

NSW HIV Strategy 2012 – 2015

Quarter 2 2014 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.

Recent evidence suggests that combination antiretroviral (ART) treatment can offer 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 range of activities NSW health is engaged in to meet these targets and current progress is summarised in the [NSW HIV Snapshot](#).

To monitor progress in meeting the targets set by the Strategy, a range of data sources have been identified and a strategy for data collection, analysis and reporting is in place.

Between January to June 2014:

- 185 people were newly diagnosed with HIV, a three per cent (%) increase compared with 179 new diagnoses notified during the first half of 2013 and a six per cent decrease compared with the first half of 2012. Of these 185, 121 (65%) had a CD4 count of 350 cells/ μ L or over, compared with 59% for the five year average 2009 to 2013.
- There were 234,153 HIV serology tests performed across 15 laboratories in NSW, compared with 225,615 (4% increase) in the same period in 2013 and 214,731 (9% increase) in the same period in 2012.
- HIV testing continued to increase both overall in NSW, and among high risk populations.
- Data from public sexual health and HIV clinics indicate 90% of people living with HIV who attended these services in the year ending 30 June 2014 were on antiretroviral treatment.

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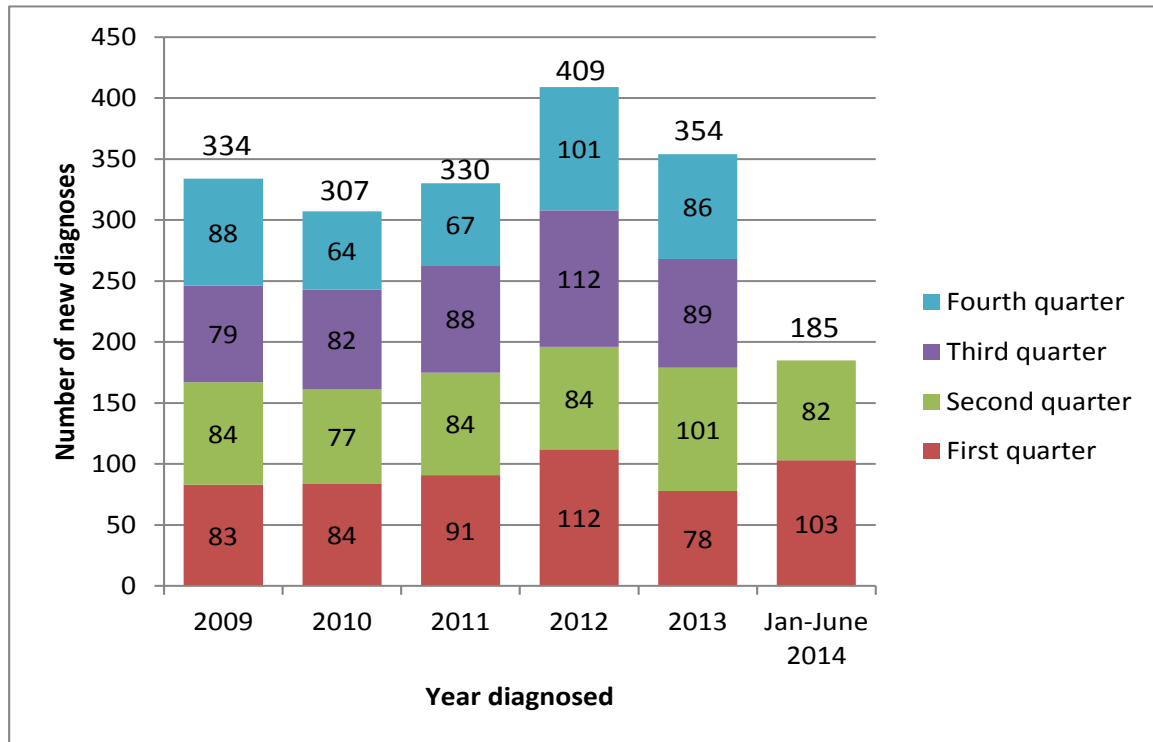
Glossary of Terms

ART	Antiretroviral treatment
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 newly diagnosed with HIV 1 January 2009 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

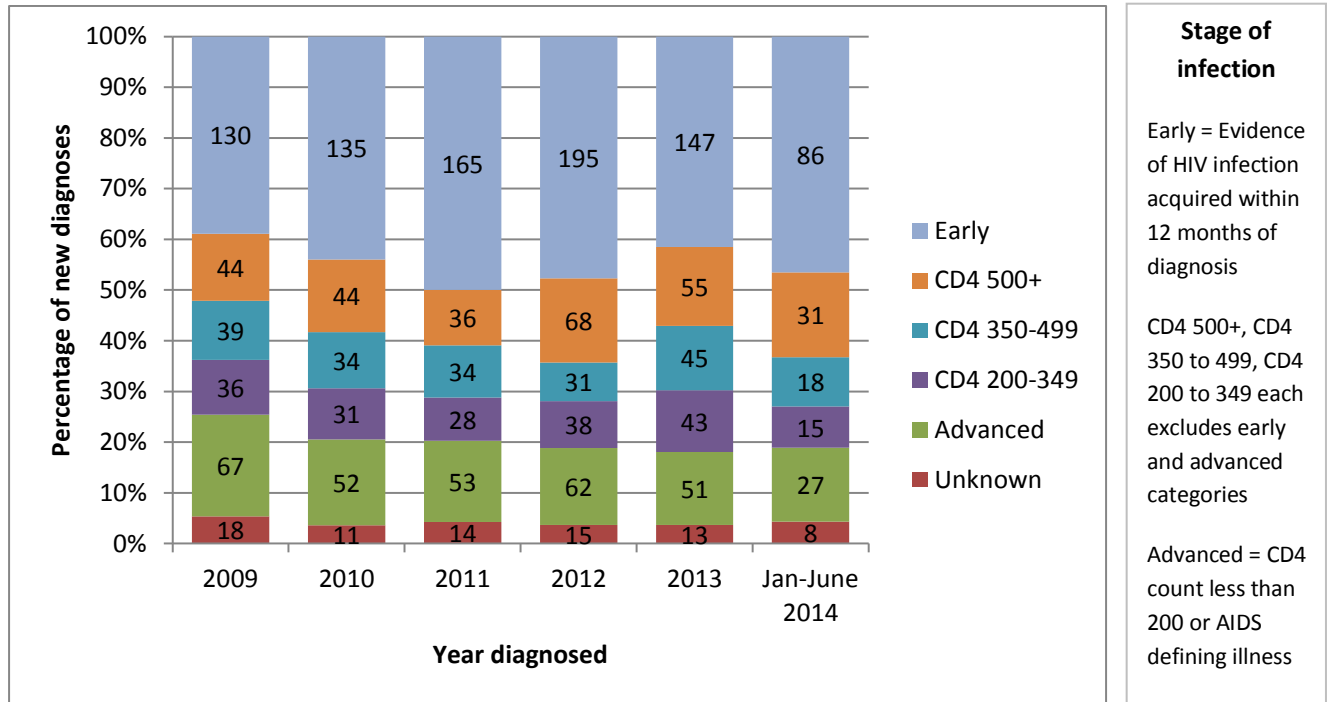
Comment

In the period 1 April to 30 June 2014 (second quarter), 82 NSW residents were newly diagnosed with HIV infection and notified to NSW Health (Figure 1), with 185 new diagnoses notified from 1 January to 30 June 2014. This was a three per cent (%) increase compared with 179 new diagnoses notified during the same period in 2013 and a six per cent decrease compared with the same period in 2012.

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 gives an indication as to the timeliness of diagnosis.

Figure 2: Number and percentage of HIV notifications by stage of infection at diagnosis¹, 1 January 2009 to 30 June 2014



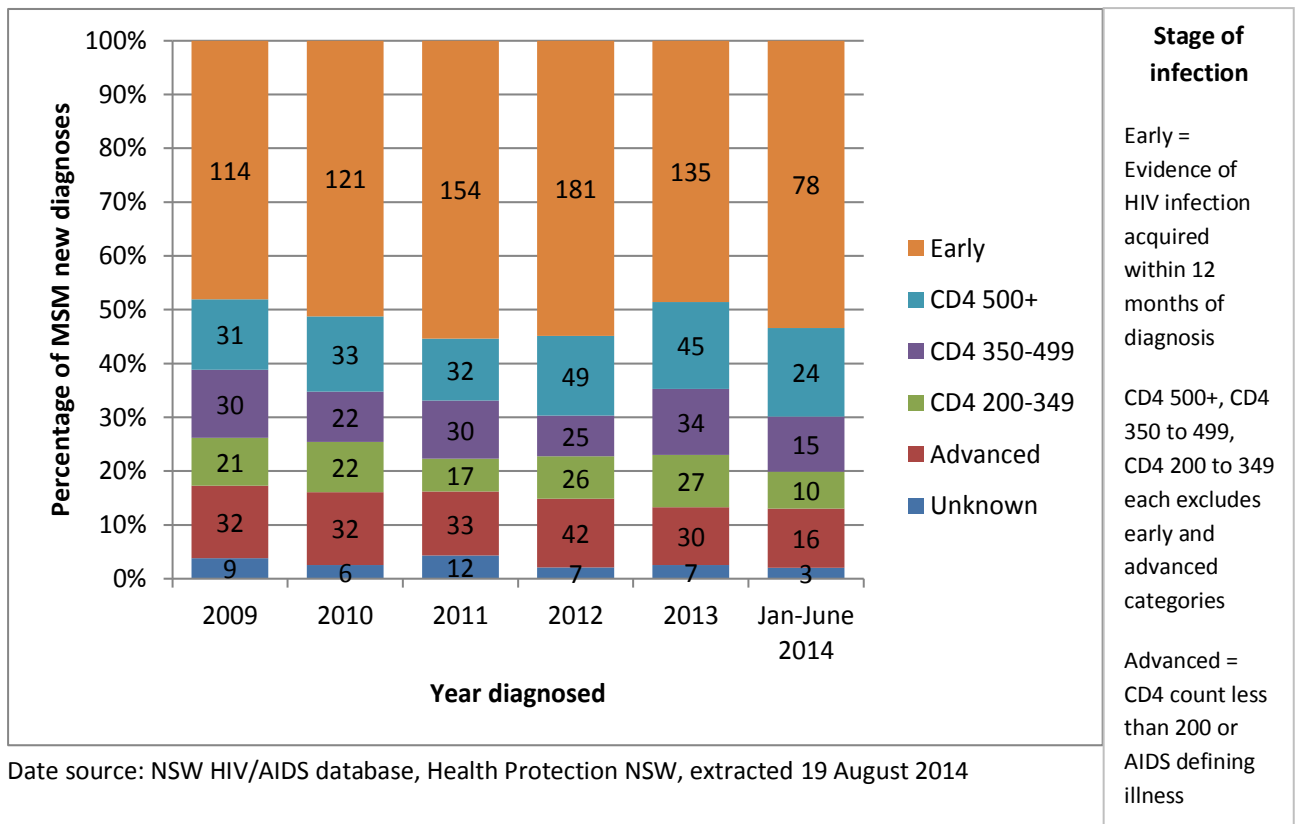
Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

¹Evidence of early stage infection was defined as notification of a sero conversion illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or presentation with an AIDS defining illness at diagnosis

Comment

In the first six months of 2014, 86 of 185 (46%) NSW residents newly diagnosed with HIV infection presented with evidence of early stage infection, similar to the full years 2009 to 2013 (39%, 44%, 50%, 48% and 42% respectively).

Figure 3: Number and percentage of HIV notifications who were men who have sex with men (MSM), by stage of infection at diagnosis¹, 1 January 2009 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

¹Evidence of early stage infection was defined as notification of a sero-conversion illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or presentation with an AIDS defining illness at diagnosis

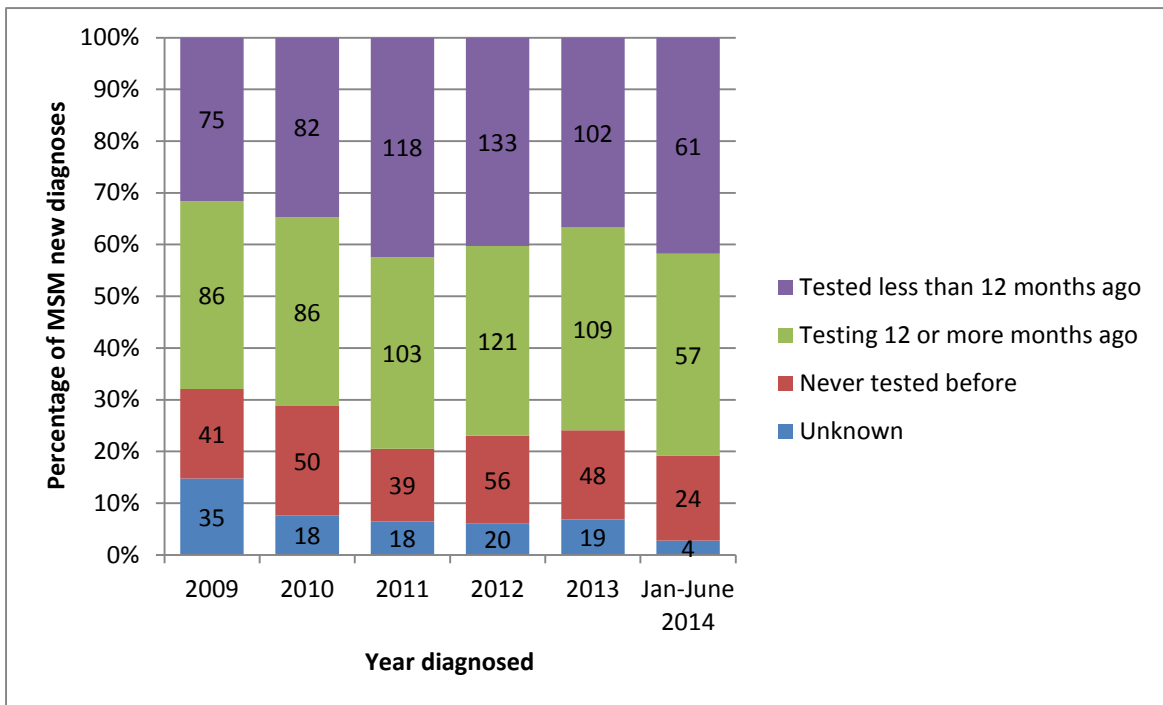
Comment

In the first six months of 2014, 78 of 146 (53%) new diagnosed men who reported having sex with men (MSM) presented with evidence of early stage infection, similar to the full years of 2009 to 2013 (48%, 51%, 55%, 55% and 49% respectively).

One of the aims of the HIV testing strategies implemented by NSW is to achieve more timely diagnosis of people infected with HIV by increasing HIV testing, so as to link them with appropriate care and treatment as soon as possible and identify and trace all contacts in a timely manner, to reduce the opportunity for ongoing transmission.

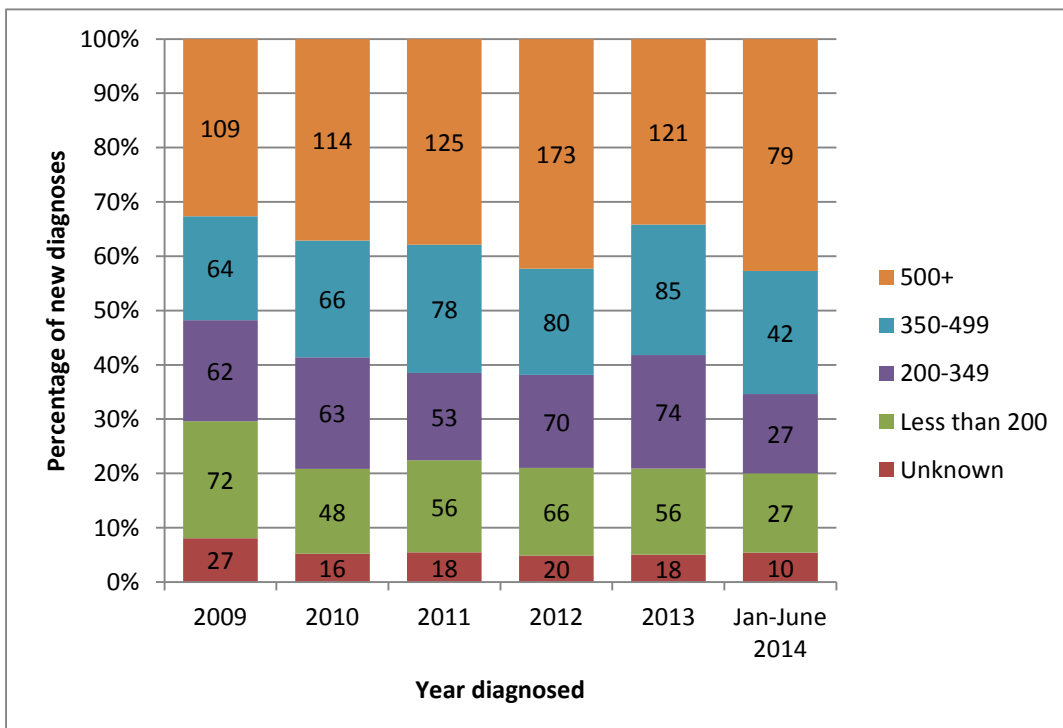
Of 146 new diagnoses 1 January to 30 June 2014 who were MSM, 61 (42%) were reported by either laboratory, doctor, patient or other as having had a negative or indeterminate HIV test within 12 months of their diagnosis date, a slightly higher proportion compared with the average (37.5%) for the years 2009 to 2013 (32%, 35%, 42%, 40%, 37% respectively) (Figure 4).

Figure 4: Number and percentage of MSM by HIV testing history, 1 January 2009 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Figure 5: Number and percentage of HIV notifications by CD4 count (cells/ μ L) at diagnosis, 1 January 2009 to 30 June 2014



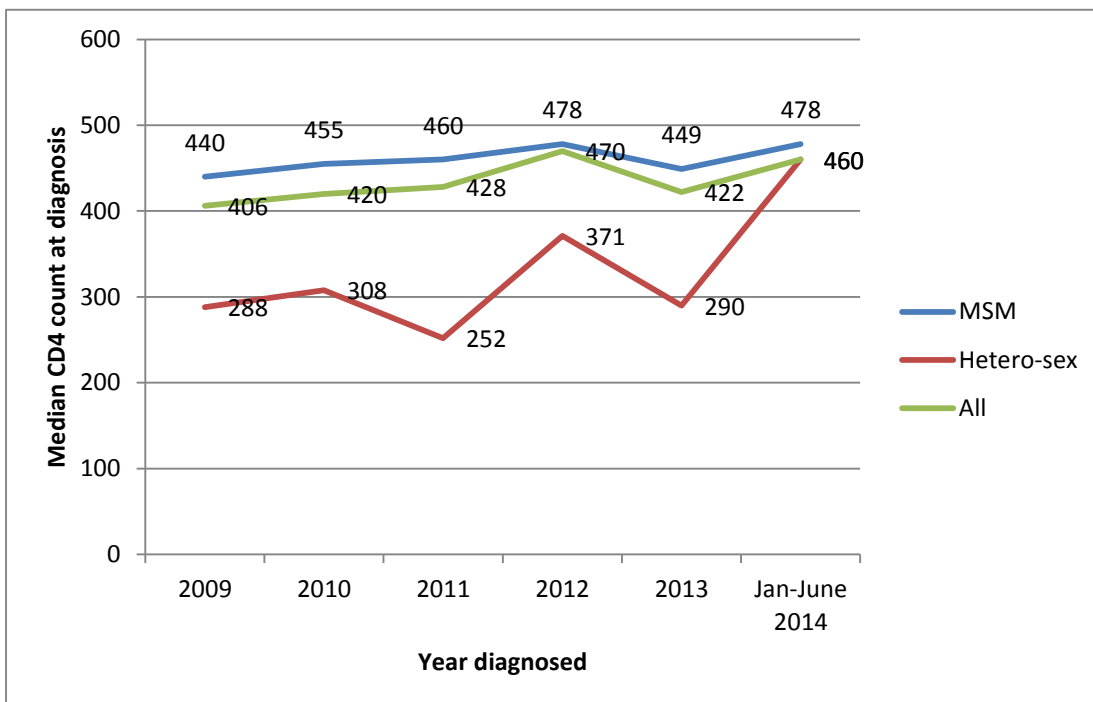
Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Comment

Among 185 NSW residents newly diagnosed with HIV from 1 January to 30 June 2014, 54 (29%) had a CD4 count less than (<) 350 cells/ μ L at diagnosis, an indicator of late diagnosis. This is a lower proportion with a CD4 < 350 compared with the five year average (35%) for 2009 to 2013 (40%, 36%, 33%, 33% and 37% respectively) (Figure 5).

Conversely, 121 (65%) of the 185 NSW residents newly diagnosed with HIV in the first half of 2014 had a CD4 count 350 cells/ μ L or over, compared with the five year average (59%) for 2009 to 2013 (52%, 59%, 62%, 62% and 58% respectively) (Figure 5).

Figure 6: Median CD4 count of all HIV notifications and for the two major risk groups, 1 January 2008 to 30 June 2014

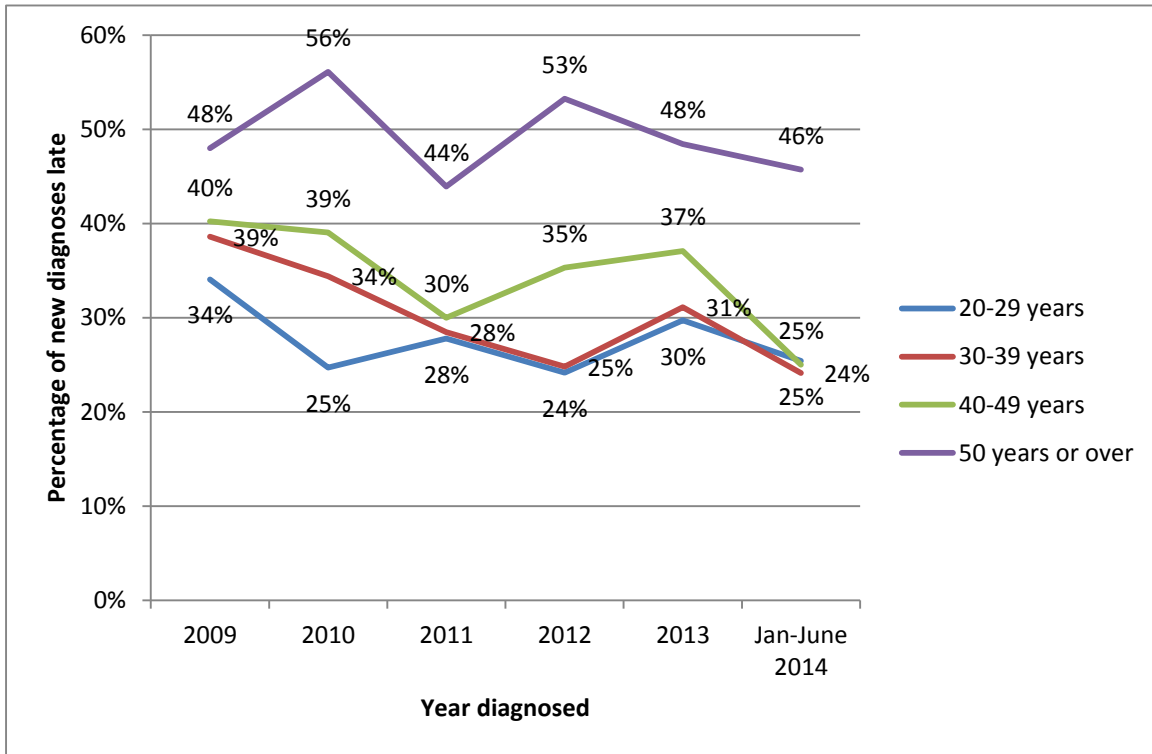


Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014.

Comment

The median CD4 count for NSW residents newly diagnosed with HIV infection in the first six months of 2014 appears elevated for all risk groups (Figure 6). A slightly higher median CD4 count at diagnosis is consistent with a slight reduction in late diagnosis, an objective of HIV testing strategies.

Figure 7: Percentage of HIV notifications with clinical or immunological evidence of late diagnosis¹ by age group, 1 January 2009 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

¹Clinical 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 evidence of a laboratory confirmed negative or indeterminate 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.

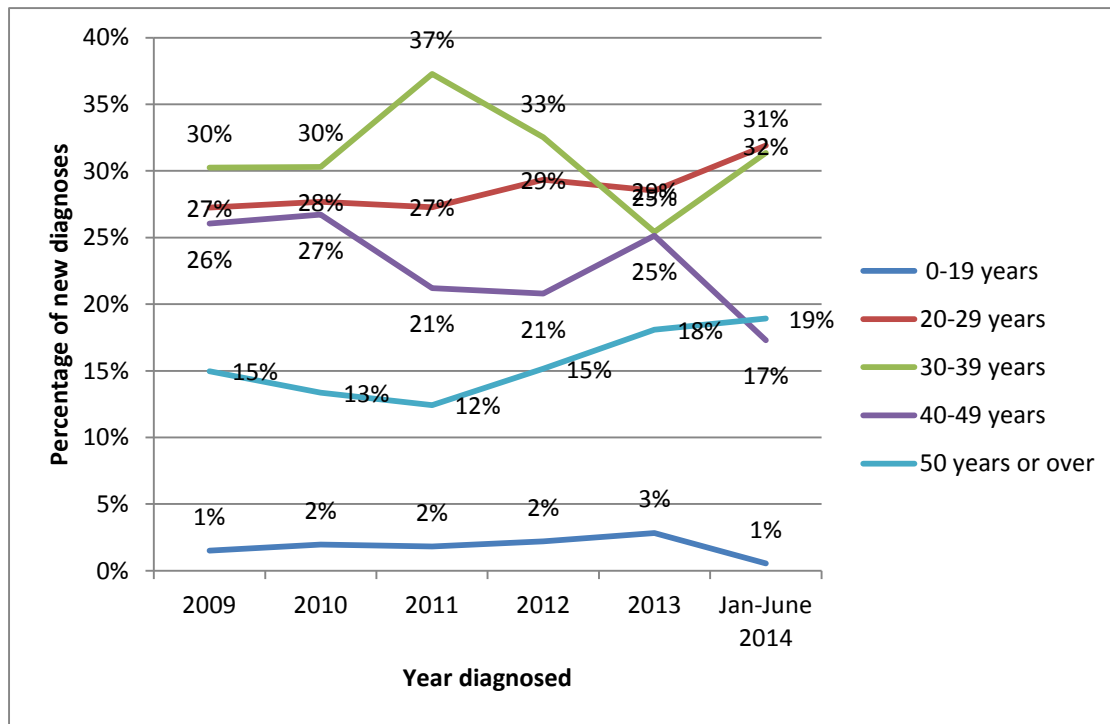
Comment

In general, the data shows that the older the age group, the greater is the proportion of newly diagnosed people within that age group with clinical or immunological evidence of late diagnosis (Figure 7). The age category “less than 20 years” was excluded from Figure 7 due to very low numbers. The 50 years and over age group has a distinctly higher proportion of people with evidence of late diagnosis compared with younger age groups. In the first half of 2014, the proportion of people newly diagnosed presenting with evidence of late stage diagnosis in the age groups 20-29, 30-39 and 40-49, was lower compared with the years 2009 to 2013. This may reflect a positive impact of HIV testing strategies.

1.3 Which groups are being notified?

Of 185 NSW residents newly diagnosed with HIV from 1 January to 30 June 2014, 173 (94%) were male and 12 (6%) were female (See Appendix A).

Figure 8: Percentage of HIV notifications by age group, 1 January 2009 to 30 June 2014

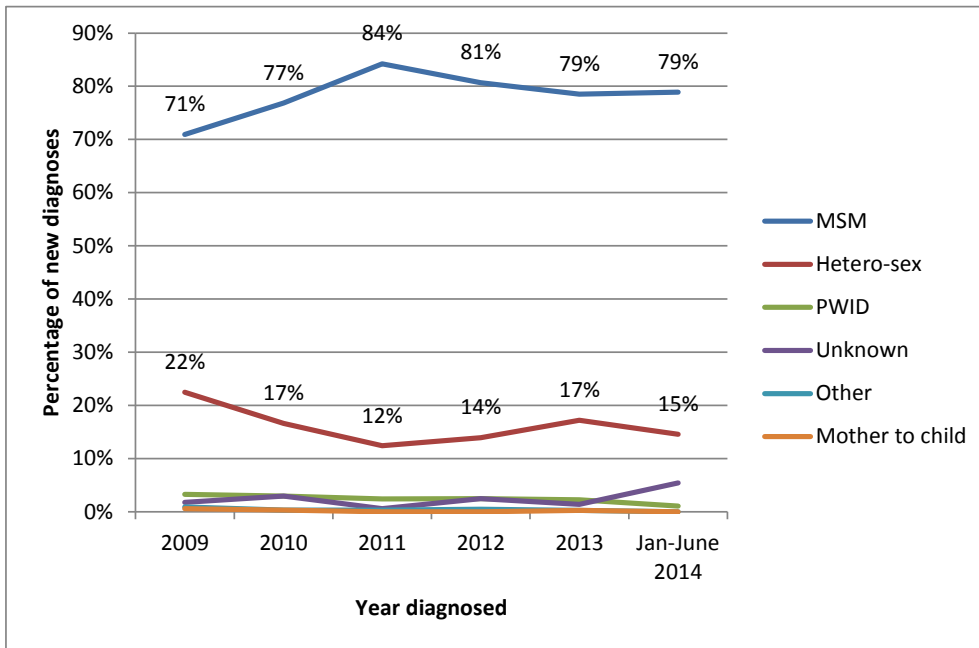


Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Comment

Of 185 NSW residents newly diagnosed with HIV in the first six months of 2014, 1 (1%) was less than 20 years of age at diagnosis, 59 (32%) were 20 to 29 years, 58 (31%) were 30 to 39 years, 32 (17%) were 40 to 49 years and 35 (19%) were 50 years or over (Figure 8). The upward trend in the proportion of notifications that are people aged 50 years or over continues.

Figure 9: Percentage of HIV notifications by risk exposure category, 1 January 2009 to 30 June 2014

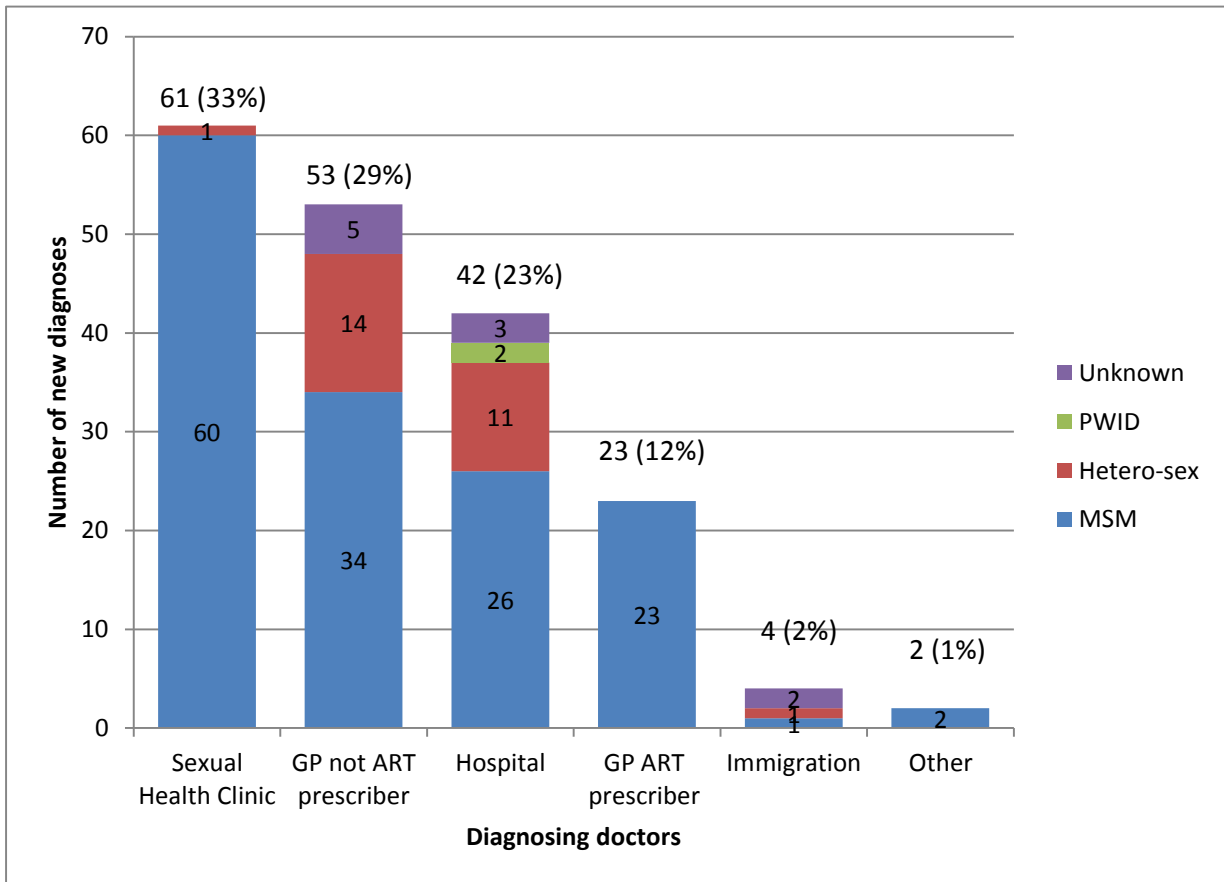


Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Comment

Among the 185 NSW residents newly diagnosed with HIV infection 1 January to 30 June 2014, 146 (79%) reported being MSM, 27 (15%) reported acquiring HIV through heterosexual sex, 2 (1%) were a person who injected drugs (PWID) and 10 (5%) had unknown exposure to HIV (Figure 9). Among the 146 MSM notifications 9 (6.2%) also injected drugs, compared with 61 of 1359 (4.5%) of MSM newly diagnosed 2009 to 2013 (Appendix A).

Figure 10: Number of HIV notifications by diagnosing doctor type and self-reported HIV risk exposure, 1 January to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Comment

Of 185 NSW residents newly diagnosed with HIV infection 1 January to 30 June 2014, 61 (33%) were diagnosed by sexual health clinics, 53 (29%) by general medical practitioners not accredited to prescribe HIV antiretroviral therapy (ART), 42 (23%) by doctors in hospital settings and 23 (12%) by general medical practitioners accredited to prescribe ART ('s100 GPs') (Figure 10).

2. Maintain safe behaviour

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

Condom use with casual partners among men who have sex with men is measured through the Sydney Gay Community Periodic Survey (SGCPS). Most recent data from the February 2014 SGCPS was presented in the Quarter 1 2014 report and are included here in Appendix B. Updated data from the February 2015 SGCPS will be presented in the Quarter 1 2015 report.

Questions have recently been introduced into the NSW Population Health Survey (NSWPHS) on sexual identity and HIV testing (quarter 4, 2013), and sex without a condom in the last 12 months and sex with more than one partner (quarter 1, 2014). Reporting of data from the NSWPHS will occur once the sample size is sufficient to produce reliable estimates of the proportion of men who have sex with men who report sex without a condom in the past year, and/or report sex with more than one partner.

2.2 How accessible are NSP services in NSW?

As of 30 June 2014, there were 1,151 NSP outlets located across NSW. This represents an increase of 122 additional outlets (12%) compared with same period in 2013 (NSP Enhanced Data Collection).

In the period 01 July 2013 to 30 June 2014, 12,276,897 units of injecting equipment were distributed in NSW. This represents an increase of 474,477 additional units (4%) compared with the previous 12 months (NSW NSP Data Collection).

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

Among people attending the NSW NSP in 2013, 20% reported sharing injecting equipment over a four week period (NSW NSP Enhanced Data Collection 2013).¹ The reported rate of sharing injecting equipment among NSP attendees in 2014 has decreased to 13% (NSW NSP Enhanced Data Collection 2014). Findings from the 2015 data collection will indicate whether the decrease is a continuing trend.

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, behavioral 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.

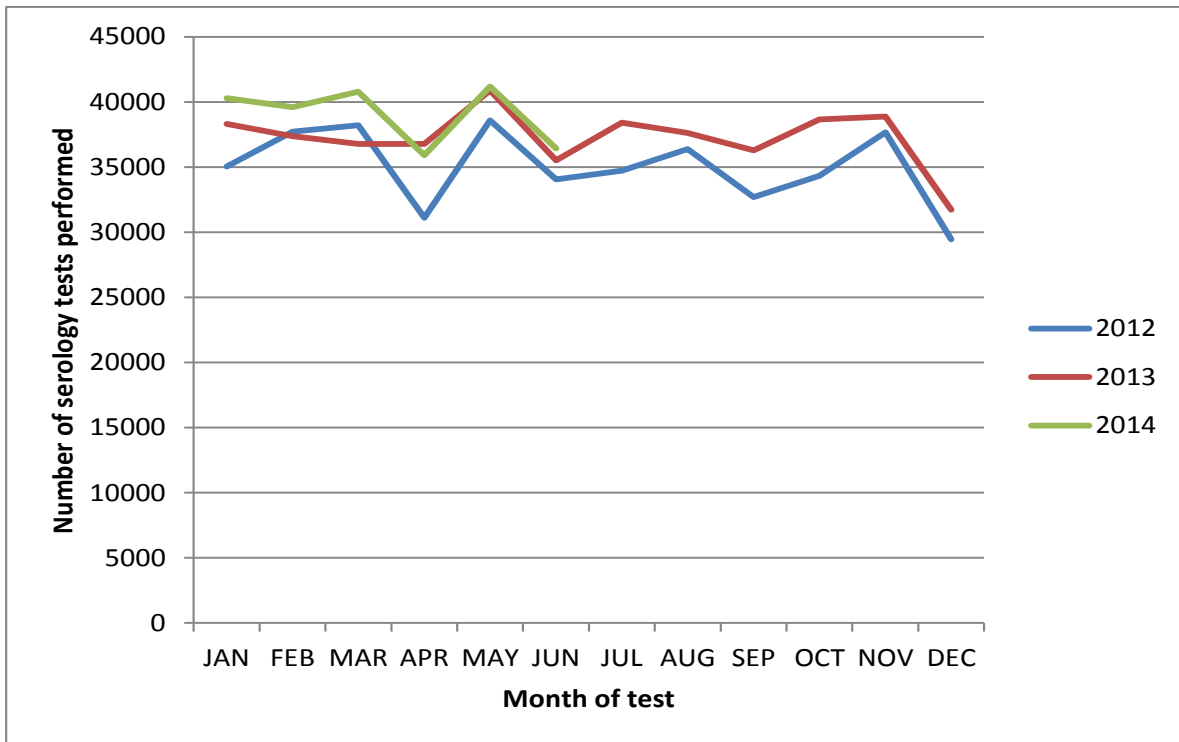
3. Increase HIV testing

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 11: Number of HIV serology tests performed at 15 NSW laboratories per month, 1 January 2012 to 30 June 2014



Date source: NSW denominator data project

Comment

In the second quarter of 2014, there were 113,495 HIV serology tests performed in 15 laboratories in NSW, similar to 113,174 in the second quarter of 2013 and up from 103,737 (9.4% increase) in the second quarter of 2012 (Figure 11).

From 1 January 2014 to 30 June 2014 there were 234,153 HIV serology tests performed, compared with 225,615 (4% increase) in the same period in 2013 and 214,731 (9% increase) in the same period in 2012.

3.1.2 Local Health Districts

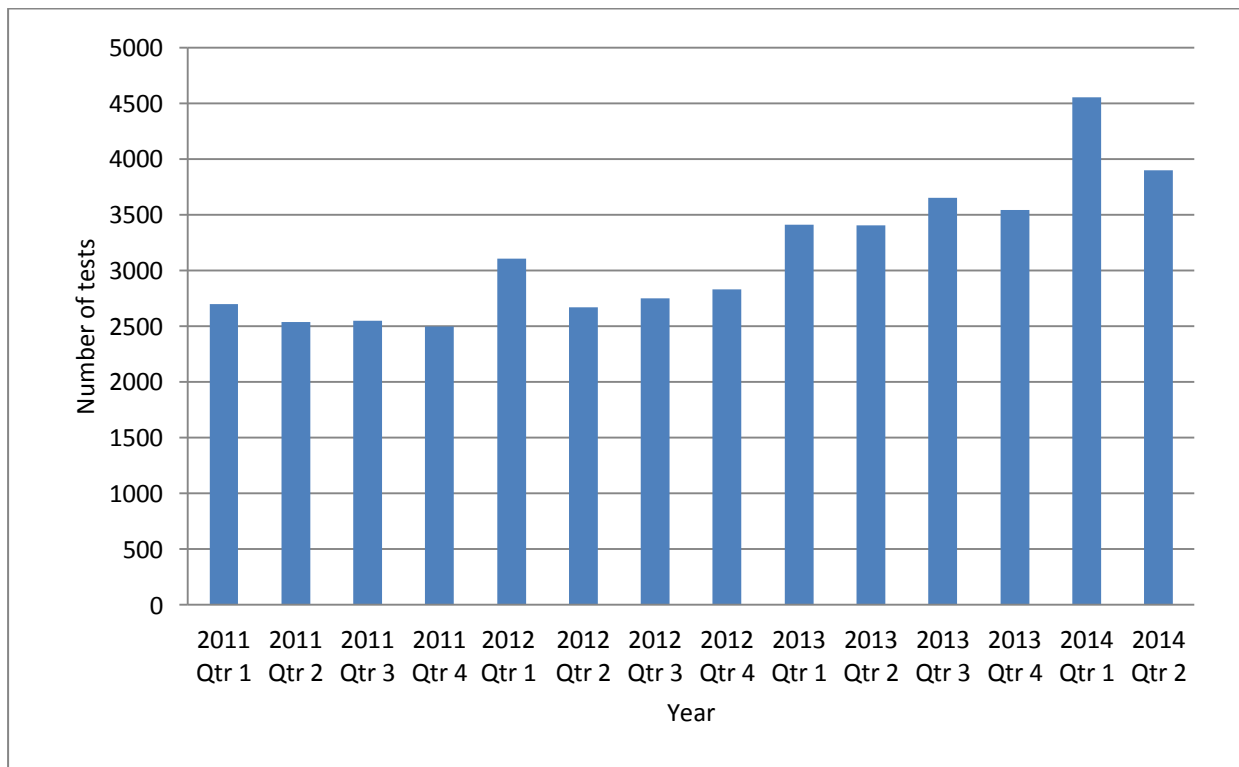
Data on HIV testing is available from Publicly Funded Sexual Health Clinics (PFSHCs) in all LHDs however the time periods and the type of data is not uniform due to different data management systems. Key differences in the availability of data are summarised in Table 1.

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

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

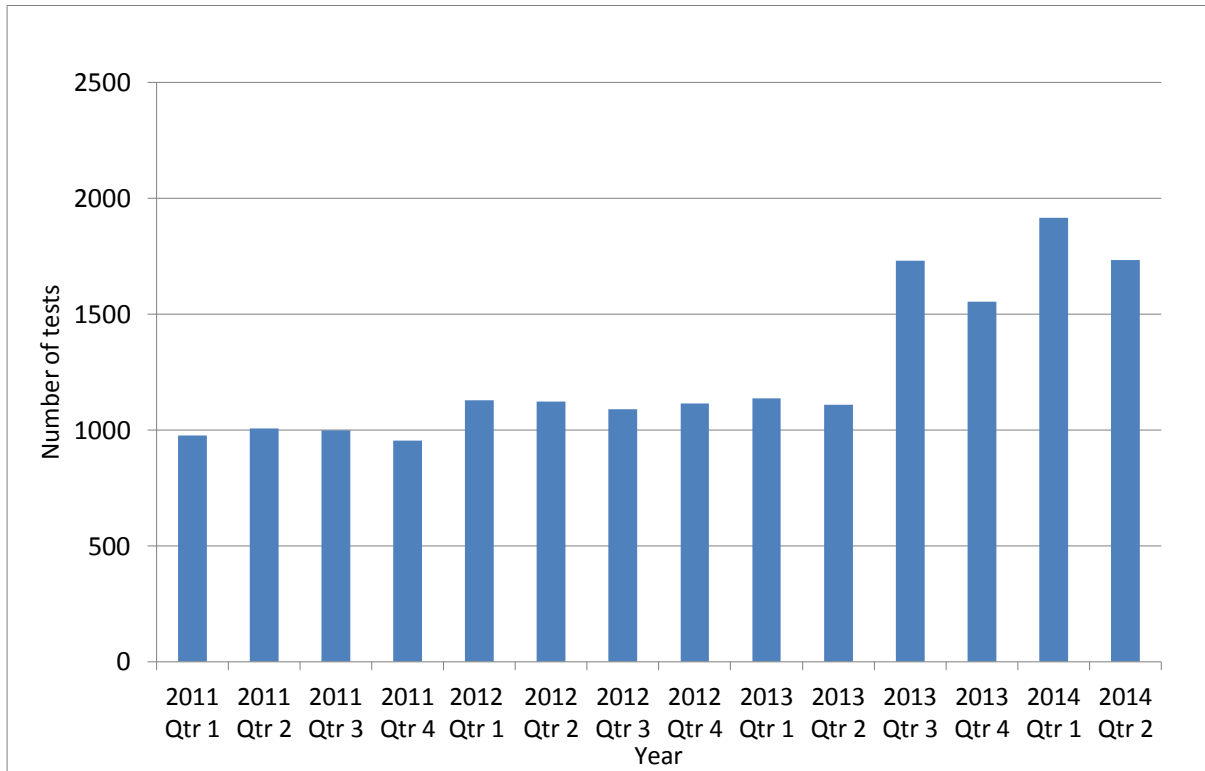
Figure 12 (South Eastern Sydney LHD) and 13 (Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs) display the number of HIV tests done in PFSHCs between 1 January 2011 and 30 June 2014 in LHDs where this data is available. Both rapid HIV testing and HIV serology are included.

Figure 12: Number of HIV tests performed in South Eastern Sydney Local Health District Publicly Funded Sexual Health Clinics, January 2011 to June 2014



Data source: South Eastern Sydney Local Health District

Figure 13: Number of HIV tests performed in five Local Health District Publicly Funded Sexual Health Clinics, January 2011 to June 2014



Data source: PFSHCs in Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs

Comment

In PFSHCs in South Eastern Sydney LHD and 5 LHDs with smaller numbers of high risk populations (Figures 12 & 13), overall HIV testing in quarter 2 2014 increased by 15% compared with the average number of tests per quarter in 2013.

In quarter 2 2014, 8,425 HIV tests were done in all PFSHCs in NSW. In total in the first half of 2014, there were 17,617 HIV tests performed in PFSHCs in NSW. There was a 23% increase in the number of tests performed in the first half of 2014 compared with the second half of 2013, after excluding St Vincent’s Hospital Network for whom data on HIV testing was not available for the second half of 2013.

Data from NSW laboratories and PFSHCs indicate that in the first half of 2014, HIV testing increased both overall in NSW and among high risk populations. Testing increased particularly in key inner Sydney city areas, continuing trends from 2013. To reduce the number of undiagnosed HIV infections in the community, 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 (see 3.4). 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 maternity services are ongoing.

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 2: 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.

3.2.2 Survey data

HIV testing in MSM – including location - is measured regularly through the SGCPs, with most recent data presented in the Quarter 1 2014 report and included here at Appendix B. Updated data from the 2015 SGCPs will be presented in the Quarter 1 2015 report.

As mentioned in section 2.1, a question on HIV testing was included in the NSWPHS in quarter 4, 2013. Reporting on this indicator will occur once the sample size is sufficient to produce reliable estimates.

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 3 summarises the available data from PFSHCs on HIV testing in priority population groups. In the 5 LHDs for which historic data is available, the number of HIV tests for all priority populations in quarter 2 2014 was higher than the average per quarter in 2013.

Table 3: HIV testing in priority populations, Publicly Funded Sexual Health Clinics, NSW

Priority Population	% of HIV tests in <u>all</u> PFSHCs, Quarter 2 2014*	Number of tests in Q 2 2014 in PFSHCs in <u>5</u> LHDs [#]	% increase from quarterly average in 2013 in PFSHCs in <u>5</u> LHDs [#]
Men who have sex with men (MSM)	48%	727	29%
Sex workers [^]	13%	249	11%
People who inject drugs (PWID) [^]	5%	114	61% [©]
Aboriginal people	3%	96	20% [~]

*Excludes Central Coast LHD, St Vincent’s Hospital Network, and select Southern Eastern Sydney LHD services, who were unable to provide testing data by priority population for this quarter. Also excludes Sydney Children’s Hospital Network.

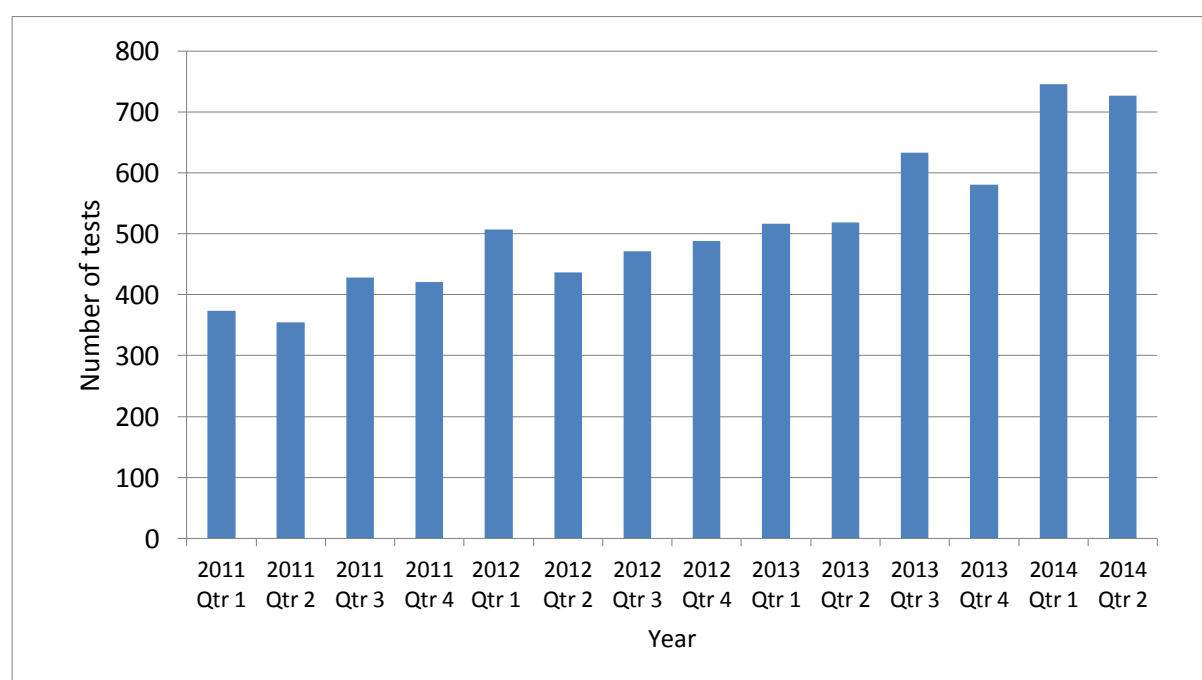
[#]These LHDs had data available for the whole period of interest (Table 1)

[^]Includes people who *ever* were sex workers or who *ever* injected drugs

[©]Large increase in part due to improved data collection

[~]Large increase particularly in Western Sydney LHD

Figure 14: Number of HIV tests performed in MSM in five Local Health District Publicly Funded Sexual Health Clinics, 1 January 2011 to 30 June 2014



Data source: PFSHCs in Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs

Comment

In PFSHCs in 5 LHDs where longer term trend data is available, there have been consistent increases in the number of HIV tests done in MSM (Figure 14). In quarter 2 2014, there were 727 HIV tests done in MSM, an increase of 29% on the average number of tests per quarter in 2013. Positivity at 0.7% was lower in quarter 2 2014 than in previous quarters. Data from future quarters is required to determine if this is an ongoing trend.

Graphs displaying testing trend data for Sex Workers, PWID and Aboriginal and Torres Strait Islander people are in Appendix C.

Sydney Sexual Health Centre in South Eastern Sydney LHD performed the highest number of HIV tests amongst PFSHCs in NSW. Of the 2,894 tests done by this clinic in quarter 2 2014, 1,618 (56%) were for MSM. Eight were positive yielding a 0.5% positivity rate among MSM clients. Data from further quarters are needed to see if this relatively low positivity rate is maintained.

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.

In summary, data from PFSHCs indicates that priority populations are being reached by public services. Achieving further increases in testing, particularly in MSM, are 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.

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 people from high risk populations to be tested regularly for HIV. Rapid testing offers choice and convenience to people who do not routinely access conventional testing.

Rapid HIV testing has been made available to high risk groups in 19 sites across NSW, including community based sites, PFSHCs and general practice. Since June 2013, three 'fixed' community sites and four 'pop up' sites have been operational. In quarter 2 2014, 2,309 HIV rapid tests were performed in NSW, approximately 550 of which were at community sites. 21 of the total 2,309 rapid tests were positive (0.9%).

Though the number of clients tested in community sites is relatively small, preliminary data suggests it is an effective testing model for engaging MSM, a high proportion of whom reported any unprotected anal intercourse (48-57%), multiple sexual partners (22-31%), never previously testing for HIV (15 - 22%), or not testing in the last 12 months (23-31%).

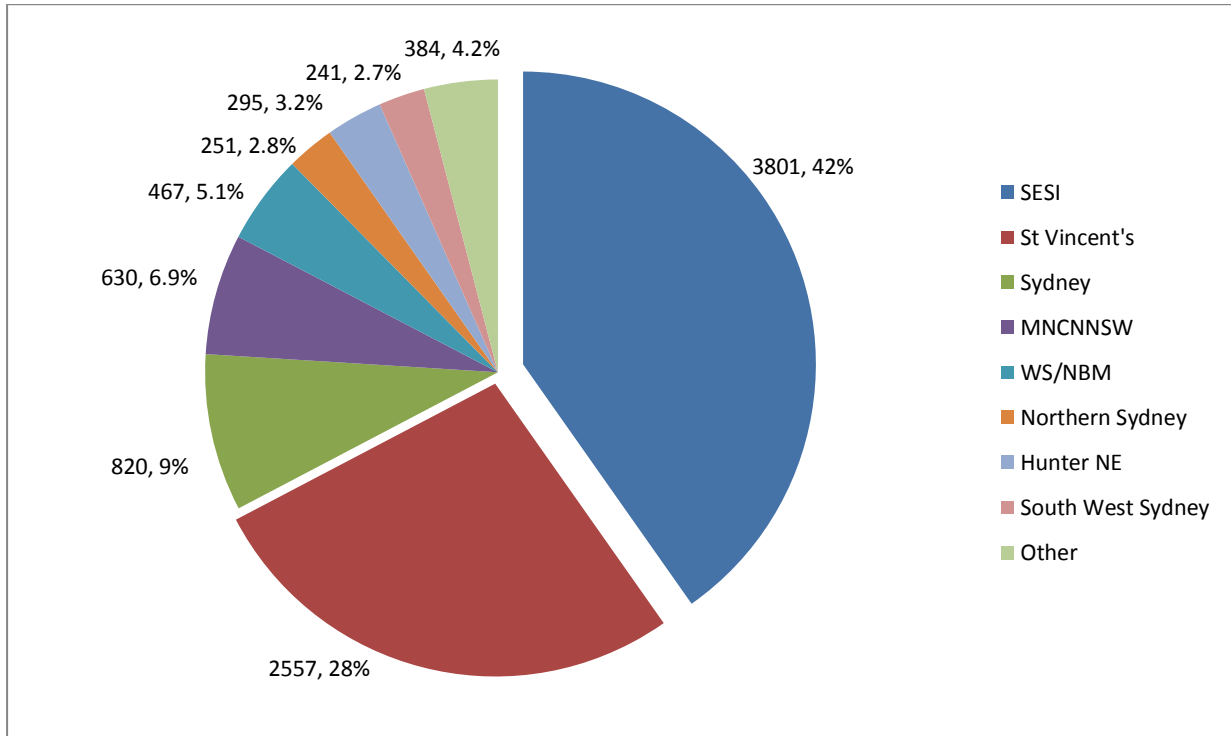
The majority of rapid testing in quarter 2 2014 was conducted in PFSHCs. Complete data on clients tested at PFSHCs is unavailable, however a comparison of data from community sites and a snapshot

of data from one PFSHC suggests that a higher proportion of men attending community sites have never previously tested for HIV. Larger numbers and more complete data are necessary to identify any significant difference in the profile of clients seen in clinic versus community based sites. (Data sources: Sydney Rapid HIV Testing Study, Rapid Testing Evaluation Framework, The Albion Centre Oraquick study, Sydney Sexual Health Centre and Lismore Sexual Health Centre)

4 Increase HIV treatment

4.1 How many people in NSW are on antiretroviral treatment?

Figure 15: Number of patients dispensed ART in NSW by LHD of dispensing pharmacy, 1 July 2013 to 30 June 2014²³⁴⁵



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

Comment

Pharmacy dispensing data indicates that in the one year period from 1 July 2013 to 30 June 2014, 9,108 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 through the Pharmaceutical Benefits Scheme, as part of the Highly Specialised Drugs Programme. It does not include people who may be accessing treatment through other sources, including those who purchase HIV treatment from overseas, receive ART through clinical trials or are dispensed ART for post-exposure prophylaxis.

²In December 2013, Health 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.

³Northern NSW, Mid North Coast, South Western Sydney, Justice Health, Murrumbidgee and Southern NSW LHDs came online with the ipharmacy system late in 2013.

⁴The numbers displayed in the graph add up to a figure greater than the overall total of 9,108 for 1/7/13 -30/6/14. This is because a small number of cross-LHD patient flows are not eliminated

⁵'Other' includes Central Coast 159 (1.8%); Far West/Western NSW 89 (1%); Murrumbidgee/Southern NSW 77 (0.9%); Childrens Hospital Network 15 (0.2%); Justice Health 44 (0.5%).

Almost three-quarters (73.2%) of all ART dispensing in NSW in the year ending 30 June 2014 occurred through inner metropolitan pharmacies, with over half of all patients receiving ART from pharmacies at the Albion Centre (29.9%) or the St Vincent's Hospital (28.0%). A further 7.8% received ART from the Royal Prince Alfred Hospital and 7.4% from Sydney Hospital and Sydney Eye Hospital.

The NSW Ministry of Health is working with Health Share NSW towards making more comprehensive 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 30 June 2014 is summarised at Table 4.

Table 4: Clients who received HIV care in NSW public sexual health and HIV services between 1 July 2013 and 30 June 2014

Total number of patients who received care between July 2013 and June 2014	5099
Number (%) of patients for whom treatment information was available	4876 (96%)
Number (%) on ART	4387 (90%)
Number not on ART[^]	489
<i>Number (%) not on ART with CD4 count < 350</i>	99(20%)
<i>Number (%) not on ART with CD4 count between 350 - 499</i>	86(18%)
<i>Number (%) not on ART with CD4 count > 500</i>	303(62%)
Number who initiated ART	474
<i>Number (%) initiated at a CD4 count <350</i>	112(24%)
<i>Number (%) initiated at a CD4 count between 350 - 500</i>	96(20%)
<i>Number (%) initiated at a CD4 count >500</i>	266(56%)

[^]Includes ART naïve clients and clients who have stopped ART

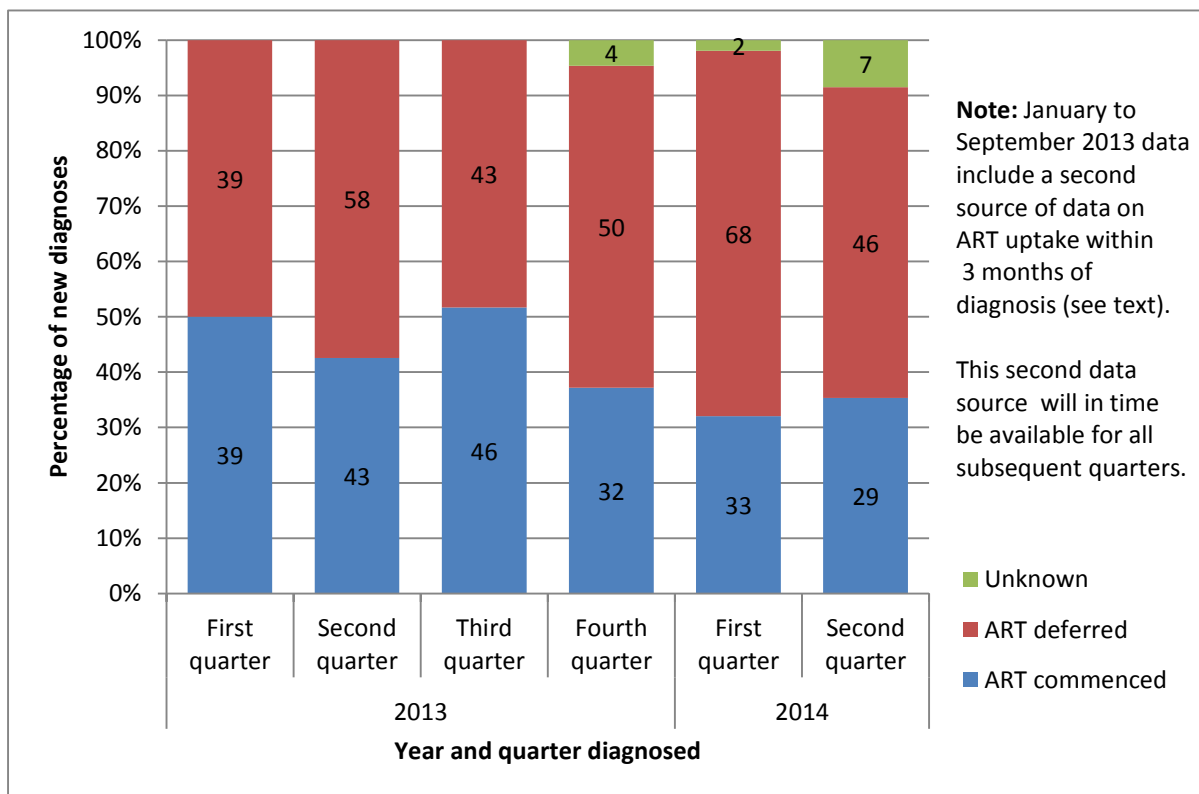
In the year ending 30 June 2014, at least 5,099 clients with HIV received care in public HIV and sexual health clinics in NSW. The available data indicates that treatment coverage in public clinics is high at 90%.

4.2.2 ART initiation

Since 2013 doctors completing a HIV notification form have been required to report whether a person diagnosed with HIV had initiated ART near to and within three months of diagnosis. The time taken to receive notification forms from doctors varies, from two weeks to more than three months post diagnosis. Therefore the time to ascertain ART initiation near diagnosis, based on initial notification data, is not equal for every newly diagnosed person.

To more accurately ascertain time to ART initiation, an enhanced surveillance step was introduced; people newly diagnosed from 2013 onwards are to be followed up at least six months post diagnosis through their doctors who complete a standardised HIV follow up form. So far this post diagnosis follow up has commenced (and is still in process) for people newly diagnosed between 1 January and 30 September 2013. This extra data increases accuracy of the information on ART initiation and shows 48% of people newly diagnosed from January to September 2013 had initiated ART within 3 months of diagnosis (Figure 16). Of 82 NSW residents newly diagnosed with HIV infection in the second quarter of 2014, 29 (35%) commenced ART close to the time of diagnosis, 46 (56%) had deferred ART and for 7 (9%) ART status near diagnosis was unknown. As more post diagnosis data becomes available the percentage of newly diagnosed people starting ART within three months of diagnosis is likely to be revised upwards.

Figure 16: Number and percentage of NSW residents diagnosed per quarter by uptake of ART near to and within three months of diagnosis, 1 January 2013 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Table 5: CD4 count in cells/ μ L at diagnosis and ART uptake for 82 NSW residents newly diagnosed with HIV infection from 1 April to 30 June 2014

CD4 count at diagnosis	ART commenced	ART deferred	Unknown	Total
Less than 200	9 (31%)	9 (20%)	2 (29%)	20 (24%)
200-349	5 (17%)	5 (11%)	0 (0%)	10 (12%)
350-499	5 (17%)	12 (26%)	0 (0%)	17 (21%)
500 and over	10 (34%)	20 (43%)	0 (0%)	30 (37%)
Unknown	0 (0%)	0 (0%)	5 (71%)	5 (6%)
Total	29 (35%)	46 (56%)	7 (9%)	82

Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Comment

Among 46 cases with ART deferred, 14 (30%) had a CD4 count less than 350, and 26 (57%) had a CD4 less than 500 (Table 5). In April 2014 the PBS restriction that limited subsidised ART to those with a CD4 less than 500, was removed.

Table 6: Doctor reported reasons for deferring ART initiation in NSW residents newly diagnosed from 1 April to 30 June 2014

Doctor reported reason for deferring ART initiation post diagnosis	Number (%)
Not Clinically Indicated*	14 (30%)
Decision not made/for review	8 (17%)
Treatment required for other condition**	7 (15%)
Awaiting genotyping, further results	6 (13%)
Will start ART soon	6 (13%)
Returning overseas to access treatment	2 (4%)
Patient declined	1 (2%)
Moving	1 (2%)
Not stated	1 (2%)
Total	46

Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

* Of 14 cases with ART reported to be deferred due to it not being clinically indicated, 10 had a CD4 of 500+ at diagnosis, 4 had a CD4 350-499.

**1 with latent TB, one with liver abscess

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. NSW residents newly diagnosed with HIV infection by year of diagnosis and case characteristics, to 30 June 2014

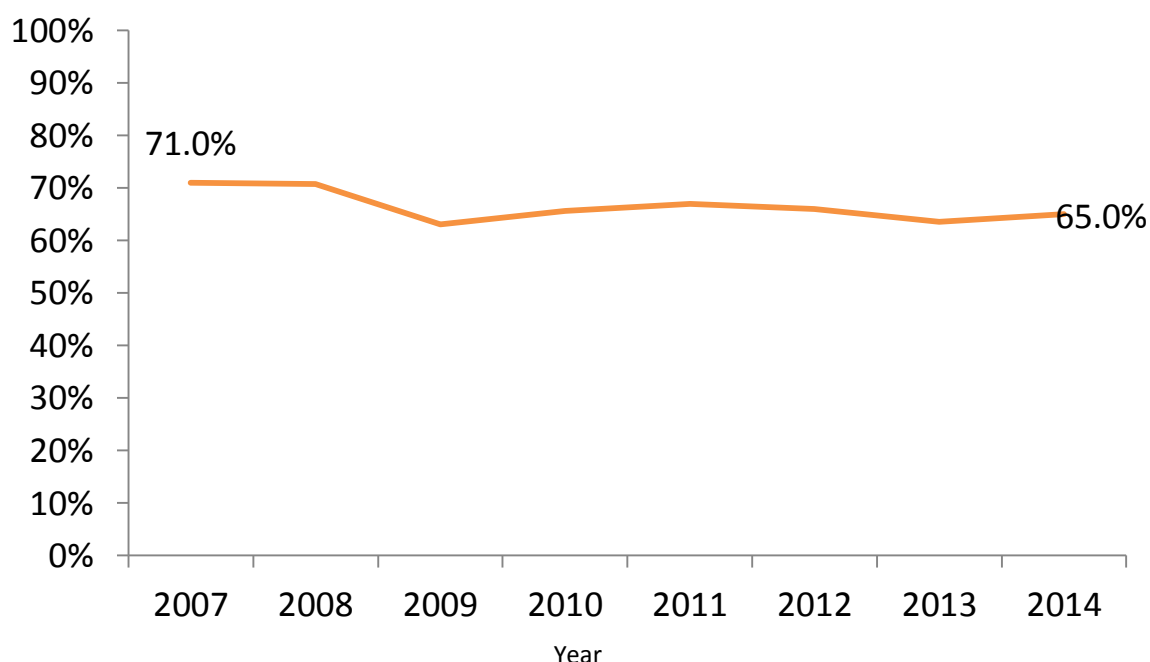
Characteristics of the newly diagnosed	2008 N=325	2009 N=334	2010 N=307	2011 N=330	2012 N=409	2013 N=354	Jan-June 2014 N=185	1981-June 2014 N=17107
Gender								
Male	293 (90.2%)	293 (87.7%)	282 (91.9%)	309 (93.6%)	372 (91.0%)	324 (91.5%)	173 (93.5%)	15732 (92.0%)
Female	32 (9.8%)	39 (11.7%)	23 (7.5%)	21 (6.4%)	36 (8.8%)	27 (7.6%)	12 (6.5%)	1090 (6.4%)
Unknown	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	247 (1.4%)
Transgender	0 (0.0%)	2 (0.6%)	2 (0.7%)	0 (0.0%)	1 (0.2%)	3 (0.8%)	0 (0.0%)	38 (0.2%)
Aboriginal person status								
Aboriginal person	8 (2.5%)	9 (2.7%)	7 (2.3%)	5 (1.5%)	11 (2.7%)	8 (2.3%)	4 (2.2%)	158 (0.9%)
Non-Aboriginal person	301 (92.6%)	315 (94.3%)	291 (94.8%)	322 (97.6%)	391 (95.6%)	341 (96.3%)	171 (92.4%)	9986 (58.4%)
Not stated	16 (4.9%)	10 (3.0%)	9 (2.9%)	3 (0.9%)	7 (1.7%)	5 (1.4%)	10 (5.4%)	6963 (40.7%)
Age group (years)								
0 to 4	0 (0.0%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	40 (0.2%)
5 to 9	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	23 (0.1%)
10 to 14	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	35 (0.2%)
15 to 19	3 (0.9%)	3 (0.9%)	5 (1.6%)	6 (1.8%)	9 (2.2%)	9 (2.5%)	1 (0.5%)	302 (1.8%)
20 to 24	39 (12.0%)	34 (10.2%)	29 (9.4%)	34 (10.3%)	44 (10.8%)	37 (10.5%)	28 (15.1%)	2081 (12.2%)
25 to 29	58 (17.8%)	57 (17.1%)	56 (18.2%)	56 (17.0%)	76 (18.6%)	64 (18.1%)	31 (16.8%)	3388 (19.8%)
30 to 34	44 (13.5%)	43 (12.9%)	49 (16.0%)	64 (19.4%)	70 (17.1%)	48 (13.6%)	36 (19.5%)	3421 (20.0%)
35 to 39	63 (19.4%)	58 (17.4%)	44 (14.3%)	59 (17.9%)	63 (15.4%)	42 (11.9%)	22 (11.9%)	2855 (16.7%)
40 to 44	52 (16.0%)	57 (17.1%)	52 (16.9%)	44 (13.3%)	47 (11.5%)	44 (12.4%)	21 (11.4%)	2093 (12.2%)
45 to 49	32 (9.8%)	30 (9.0%)	30 (9.8%)	26 (7.9%)	38 (9.3%)	45 (12.7%)	11 (5.9%)	1219 (7.1%)
50 to 54	14 (4.3%)	28 (8.4%)	7 (2.3%)	25 (7.6%)	28 (6.8%)	25 (7.1%)	12 (6.5%)	735 (4.3%)
55 to 59	10 (3.1%)	12 (3.6%)	22 (7.2%)	10 (3.0%)	14 (3.4%)	22 (6.2%)	8 (4.3%)	417 (2.4%)
60 to 64	6 (1.8%)	1 (0.3%)	5 (1.6%)	2 (0.6%)	13 (3.2%)	6 (1.7%)	9 (4.9%)	218 (1.3%)
65 to 69	0 (0.0%)	4 (1.2%)	6 (2.0%)	2 (0.6%)	4 (1.0%)	9 (2.5%)	4 (2.2%)	121 (0.7%)
70 to 74	2 (0.6%)	5 (1.5%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	1 (0.3%)	2 (1.1%)	43 (0.3%)
75 to 79	2 (0.6%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	3 (0.7%)	1 (0.3%)	0 (0.0%)	20 (0.1%)
80 to 84	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (0.0%)
85 to 89	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.0%)
90 and over	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.0%)
Unknown	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	86 (0.5%)
HIV risk group								
Men who have sex with men (MSM)	236 (72.6%)	220 (65.9%)	228 (74.3%)	268 (81.2%)	318 (77.8%)	264 (74.6%)	137 (74.1%)	10707 (62.6%)
MSM who inject drugs	11 (3.4%)	17 (5.1%)	8 (2.6%)	10 (3.0%)	12 (2.9%)	14 (4.0%)	9 (4.9%)	480 (2.8%)

Sex only with the opposite sex	64 (19.7%)	75 (22.5%)	51 (16.6%)	41 (12.4%)	57 (13.9%)	61 (17.2%)	27 (14.6%)	1554 (9.1%)
Person who injects drugs	12 (3.7%)	11 (3.3%)	9 (2.9%)	8 (2.4%)	10 (2.4%)	8 (2.3%)	2 (1.1%)	551 (3.2%)
Haemophilia, coagulation disorders, or blood tissue recipient	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	276 (1.6%)
Vertical	0 (0.0%)	2 (0.6%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	45 (0.3%)
Other	0 (0.0%)	2 (0.6%)	1 (0.3%)	1 (0.3%)	2 (0.5%)	1 (0.3%)	0 (0.0%)	41 (0.2%)
Unknown	2 (0.6%)	6 (1.8%)	9 (2.9%)	2 (0.6%)	10 (2.4%)	5 (1.4%)	10 (5.4%)	3453 (20.2%)
Local health district or residence								
South Eastern Sydney	117 (36.0%)	108 (32.2%)	110 (35.8%)	128 (38.8%)	150 (36.7%)	125 (35.3%)	54 (29.2%)	5333 (31.2%)
Sydney	78 (24.0%)	90 (26.9%)	77 (25.1%)	83 (25.2%)	111 (27.1%)	90 (25.4%)	44 (23.8%)	2794 (16.3%)
Northern Sydney	25 (7.7%)	38 (11.4%)	19 (6.2%)	24 (7.3%)	23 (5.6%)	26 (7.3%)	12 (6.5%)	949 (5.5%)
Western Sydney	26 (8.0%)	22 (6.6%)	20 (6.5%)	31 (9.4%)	25 (6.1%)	26 (7.3%)	14 (7.6%)	681 (4.0%)
South Western Sydney	16 (4.9%)	21 (6.3%)	23 (7.5%)	18 (5.5%)	31 (7.6%)	29 (8.2%)	11 (5.9%)	603 (3.5%)
Hunter New England	14 (4.3%)	16 (4.8%)	16 (5.2%)	10 (3.0%)	14 (3.4%)	18 (5.1%)	16 (8.6%)	452 (2.6%)
Nepean Blue Mountains	7 (2.2%)	3 (0.9%)	3 (1.0%)	4 (1.2%)	5 (1.2%)	3 (0.8%)	5 (2.7%)	252 (1.5%)
Illawarra Shoalhaven	3 (0.9%)	5 (1.5%)	8 (2.6%)	5 (1.5%)	9 (2.2%)	7 (2.0%)	5 (2.7%)	216 (1.3%)
Central Coast	6 (1.8%)	5 (1.5%)	5 (1.6%)	4 (1.2%)	10 (2.4%)	5 (1.4%)	5 (2.7%)	188 (1.1%)
Northern NSW	4 (1.2%)	4 (1.2%)	9 (2.9%)	11 (3.3%)	5 (1.2%)	5 (1.4%)	3 (1.6%)	183 (1.1%)
Mid North Coast	8 (2.5%)	6 (1.8%)	3 (1.0%)	4 (1.2%)	3 (0.7%)	6 (1.7%)	4 (2.2%)	136 (0.8%)
Western NSW	3 (0.9%)	3 (0.9%)	4 (1.3%)	3 (0.9%)	7 (1.7%)	5 (1.4%)	1 (0.5%)	117 (0.7%)
Murrumbidgee	3 (0.9%)	1 (0.3%)	6 (2.0%)	2 (0.6%)	3 (0.7%)	2 (0.6%)	0 (0.0%)	57 (0.3%)
Southern NSW	3 (0.9%)	6 (1.8%)	1 (0.3%)	2 (0.6%)	7 (1.7%)	4 (1.1%)	3 (1.6%)	53 (0.3%)
Albury	0 (0.0%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	2 (0.5%)	1 (0.3%)	0 (0.0%)	25 (0.1%)
Far West	0 (0.0%)	2 (0.6%)	0 (0.0%)	0 (0.0%)	2 (0.5%)	0 (0.0%)	0 (0.0%)	8 (0.0%)
Justice Health	1 (0.3%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	1 (0.2%)	1 (0.3%)	1 (0.5%)	6 (0.0%)
Unknown	11 (3.4%)	2 (0.6%)	1 (0.3%)	1 (0.3%)	1 (0.2%)	1 (0.3%)	7 (3.8%)	5054 (29.6%)
Total	2008 N=325	2009 N=334	2010 N=307	2011 N=330	2012 N=409	2013 N=354	Jan-June 2014 N=185	1981-June 2014 N=17107

Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

Appendix B: Sydney Gay Community Periodic Survey, February 2014

Figure 17: Condom use reported by MSM with casual sexual partners in NSW, 2007-2014



Data source: Sydney Gay Community Periodic Survey (February, 2014)

Comment

The February 2014 figure represent behaviour in the previous 6 months and are therefore reflective of behaviours in the latter part of 2013. Among gay men with casual sexual partners surveyed, 65% reported practicing safe sex⁶. Safe sex among gay men with casual male partners has remained stable since 2009.

Table 7: Location of last HIV test among HIV-negative and untested/unknown status who were tested in the past 12 months

Where last HIV test took place	n	%
GP	635	48.8%
Clinic/hospital	526	40.4%
Community based ACON aTEST	113	8.7%
Other	27	2.1%
Total	1955	100%

Data source: Sydney Gay Community Periodic Survey (February 2014)

Comment

The majority of gay men surveyed who reported having an HIV test in the past 12 months, reported that their last HIV tests took place in general practice or a public hospital service, 48.8% and 40.4% respectively.⁷ Data collection in the survey on community based services commenced in 2013. Future reports will provide comment on trends regarding these data.

⁶ Practicing safe sex is defined as always protected or avoided anal sex

⁷ excludes HIV-positive men and men who said they hadn't been tested for HIV

Table 8: Number of HIV tests in the past 12 months among non-HIV-positive men who reported being tested within 12 months

	2013		2014	
	n	%	n	%
One	602	40.8	532	38.9
Two	573	38.8	493	36.1
Three or four	262	17.7	296	21.7
Five or more	40	2.7	45	3.3

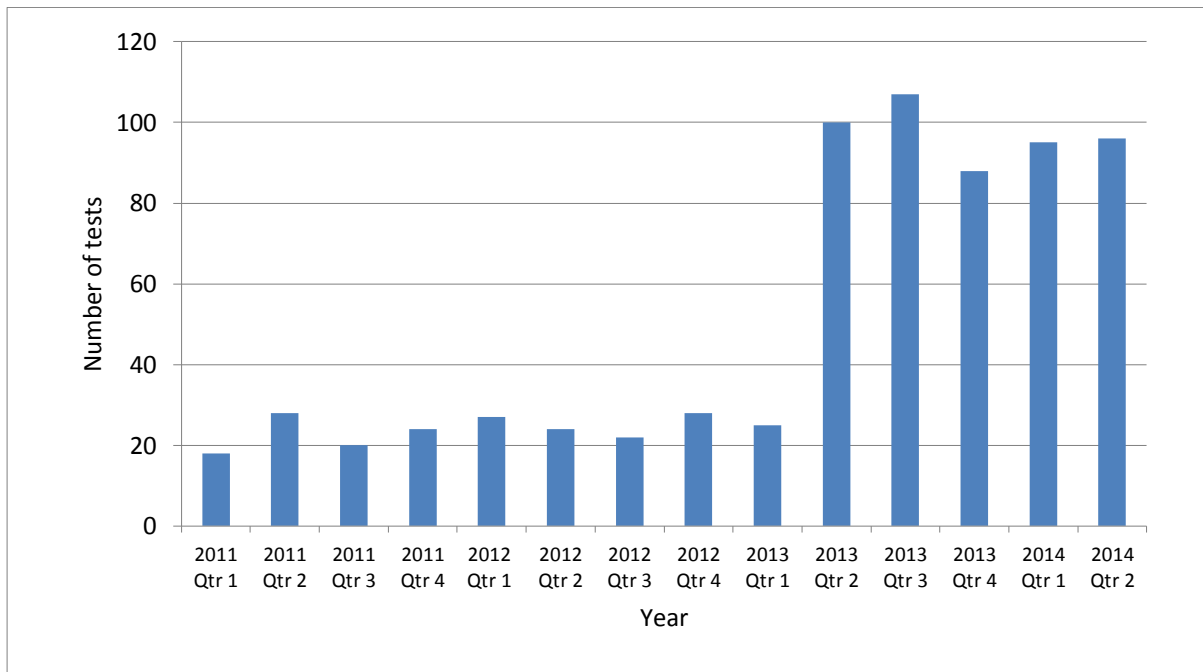
Data source: Sydney Gay Community Periodic Survey (February, 2014)

Comment

Of the gay men surveyed who had not been diagnosed with HIV, 76% reported an HIV test in the last 12 months. This is a significant increase from 71% in the same survey in 2013 and the highest level recorded since the survey began in 1996. Among these men who had a test, there was an increase in 2014 in the proportion who had three or more HIV tests in the previous 12 months (Table 8).

Appendix C: HIV Testing Figures

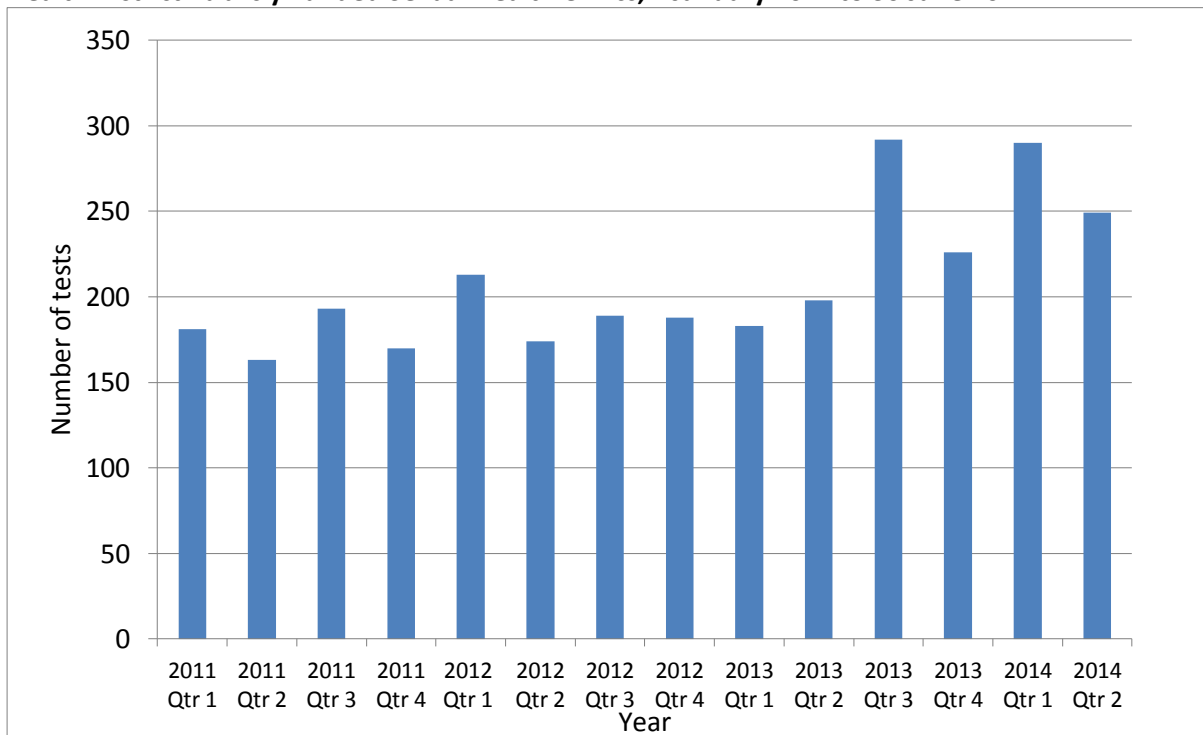
Figure 18: Number of HIV tests performed in Aboriginal people in five Local Health District Publicly Funded Sexual Health Clinics, 1 January 2011 to 30 June 2014*



Note: Increase largely driven by Western Sydney LHD

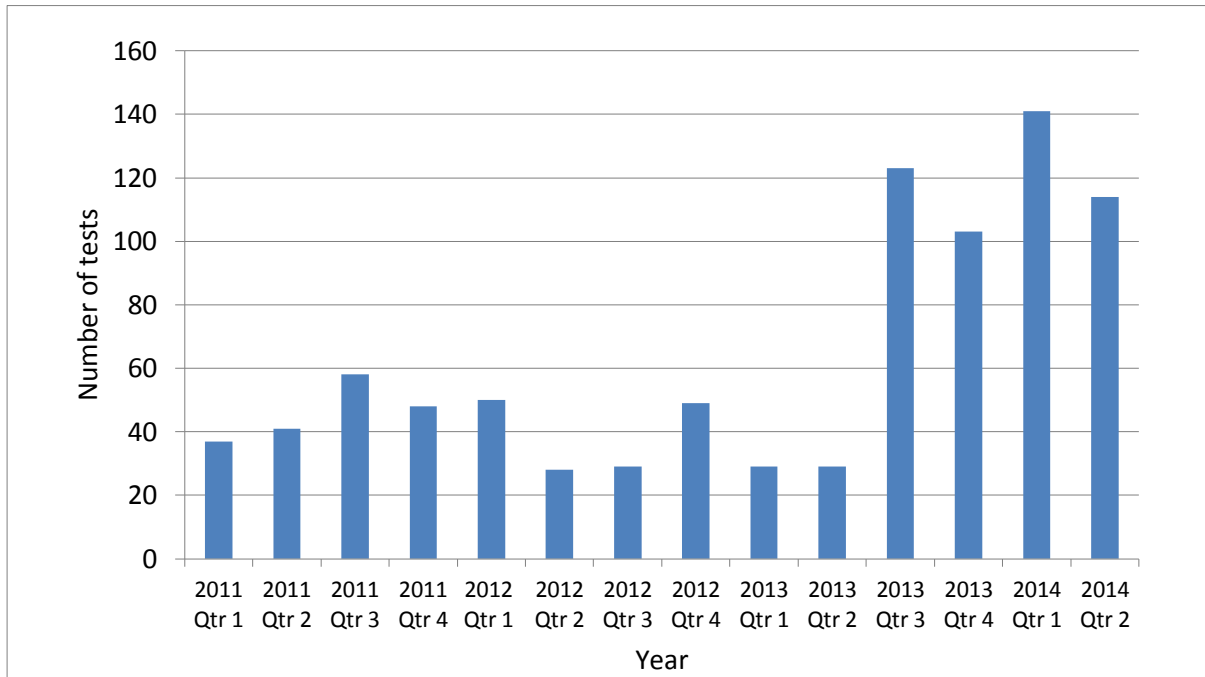
Data source: PFSHCs in Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs

Figure 19: Number of HIV tests performed in clients who were ever sex workers in five Local Health District Publicly Funded Sexual Health Clinics, 1 January 2011 to 30 June 2014



Data source: PFSHCs in Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs

Figure 20: Trend in number of HIV tests performed in clients who ever injected drugs in five Local Health District Publicly Funded Sexual Health Clinics, 1 January 2011 to 30 June 2014



Note: large increase in part due in part to improved data collection

Data source: PFSHCs in Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs