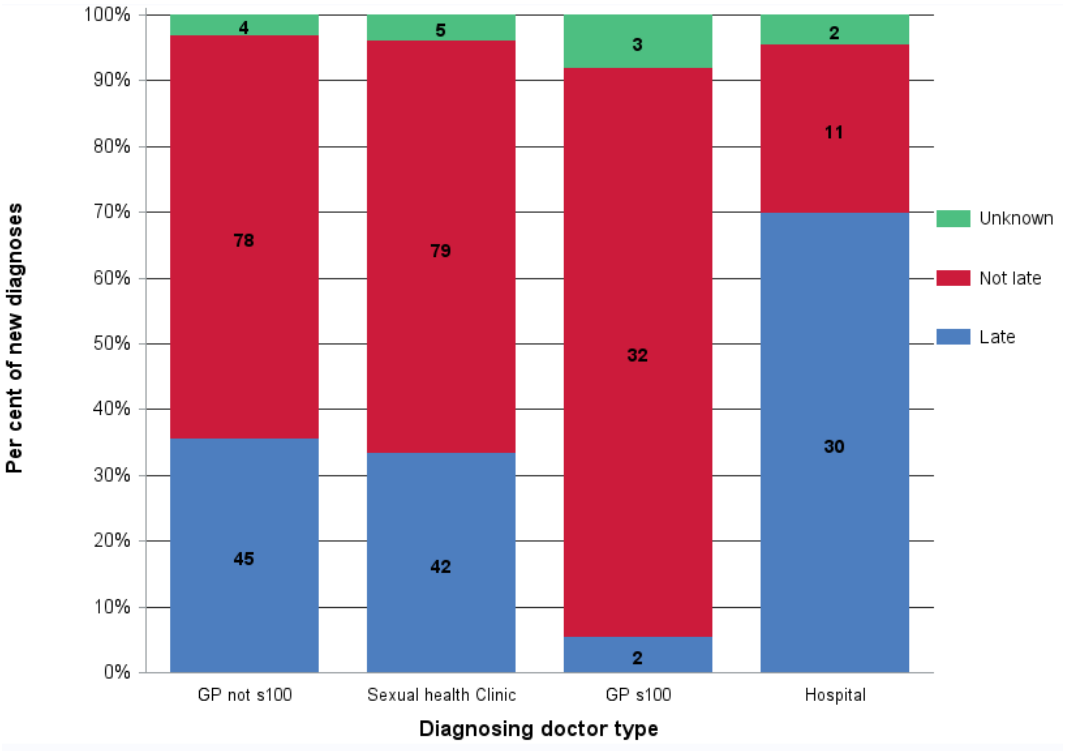


Figure 14: NSW residents notified with newly diagnosed HIV infection in 2015 by type of diagnosing doctor* and evidence of late diagnosis



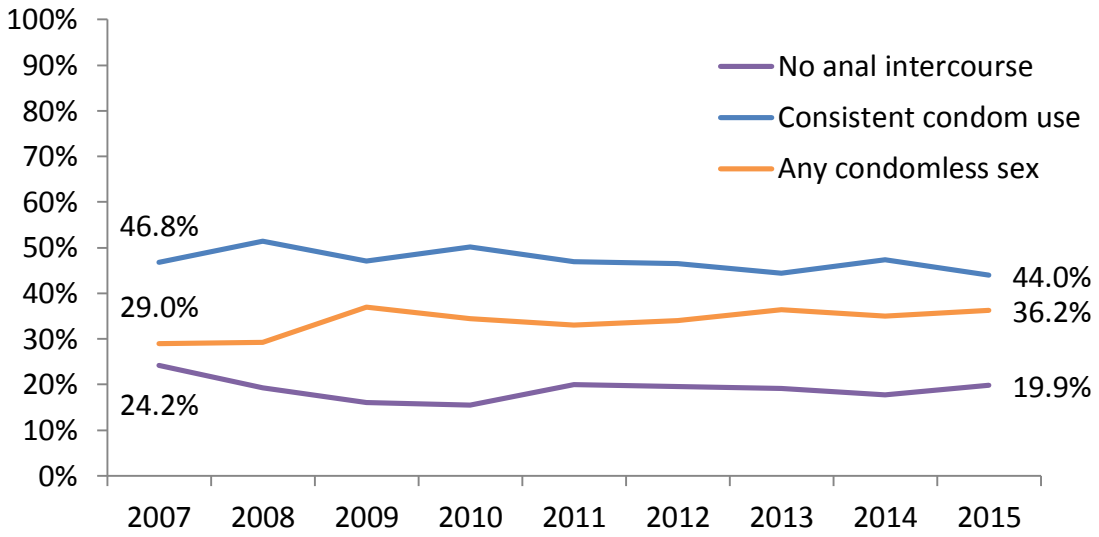
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016. * 17 new diagnoses with other or unknown doctor type excluded

2. Maintain safe behaviour

2.1 How many men who have sex with men use condoms with casual sexual partners?

Condom use among men who have sex with men with casual sexual partners is measured through the Sydney Gay Community Periodic Survey (SGCPS). This represents behaviour in the 6 months prior to February 2015 and is therefore reflective of behaviours in the latter part of 2014.

Figure 15: Condom use reported by MSM with casual sexual partners in NSW, 2007-2015



Data source: Sydney Gay Community Periodic Survey (February 2015)

Comment

Among gay men with casual sexual partners surveyed, 64% reported "always using a condom for anal sex" or "avoided anal sex". This has remained stable since 2009. Updated data from the February 2016 SGCPS will be presented in the Quarter 1 2016 report.

2.2 Community mobilisation "Ending HIV"

Since 2013, ACON has monitored the knowledge and attitudes of gay men in regards to key messages relating to the NSW 'Ending HIV' campaign. Key findings and a description of the evaluation is provided in Appendix B.

2.3 How accessible are NSP services in NSW?

In the year ending 31 December 2015, a total of 13,202,904 units of injecting equipment were distributed in NSW. This figure includes injecting equipment distributed by pharmacies participating in the Pharmacy NSP Fitpack® scheme and by the Public NSP. This represents an increase of 770,022 additional units (6.2%) compared with the previous 12 months.

During the same period to 31 December 2015, the number of units of injecting equipment distributed by the Public NSP increased by 777,252 units (7.1%), while the number of units of injecting equipment distributed by the Pharmacy NSP Fitpack® scheme remained stable, with a decrease of 7,230 units (0.5% decrease).
(NSW Health NSP Minimum Data Set)

As of 31 December 2015, under the public NSP there were a total of 27 primary and 306 secondary outlets, 254 ADMs and IDCs located across NSW. The breakdown by outlet type by LHD is identified above.

In addition, there were 518 Pharmacies participating in the Pharmacy NSW Fitpack Scheme, making a total of 1,105 NSP outlets located across NSW as at 31 December 2015. This represents an increase of 56 additional outlets (5.3%) compared with same period in 2014.
(NSW NSP Data Collection)

2.4 How many people are using new injecting equipment in NSW?

Among respondents to the NSW NSP Enhanced Data Collection survey 2013[1] who reported injection, 22% reported receptive sharing (RSS) of needles and syringes in the previous month. In 2014, the proportion who reported receptive sharing of needles and syringes declined to 14%.[2]
These results are broadly comparable to the Australian NSP survey. In the Australian NSP survey, which surveys only primary NSW sites, the proportion of NSW respondents who reported receptive sharing of needles and syringes in the previous month was 13% in 2013 and 16% in 2014.[3]

Findings from the upcoming 2015 NSW NSP Enhanced Data Collection will indicate whether the reduction between 2013 and 2014 identified in that survey is a continuing trend or an expected fluctuation.

[1] In 2013, the first annual NSW NSP Enhanced Data Collection survey was conducted. The purpose of the survey is to collect NSP client demographic, behavioural and drug use data on an annual basis to strengthen the state-wide prevention approach, and also inform LHDs in planning for NSP service delivery at the local level.
[2] Currie B, Iversen J, Maher L NSW Needle and Syringe Program Enhanced Data Collection 2013 A report for the Ministry of Health by the Kirby Institute, UNSW Australia, 2014.
[3] Iversen J, Chow S and Maher L. Australian Needle and Syringe Program Survey National Data Report 2009-2013. The Kirby Institute, UNSW Australia, 2014. In 2013, 686 people in NSW were surveyed in 20 primary NSPs. Refer to Appendix 1, Table 2

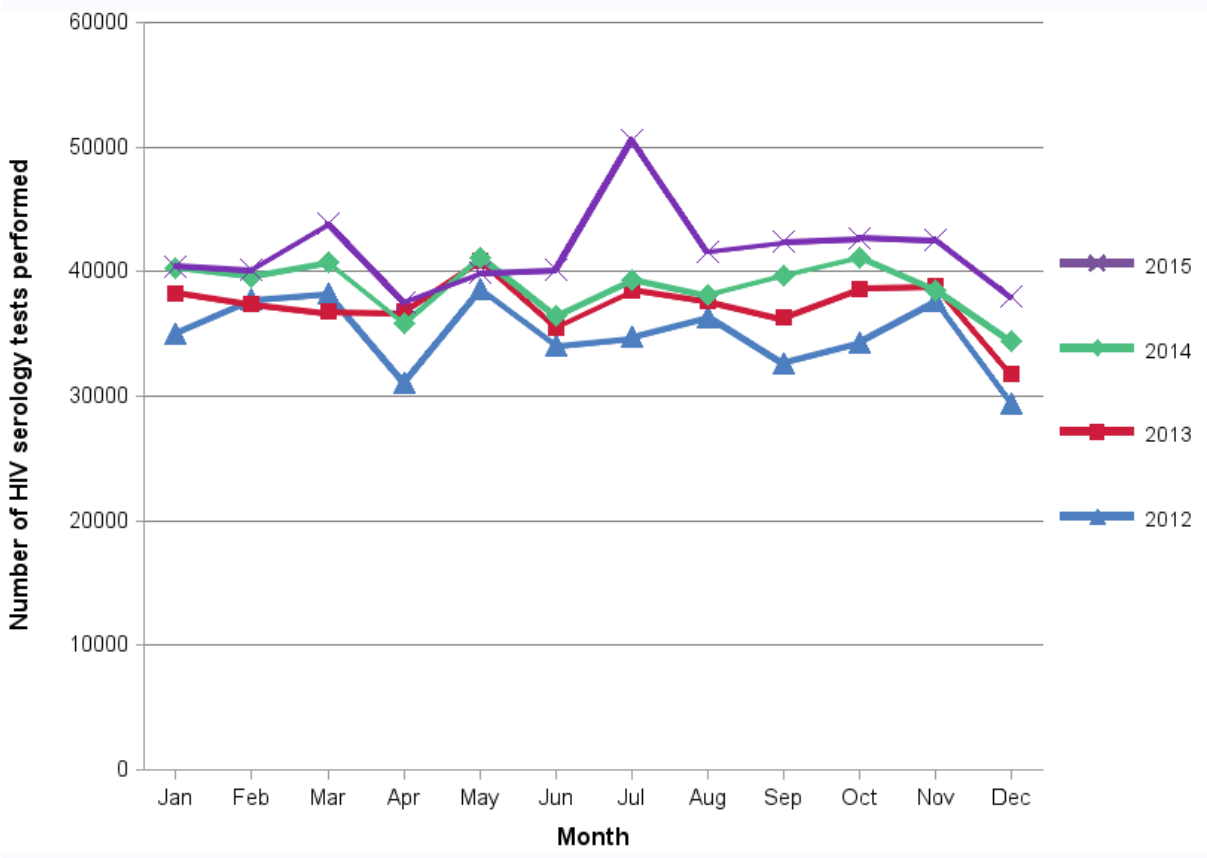
3. Increase HIV testing

3.1 Is HIV testing increasing in NSW?

3.1.1 NSW overall

In 2012, NSW Health commenced collection of testing data for selected notifiable conditions, including HIV, from 15 NSW laboratories. These laboratories represent about 95% of the laboratory testing for HIV in NSW residents. Information from laboratories does not provide any indication on the purpose of testing (screening of high risk individuals, routine antenatal, post-exposure testing), nor whether there are repeat tests on the same individual.

Figure 16: Number of HIV serology tests performed in 15 NSW labs per month 2012 to 2015



Data source: NSW Health denominator data project, extracted 11 February 2016.

Comment

In the year 2015, there were 499,966 HIV serology tests performed; 7% greater than in 2014 (n=465,475), 12% greater than in 2013 (n=447,297) and 19% greater than in 2012 (419,968).

From October to December 2015 (quarter 4), there were 123,295 HIV serology tests performed in 15 laboratories in NSW; 8% greater than in quarter 4 2014 (n=114,100), 13% greater than in quarter 4 2013 (n=109,279) and 22% greater than in quarter 4 2012 (n=101,434). The spike in HIV serology test count in July 2015 coincided with an HIV testing awareness initiative ("NSW HIV Testing Week") and also a public health intervention, when a letter was sent to select dental patients in early July recommending testing for HIV and hepatitis B and C.

3.1.2 Local Health Districts

Data on HIV testing is available from Publicly Funded Sexual Health Clinics (PFSHCs) in all LHDs however the time periods and the type of data is not uniform due to different data management systems. Key differences in the availability of data are summarised in Table 1.

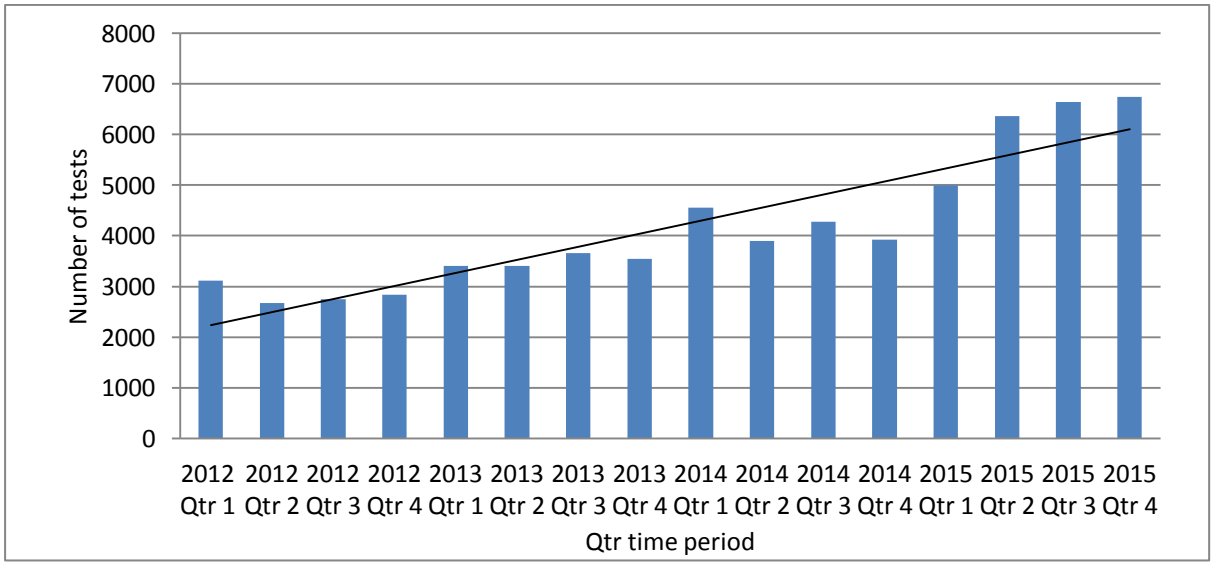
Table 1: Summary of testing data availability from Publicly Funded Sexual Health Clinics in NSW

	Total number of HIV tests and positivity per quarter *Available from*	Number of HIV tests and positivity per quarter by priority population *Available from*
South Eastern Sydney LHD	January 2011	July 2013
Western Sydney LHD Nepean Blue Mountains LHD Northern Sydney LHD Northern NSW LHD Illawarra Shoalhaven LHD	January 2011	January 2011
All other LHDs	July 2013	July 2013

As trend data for PFSHCs have become available, the proportional increase/decrease for HIV testing has varied considerable, in particular for high risk groups that have low numbers.

Figure 17 displays the number of HIV tests done in PFSHC between 1 January 2012 and 31 December 2015 in South Eastern Sydney LHD. Both rapid HIV testing and HIV serology are included.

Figure 17: Number of HIV serology tests performed in South Eastern Sydney Local Health District Publicly Funded Sexual Health Clinics per quarter 2012 to 2015



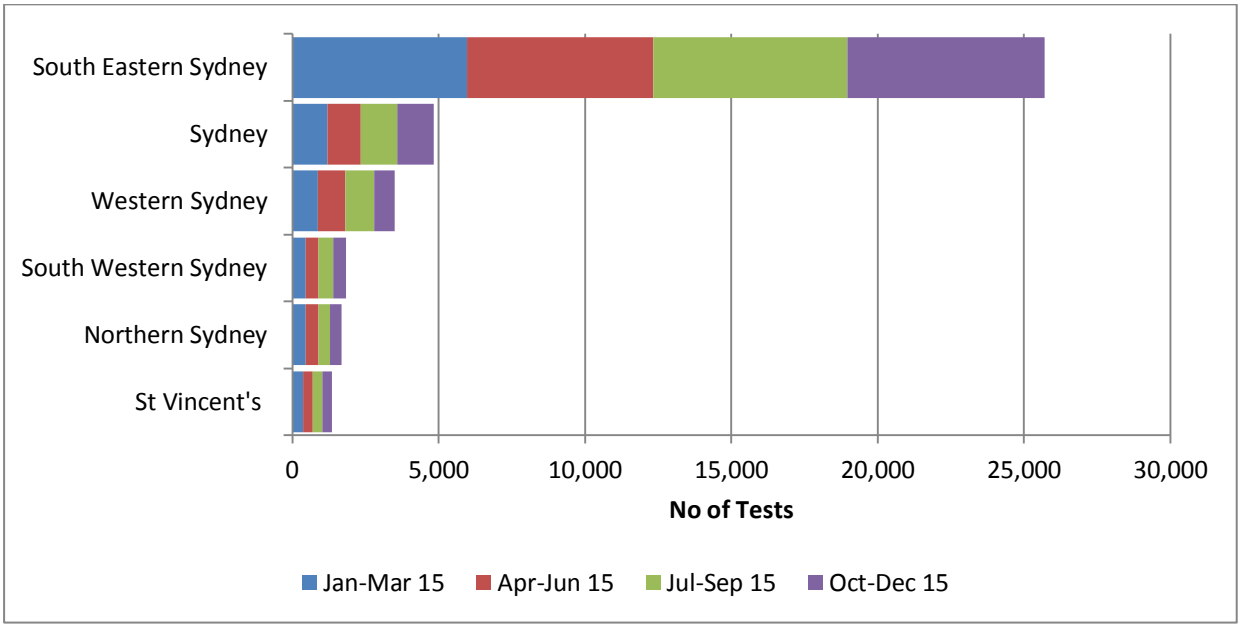
Data source: South Eastern Sydney Local Health District

Comment

In quarter 4 2015, testing in South Eastern Sydney LHD (Figures 17) increased by 73% (n=6,747) compared with the same period in 2014 (n=3,921), and by 138% compared to same period in 2012 (2,832).

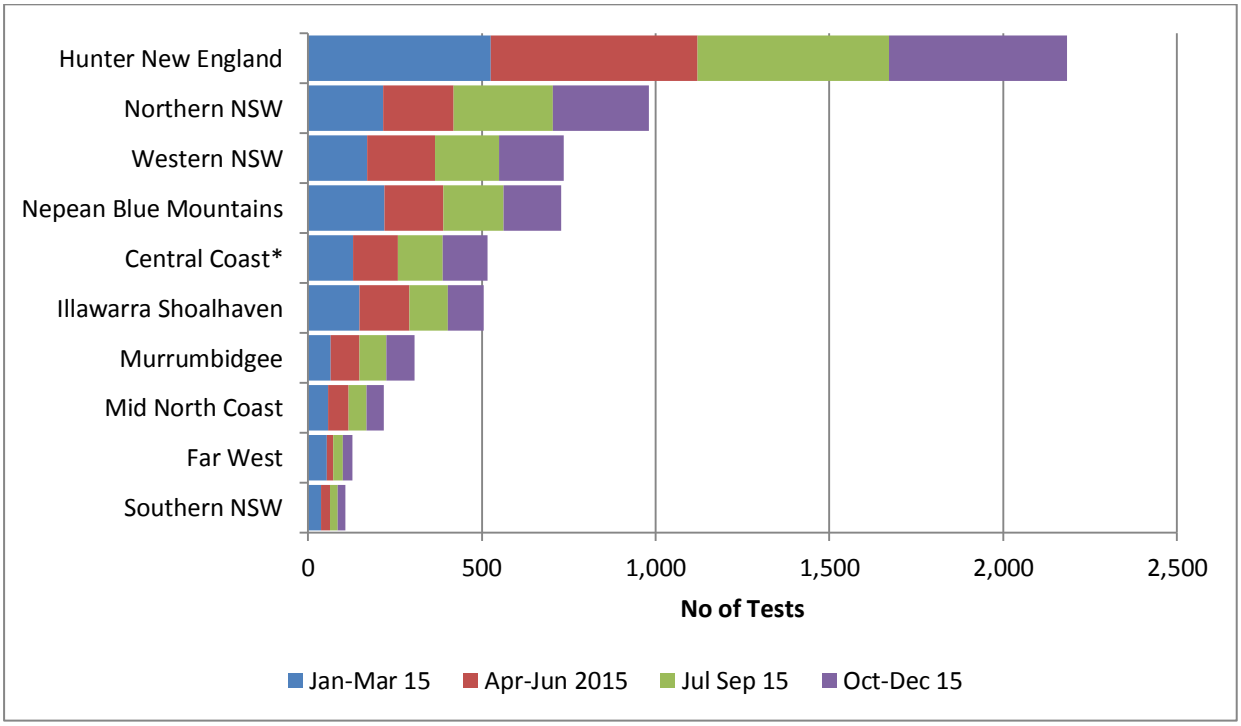
A comparison in the number of HIV tests done between 1 January and 31 December 2015 for metropolitan PFSHCs is displayed in Figure 18 and for regional and rural PFSHCs in Figure 19. Both rapid HIV testing and HIV serology are included.

Figure 18: Number of HIV tests performed in Sydney metropolitan Local Health District Publicly Funded Sexual Health Clinics per quarter 2015



Data source: NSW Health HIV Strategy Monitoring Database

Figure 19: Number of HIV tests performed in regional and rural Local Health District Publicly Funded Sexual Health Clinics per quarter 2015



*Central Coast figures are an underestimate as actual activity data is not available from Dec 2013

Data source: NSW Health HIV Strategy Monitoring Database

Comment

From October to December 2015, 11,397 HIV tests were done in all PFSHCs in NSW; 43% greater than the same period in 2014 (n=7,947).

From January to December 2015, 45,322 HIV tests were done in all PFSHCs in NSW; 32% greater than the same period in 2014 (n=34,577). From January to December 2015, testing increased particularly in key Sydney metropolitan areas; HIV testing in Sydney LHD increased by 26% (n=4,829) compared with the same period in 2014, and South Western Sydney LHD increased by 22% (n=1,844) compared to the same period in 2014.

HIV testing in continues to increase both overall in NSW and among high risk populations. To reduce the number of undiagnosed HIV infections in the community and to support timely diagnosis, populations with ongoing risk of HIV infection need to continue to test frequently.

3.2 Where is HIV testing being done?

Apart from PFSHCs, HIV testing takes place in a range of other clinical and community settings. A large proportion of testing occurs in the private sector, especially in general practice. Efforts to better understand HIV testing practices in different clinical settings including drug and alcohol services and emergency departments are ongoing.

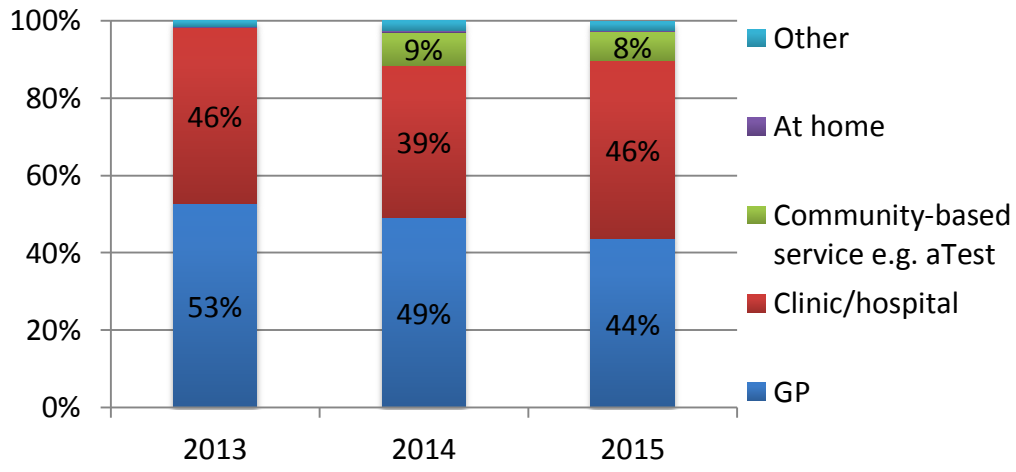
3.2.1 General practice

Number of HIV tests done and positivity for 3 General Practice clinics with high caseloads of MSM clients located in South Eastern Sydney LHD was presented in the Quarter 2 2014 report and are included here in Appendix C. Obtaining a further understand of HIV testing practices in General Practice is a high priority for NSW.

3.2.2 Survey data

HIV testing in MSM – including location and testing history - is measured regularly through the SGCPS, with most recent data presented in the Quarter 1 2015 report and included in (Figures 20, 21 and 22). Updated data from the 2016 SGCPS will be presented in the Quarter 1 2016 report.

Figure 20: Location of last HIV test reported by non-HIV-positive men.



Data source: Sydney Gay Community Periodic Survey (February 2015)

Comment

The majority of gay men reported that their last HIV test took place in general practice or a public hospital service, 44% and 46% respectively.[4]

3.3 Who is being tested for HIV?

3.3.1 LHD data

To reduce the pool of undiagnosed HIV infection, testing should be targeted to high risk populations. Table 2 summarises the available data from PFSHCs on HIV testing in priority population groups. The number of HIV tests among priority populations in quarter 4, 2015 was higher compared to the same period in 2014.

Table 2: HIV testing in priority populations, Publicly Funded Sexual Health Clinics, NSW

Priority Population	% of HIV tests in all PFSHCs, Q4 2015*	Number of HIV tests in all PFSHCs, Q4 2015*	*% increase in HIV tests compared with Q4 2014 in all PFSHCs#*
Men who have sex with men (MSM)	74%	8,063	*118%*
Sex workers^	11%	1,288	*14%*
People who inject drugs (PWID)^	6%	673	*45%*
Aboriginal people	3%	295	*22%*

*Excludes Central Coast LHD who was unable to provide testing data by priority population.
#Excludes LHDs without testing data by priority population in Q4 2014 (St Vincent's Hospital Network, select Southern Eastern Sydney LHD services and Central Coast LHD).
^Includes people who *ever* were sex workers or who *ever* injected drugs.

Data source: NSW Health HIV Strategy Monitoring Database[5]

Comment

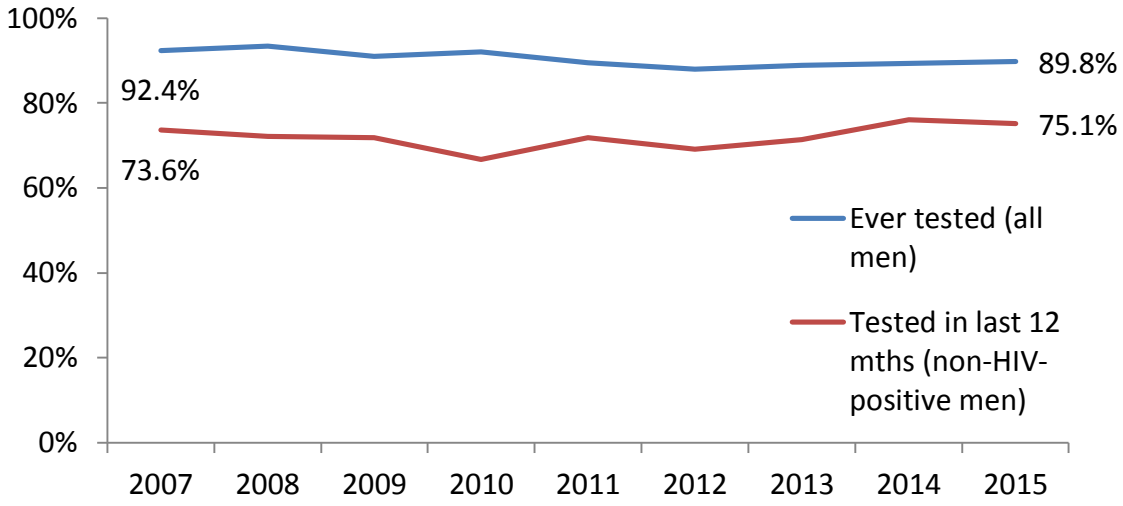
Sydney Sexual Health Centre in South Eastern Sydney LHD performed the highest number of HIV tests in MSM amongst PFSHCs in NSW. Of the 5,581 tests done by this clinic in from October to December 2015, 4,370 (78%) were amongst MSM. 15 were positive, yielding a 0.3% positivity rate among MSM clients.

In summary, data from PFSHCs indicates that priority populations are being reached by public sexual health services. Achieving further increases in testing frequency, particularly in high risk MSM, is important to identify and link HIV infected individuals to care; and to reduce the number of people living with HIV in NSW who are undiagnosed.

[4] excludes HIV-positive men and men who said they hadn't been tested for HIV
[5] Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.

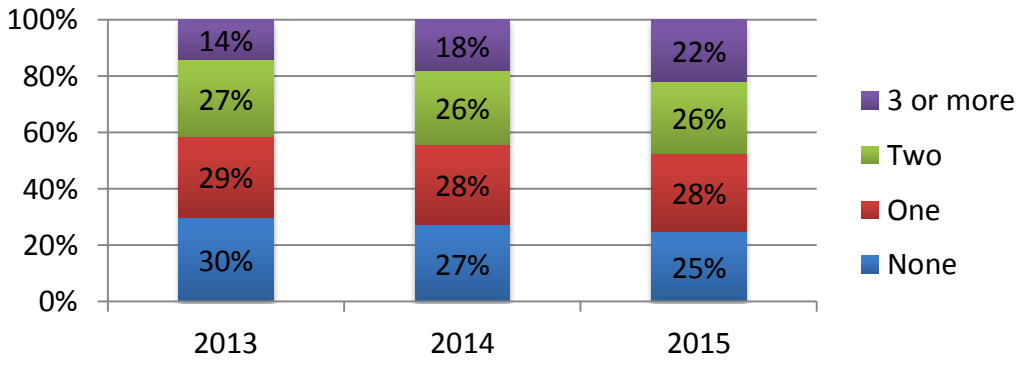
3.3.2 Survey data

Figure 21: HIV test in the previous 12 months reported by non-HIV-positive men



Data source: Sydney Gay Community Periodic Survey (February 2015)

Figure 22: Number of HIV tests in the previous 12 months reported by non-HIV-positive men



Data source: Sydney Gay Community Periodic Survey (February 2015)

Comment

The high proportion of gay men reporting to have had an HIV test in the last 12 months recorded in 2014 (76%) has been sustained in 2015 (75%); these figures are the highest since the survey began in 1996 and represent a modest but statistically significant increase compared with 2013 (71%).

Among non-HIV-positive men, there has been a gradual decline in the proportion reporting no HIV tests in the previous year and an increase in the proportion who had “three or more” HIV tests in the previous 12 months (Figure 22). This suggests that while annual HIV testing appears stable overall, the proportion of men having multiple HIV tests within a year is gradually increasing.

In the context of increased testing and retesting among high risk groups, declines in positive rates are to be expected. Saturation of testing is likely to have occurred when testing numbers are high, high risk populations are well targeted and positivity is low. Aiming for and maintaining this triad is important for ensuring a negligible pool of undiagnosed HIV infection.

3.4 How is testing being made more accessible?

3.4.1 Rapid testing

Rapid HIV testing is part of a mix of high quality, safe and innovative HIV testing services being offered across NSW, to encourage gay men and men who have sex with men to have a test more frequently. Rapid testing offers choice and convenience to people who do not routinely access conventional testing.

Rapid HIV testing has been embedded into the mix of the testing options in NSW, with a focus on community based testing services. Table 3 displays the number of rapid HIV tests done and the proportion of clients with high risk behaviours and infrequent testing history in community-based and other non-traditional clinical testing sites in NSW.

Table 3: Number of rapid HIV tests in non-traditional testing sites and proportion of clients with high risk behaviour and infrequent testing history from 1 January to 31 December 2015

Non-traditional Settings	Number of RHT 2015	% Unique Positive	% never previously tested	% tested more than 12 months ago	*% with > 5 sexual partners in last 3 months*
Community-based					
aTEST Surry Hills (7 hours/week)	*1,001*	*0.2%*	*13%*	*17%*	*26%*
aTEST Oxford St[+] (40 hours/week)	*3,816*	*0.8%*	*12%*	*16%*	*31%*
aTEST Kings Cross (3 hours/week)	*271*	*1.5%*	*-*	*25%*	*30%*
aTEST Newtown (6 hours/week)	*760*	*1.1%*	*na*	*8%*	*21%*
Other					
Ankali House (14 hours/week)	346	*0.0%*	*-*	*12%*	*25%*

[+]Service commenced operation 23/2/2015
Data sources: NSW Health HIV Strategy Monitoring Database[6]

Comment

In quarter 4 2015, 1,841 HIV rapid tests were performed in NSW. 16 of 1,841 rapid tests (0.9%) were confirmed as positive.

From 1 January to 31 December 2015 6,646 HIV rapid tests were performed in NSW. 49 of 6,646 rapid tests (0.7%) were confirmed as positive. The large majority of HIV rapid tests were performed in non-traditional testing sites (93%).

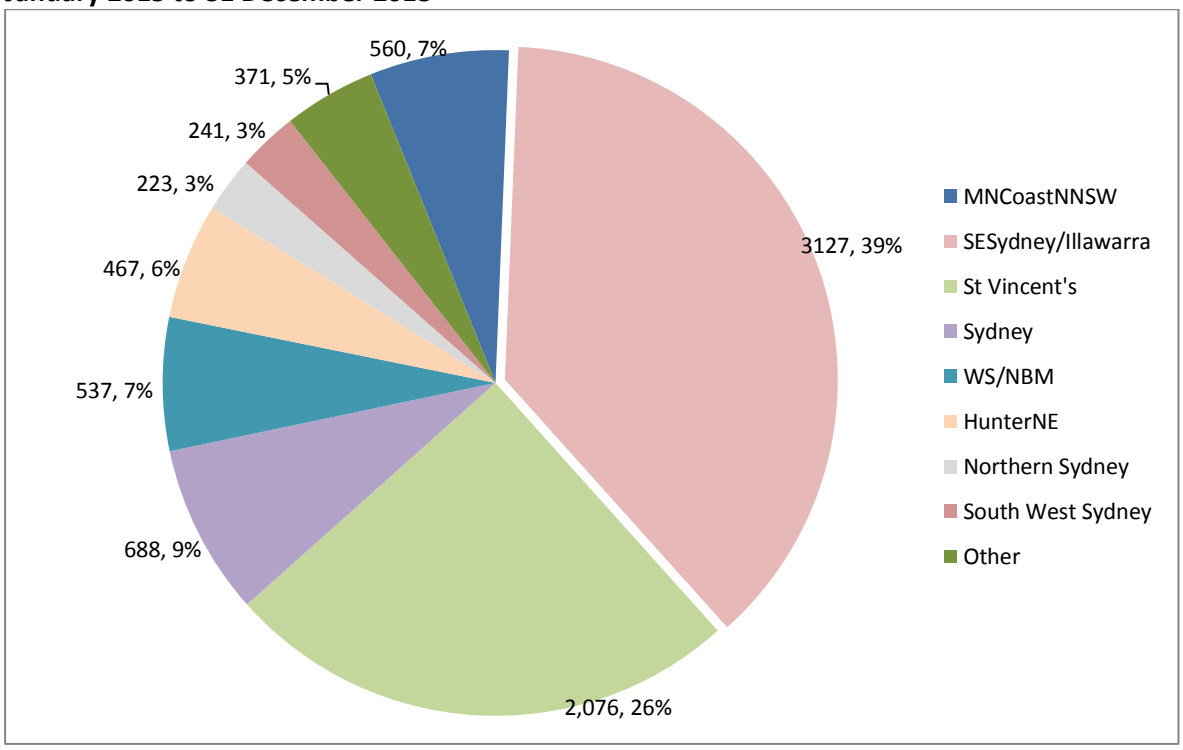
Though the number of clients tested in community sites is relatively small, NSW data suggests it is an effective testing model for engaging MSM, a high proportion of whom reported high risk behaviours, or infrequent testing for HIV.

[6] Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.

4 Increase HIV treatment

4.1 How many people in NSW are on antiretroviral treatment?

Figure 23: Number of patients dispensed ART in NSW by LHD of dispensing pharmacy from 1 January 2015 to 31 December 2015[7][8][9][10]



Data source: Health Share NSW ipharmacy data and data submitted by Western Sydney, Nepean Blue Mountains and Hunter New England LHDs

Comment

Public hospital pharmacy dispensing data indicates that in the 12 months between 1 January 2015 to 31 December 2015, 7,953[11] people diagnosed with HIV in NSW and in care were dispensed antiretroviral therapy (ART) at least once. This includes all people accessing subsidised HIV treatment from a public hospital pharmacy through the Pharmaceutical Benefits Scheme (PBS). It does not include people who may be accessing ART through other sources, including from a community pharmacy[12] only under the PBS and those who purchase HIV treatment from overseas, receive ART through clinical trials or are dispensed ART for post-exposure prophylaxis. It is of note

[7] In December 2013, Heath Share NSW completed the NSW rollout of a standardised iPharmacy system, which enables the collection of data from LHDs about pharmacy dispensing activities including dispensing of ART for HIV. 2013 was the first year for which actual treatment numbers can be ascertained. Past estimates were based on modelled data and therefore comparisons should be made with caution.

[8] Northern NSW, Mid North Coast, South Western Sydney, Justice Health, Murrumbidgee and Southern NSW LHDs came online with the iPharmacy system late in 2013. The 2014 calendar year ART dispensing data was the first complete data available of the public pharmacies from which iPharmacy data is extracted.

[9] The numbers displayed in the graph add up to a figure greater than the overall total of 7,953 for 01/01/15 -31/12/15. This is because a small number of cross-LHD patient flows are not eliminated

[10] 'Other' includes Central Coast 149 (1.9%); Far West/Western NSW 76 (0.96%); Murrumbidgee/Southern NSW 83 (1.04%); Childrens Hospital Network 13 (0.2%); Justice Health 57 (0.7%).

11 Data was updated on 17/5/16 to correct for a duplication error identified in the iPharmacy data.

12 Community pharmacy dispensing of ART commenced from 1 July 2015. Prior to this the dispensing of ART was restricted to Public Hospital pharmacies.

that public hospital pharmacy dispensing data no longer captures all HIV treatment dispensing in NSW as community dispensing of HIV treatments became available from 1 July 2015.

Almost three-quarters (73%) of all ART dispensing by NSW public hospital pharmacies in the year ending 31 December 2015 occurred through inner metropolitan pharmacies, with over half of all patients receiving ART from pharmacies at the Albion Centre (28.2%) or the St Vincent's Hospital (26.1%). A further 7.4% received ART from the Royal Prince Alfred Hospital and 7.1% from Sydney Hospital and Sydney Eye Hospital.

The NSW Ministry of Health is working with the Commonwealth Pharmaceutical Benefits Scheme towards making more comprehensive public hospital and community pharmacy ART dispensing data available, including data on ART initiations, the LHD of patient's residence, prescriber location and drug combinations.

4.2 What are the current antiretroviral treatment prescribing patterns?

4.2.1 LHDs

Data on the treatment status of clients who received HIV care in NSW public sexual health and HIV services in the year ending 31 December 2015 is summarised at Table 4[13].

Table 4: Clients who received HIV care in NSW public sexual health and HIV services from 1 January 2015 and 31 December 2015

Total number of patients who received care between January 2015 and December 2015	5128
Number (%) of patients for whom treatment information was available	4610(90%)
Number (%) on ART	4227 (92%)
Number not on ART^ *	389 (8%)
Number (%) not on ART with CD4 count < 350	*79 (20%)*
Number (%) not on ART with CD4 count between 350 - 499	*63 (16%)*
Number (%) not on ART with CD4 count > 500	*209 (54%)*
Number who initiated ART*	354
Number (%) initiated at a CD4 count <350	*95 (27%)*
Number (%) initiated at a CD4 count between 350 - 500	*65 (18%)*
Number (%) initiated at a CD4 count >500	*194 (55%)*

^Includes ART naïve clients and clients who have stopped ART
Data source: NSW Health HIV Strategy Monitoring Database[14]
*CD4 count data was not submitted by all services or for all patients.

Comment

[13] Data is representative of all clients who has received HIV care in NSW public HIV and sexual health services in the last 12 months where treatment information is available.
[14] Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the *NSW HIV Strategy*.

In the year ending 31 December 2015, at least 5,128 clients with HIV received care in public HIV and sexual health clinics in NSW. The available data indicates that treatment coverage in public clinics is high at 92%.

In the year ending 31 December 2015, 354 people living with HIV initiated ART at public HIV and sexual health clinics in NSW; this number is greater than the total number of new diagnoses in NSW in the same period (n=350) and does not include any persons initiating ART in the private sector.

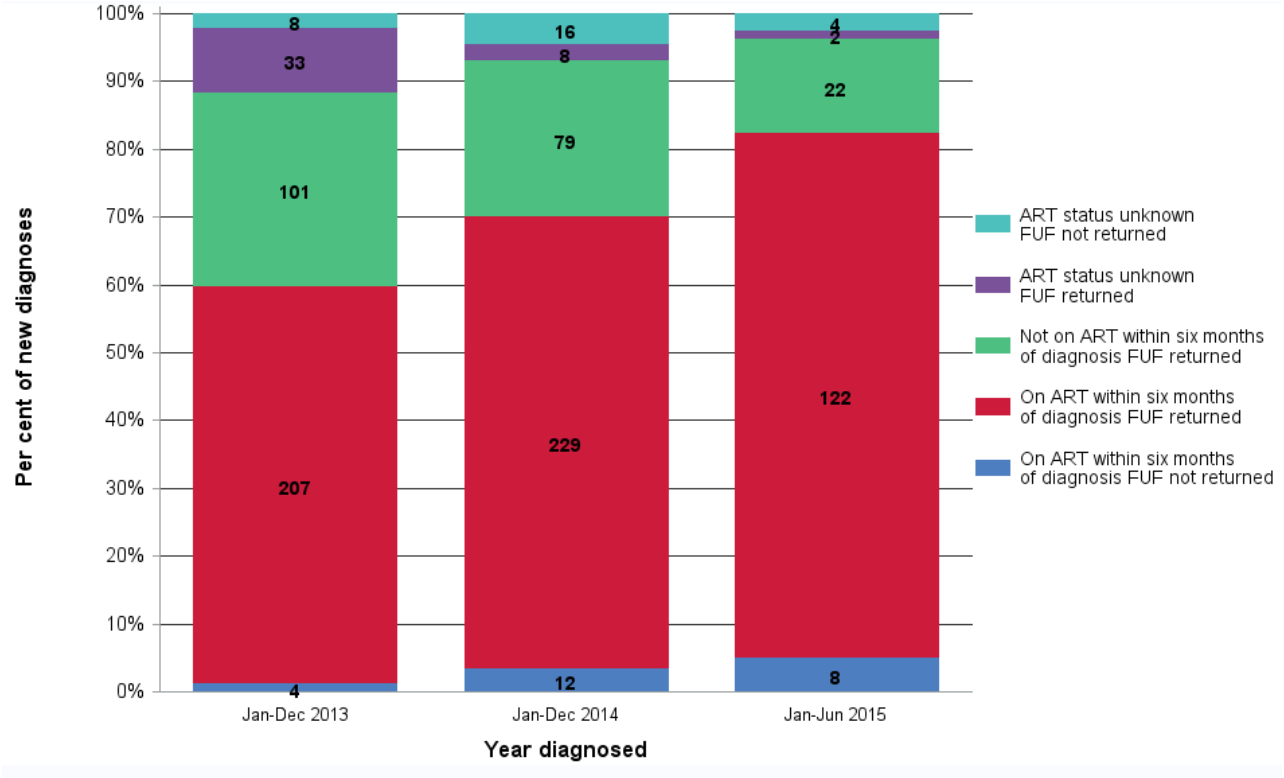
4.2.2 ART commencement six months post diagnosis among NSW residents notified with newly diagnosed HIV infection 1 January 2013 to 30 June 2015

Since 2013, HIV surveillance in NSW was enhanced to:

a) at the time of diagnosis, collect from doctors additional information on the patient's HIV viral load, antiretroviral therapy (ART) commencement or deferral, and;
b) at six months post diagnosis, follow up on the patient via their doctor to collect information on retention in care, ART commencement, pre-ART and latest HIV viral load and CD4 count.

In each of these quarterly reports, the cases reported on with respect to ART commencement six months post diagnosis, will have been diagnosed at least six months prior. Therefore in this report we present the six months post diagnosis follow up data on 855 NSW residents newly diagnosed with HIV infection from 1 January 2013 up to 30 June 2015. Managing services had returned 803 (94%) of the six month post diagnosis follow up forms on these 855 new diagnoses (Figure 24).

Figure 24: Per cent of 855 NSW residents newly diagnosed with HIV infection 2013 (n=353), 2014 (n=344) and January to June 2015 (n=158) by follow up form (FUF) return and ART status six months post diagnosis



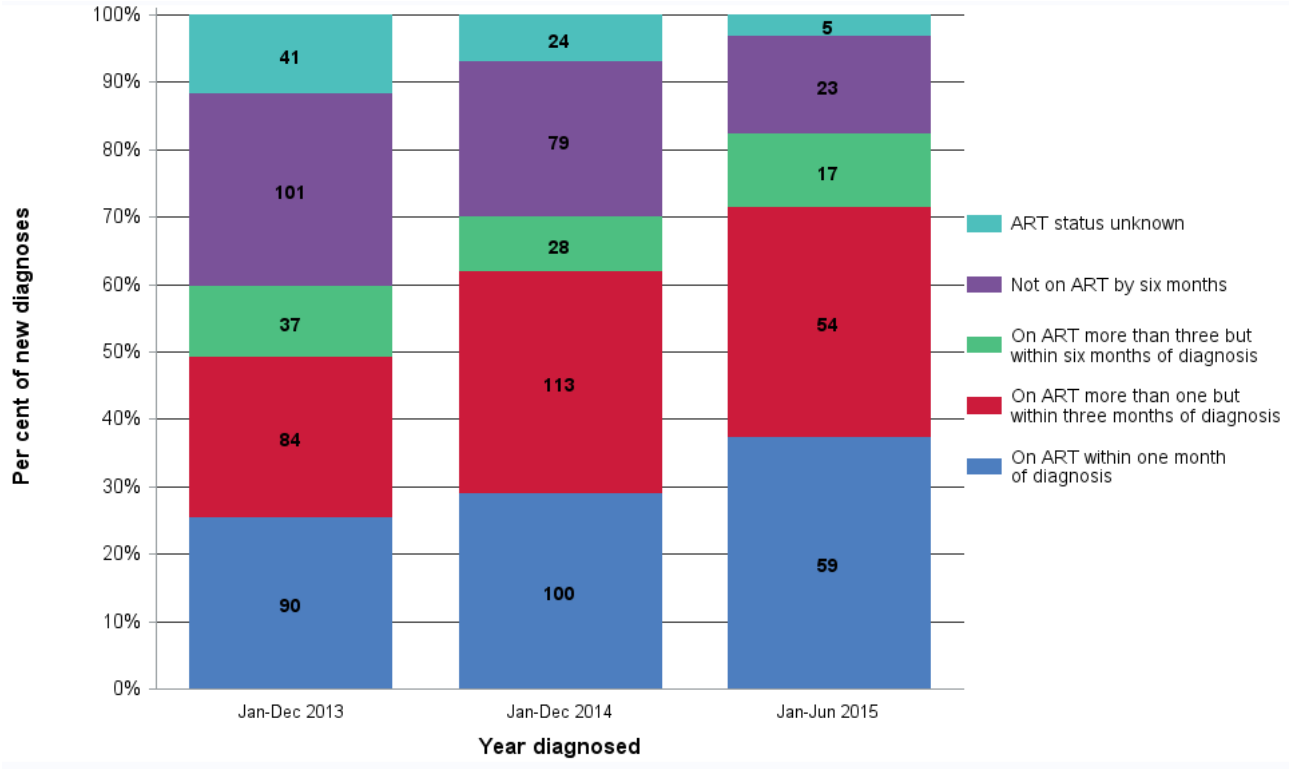
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Of 803 new diagnoses with follow up information, 669 (83%) were reported to be retained in care in NSW at the time of follow up. Of the 669 new diagnoses 1 January 2013 to 30 June 2015 retained in care in NSW at six months post diagnosis follow up, 510 (76%) had commenced ART within six months of diagnosis and a further 62 (9%) were known to have commenced ART more than six months post diagnosis.

ART uptake within six months of diagnosis among new diagnoses 1 January 2013 to 30 June 2015

Data on commencement of ART by six months post diagnosis was drawn from six months post diagnosis follow up form (FUF) data and HIV notification form data and combined for analysis. All new diagnoses were included independent of care outcome reported at the six months post diagnosis follow up.

Figure 25: Per cent of 855 NSW residents newly diagnosed with HIV infection 2013 (n=353), 2014 (n=344) and January to June 2015 (n=158) by ART commencement status at one, three and six months post diagnosis, based on both notification and six month post diagnosis follow up data



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

Of all 855 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 30 June 2015, 582 (68%) were reported to have commenced ART within six months of diagnosis. This comprises 211 (60%) of the 353 new diagnoses in 2013, 241 (70%) of the 344 new diagnoses in 2014 and 130 (82%) of the 158 new diagnoses from January to June 2015.

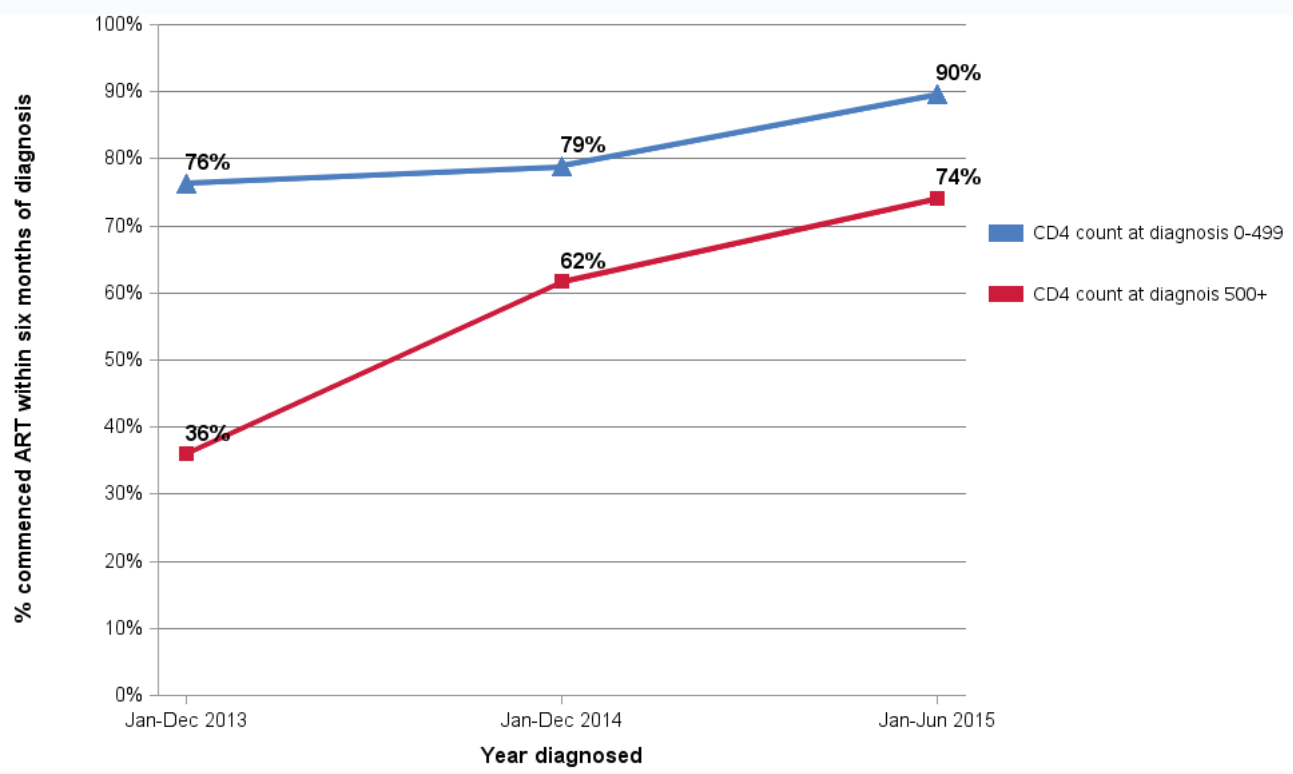
In the most recent quarter of new diagnoses followed up six months post diagnosis, which was the 73 NSW residents newly diagnosed from 1 April to 30 June 2015, 58 (80%) were reported to have commenced ART within six months of diagnosis.

Of the new diagnoses in 2013, 25% had commenced ART within one month of diagnosis, which increased to 29% among the 2014 new diagnoses and to 37% of those newly diagnosed in January to June 2015.

Of the new diagnoses in 2013, 49% had commenced ART within three months of diagnosis, which increased to 62% among the 2014 new diagnoses and to 72% of those newly diagnosed in January to June 2015.

Of the 273 NSW residents newly diagnosed 1 January 2013 to 30 June 2015 who either had not commenced ART or who were of unknown ART status within six months of diagnosis, 66 (24%) were known to have commenced ART more than six months post diagnosis.

Figure 26: Per cent of NSW residents notified with newly diagnosed HIV infection in 2013, 2014 and January to June 2015 who had commenced ART within six months by CD4 at diagnosis.



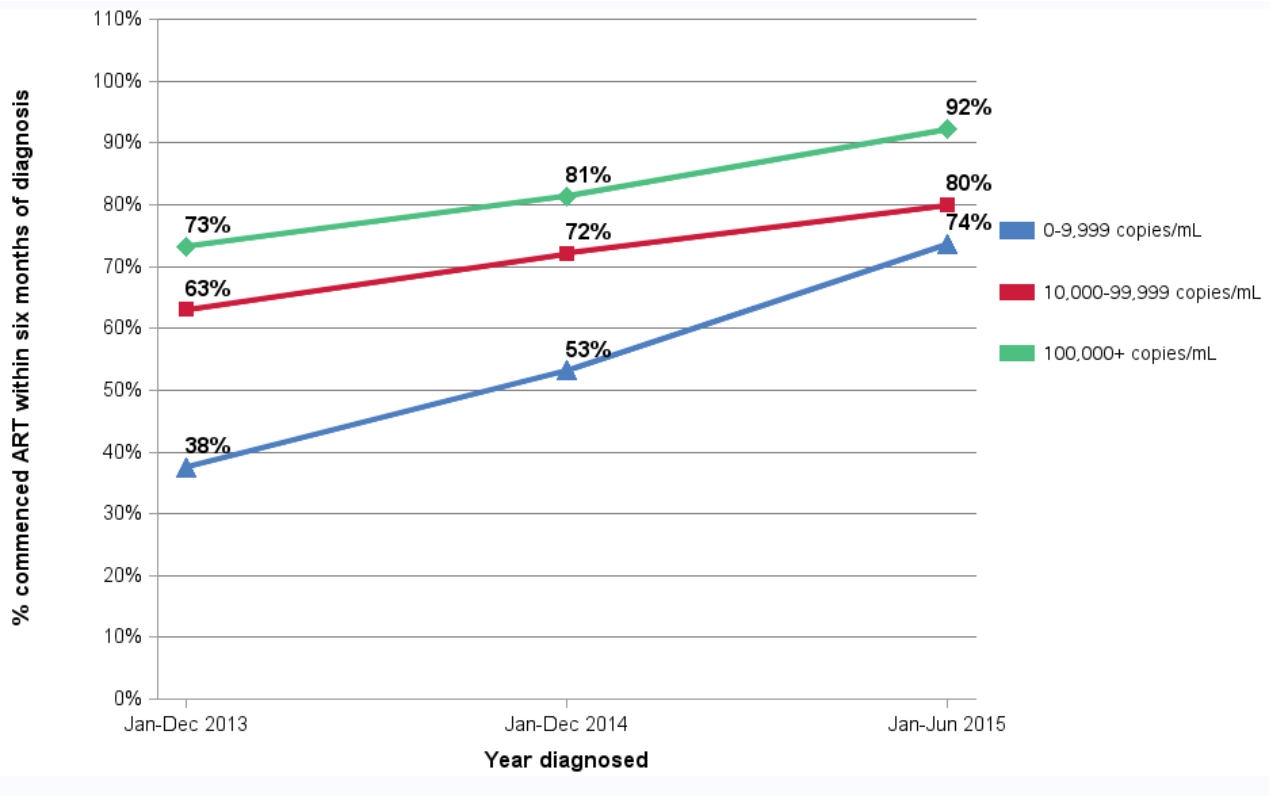
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

The per cent of new diagnoses with a CD4 count 0-499 cells/µL at diagnosis that commenced ART within six months of diagnosis was 76% of the 2013 new diagnoses, 79% of the 2014 new diagnoses and 90% of the January to June 2015 new diagnoses.

The per cent of new diagnoses with a CD4 count of 500 or over at diagnosis that commenced ART within six months of diagnosis was 36% of the 2013 new diagnoses, 62% of the 2014 new diagnoses and 74% of the January to June 2015 new diagnoses.

Figure 27: Per cent of NSW residents notified with newly diagnosed HIV infection in 2013, 2014 and January to June 2015 who had commenced ART within six months by HIVVL at diagnosis



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

Comment

The per cent of new diagnoses with a HIV VL of 0-9,999 copies/mL at diagnosis that commenced ART within six months of diagnosis was 38% of the 2013 new diagnoses, 53% of the 2014 new diagnoses and 74% of the January to June 2015 new diagnoses.

The per cent of new diagnoses with a HIV VL of 10,000-99,999 at diagnosis that commenced ART within six months of diagnosis was 63% of the 2013 new diagnoses, 72% of the 2014 new diagnoses and 80% of the January to June 2015 new diagnoses.

The per cent of new diagnoses with a HIV VL of 100,000 or over at diagnosis that commenced ART within six months of diagnosis was 73% of the 2013 new diagnoses, 81% of the 2014 new diagnoses and 92% of the January to June 2015 new diagnoses.

HIV viral load suppression after commencing ART reported at six months post diagnosis follow up

Of the 582 of 855 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 30 June 2015 who had commenced ART within six months of diagnosis, 529 (91%) also had a post ART HIV viral load reported at the time of follow up; of these 501 (95%) had a post ART HIV VL less than 400 copies/mL and 437 (83%) had an undetectable (or less than 50) post ART HIV VL. Overall of 855 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 30 June 2015, 501 (59%) were known to have achieved HIV VL suppression.

5. Sustain the virtual elimination of HIV related deaths

5.1 What is the number of deaths for which HIV/AIDS was reported as underlying cause?

Ascertaining the number of deaths due to HIV is complex in an era when people with HIV have access to effective treatment giving them a long life expectancy. People with HIV are subject to the same causes of morbidity and mortality as are people without HIV. Methods to better estimate deaths attributable to HIV are being investigated.

Appendix A: Characteristics of NSW residents notified with newly diagnosed HIV infection 1981 to 31 Dec 2015

Case characteristics	1981-2007		2008		2009		2010		2011		2012		2013		2014		2015		1981-2015	
Gender	**14835**	**%**	**327**	**%**	**336**	**%**	**305**	**%**	**330**	**%**	**411**	**%**	**353**	**%**	**344**	**%**	**350**	**%**	**17591**	**%**
Male	13660	92.1	295	90.2	295	87.8	280	91.8	309	93.6	374	91.0	323	91.5	319	92.7	321	91.7	16176	92.0
Female	898	6.1	32	9.8	38	11.3	23	7.5	21	6.4	36	8.8	27	7.6	24	7.0	28	8.0	1127	6.4
Transgender	30	0.2	0	0.0	2	0.6	2	0.7	0	0.0	1	0.2	3	0.8	1	0.3	1	0.3	40	0.2
Unknown	247	1.7	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	248	1.4
Aboriginal person status																				
Aboriginal person	112	0.8	9	2.8	9	2.7	7	2.3	5	1.5	12	2.9	8	2.3	7	2.0	6	1.7	175	1.0
Non-Aboriginal person	7873	53.1	302	92.4	315	93.8	293	96.1	323	97.9	393	95.6	343	97.2	329	95.6	338	96.6	10509	59.7
Not stated/unknown	6850	46.2	16	4.9	12	3.6	5	1.6	2	0.6	6	1.5	2	0.6	8	2.3	6	1.7	6907	39.3
Years of age at diagnosis																				
0-4	37	0.2	0	0.0	1	0.3	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	39	0.2
5-9	21	0.1	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	23	0.1
10-14	35	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	36	0.2
15-19	265	1.8	3	0.9	3	0.9	5	1.6	6	1.8	9	2.2	9	2.5	2	0.6	6	1.7	308	1.8
20-24	1834	12.4	39	11.9	34	10.1	29	9.5	34	10.3	44	10.7	37	10.5	41	11.9	46	13.1	2138	12.2
25-29	2988	20.1	58	17.7	58	17.3	56	18.4	55	16.7	76	18.5	64	18.1	52	15.1	64	18.3	3471	19.7
30-34	3062	20.6	44	13.5	42	12.5	49	16.1	65	19.7	71	17.3	48	13.6	64	18.6	61	17.4	3506	19.9
35-39	2501	16.9	64	19.6	59	17.6	43	14.1	59	17.9	64	15.6	42	11.9	45	13.1	45	12.9	2922	16.6
40-44	1768	11.9	53	16.2	58	17.3	51	16.7	44	13.3	47	11.4	44	12.5	45	13.1	32	9.1	2142	12.2
45-49	1004	6.8	32	9.8	30	8.9	30	9.8	26	7.9	38	9.2	45	12.7	29	8.4	27	7.7	1261	7.2
50-54	593	4.0	14	4.3	28	8.3	7	2.3	25	7.6	28	6.8	24	6.8	26	7.6	29	8.3	774	4.4
55-59	317	2.1	10	3.1	12	3.6	22	7.2	10	3.0	14	3.4	22	6.2	15	4.4	12	3.4	434	2.5
60-64	176	1.2	6	1.8	1	0.3	5	1.6	2	0.6	13	3.2	6	1.7	14	4.1	15	4.3	238	1.4
65-69	92	0.6	0	0.0	4	1.2	6	2.0	2	0.6	4	1.0	9	2.5	7	2.0	7	2.0	131	0.7
70 or over	54	0.4	4	1.2	5	1.5	1	0.3	2	0.6	3	0.7	2	0.6	3	0.9	6	1.7	80	0.5
Unknown	88	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	88	0.5
Total	**14835**	**%**	**327**	**%**	**336**	**%**	**305**	**%**	**330**	**%**	**411**	**%**	**353**	**%**	**344**	**%**	**351**	**%**	**17592**	**%**

Self-reported HIV risk exposure	1981-2007		2008		2009		2010		2011		2012		2013		2014		2015		1981-2015	
Men who have sex with men (MSM)	9015	60.8	236	72.2	221	65.8	226	74.1	267	80.9	320	77.9	264	74.8	257	74.7	262	74.9	11068	62.9
MSM and person who injects drugs (PWID)	402	2.7	11	3.4	17	5.1	8	2.6	11	3.3	14	3.4	16	4.5	19	5.5	21	6.0	519	3.0
Heterosexual exposure	1119	7.5	64	19.6	74	22.0	51	16.7	41	12.4	57	13.9	61	17.3	49	14.2	52	14.9	1568	8.9
PWID	489	3.3	12	3.7	12	3.6	9	3.0	8	2.4	10	2.4	7	2.0	8	2.3	4	1.1	559	3.2
Blood disorder, blood or tissue recipient	275	1.9	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1*	0.3	277	1.6
Vertical transmission	45	0.3	0	0.0	2	0.6	1	0.3	0	0.0	0	0.0	1	0.3	1	0.3	0	0.0	50	0.3
Other	34	0.2	0	0.0	2	0.6	1	0.3	1	0.3	2	0.5	1	0.3	4	1.2	4	1.1	49	0.3
Unknown	3456	23.3	4	1.2	7	2.1	9	3.0	2	0.%	8	1.9	3	0.8	6	1.7	6	1.7	3501	19.9
LHD of residence																				
South Eastern Sydney	4540	30.6	118	36.1	106	31.5	109	35.7	123	37.3	150	36.5	124	35.1	112	32.6	127	36.3	5509	31.3
Sydney	2227	15.0	77	23.5	92	27.4	76	24.9	88	26.7	113	27.5	87	24.6	82	23.8	84	24.0	2926	16.6
Northern Sydney	783	5.3	25	7.6	39	11.6	19	6.2	24	7.3	23	5.6	25	7.1	18	5.2	24	6.9	980	5.6
Western Sydney	524	3.5	26	8.0	21	6.3	20	6.6	31	9.4	25	6.1	27	7.6	27	7.8	21	6.0	722	4.1
South Western Sydney	485	3.3	16	4.9	21	6.3	25	8.2	18	5.5	30	7.3	33	9.3	30	8.7	33	9.4	691	3.9
Hunter New England	352	2.4	14	4.3	16	4.8	16	5.2	10	3.0	14	3.4	17	4.8	27	7.8	16	4.6	482	2.7
Nepean Blue Mountains	222	1.5	7	2.1	3	0.9	3	1.0	4	1.2	5	1.2	3	0.8	6	1.7	6	1.7	259	1.5
Illawarra Shoalhaven	174	1.2	3	0.9	5	1.5	8	2.6	5	1.5	9	2.2	7	2.0	6	1.7	7	2.0	224	1.3
Northern NSW	145	1.0	4	1.2	5	1.5	8	2.6	11	3.3	5	1.2	5	1.4	7	2.0	7	2.0	197	1.1
Central Coast	148	1.0	6	1.8	5	1.5	5	1.6	4	1.2	10	2.4	5	1.4	8	2.3	5	1.4	196	1.1
Mid North Coast	102	0.7	8	2.4	6	1.8	3	1.0	4	1.2	3	0.7	6	1.7	7	2.0	6	1.7	145	0.8
Western NSW	91	0.6	3	0.9	3	0.9	4	1.3	3	0.9	7	1.7	5	1.4	2	0.6	2	0.6	120	0.7
Murrumbidgee-Albury	60	0.4	3	0.9	2	0.6	7	2.3	2	0.6	5	1.2	3	0.8	3	0.9	4	1.1	89	0.5
Southern NSW	29	0.2	3	0.9	6	1.8	1	0.3	2	0.6	8	1.9	4	1.1	4	1.2	2	0.6	59	0.3
Far West	4	0.0	0	0.0	2	0.6	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	0	0.0	8	0.0
Unknown or other**	4949	33.4	14	4.3	4	1.2	1	0.3	1	0.3	2	0.5	2	0.6	5	1.5	6	1.7	4984	28.3
Total	**14835**	**%**	**327**	**%**	**336**	**%**	**305**	**%**	**330**	**%**	**411**	**%**	**353**	**%**	**344**	**%**	**350**	**%**	**17591**	**%**

Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 11 February 2016

*receipt of blood or tissue five years prior overseas.

** includes diagnoses in Justice Health system

Appendix B: Ending HIV Seven Statements Evaluation, ACON 2015

The table below shows the figures over the five separate surveys.

Percentage of respondents who strongly agree or agree with the statements below.							
Answer Options	**FEB 2013 (n=233)**	**MAY 2013 (n=517)**	**NOV 2013 (n=553)**	**APRIL 2014 (n=530)**	**DEC 2014 (n=549)**	**APR 2015 (n=602)**	**+/-**
Everything has changed, we can now dramatically reduce HIV transmission	48%	59%	59%	67%	61%	71%	**+23**
Now more than ever, gay men need to know their HIV status	81%	85%	86%	90%	89%	91%	+10
Sexually active gay men should take an HIV test at least twice a year	88%	87%	92%	93%	89%	92%	+4
HIV treatments now offer increased health benefits and fewer side effects	65%	66%	67%	73%	69%	75%	+10
HIV treatments significantly reduce the risk of passing on HIV	33%	42%	50%	64%	59%	69%	**+36**
Early HIV treatment is better for your health and can help protect your sex partners	74%	80%	89%	91%	92%	93%	**+19**
Condoms continue to be the most effective way of preventing HIV transmission	95%	92%	92%	91%	91%	85%	-10

Survey methodology:
Each of the five online evaluation surveys was developed and analysed by an independent consultant using the Survey Monkey online tool. Each survey was run over a one to three week period. In addition to 30 to 40 mainly multiple choice questions, with a few opportunities for respondents to provide comments, respondents were provided with a set of seven statements and asked to indicate whether they agree or disagree with the statements (using a five point scale)

Recruitment methodology:
Respondents were mainly recruited through the placement of survey advertisements on Facebook undertaken by ACON.

Survey objectives:
The online evaluation survey focussed on measuring a) advertisement awareness, b) engagement with campaign components, and c) self-reported impact and getting answers to seven statements.

Appendix C: eTEST study, 2014

3.2.1 General practice

Table 2 displays the number of HIV tests done and positivity for 3 clinics with high caseloads of MSM clients located in South Eastern Sydney LHD between 1 January 2012 and 30 June 2014.

Table 5: HIV testing and positivity among general practice clinics with high caseloads of MSM

Year	Q	Total tests	Positives*	Positivity
2012	Total	6611	122	1.8%
2013	1	1732	32	1.8%
	2	1656	26	1.6%
	3	1847	26	1.4%
	4	1775	16	0.9%
	Total	7010 (+6%)	100 (-18%)	1.4% (-0.4%)
2014	1	1943	18	0.9%
	2	1798	17	1.2%

*not all new diagnoses

Data source: eTEST study (2014)

Comment

In three general practice clinics with high caseloads of MSM located in South East Sydney LHD, HIV testing increased by 10% in the first half of 2014 compared with the first half of 2013.

Appendix D: NSW Sex Worker Project, 2015

Table 1 displays longitudinal data for males and females reporting sex work and attending sexual health clinics in NSW between 2009 and 2015, including the number tested for HIV, the number of new HIV diagnoses and HIV positivity.

Table 1: HIV testing and diagnoses for male and female sex workers in NSW attending publicly funded sexual health services in NSW between 2009 and 2015

		2009	2010	2011	2012	2013	2014	2015	p-trend
Female sex workers	Attended*	1,998	2,077	2,048	2,021	1,997	2,127	2,174	
	Total tested for HIV	1,551	1,673	1,699	1,601	1,652	1,836	1,848	
	New HIV diagnoses	<5	0	<5	<5	<5	<5	<5	
	HIV positivity	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.5
Male sex workers	Attended*	170	247	185	191	214	307	318	
	Total tested for HIV	111	162	138	141	178	275	293	
	New HIV diagnoses	<5	<5	<5	<5	<5	5	5	
	HIV positivity	1.8%	1.2%	2.2%	2.1%	2.2%	1.8%	1.7%	0.2

*excludes HIV positive patients
Data source: ACCESS (The Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of Sexually Transmissible Infections and Blood Borne Viruses). Data from 29 publicly funded sexual health clinics in New South Wales are included here: 12 located in a major city, 15 in inner/outer regional areas, and 2 in remote/very remote areas. A total of 7 clinics were excluded due to incomplete data.

Comment

HIV diagnoses remain rare among both male and female sex workers in NSW. HIV positivity remained stable between 2009 and 2015, at around 0.1% for female sex workers (p=0.5) and 1.9% on average for male sex workers (p=0.2).