

NSW HIV Strategy 2016 – 2020

Quarter 3

2016

Data Report



Executive Summary

The *NSW HIV Strategy 2016-2020* continues the NSW Government's commitment to achieving the virtual elimination of HIV transmission in NSW by 2020, and sustaining the virtual elimination of HIV transmission in people who inject drugs, sex workers and from mother to child. The Strategy refines our efforts across prevention, testing and treatment, building on the actions that have proven successful in implementing the *NSW HIV Strategy 2012-2015* and prioritising the additional activities needed to end HIV transmission in NSW, including expanding access to PrEP for people at a high risk of HIV and the rapid initiation of HIV treatment.

To achieve this goal the Strategy focuses on:

- Sustaining the central role of condoms in preventing the transmission of HIV
- Reducing sharing of injecting equipment among people who inject drugs by 25%
- Assessing all people attending public sexual health services and high caseload general practices for PrEP eligibility
- Facilitating testing of all recent sexual and injecting partners of people newly diagnosed with HIV
- Increasing the frequency of HIV testing in priority populations in accordance with risk
- Strengthening service integration and models of care to deliver HIV testing in our priority settings
- Strengthening systems and service integration for HIV prevention, diagnosis and management for Aboriginal people at risk
- Increasing the proportion of people with diagnosed HIV on ART to 95%
- Ensuring 90% of people newly diagnosed with HIV are on ART within 6 weeks of diagnosis in 2016 and to further reduce this timeframe over the life of the Strategy
- Further strengthening systems for timely collection and reporting of data to monitor progress, report outcomes and determine additional focus

The Strategy identifies the range of key settings needed for action including publically funded sexual health services, general practice and primary care, Aboriginal Community Controlled Health Services, NSW needles and syringe program outlets, antenatal care services, drug and alcohol services, mental health services and emergency departments.

The activities NSW Health is engaged in to meet the Strategy goals and targets is summarised in the [NSW HIV Snapshot](#). To monitor progress against the Strategy goals and 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](#).

Key data to 30 September 2016:

- From July to September (quarter 3) 2016, 70 NSW residents were notified with newly diagnosed HIV infection, 22 per cent (%) less than the average count for quarter 3 2010-2015 (n=89.5). Of 70 new diagnoses, 84% (n=59) reported being men who have sex with men (MSM), 18% less than the average count for MSM for quarter 3 2010-2015 (n=72). Of 59 MSM newly diagnosed in quarter 3 2016, 5% (n=3) had been tested as part of eligibility screening for pre-exposure prophylaxis (PrEP).
- From January to September 2016, 242 people were newly diagnosed, 8% less than the average count from January to September 2010-2015 (n=264.3). Of these 242, 83% (n=201) were MSM, 7% less than the average count for MSM for January to September 2010-2015 (n=215).
- Of 242 new diagnoses in January to September 2016, 35% (n=85) had a CD4 count at diagnosis of less than 350 cells/ μ L, indicative of late diagnosis, same as for the same period in 2010-2015.
- Of 201 MSM newly diagnosed in January to September 2016, 46% (n=93) had evidence of early stage infection at diagnosis compared with 53% of MSM newly diagnosed in the same period in 2010-2015, while 16% (n=33) had evidence of advanced stage infection, compared with 12% of MSM newly diagnosed in the same period in 2010-2015.
- Between 1 March and 30 September 2016, 3494 people at high risk of HIV infection were provided with PrEP for the prevention of HIV infection through EPIC-NSW.
- From July to September 2016, 135,363 HIV serology tests were performed in NSW, which was 1% greater than quarter 3 2015 (n=134,596), 16% greater than quarter 3 2014 (n=117,196), 20% greater than in quarter 3 2013 (n=112,403) and 30% greater than quarter 3 2012 (n=103,803).
- From July to September 2016, 14,625 HIV tests were done in all PFSHCs in NSW; 27% greater than the same period in 2015 (n=11,512). Among MSM, there was a 34% increase in HIV tests compared with the same period in 2015.
- The number of new diagnoses in 2016 should be considered in the context of: 1) a marked and continued increase in HIV testing (see Section 3); 2) commencement of a study of the population level impact of PrEP ([EPIC-NSW](#)) on 1 March 2016 with almost 3500 participants enrolled to 30 September 2016 and likely bringing forward in time screening of many of those at the highest risk of HIV acquisition; and 3) a greater proportion of people newly diagnosed January to September 2016 had evidence of late or advanced stage diagnosis compared with the previous six years. The fact that the number of early diagnoses has not increased despite the large increase in testing suggests that the rate of HIV transmission has not increased, and the higher proportion of late diagnoses indicates that people living with HIV for some years but previously undiagnosed have been tested with little overall change in the rate of HIV diagnosis.
- Data from public sexual health and HIV clinics and private practices indicate 92% - 98% of people living with HIV who attended these services were on antiretroviral therapy (ART).
- Of the 84 NSW residents newly diagnosed in January to March 2016, 56% (n=47) had commenced ART within six weeks, 82% (n=69) within three months and 86% (n=72) within six months of diagnosis.

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Glossary of Terms

ART	Antiretroviral therapy
CAIC	Condomless anal intercourse with casual partners
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
PrEP	Pre-exposure prophylaxis
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 1 January 2010 to 30 September 2016



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

From July to September (quarter 3) 2016, 70 NSW residents were notified with newly diagnosed HIV infection, 22 per cent (%) less than the average count for quarter 3 2010-2015 (n=89.5). Of 70 new diagnoses, 84% (n=59) reported being men who have sex with men (MSM), 18% less than the average count for MSM for quarter 3 2010-2015 (n=72). Of 59 MSM newly diagnosed in quarter 3 2016, 5% (n=3) had been tested as part of eligibility screening for pre-exposure prophylaxis (PrEP).

From January to September 2016, 242 people were newly diagnosed, 8% less than the average count from January to September 2010-2015 (n=264.3). Of these 242, 83% (n=201) were MSM, 7% less than the average count for MSM for January to September 2010-2015 (n=215).

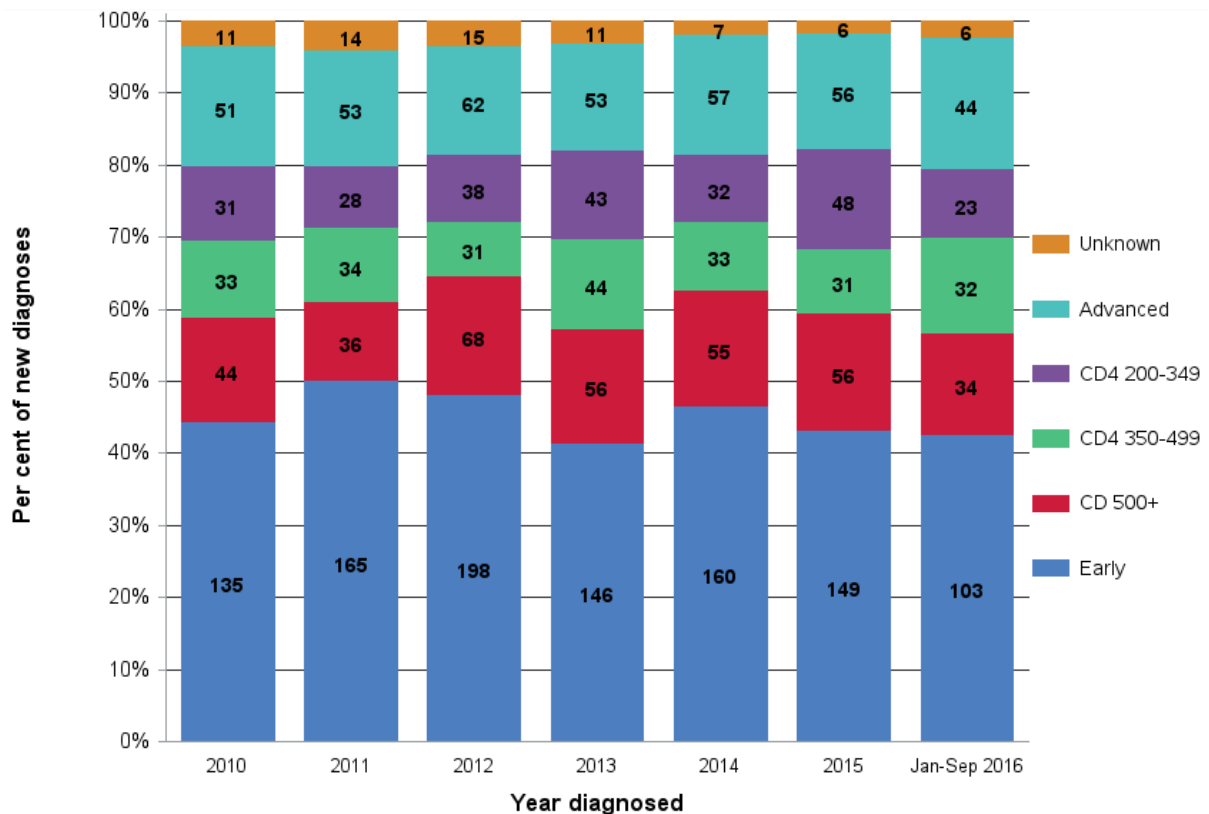
The number of new diagnoses in 2016 should be considered in the context of: 1) a marked and continued increase in HIV testing (see Section 3); 2) commencement of enrolment on 1 March 2016 of people at high risk of acquiring HIV into a population level PrEP impact study ([EPIC-NSW](#)) with 3,494 participants recruited between 1 March and 30 September 2016 and likely bringing forward in time screening of many of those at the highest risk of HIV acquisition; and 3) a greater proportion of people newly diagnosed in January-September 2016 had evidence of late or advanced stage diagnosis compared with the previous six years. The fact that the number of early diagnoses has not increased despite the large increase in testing suggests that the rate of HIV transmission has not increased, and the higher proportion of late diagnoses indicates that people living with HIV for some

years but previously undiagnosed have been tested with little overall change in the rate of HIV diagnosis.

1.2 What proportion of HIV notifications are newly acquired infections?

Trends in the stage of infection at which people are diagnosed with HIV provide an indication as to the timeliness of diagnosis over time. Figure 2a (all new diagnoses) and 2b (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) utilises CD4 count at diagnosis only.

Figure 2a: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 by stage of infection at diagnosis¹



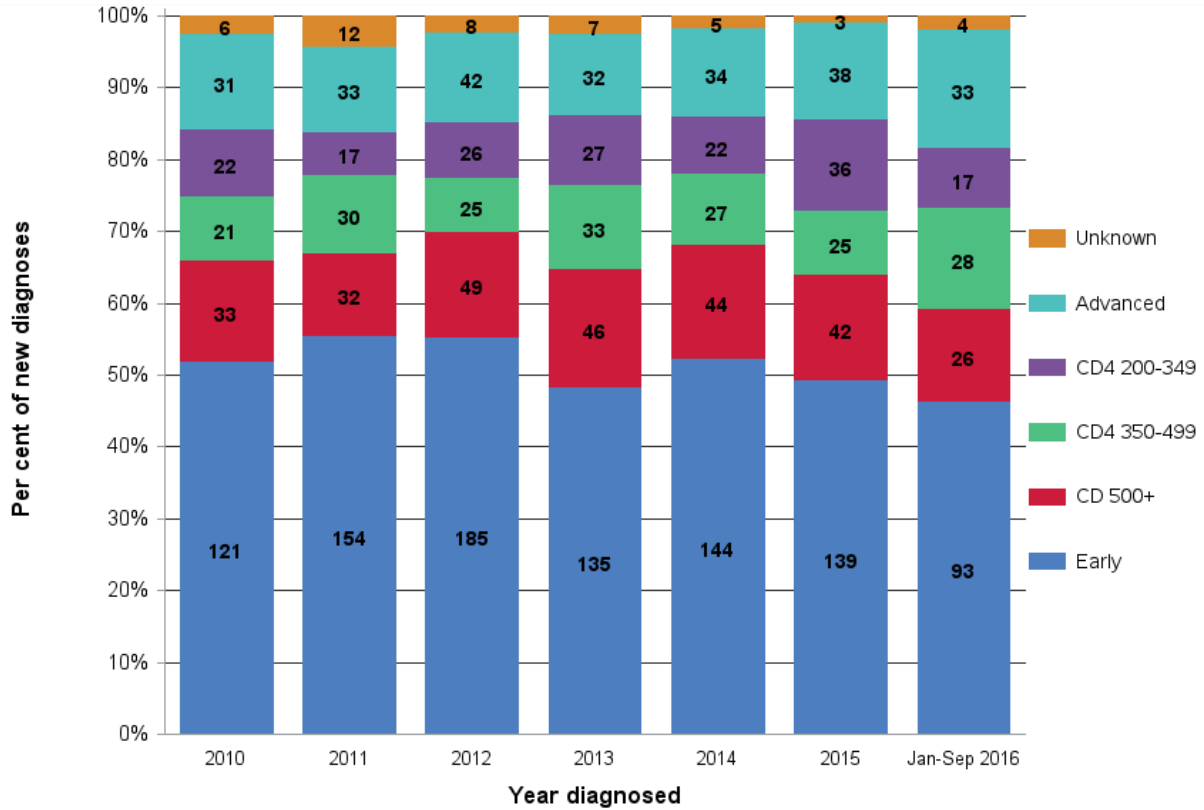
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016
¹Stage of infection at diagnosis: Early = Evidence of HIV infection acquired within 12 months of diagnosis, which was defined as notification of a sero-conversion like illness or negative 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 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016, 36% (n=25) had evidence of early stage infection at diagnosis compared with 45% (av. n=41) of new diagnoses in quarter 3 of 2010-2015, while 16% (n=11) had evidence of advanced stage infection, compared with 17% (av. n=15) of new diagnoses in quarter 3 of 2010-2015. Of 242 new diagnoses in January to September 2016, 43% (n=103) had evidence of early stage infection at diagnosis compared with 46% (av. n=122) of new diagnoses in the same period in 2010-2015, while 18% (n=44) had evidence of

advanced stage infection, compared with 16% (av. n=41) of new diagnoses in the same period in 2010-2015.

Figure 2b: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 reporting to be men who have sex with men (MSM) by stage of infection at diagnosis¹

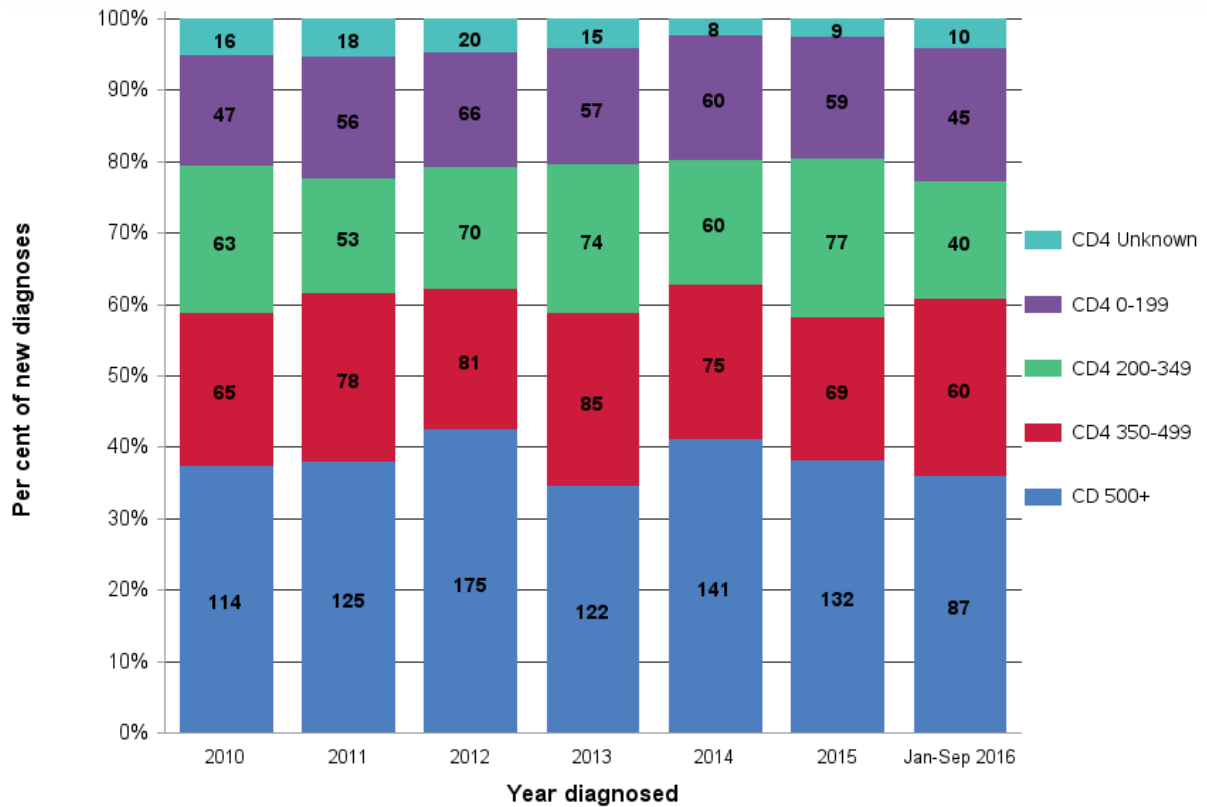


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

Of 59 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016 reported to be MSM, 39% (n=23) had evidence of early stage infection, compared with 53% (av. n=38) of new diagnoses in quarter 3 of 2010-2015; 17% (n=10) had evidence of advanced stage infection at diagnosis compared with 12% (av. n=9) of new diagnoses in quarter 3 of 2010-2015. Of 201 MSM newly diagnosed in January to September 2016, 46% (n=93) had evidence of early stage infection at diagnosis compared with 53% (av. n=113) of MSM newly diagnosed in the same period in 2010-2015, while 16% (n=33) had evidence of advanced stage infection, compared with 12% (av. n=27) of MSM newly diagnosed in the same period in 2010-2015.

Figure 3: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 by CD4 count at diagnosis



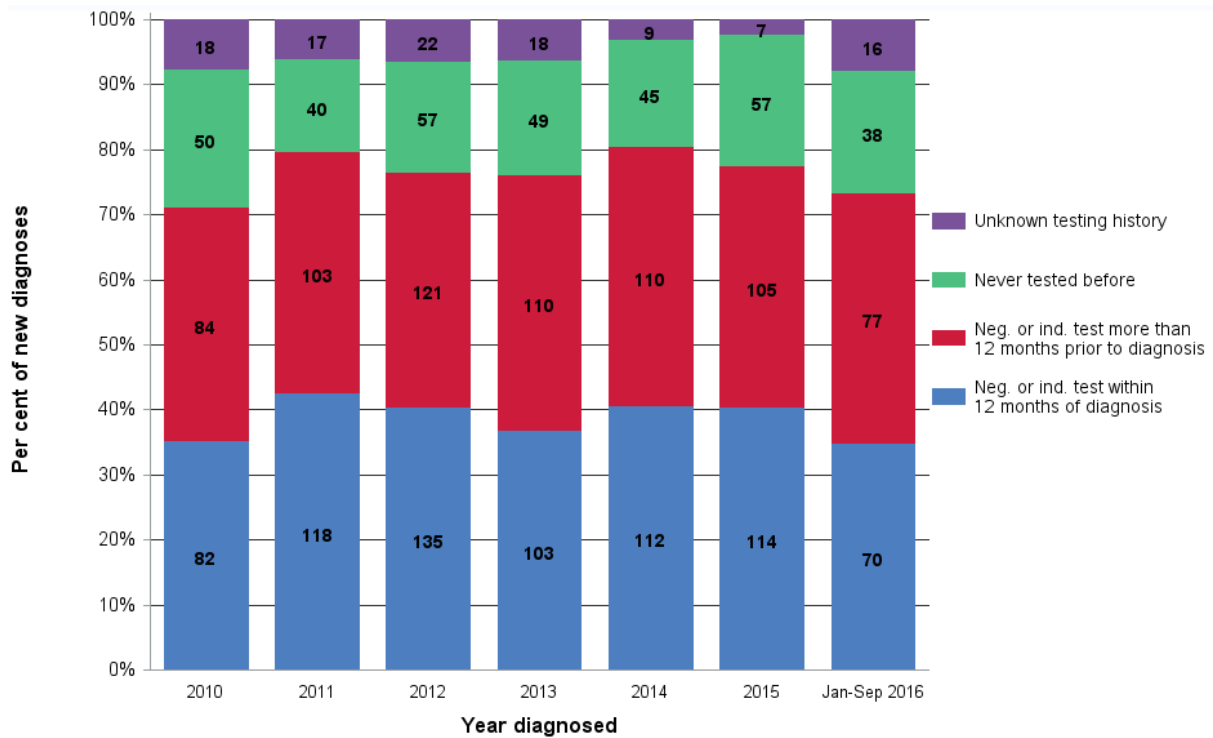
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

Of 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016, 39% (n=27) had a CD4 count (in cells/μL) at diagnosis of 500 or over, 26% (n=18) of 350 to 499, 14% (n=10) of 200 to 349, 16% (n=11) of 0 to 199 and 6% (n=4) were unknown. Of 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016, 30% (n=21) had a CD4 count at diagnosis of less than 350 cells/μL, indicative of late diagnosis, compared with 37% of those diagnosed in quarter 3 in 2010-2015.

Of 242 new diagnoses in January to September 2016, 36% (n=87) had a CD4 count at diagnosis of 500 or over, 25% (n=60) of 350 to 499, 17% (n=40) of 200 to 349, 19% (n=45) of 0 to 199 and 4% (n=10) were unknown. Of those newly diagnosed in the same period 2010-2015, a slightly greater proportion had a CD4 count of 500 or over (39%) and a lesser proportion had a CD4 count of 0-199 (16%). Of 242 new diagnoses in January to September 2016, 35% (n=85) had a CD4 count at diagnosis of less than 350 cells/μL, indicative of late diagnosis, same as for the same period in 2010-2015.

Figure 4: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 reporting to be MSM by HIV testing history



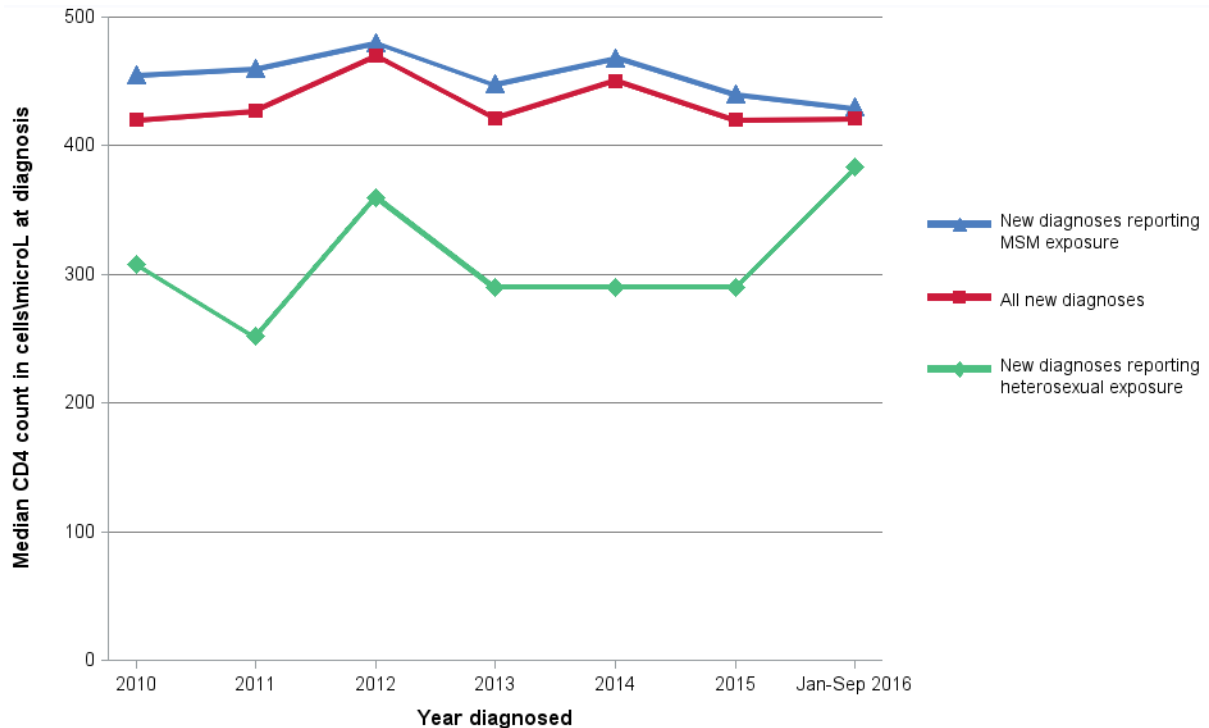
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

Of 59 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016 reported to be MSM, 36% (n=21) were reported to have had a negative or indeterminate HIV test within 12 months of diagnosis, compared with 39% of MSM newly diagnosed in quarter 3 in 2010-2015. Of the 59 new diagnoses in MSM in quarter 3 2016, 19% (n=11) reported not ever having had an HIV test prior to diagnosis, compared with 16% of MSM newly diagnosed in quarter 3 2010-2015.

Of 201 MSM newly diagnosed in January to September 2016, 35% (n=70) were reported to have had a negative or indeterminate HIV test within 12 months of diagnosis, compared with 39% of MSM newly diagnosed in the same period in 2010-2015. Of 201 MSM newly diagnosed in January to September 2016, 19% (n=39) reported not ever having had an HIV test prior to diagnosis, compared with 18% in the same period in 2010-2015. However 8% (n=16) did not have past testing history reported, compared with 5% in the same period in 2010-2015.

Figure 5: Median CD4 count at diagnosis of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 for all, for those reporting to be MSM and for those reporting heterosexual acquisition of HIV¹



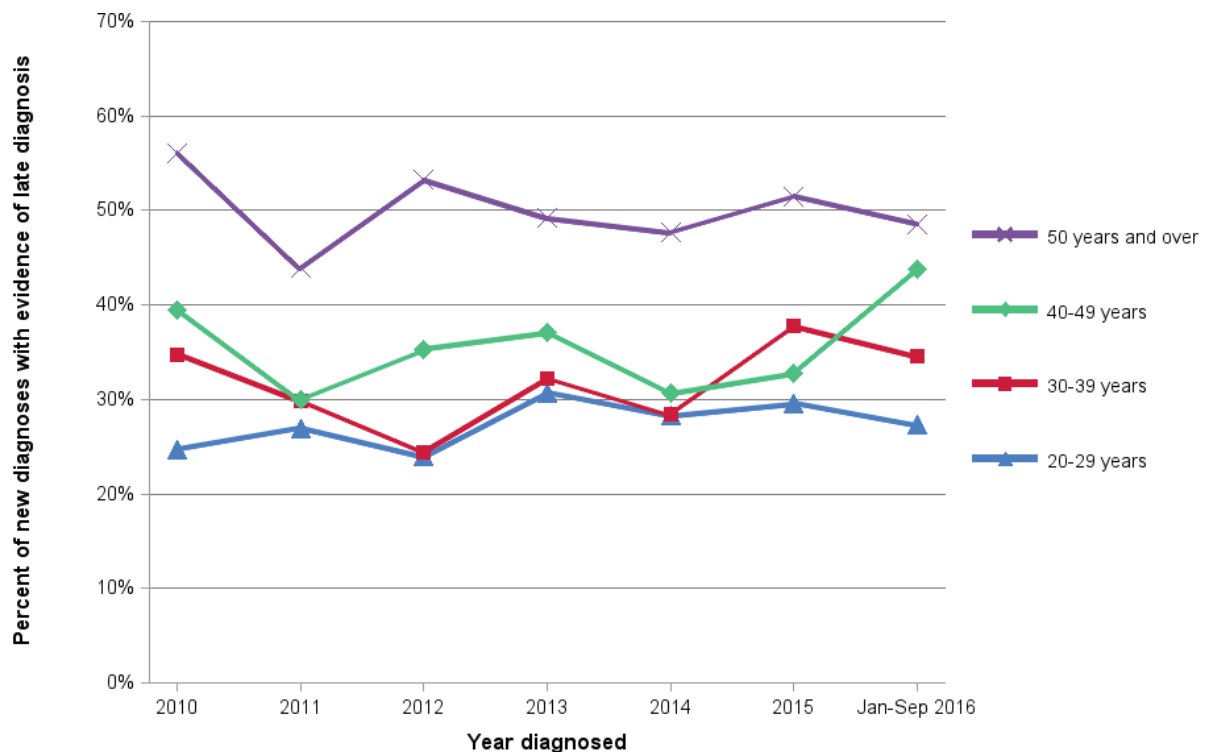
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

¹The 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 all 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016 was 420. For 201 reporting to be MSM the median CD4 count at diagnosis was 426 and for the 34 cases reporting heterosexual exposure to HIV it was 383. The median CD4 counts at diagnosis for all and MSM only new diagnoses in January to September 2016 were lower than the median CD4 counts of their counterparts diagnosed each year 2010-2015.

Figure 6: Within each age group at diagnosis of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 the per cent with evidence of late diagnosis¹



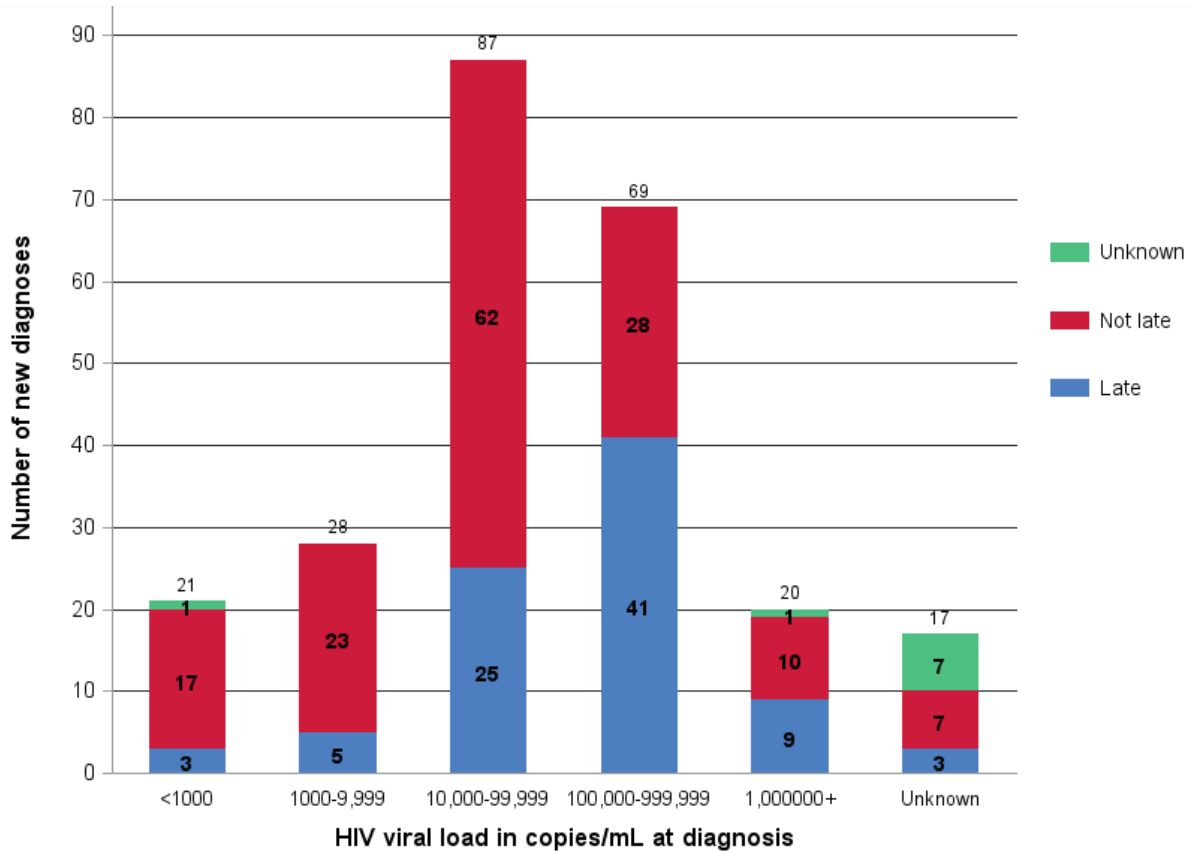
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

¹Evidence of a late diagnosis = a CD4 count less than 350 or an AIDS defining illness or AIDS death within three months of diagnosis, in the absence of a laboratory confirmed negative HIV test in the 12 months prior to diagnosis.

Comment

Of 242 NSW residents newly diagnosed with HIV infection from January to September 2016, 36% (n=86) had evidence of late diagnosis. Evidence of late diagnosis was more common as age at diagnosis increased. Of 35 who were aged 50 years or over at diagnosis, 49% had evidence of late diagnosis. Of 48 aged 40 to 49 years at diagnosis, 44% had evidence of late diagnosis. Of 78 aged 30 to 39 years at diagnosis, 35% had evidence of late diagnosis. Of 77 aged 20 to 29 years at diagnosis, 27% had evidence of late diagnosis. None of the 4 people newly diagnosed aged less than 20 years of age had evidence of late diagnosis.

Figure 7: Number of NSW residents notified with newly diagnosed HIV infection from January to September 2016 by HIV viral load at diagnosis and evidence of late diagnosis¹



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016
¹Evidence of a late diagnosis = a CD4 count less than 350 or an AIDS defining illness or AIDS death within three months of diagnosis, in the absence of a laboratory confirmed negative HIV test in the 12 months prior to diagnosis.

Comment

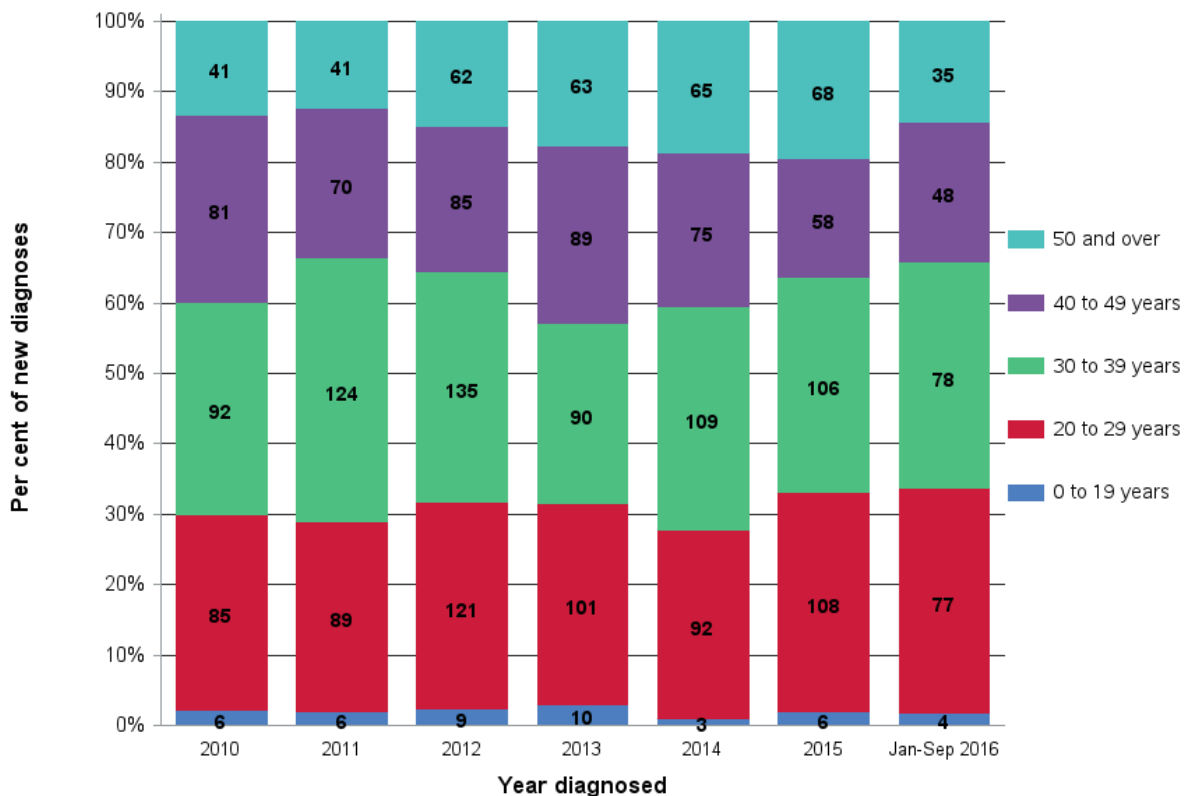
Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016, 20% (n=49) had an HIV viral load (HIV VL) 0-9,999 copies/mL, 36% (n=87) had an HIV VL of 10,000-99,999, 37% (n=89) had an HIV VL of 100,000 or more and 7% (n=17) had an unknown HIV VL at diagnosis. Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016, 36% (n=86) had evidence of late diagnosis and of those 58% (n=50) had an HIV VL of 100,000 copies/mL or more.

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 (for example 100,000 copies/mL or more) 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 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016, 92.6% (n=224) were male, 6.6% (n=16) were female and 0.8% (n=2) were transgender, similar to previous years (Appendix A). Of 242 people newly diagnosed January to September 2016, 3.3% (n=8, with 3 diagnosed in quarter1, 4 in quarter2 and 1 in quarter3) were reported to be Aboriginal or Torres Strait Islander people; this is a slightly higher proportion than previous years and is being monitored closely. A lesser proportion of new diagnoses in January to September 2016 resided in South-Eastern Sydney Local Health District, while a greater proportion resided in Central Coast, Murrumbidgee-Albury, Southern NSW and Illawarra-Shoalhaven LHDs, compared with the distribution of new diagnoses in 2010-2015 (though absolute counts in these regional and rural LHDs remain small) (Appendix A).

Figure 8: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 by age at diagnosis



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

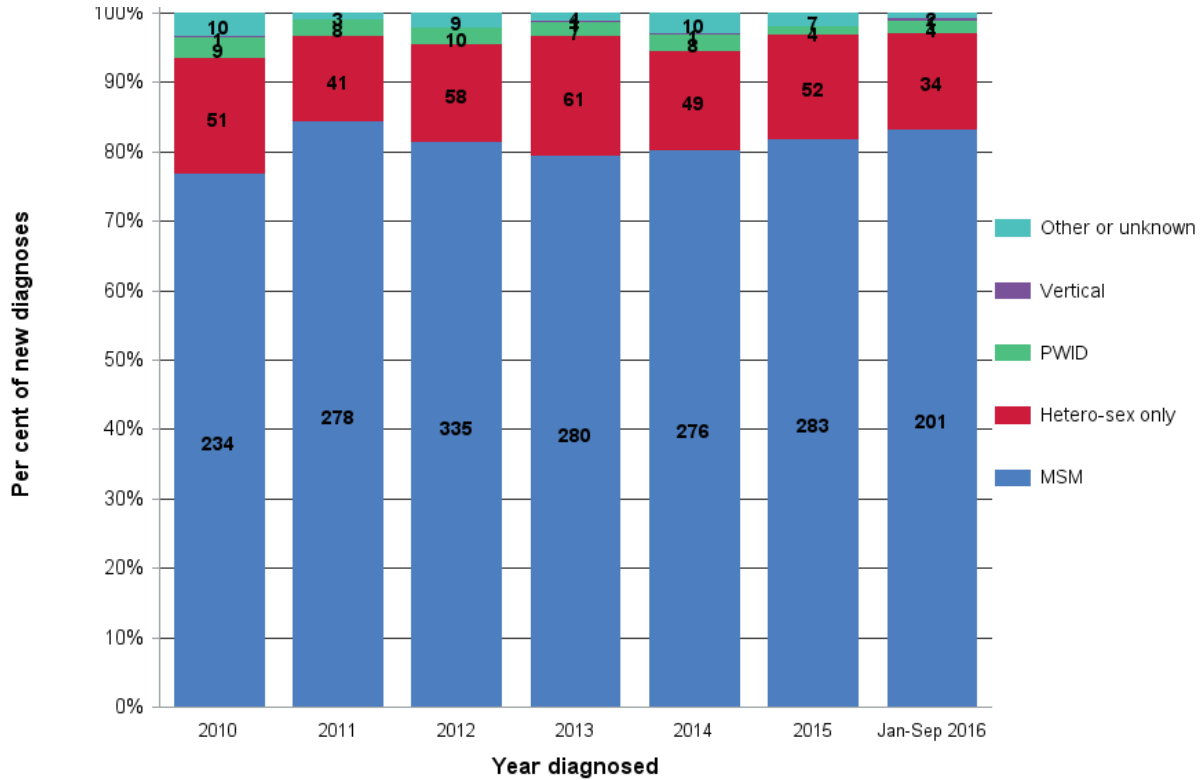
Comment

Of 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016, 1% (n=1) were less than 20 years of age at diagnosis, 34% (n=24) were 20 to 29 years, 30% (n=21) were 30 to 39 years, 17% (n=12) were 40 to 49 years and 17% (n=12) were 50 years of age or over. This compares with 3% less than 20 years, 27% 20 to 29 years, 32% 30 to 39 years, 21% 40 to 49 years and 17% 50 years of age or over for quarter 3 2010 to 2015.

Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016, 2% (n=4) were less than 20 years of age at diagnosis, 32% (n=77) were 20 to 29 years, 32% (n=78) were 30 to 39 years, 20% (n=48) were 40 to 49 years and 14% (n=35) were 50 years or over. This

compares with 2% less than 20 years, 29% 20 to 29 years, 32% 30 to 39 years, 21% 40 to 49 years and 17% 50 years of age or over for the period January to September 2010-2015.

Figure 9: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 by reported HIV risk exposure



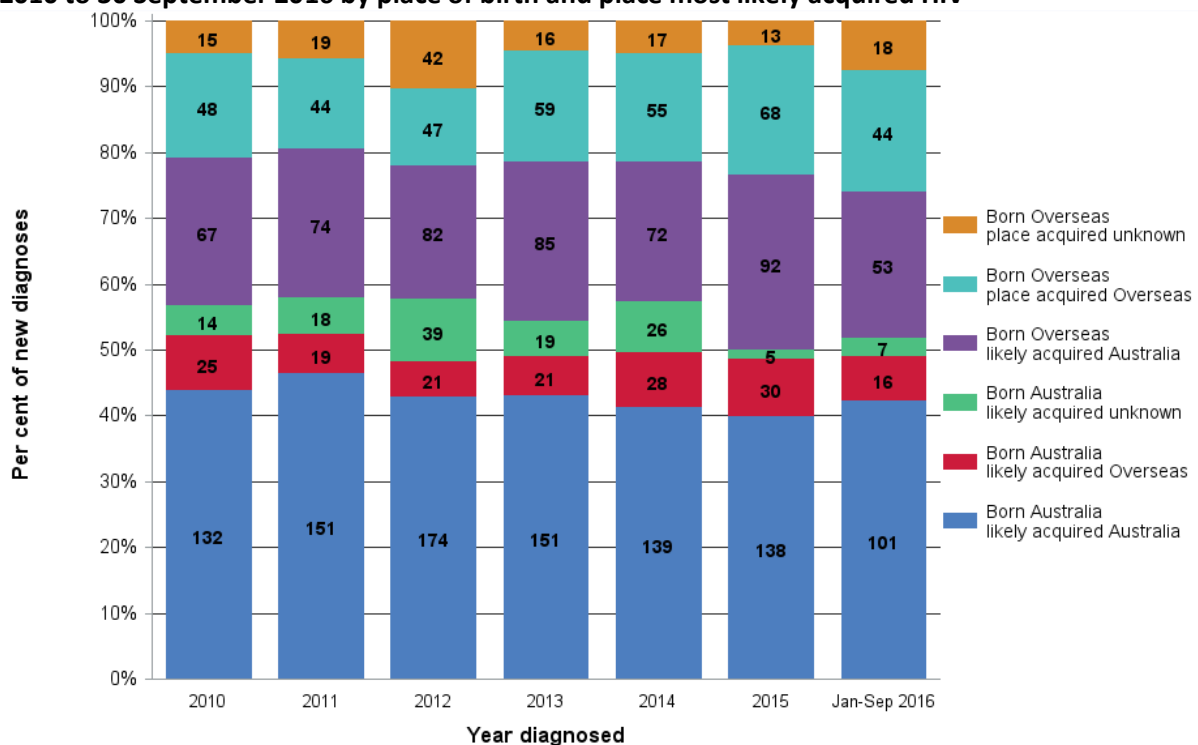
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

Of 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016, HIV risk exposure was reported as male to male sex for 84% (n=59), heterosexual sex for 13% (n=9), injecting drug use (PWID) for 1% (n=1) and another type or unknown exposure for 1% (n=1). This compares with 80% reporting male to male sex, 15% heterosexual sex, 2% injecting drug use, 2% another type or unknown exposure and 0.4% vertical exposure to HIV for people newly diagnosed in quarter 3 2010-2015.

Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016, HIV risk exposure was reported as male to male sex for 83% (n=201), heterosexual sex for 14% (n=34), injecting drug use for 2% (n=4), another type or unknown exposure for 1% (n=2) and vertical transmission for <1% (n=1; which occurred outside of Australia). This was a similar breakdown of HIV risk exposures as was reported for people newly diagnosed in the same period in 2010-2015.

Figure 10: Number of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 by place of birth and place most likely acquired HIV*



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

* Excluded were 20 new diagnoses in 1 January 2010 to 30 September 2016 with unknown country of birth and acquisition.

Comment

Of 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016, 44% (n=31) were born in Australia, compared with 54% of new diagnoses in quarter 3 2010-2015; 54% (n=38) were born overseas of those diagnosed in quarter 3 2016, compared with 44% in quarter 3 2010-2015. Of 70 NSW residents notified with newly diagnosed HIV infection in quarter 3 2016:

- 33% (n=23) were born in and likely acquired HIV in Australia, compared with 40% for quarter 3 of 2010-2015;
- 7% (n=5) were born in Australia but likely acquired HIV overseas, same as for quarter 3 of 2010-2015;
- 4% (n=3) were born in Australia with the place they likely acquired their infection unknown, compared with 7% for quarter 3 of 2010-2015;
- 21% (n=15) were born overseas but likely acquired in Australia, same as for quarter 3 of 2010-2015;
- 21% (n=15) were born overseas and likely acquired HIV overseas, compared with 18% for quarter 3 of 2010-2015;
- 11% (n=8) were born overseas with the place they likely acquired their infection unknown, compared with 5% for quarter 3 of 2010-2015, and;
- 1% (n=1) were of unknown place of birth and acquisition of HIV, same for quarter 3 of 2010-2015.

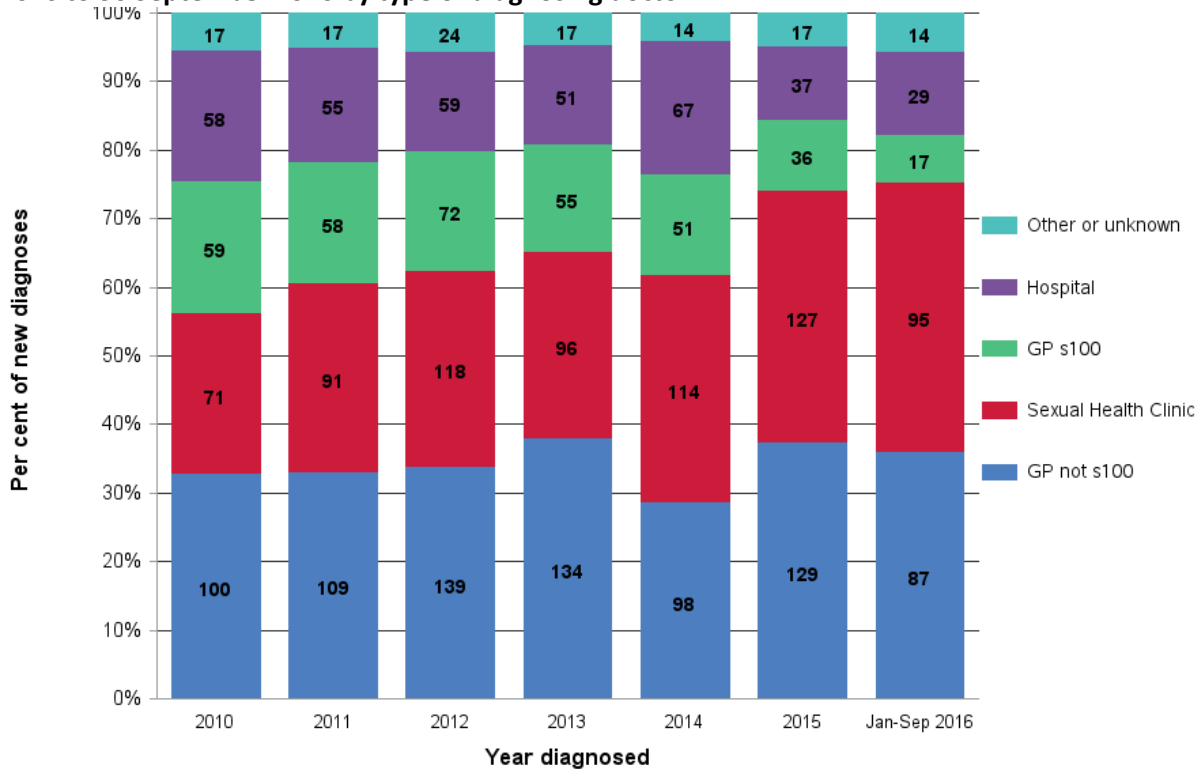
Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016, 51% (n=124) were born in Australia, compared with 54% of new diagnoses January to September 2010-2015; 48% (n=115) were born overseas of those diagnosed January to September 2016, compared with 45% in January to September 2010-2015. Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016:

- 42% (n=101) were born in and likely acquired HIV in Australia, same as for January to September 2010-2015;
- 7% (n=16) were born in Australia but likely acquired HIV overseas, same as for January to September 2010-2015;
- 3% (n=7) were born in Australia with the place they likely acquired their infection unknown, compared with 6% for January to September 2010-2015;
- 22% (n=53) were born overseas but likely acquired in Australia, compared with 23% for January to September 2010-2015;
- 18% (n=44) were born overseas and likely acquired HIV overseas, compared with 15% for January to September 2010-2015;
- 7% (n=18) were born overseas with the place they likely acquired their infection unknown, compared with 6% for January to September 2010-2015, and;
- 1% (n=3) were of unknown place of birth and acquisition of HIV, same as for January to September 2010-2015.

Of 59 MSM newly diagnosed HIV infection in quarter 3 2016, 46% (n=27) were born in Australia, compared with 57% in quarter 1 2010-2015; 54% (n=32) of those diagnosed in quarter 3 2015 were born overseas, compared with 41% in quarter 1 2010-2015.

Of 201 MSM newly diagnosed HIV infection from January to September 2016, 53% (n=107) were born in Australia, compared with 57% in January to September 2010-2015; 46% (n=92) of those diagnosed January to September 2016 were born overseas, compared with 41% in January to September 2010-2015.

Figure 11: Number of NSW residents notified with newly diagnosed HIV infection from 1 January 2010 to 30 September 2016 by type of diagnosing doctor



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

Of 242 NSW residents notified with newly diagnosed HIV infection from January to September 2016:

- 39% (n=95) were diagnosed by sexual health clinics (SHC) (includes linked community testing sites), compared with 30% of the new diagnoses in the same period in 2010-2015;
- 36% (n=87) were diagnosed by medical general practitioners (GPs) not accredited to prescribe antiretroviral therapy (ART) (GP not-s100), compared with 34% of the new diagnoses in the same period in 2010-2015;
- 12% (n=29) were diagnosed by hospital located doctors, compared with 16% of the new diagnoses in the same period in 2010-2015;
- 7% (n=17) were diagnosed by GP s100 doctors (HIV specialised and accredited to prescribe ART), compared with 16% of the new diagnoses in the same period in 2010-2015, and;
- 6% (n=14) were diagnosed by other doctor types such as immigration services, compared with 5% of the new diagnoses in the same period in 2010-2015.

Figure 12: Number of NSW residents notified with newly diagnosed HIV infection from January to September 2016 by type of diagnosing doctor and self-reported HIV risk exposure

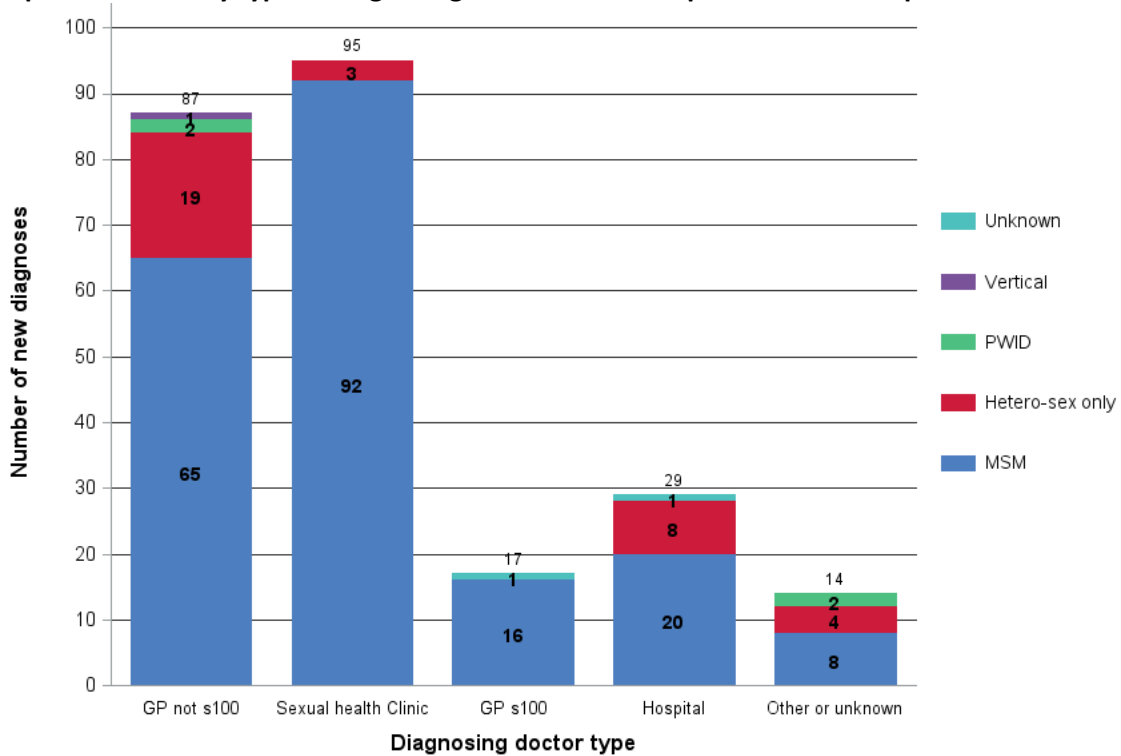
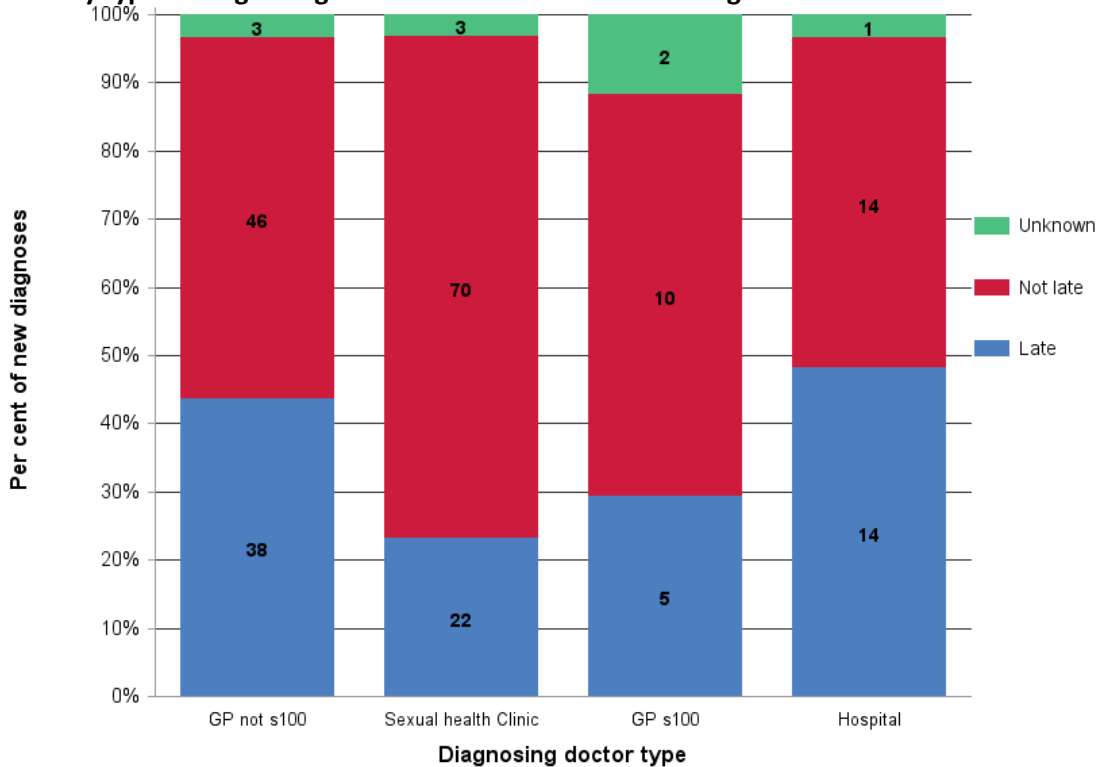


Figure 13: NSW residents notified with newly diagnosed HIV infection from January to September 2016 by type of diagnosing doctor* and evidence of late diagnosis



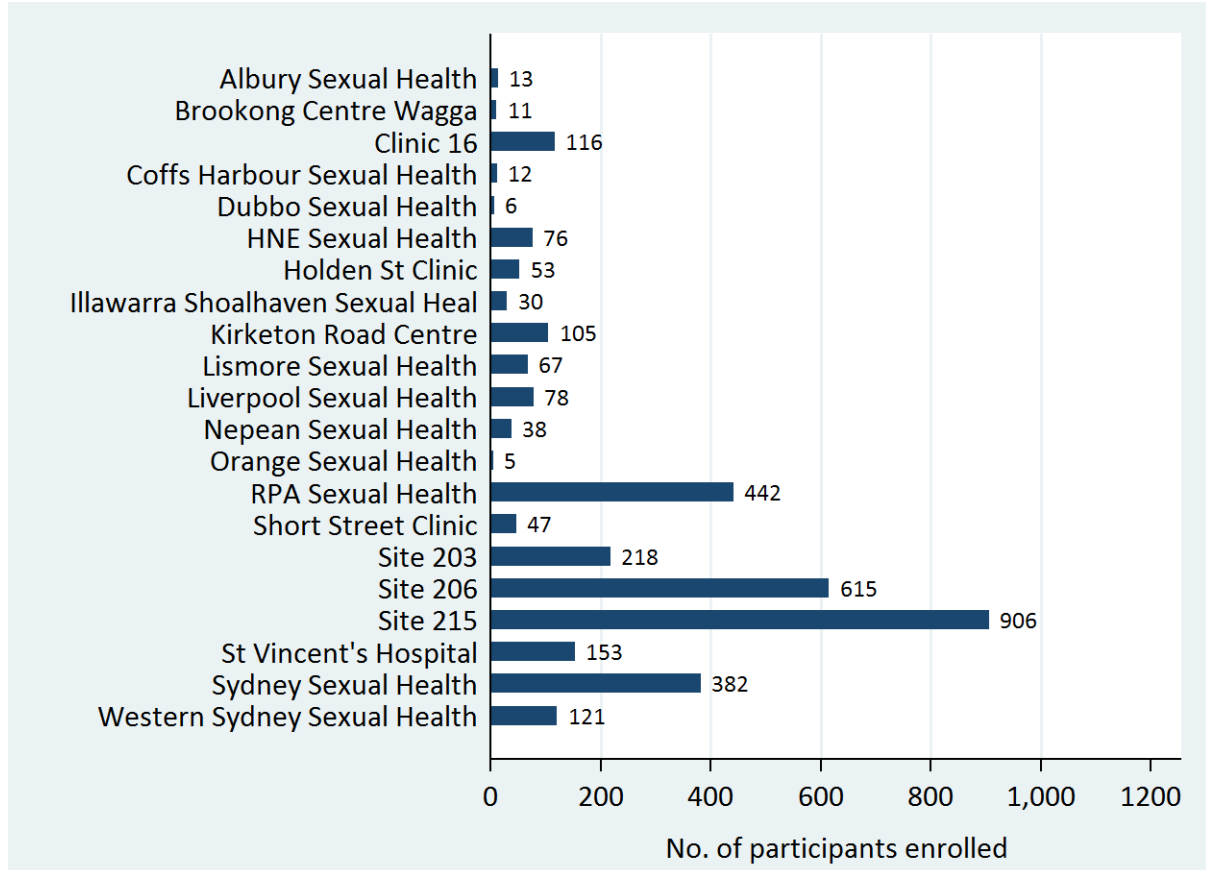
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016.
*14 new diagnoses with other or unknown doctor type excluded.

2. Expand HIV Prevention

2.1 Who is accessing PrEP through EPIC-NSW?

Pre-exposure prophylaxis (PrEP) is the next critical tool for HIV prevention. EPIC-NSW: Expanded PrEP Implementation in Communities in NSW was launched on 1 March 2016 to provide PrEP to people at a high risk of HIV infection in NSW for approximately 2 years.

Figure 14: Participants enrolled in EPIC-NSW by clinic between 1 March and 30 September 2016



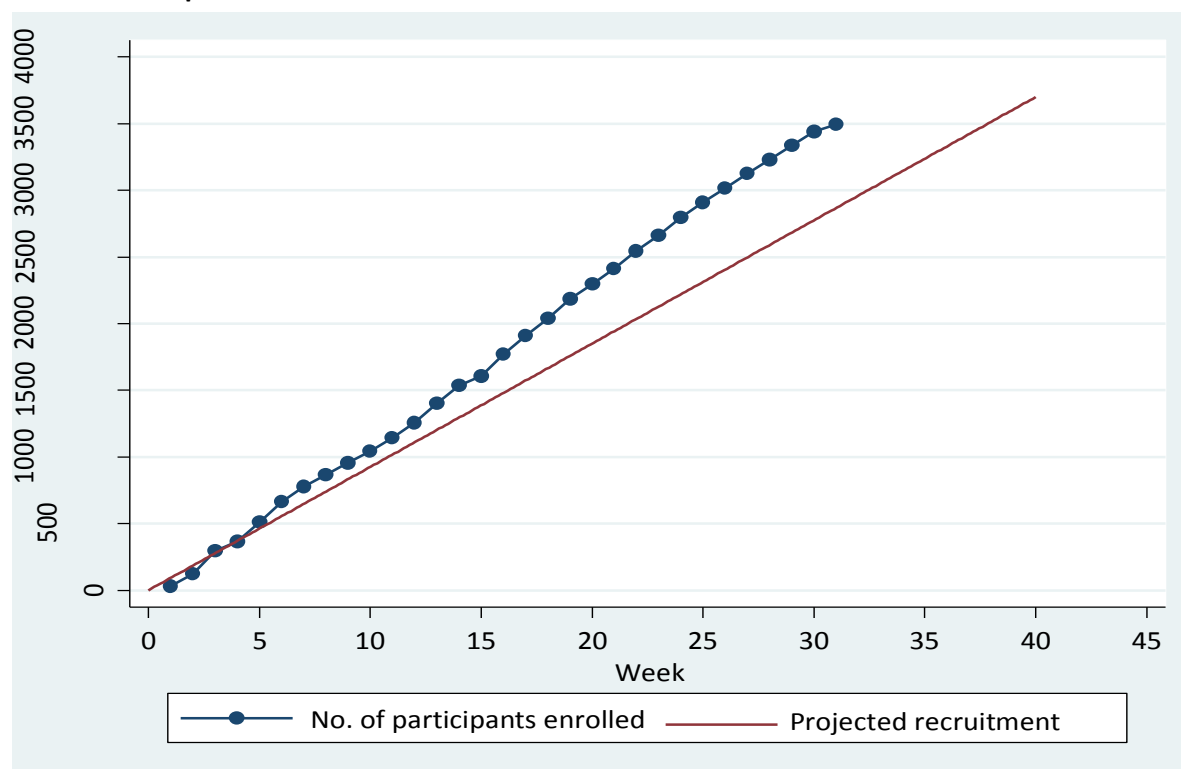
Note: Public clinics are named. Private practices are identified by their site code. As each clinic began enrolling participants at a different date, the activity of clinics should not be directly compared.

Comment

Between 1 March and 30 September 2016, 3494 participants were enrolled at twenty-one clinics: Albury Sexual Health (MLHD), Brookong Centre Wagga (MLHD), Clinic 16 (NSLHD), Coffs Harbour Sexual Health (MNCLHD), Dubbo Sexual Health (WNSW LHD), East Sydney Doctors, Holdsworth House, Hunter New England Sexual Health (HNE LHD), Holden Street Clinic (CCLHD), Illawarra Shoalhaven Sexual Health (ISLHD), Kirketon Road Centre (SESLHD), Lismore Sexual Health Clinic (NNSW LHD), Liverpool Sexual Health (SWSLHD), Nepean Sexual Health and HIV Clinics (NBMLHD), Orange Sexual Health (WNSW LHD), RPA Sexual Health (SLHD), Short Street Clinic (SESLHD), St Vincent's Hospital (SVHN), Sydney Sexual Health Centre (SESLHD), Taylor Square Private Clinic, Western Sydney Sexual Health (WSLHD) (Figure 14). There is no longer a cap on enrolment for the study.

In addition, approximately 300 participants are enrolled in the PrELUDE PrEP demonstration trial, which provides PrEP to people at a high risk infection for up to 2.5 years. The PrELUDE study will be closed and eligible participants enrolled in EPIC-NSW by late November 2016.

Figure 15: Projected and actual enrolment of participants in EPIC-NSW, by study week, from 1 March to 30 September 2016



Note: Projections were based on completion of recruitment of 3700 participants by 31 December 2016.

Table 1: Demographic data for EPIC-NSW participants enrolled between 1 March and 30 September 2016¹

Characteristic	No.	%
Sex*		
Male	3,454	99.2
Female	2	0.1
Transgender, male-to-female	16	0.5
Transgender, female-to-male	7	0.2
Other	2	0.1
Sexual identity*		
Gay/Homosexual	3,316	95.3
Bisexual	132	3.8
Heterosexual	10	0.3
Transgender	5	0.1
Other	18	0.5
Age at enrolment (years)[#]		
Median (IQR)	36 (29 to 45)	-
Age		
< 20	19	0.7
20-29	695	25.1
30-39	987	35.6
40-49	662	23.9
≥50	409	14.8

¹ Postcode of residence was not available for this report.

Table 1 (continued): Demographic data for EPIC-NSW participants enrolled between 1 March and 30 September 2016²

Characteristic	No.	%
Aboriginal and/or Torres Strait Islander[§]		
Non-indigenous	2,474	98.8
Aboriginal and/or Torres Strait Islander	30	1.2
Region of birth[§]		
Australia	1,577	63.0
Other Oceania	90	3.6
Asia	290	11.6
Northern America	78	3.1
South America, Central America & the Caribbean	87	3.5
Europe	295	11.8
Middle East	25	1.0
Africa	62	2.5
Area of residence[^]		
Major cities	2,388	95.4
Gay postcodes	(950)	(38.0)
Inner Regional	110	4.4
Outer Regional	4	0.2
Remote	1	0.0

Notes: Demographic data was not available for all participants. For characteristics with <5 participants, the exact figure and % have not been provided. *available for 3481 enrolled participants; # available for 2775 participants who consented to data linkage, only participants aged 18 years and older are eligible for EPIC-NSW; §available for 2504 participants who completed the behavioural questionnaire, ^available for 2503 participants who completed the behavioural questionnaire, gay postcodes are a subset of "major cities" and include 2008, 2010, 2011, 2016, 2021, 2042 and 2204 which were identified as areas with a high prevalence (>10%) of men identifying as gay according to the study by Poynten et al. (2012) *Sexual health* 9(6): 509-512.

Comment

Of the participants enrolled in EPIC-NSW between 1 March and 30 September 2016 and for whom data was available, 99.2% were male and 95.3% were gay/homosexual. The majority were aged 30-39 years (35.6%), with 25.1% aged 20-29 years, 23.9% aged 40-49 years, 14.8% aged 50+ years and 0.7% aged <20 years. Of the 2504 participants completing the behavioural questionnaire, 63% were born in Australia, with 11.6% born in Asia and 11.8% born in Europe. The majority of participants (95.4%) reside in a major city including 38% who reside in "gay postcodes". Only 4.4% of participants resided in inner regional and 0.2% residing in outer regional or remote areas. Of 2504 participants completing the behavioural questionnaire, 1.2% identified as Aboriginal or Torres Strait Islander.

² Postcode of residence was not available for this report.

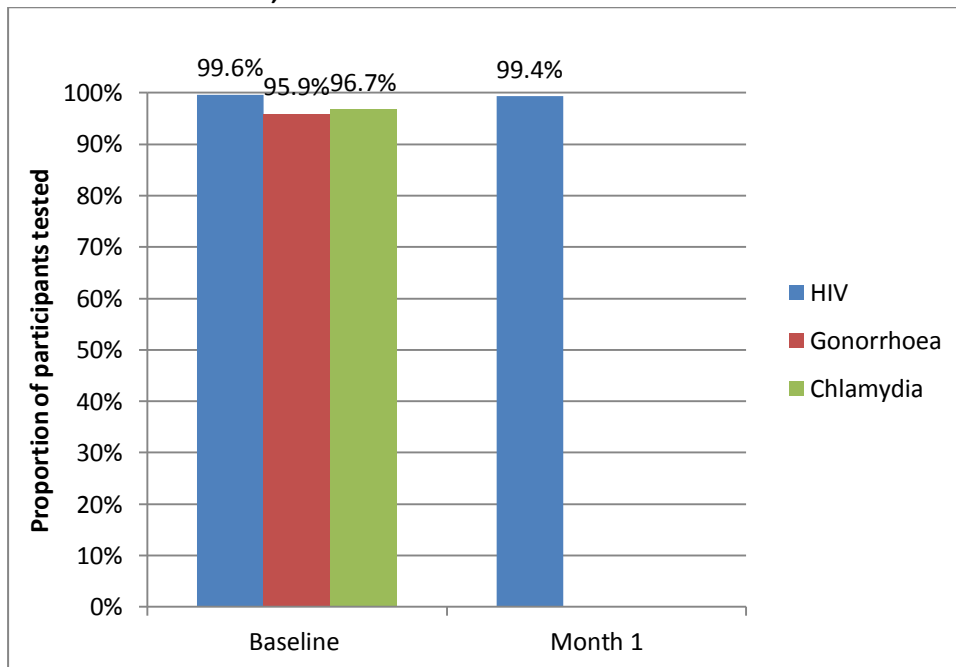
2.2 What is the prevalence of STIs among EPIC-NSW participants?

HIV and sexually transmissible infection (STI) testing is recommended for all EPIC-NSW participants at baseline (enrolment), 1 month (HIV only) and every three months, in accordance with the NSW Health Guidelines on the Pre-Exposure Prophylaxis of HIV with Antiretroviral Medications (GL2016_011).

For Quarter 3 2016, data on HIV, chlamydia and gonorrhoea testing are available for Albury Sexual Health, Brookong Centre Wagga, Clinic 16, Holden Street Clinic, HNE Sexual Health, Kirketon Road Centre, Lismore SHC, Nepean Sexual Health and HIV clinics, RPA Sexual Health, Site 206, and Western Sydney SHC.

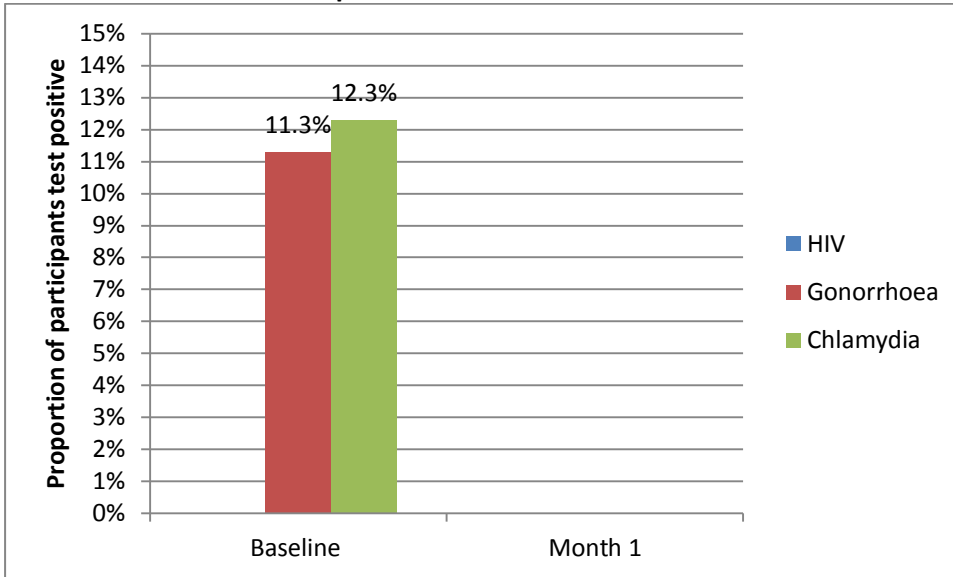
Data on syphilis testing, baseline hepatitis C testing and clinic attendance is expected to be available for all clinics for Quarter 4 2016.

Figure 16: Proportion of EPIC-NSW participants who attended the clinic and received an HIV test at baseline and month 1, or an STI test at baseline



Note: Visit windows for baseline and 1 month are mutually exclusive and adjacent. Windows begin and end at the midpoint between each time period and/or close of data. Chlamydia and gonorrhoea testing is required at baseline but not at month 1. HIV testing is required at baseline and month 1. Due to delays in data being available, it is expected that the testing results are closer to 100% than they appear.

Figure 17: Proportion of EPIC-NSW participants who tested for HIV at baseline and 1 month, or STI at baseline who received a positive result.



Note: Chlamydia and gonorrhoea testing is required at baseline but not at month 1. HIV testing is required at baseline and month 1.

Comment

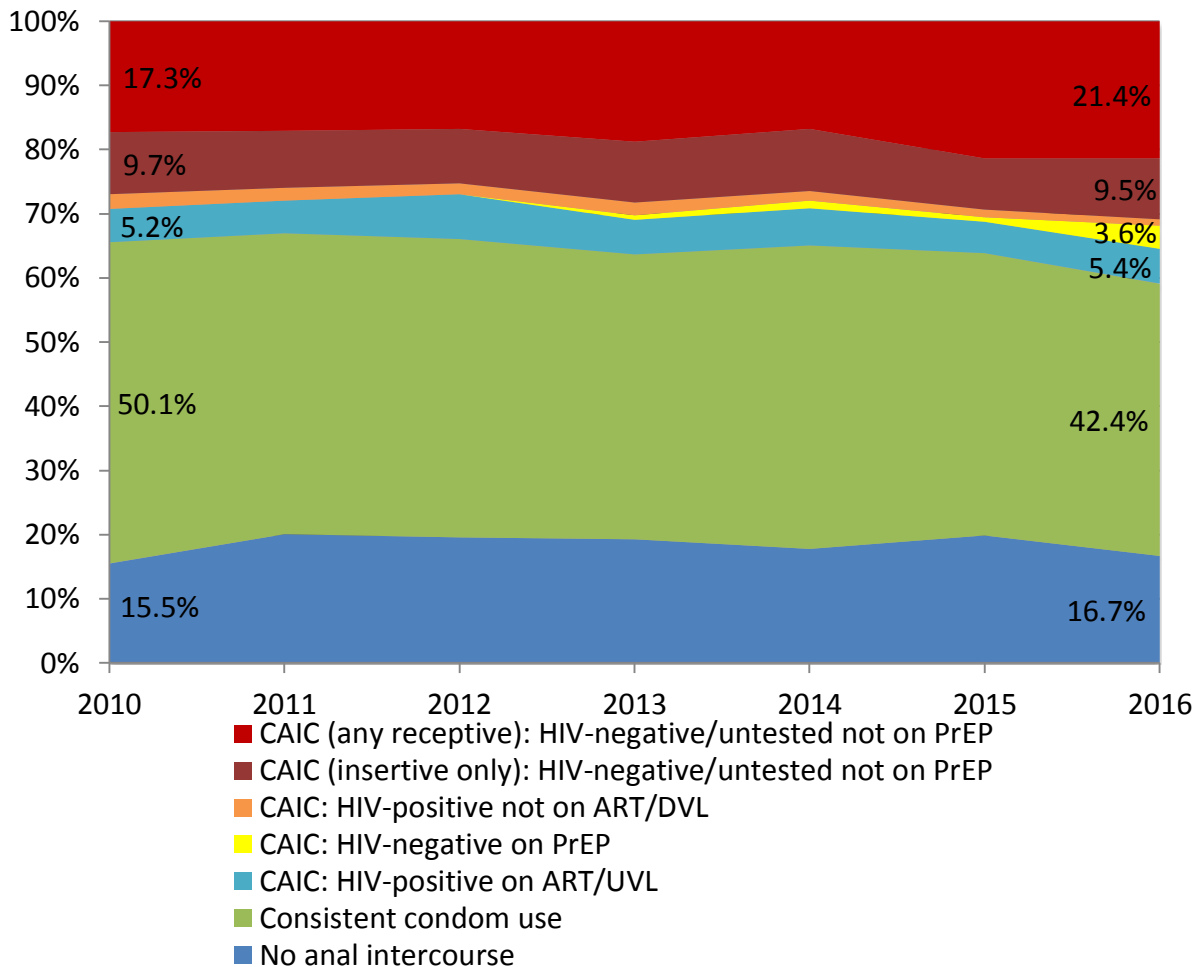
Of the 1496 participants from clinics with HIV and STI testing information available in Quarter 3 2016 (Albury Sexual Health, Brookong Centre Wagga, Clinic 16, Holden Street Clinic, HNE Sexual Health, Kirketon Road Centre, Lismore SHC, Nepean Sexual Health and HIV clinics, RPA Sexual Health, Site 206, and Western Sydney SHC), 1490 (99.6%) had an HIV test, 1435 (96.0%) a gonorrhoea test, and 1441 (96.3%) a chlamydia test at baseline. Of the 1089 participants with a clinic visit at 1 month post enrolment, 1082 (99.4%) had an HIV test.

No participants enrolled in EPIC-NSW have tested positive for HIV to 30 September 2016. Of the EPIC-NSW participants tested for STIs at baseline, 11.3% (162/662) had a positive result for gonorrhoea and 12.3% (177/1441) had a positive result for chlamydia.

2.3 How many men who have sex with men use condoms and other HIV risk reduction practices?

Condom use and other HIV risk reduction strategies used by gay and bisexual men are measured through the annual Sydney Gay Community Periodic Survey (SGCPS), conducted each year during February. Given the introduction of pre-exposure prophylaxis (PrEP) in NSW and the focus on the preventative benefits of HIV treatment in the current Strategy, reporting of condomless anal intercourse with casual partners (CAIC) in the SGCPS has been modified, distinguishing between HIV-positive men who are virally suppressed or not and HIV-negative men who are protected by PrEP or not. These subcategories can be seen in Figure 18.

Figure 18: Anal intercourse, condom use and antiretroviral protection with casual male partners in the six months prior to survey, Sydney Gay Community Periodic Survey



Note: CAIC = condomless anal intercourse with casual male partners. Denominator varies from 1408 to 1996 gay men with casual partners per year.

Comment

Among gay men with casual male partners, the proportion avoiding anal intercourse has remained relatively stable since 2010, while the proportion reporting consistent condom use has declined slightly over time (reaching 42.4% in 2016). The proportion reporting any condomless anal intercourse with casual partners (CAIC) has increased over time, reaching 40.9% in 2016. The proportion of HIV-positive men not on treatment or with a detectable viral load who report CAIC has fallen since 2010 (to 1.0% of men with casual partners in 2016). During 2013-2015 there were very few HIV-negative men on PrEP in the SGCPS. At the beginning of 2016 (the survey is conducted in

February) we saw an increase in PrEP users reporting CAIC in the survey (to 3.6% of casual partners). The majority of men who report CAIC remain HIV-negative and untested men *not* using PrEP. Between 2015 and 2016 the group of HIV-negative men not using PrEP who reported receptive CAIC (the highest risk practice for HIV) remained unchanged at 21.4% of casual partners.

2.4 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.

2.5 How accessible is the Needle and Syringe Program in NSW?

Between January to June 2016, there were 6,064,124 units of injecting equipment distributed in NSW by the Public NSP and 808,519 units distributed by the Pharmacy NSP Fitpack[®] scheme (Figure 19). This represents an increase of 410,743 additional units (7.3%) by the Public NSP and an increase of 159,981 units (24.7%) by the Pharmacy NSP compared with the same period in 2015 (NSW Health NSP Minimum Data Set).

In the financial year ending 30 June 2016, a total of 13,773,628 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 1,055,224 additional units (8%) compared with the previous 12 months. During the same period to 30 June 2016, the number of units of injecting equipment distributed by the Public NSP increased by 790,535 (7%), while the number of units of injecting equipment distributed by the Pharmacy NSP Fitpack[®] scheme increased by 264,689 (19%) (NSW Health NSP Minimum Data Set).

As of 30 June 2016, under the public NSP there were a total of 28 primary and 287 secondary outlets, 256 automatic dispensing machines (ADMs) and internal dispensing chutes (IDCs) located across NSW. The breakdown by outlet type by LHD is identified above (Figure 22).

In addition, there were 522 Pharmacies participating in the Pharmacy NSW Fitpack Scheme, making a total of 1,093 NSP outlets located across NSW as at 30 June 2016. This represents a decrease of 12 outlets (1%) compared with same period in 2015 (NSW NSP Data Collection).

2.6 What proportion of people reuse other people’s needles and syringes (receptive syringe sharing) in NSW?

Among respondents in the 2016 NSW NSP Enhanced Data Collection (NNEDC), reports of receptive syringe sharing (RSS) in the previous month increased from 16% in 2015 to 20% in 2016 ($p=0.003$)³. In the four years between 2013 and 2016, RSS remained stable, with 22% of respondents reporting RSS in 2013 (4 year trend, $p = 0.333$).

The Australian NSP Survey (ANSPS) indicates that the proportion of NSW respondents who reported receptive sharing of needles and syringes in the previous month was 13% in 2013; 16% in 2014; and 14% in 2015⁴.

³ Geddes, L, Iversen J, and Maher L. NSW Needle and Syringe Program Enhanced Data Collection Report 2016, The Kirby Institute, UNSW Australia, Sydney 2016.

⁴ Memedovic S, Iversen J, Geddes L, and Maher L. Australian Needle and Syringe Program Survey National Data Report 2011-2015: Prevalence of HIV, HCV and Injecting and sexual behaviour among NSP attendees. Sydney: Kirby Institute, UNSW Australia; 2016. ISSN: 1448-5915

3. Increase HIV testing frequency

Table 2: HIV testing data sources

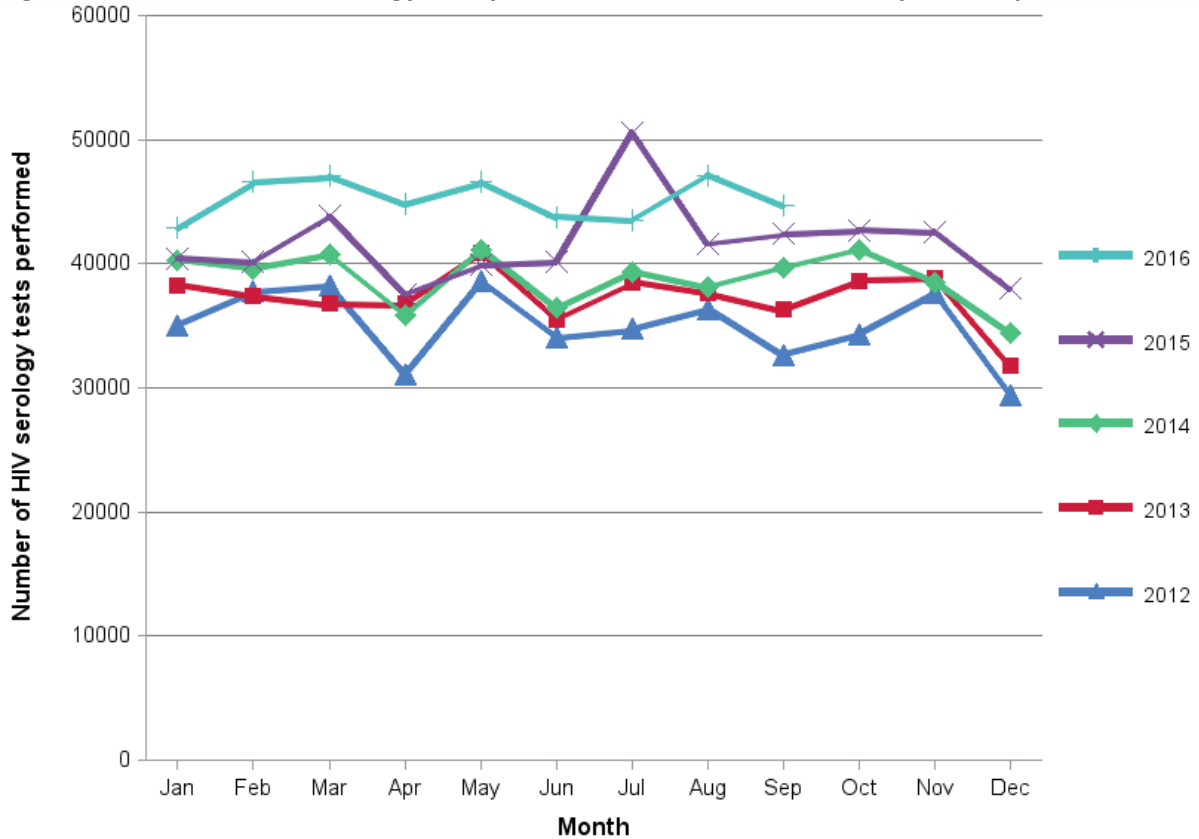
Name	Custodian	Availability	Coverage
NSW Health denominator data project	Health Protection NSW, NSW Health	Quarterly - ongoing	Number of tests in NSW
NSW Health HIV Strategy Monitoring Database	NSW Ministry of Health, NSW Health	Quarterly - ongoing	Congregated testing data for public sexual health clinics by priority populations
ACCESS Study	The Kirby Institute	Quarterly	Testing data for unique individuals attending public sexual health clinics by priority populations, and for select GP practices with high and medium case load of GBM in Sydney
Sydney Gay Community Periodic Survey	Centre for Social Research in Health	Annually (collected in February and reported in quarter 3)	Data on sexual, drug use and testing practices related to the transmission of HIV and other STIs among gay men in Sydney (self-reported)

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 19: Number of HIV serology tests performed in 15 NSW labs January 2012-September 2016



Data source: NSW Health denominator data project, extracted 8 November 2016.

Comment

In quarter 3 2016, 135,363 HIV serology tests were performed in 15 laboratories in NSW, which was 1% greater than in quarter 3 2015 (n=134,596), 16% greater than in quarter 3 2014 (n=117,196), 20% greater than in quarter 3 2013 (n=112,403) and 30% greater than quarter 3 2012 (n=103,803).

From January to September 2016, 407,029 HIV serology tests were performed in 15 laboratories in NSW, which was 8% greater than in the same period 2015 (n=376,671), 16% greater than in the same period 2014 (n=351,375), 20% greater than in the same 2013 (n=338,018) and 28% greater than in the same period 2012 (n=318,534).

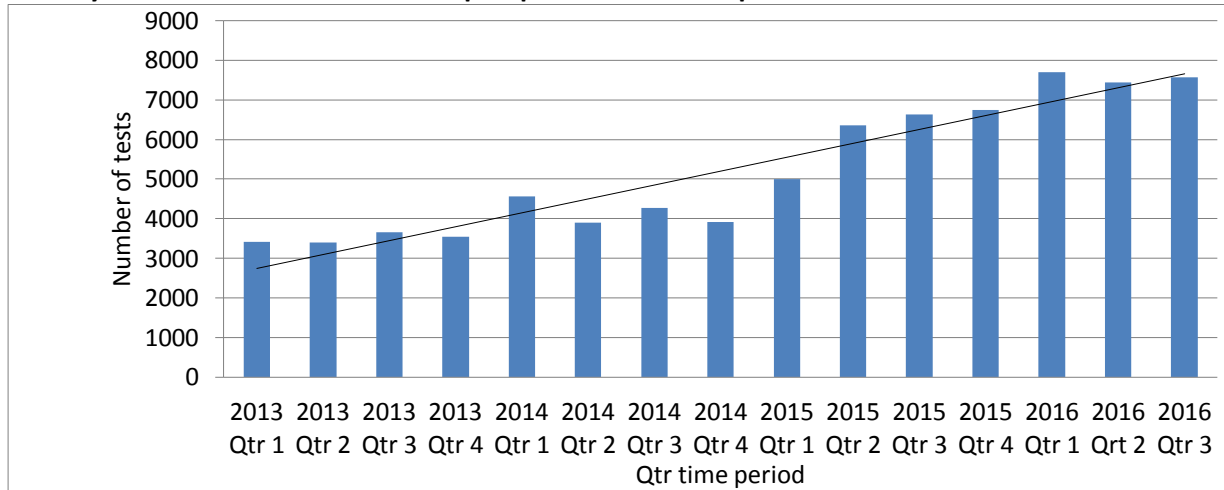
From March to September 2016, 3,494 people at high risk of acquiring HIV were tested (and found HIV negative) prior to enrolment in EPIC-NSW, a population level PrEP impact study. The spike in HIV serology test count in July 2015 coincided with an HIV testing awareness initiative (“NSW HIV Testing Week”) 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

HIV testing data in Publicly Funded Sexual Health Clinics (PFSHCs) has been available for all LHDs since July 2013; however the type of data is not uniform due to different data management systems.

Figure 20 displays the number of HIV tests done in PFSHC between 1 January 2013 and 30 September 2016 in South Eastern Sydney LHD. Both rapid HIV testing and HIV serology are included.

Figure 20: Number of HIV serology tests performed in South Eastern Sydney Local Health District Publicly Funded Sexual Health Clinics per quarter 2013 to September 2016



Data source: South Eastern Sydney Local Health District

Comment

From January to September 2016, 22,710 HIV tests were done in South Eastern Sydney LHD (Figures 20), this represents an increase of 26% compared with the same period in 2015 (n=17,992), 78% compared with the same period in 2014 (n=12,725) and 117% compared with the same period in 2013.

A comparison in the number of HIV tests done between 1 January and 30 September 2016 for metropolitan PFSHCs is displayed in Figure 21 and for regional and rural PFSHCs in Figure 22. Both rapid HIV testing and HIV serology are included.

Figure 21: Number of HIV tests performed in Sydney metropolitan Local Health District Publicly Funded Sexual Health Clinics January to September 2016

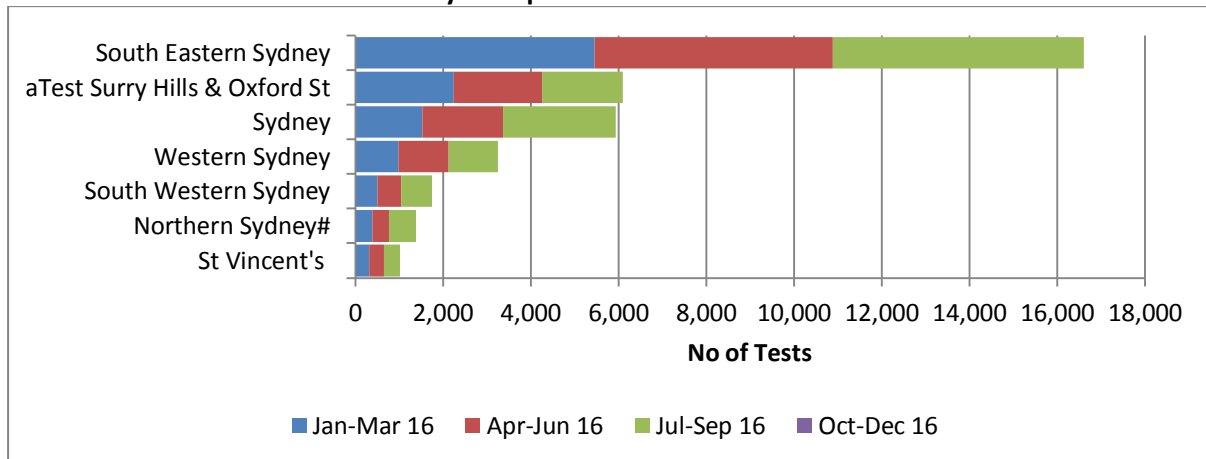
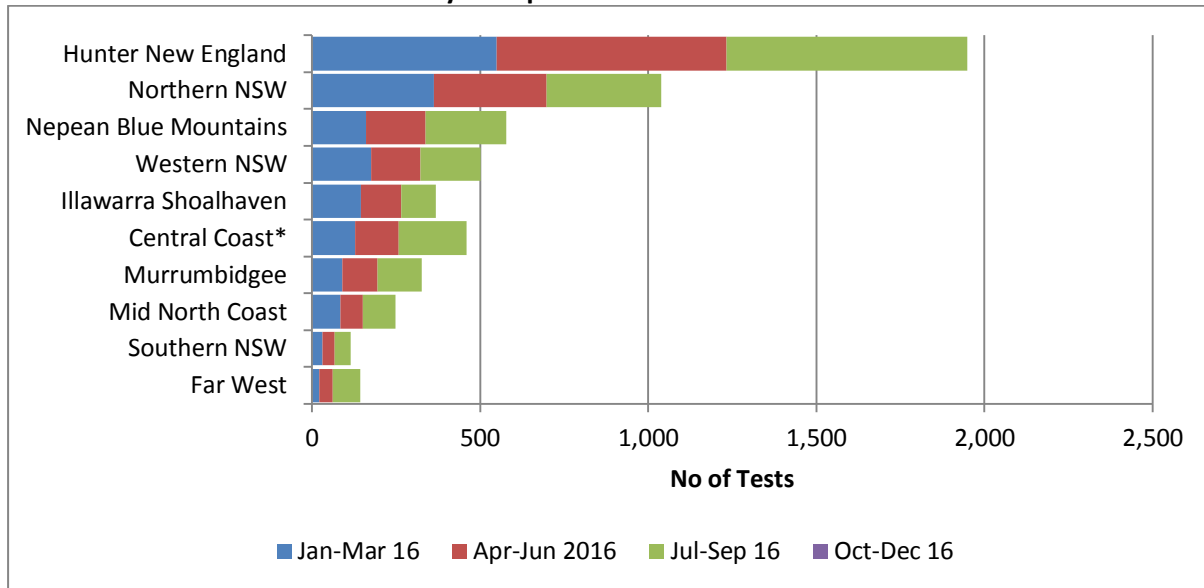


figure for January to September 2016 is an underestimate as actual activity data is not available for this period.

Data source: NSW Health HIV Strategy Monitoring Database

Figure 22: Number of HIV tests performed in regional and rural Local Health District Publicly Funded Sexual Health Clinics January to September 2016



*figure for January to September 2016 is an underestimate as actual activity data is not available for this period.
Data source: NSW Health HIV Strategy Monitoring Database

Comment

From July to September 2016, 14,625 HIV tests were done in all PFSHCs in NSW; 27% greater than the same period in 2015 (n=11,512). From July to September 2016, testing increased particularly in some local health districts; HIV testing in Sydney LHD increased by 77% (n=2,189) compared with the same period in 2015, and Western Sydney LHD increased by 43% (n=1,229) compared to the same period in 2015.

From January to September 2016, 41,328 HIV tests were done in all PFSHCs in NSW; 23% greater than the same period in 2015 (n=33,733).

3.2 Where is HIV testing being done and testing patterns?

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.

To reduce the pool of undiagnosed HIV infection, testing should be targeted to high risk populations.

3.2.1 Survey data

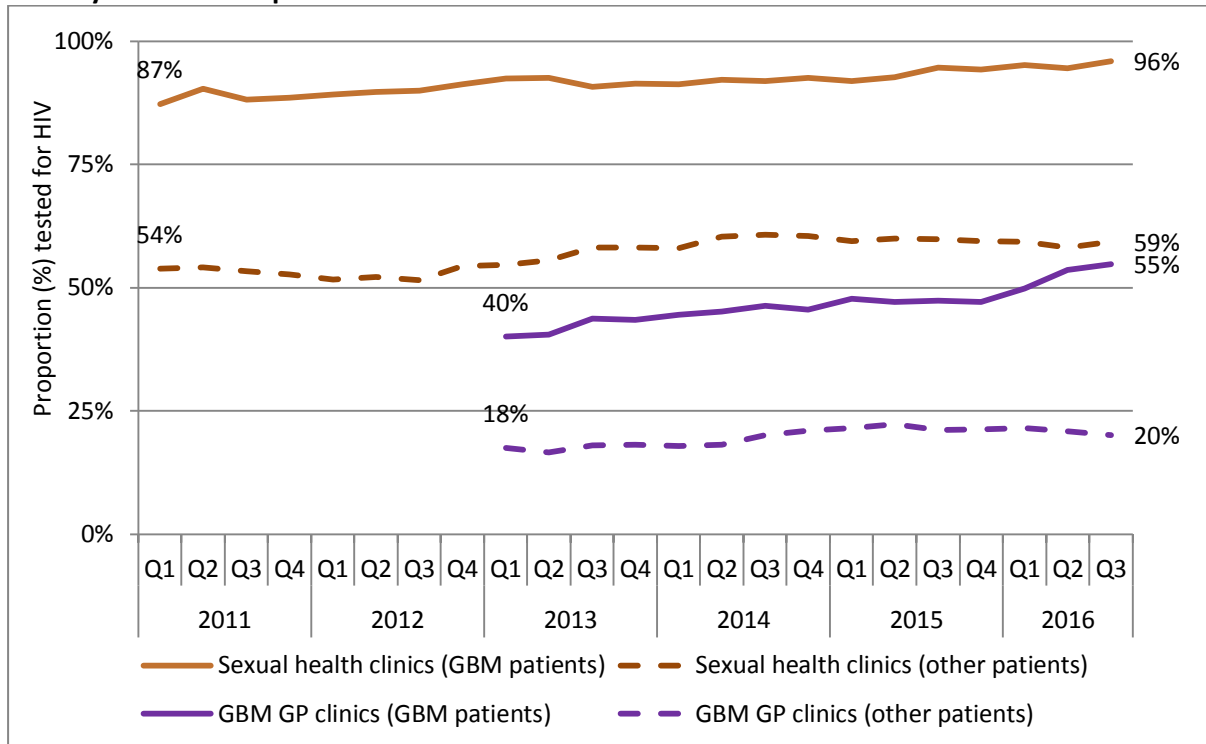
HIV testing in MSM is measured regularly through the SGCPs (conducted annually in February). Data from the 2016 SGCPs publication is reported in the quarter 2 2016 NSW HIV data report.

3.2.2 General practice with high caseload of gay and bisexual men (GBM GP clinics) and PFSHCs

Data from the ACCESS project data base (managed by the Kirby Institute) has been added to the monitoring and evaluation framework for the NSW HIV Strategy to strengthen NSW's systems for monitoring progress and reporting outcomes against the NSW HIV Strategy 2016-2020.

Figure 23 displays HIV testing uptake in both PFSHCs and GBM GP clinics from the ACCESS database.

Figure 23: Proportion of patients⁵ attending PFSHCs and GBM GP clinics⁶ tested at least once for HIV at any clinic in the ACCESS network in the previous year, by quarter and service type, 1 January 2011 to 30 September 2016⁷



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Comment

HIV testing uptake among GBM has increased steadily since 2011 and was highest among GBM attending PFSHCs. For other patients HIV testing uptake was lower than among GBM but increased over time as well.

In contrast to previous reports this indicator was calculated using linked data, which more accurately represents test uptake by capturing HIV testing at multiple clinical services. This difference has increased the overall uptake of HIV testing compared with earlier reports. In quarter 2 2016, for example, while the unlinked estimate of HIV test uptake among GBM attending PFSHCs was 91% using the linked dataset this increased to 94%.

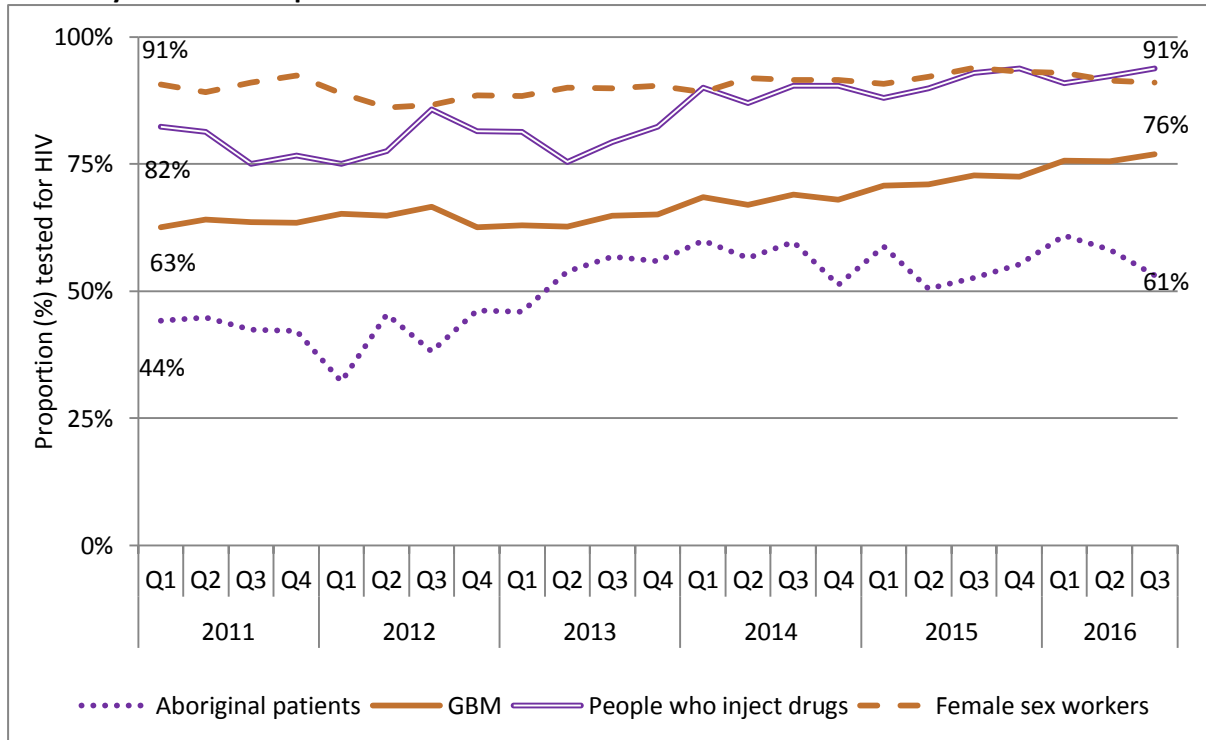
⁵ Excludes patients known to be HIV positive

⁶ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually; attendance data for patients not tested for HIV was unavailable for at GP clinics prior to 2013 and has been excluded

⁷ The testing period is retrospective; the proportion represents those who attended in a quarter and had at least one HIV test in the previous 12 months

Figure 24 and Table 3 summarises the available data from PFSHCs on HIV testing in priority population groups.

Figure 24: Proportion of patients⁸ attending PFSHCs and GBM GP clinics⁹ tested at least once for HIV at any clinic in the ACCESS network in the previous year, by quarter and priority population¹⁰, 1 January 2011 to 30 September 2016¹¹



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Comment

HIV testing uptake was over 90% among female sex workers and people who reported injecting drug use. Although lower overall, the greatest increases in testing uptake over time were among patients reporting injecting drug use and Aboriginal men and women (excluding GBM). In contrast to previous reports this indicator has been calculated using linked data, which produced higher uptake estimates than previously reported.

⁸ Excludes patients known to be HIV positive

⁹ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually; attendance data for patients not tested for HIV was unavailable for at GP clinics prior to 2013 and has been excluded

¹⁰ Priority populations other than GBM exclude GBM-identified patients; priority populations are not mutually exclusive

¹¹ The testing period is retrospective; the proportion represents those who attended in a quarter and had at least one HIV test in the previous 12 months

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

Priority Population	% of HIV tests in all PFSHCs, Q3 2016*	Number of HIV tests in all PFSHCs, Q3 2016*	% increase in HIV tests compared with Q3 2015 in all PFSHCs [#]
GBM	70%	9,519	34%
Sex workers [^]	11%	1,599	18%
People who inject drugs (PWID) [^]	8%	1,093	35%
Aboriginal people	2%	345	20%

*Excludes Central Coast and Northern Sydney LHD who was unable to provide testing data by priority population.

[#]Excludes LHDs without testing data by priority population in Q3 2016 (St Vincent's Hospital Network and Northern Sydney LHD).

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

Data source: NSW Health HIV Strategy Monitoring Database¹²

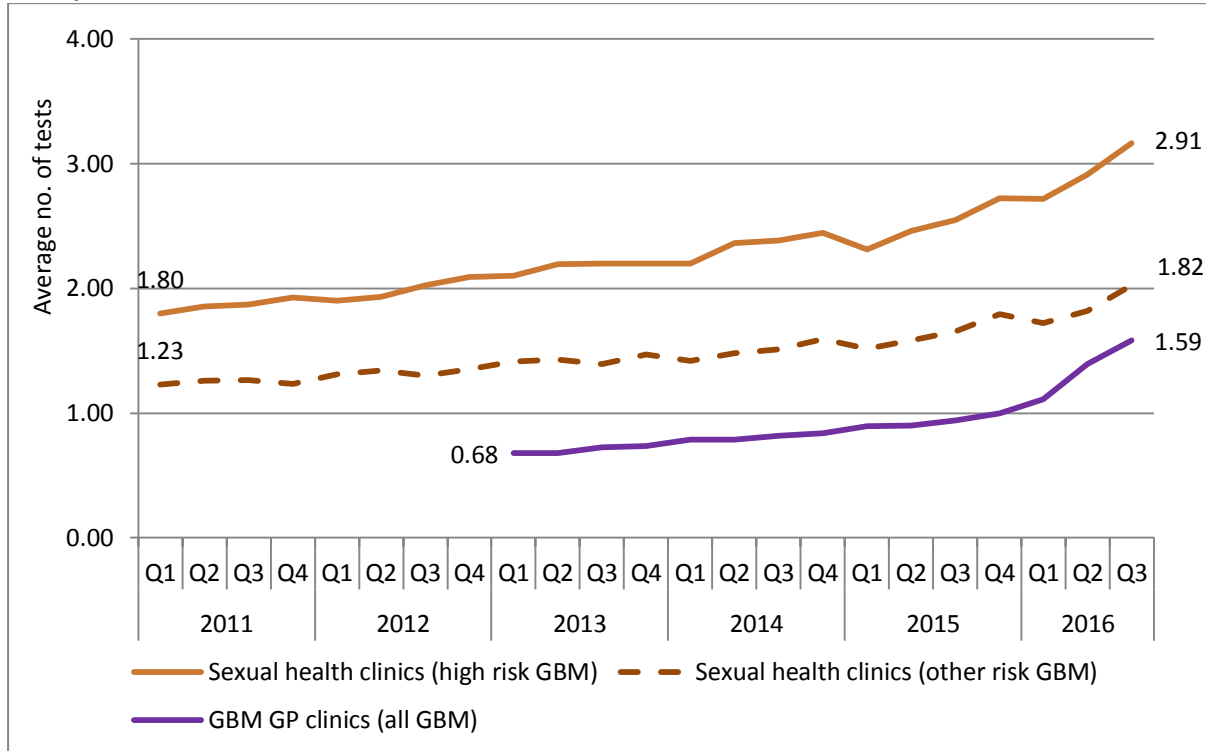
Comment

In summary, data from PFSHCs indicates that testing remains high and well-targeted towards priority populations. Achieving further increases in testing frequency, particularly in high risk GBM, 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.

¹² 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 Testing patterns for HIV?

Figure 25: Average number of annual HIV tests at any clinic in the ACCESS network in GBM patients¹³ attending PFSHCs and GBM GP clinics¹⁴, by service type and quarter, 1 January 2011 to 30 September 2016



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Risk categorisation is available only for sexual health clinics, defined as:

- **High risk:** >5 sexual partners in the three months prior to consultation AND/OR >20 sexual partners in the 12 months prior to consultation AND/OR a diagnosis for chlamydia, gonorrhoea, and/or infectious syphilis in the 24 months prior to consultation
- **Other risk:** Any person not otherwise meeting the criteria of 'high risk'

Comment

Since 2011, the average number of HIV test per patient increased among patients attending PFSHCs and GBM GP clinics. These increases suggest more tests per year among individual patients. In quarter 3 2016, the average number of HIV tests per patient continued to rise, most noticeably among high risk GBM attending PFSHCs and GBM attending GBM GP clinics. The average number of tests among high risk GBM attending PFSHCs increased from 1.8 in the year prior to quarter 1 2011 to 2.91 in the 12 months prior to quarter 3 2016. The average number of tests for all GBM attending GBM GP clinics rose from 0.68 in the year prior to quarter 1 2013 to 1.59 in the 12 months prior to quarter 3 2016. It is worth noting that the EPIC-NSW trial of PrEP requires quarterly HIV testing for participants and was in operation at many of the sites included in this indicator, which could have contributed to the increase in testing frequency observed since 2015.

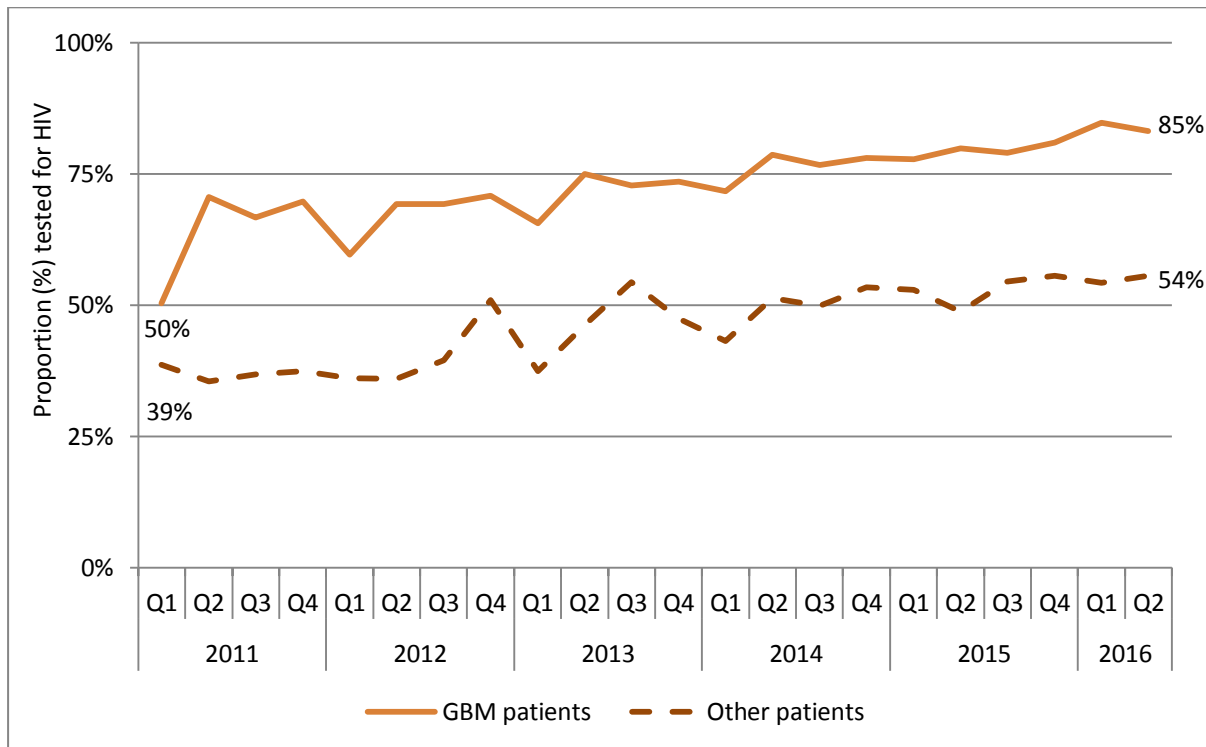
In contrast to previous reports this indicator has been calculated using linked health service data. Considering that GBM may attend multiple clinics for HIV testing, use of the linked dataset has increased the overall estimate of HIV testing frequency. While a testing average of 2.14 HIV tests for

¹³ Excludes patients known to be HIV positive

¹⁴ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually; attendance data for patients not tested for HIV was unavailable for at GP clinics prior to 2013 and has been excluded

high risk GBM in PFSHCs was reported using unlinked data for quarter 2 2016 using the linked dataset this number increased to 2.91. This difference suggests that some men typically adopt a single service for most of their testing needs but supplement that routine with tests at other services.

Figure 26: Proportion of patients¹⁵ attending PFSHCs and GBM GP clinics¹⁶ who received an HIV test at any clinic in the ACCESS network within one month of an STI diagnosis¹⁷, by GBM status and quarter, 1 January 2011 to 30 June 2016¹⁸



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Comment

The majority of STI diagnoses among GBM at PFSHCs and GBM GP clinics were accompanied by an HIV test within 30 days, increasing over time from 50% in quarter 1 2011 to 85% in quarter 2 2016. While STI diagnoses were less common among non-GBM patients, the proportion who received an HIV test within one month increased over time but was still lower than for GBM.

In contrast to previous reports this indicator has been calculated using linked data, meaning that information for the same individual was connected across clinics and, therefore, increased the proportion of patients identified as having an HIV test in conjunction with an STI diagnosis.

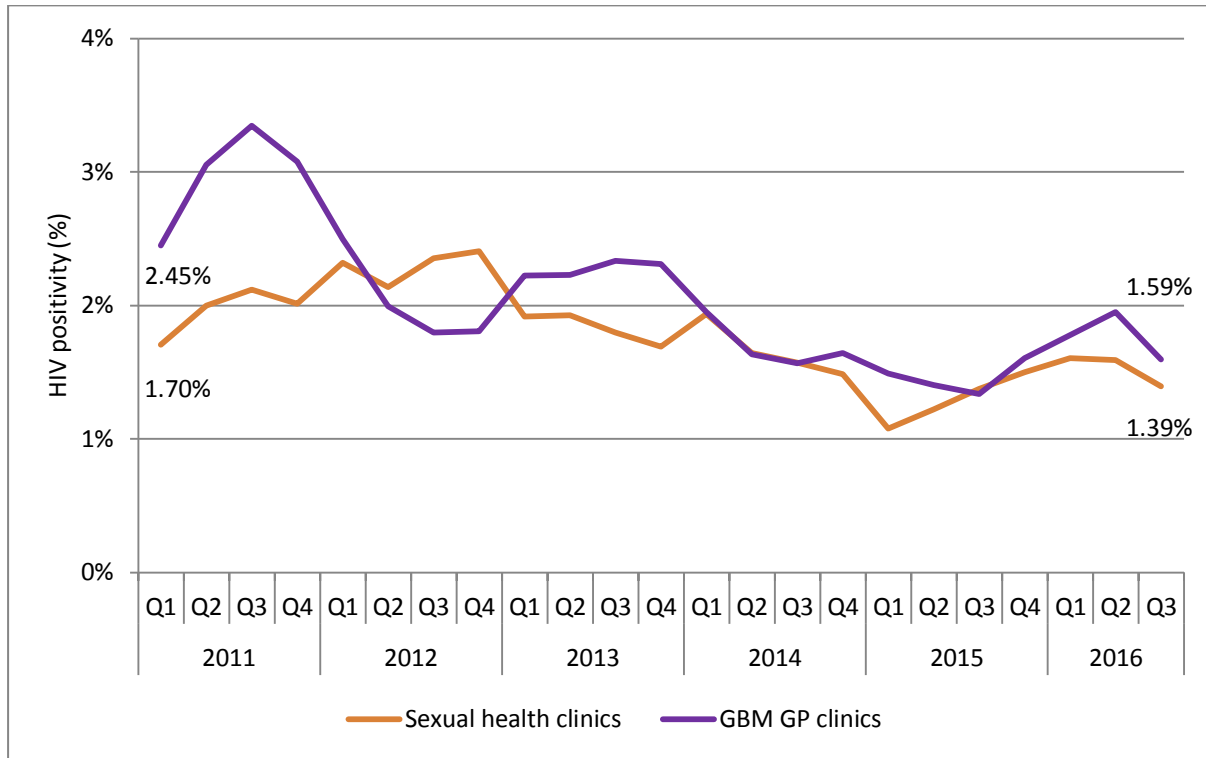
¹⁵ Excludes patients known to be HIV positive

¹⁶ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

¹⁷ Diagnosis for chlamydia, gonorrhoea and/or infectious syphilis

¹⁸ The period for HIV testing is one month before or after an STI diagnosis; due to this timeframe data from quarter 3 2016 have been excluded

Figure 27: Proportion of individual GBM patients¹⁹ attending sexual health and GBM GP clinics²⁰ tested for HIV with a positive result (*HIV positivity*²¹) at any clinic in the ACCESS network, by service type and quarter, 1 January 2011 to 30 September 2016



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Note: For this indicator, positivity refers to the proportion of unique clients tested for HIV who returned a positive result out of the total number of unique clients tested for HIV, rather than the proportion of positive HIV tests out of all HIV tests conducted.

Comment

Since 2011, HIV positivity (i.e. unique individuals tested for HIV with a positive result out of all individuals tested for HIV) has declined in both PFSHCs and GBM GP clinics. With increased HIV testing overall and testing targeting priority populations, it is anticipated that HIV positivity in PFSHCs and GBM GP clinics will decrease over time. This is an important indicator and should not deter services from continuing to increase testing in accordance with current guidelines.

In contrast to previous reports this indicator has been calculated using linked data, meaning that information linked to the same individual was connected across different clinics. The linked data allowed for the more accurate identification of unique patients and, therefore, the exclusion of multiple tests at different services for the same individual. This change led to an increase in positivity estimates from previous reports.

¹⁹ Excludes patients known to be HIV positive

²⁰ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

²¹ HIV positivity is calculated as the proportion of individuals tested in a retrospective year period (discounting repeat tests among individuals) with an HIV diagnosis or confirmed pathology (positive p24 antigen or western blot test)

3.4 How is testing being made more accessible?

3.4.1 Rapid 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 4 displays the number of rapid HIV tests done and the proportion of clients with high risk behaviours and infrequent testing history in community-based testing sites in NSW.

Table 4: Number of rapid HIV tests in community based sites and proportion of clients with high risk behaviour and infrequent testing history from January to September 2016

Non-traditional Settings	Number of RHT and (unique)	% Unique Positive	% never previously tested	% tested more than 12 months ago	% with > 5 sexual partners in last 3 months
Community-based					
<i>aTEST Surry Hills (7 hours/week)</i>	728 (720)	0.7%	15%	18%	27%
<i>aTEST Oxford ST (40 hours/week)</i>	5,366 (5,213)	0.6%	11%	12%	27%
<i>aTEST Kings Cross (3 hours/week)</i>	360 (-)	1.1%	-	23%	25%
<i>aTEST Newtown (6 hours/week)</i>	579 (-)	0.5%	-	14%	17%

Data sources: NSW Health HIV Strategy Monitoring Database²²

Comment

NSW data suggests community testing sites are an effective testing model for engaging GBM, a high proportion of whom reported high risk behaviours, or infrequent testing for HIV.

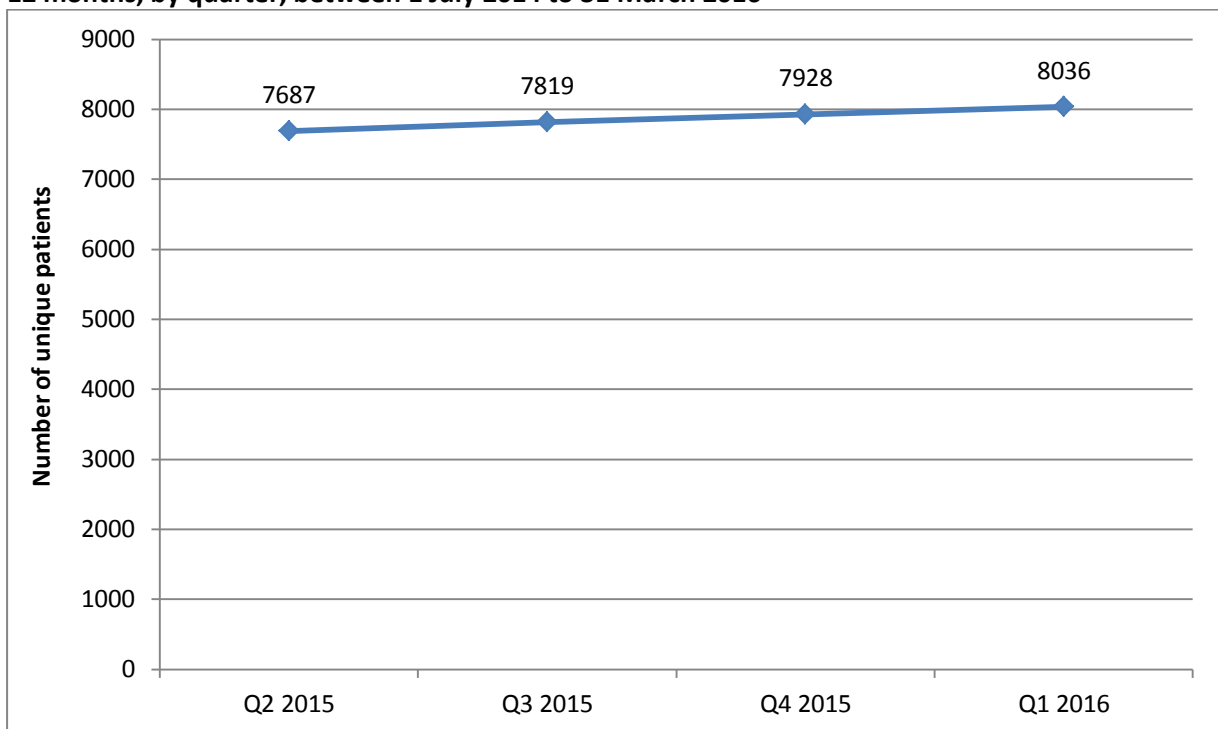
²² Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.

4 Increase HIV treatment

4.1 How many people in NSW are on antiretroviral treatment?

Complete Pharmaceutical Benefits Scheme (PBS) dispensing records of antiretroviral therapy (ART) for the treatment HIV for people residing in NSW have been received from the Commonwealth Government for the period July 2014 to March 2016. This data captures all HIV treatment dispensing in NSW through the PBS from a public hospital, private hospital or community pharmacies. It does not include non-PBS dispensing or people who may be accessing ART through other sources including those who purchase HIV ART from overseas, receive ART through clinical trials or are dispensed ART for pre-exposure prophylaxis (PrEP) or post-exposure prophylaxis (PEP).

Figure 28: The number of NSW residents (unique patients) dispensed ART for HIV in the previous 12 months, by quarter, between 1 July 2014 to 31 March 2016



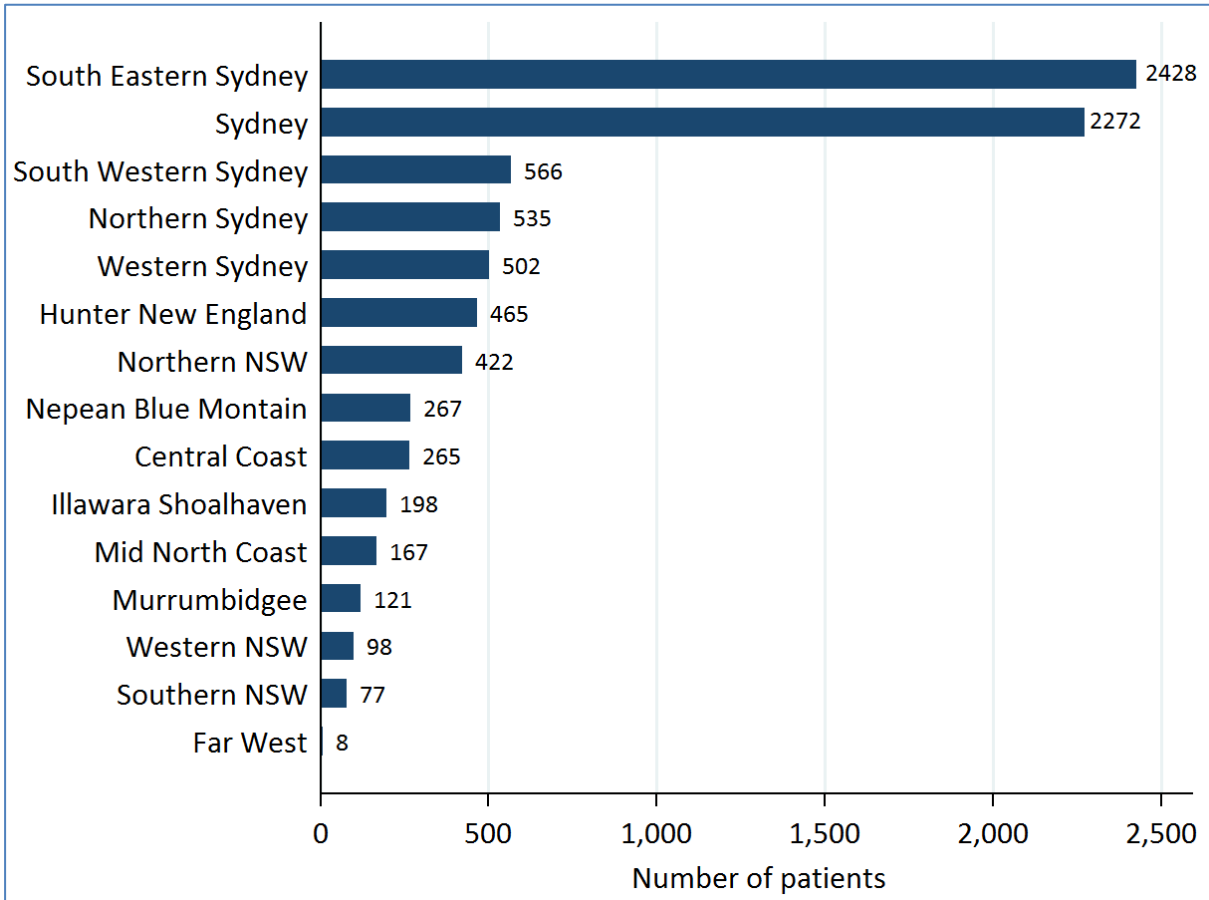
Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme data from July 2014 to March 2016 prepared for NSW Health

Comment

Between 1 April 2015 and 31 March 2016, a total of 8,036 NSW residents were dispensed ART for HIV at least once. There has been an increase over time.

Of the 8,036 patients, 91% were male and the majority of the patients were older with 53% aged 50 years or older, and 27% were aged 40-49 years while less than 20% of patients were aged 39 years or younger.

Figure 29: The number of NSW residents who have been dispensed ART for HIV, by the LHD of patient residence, from 1 April 2015 to 31 March 2016²³.



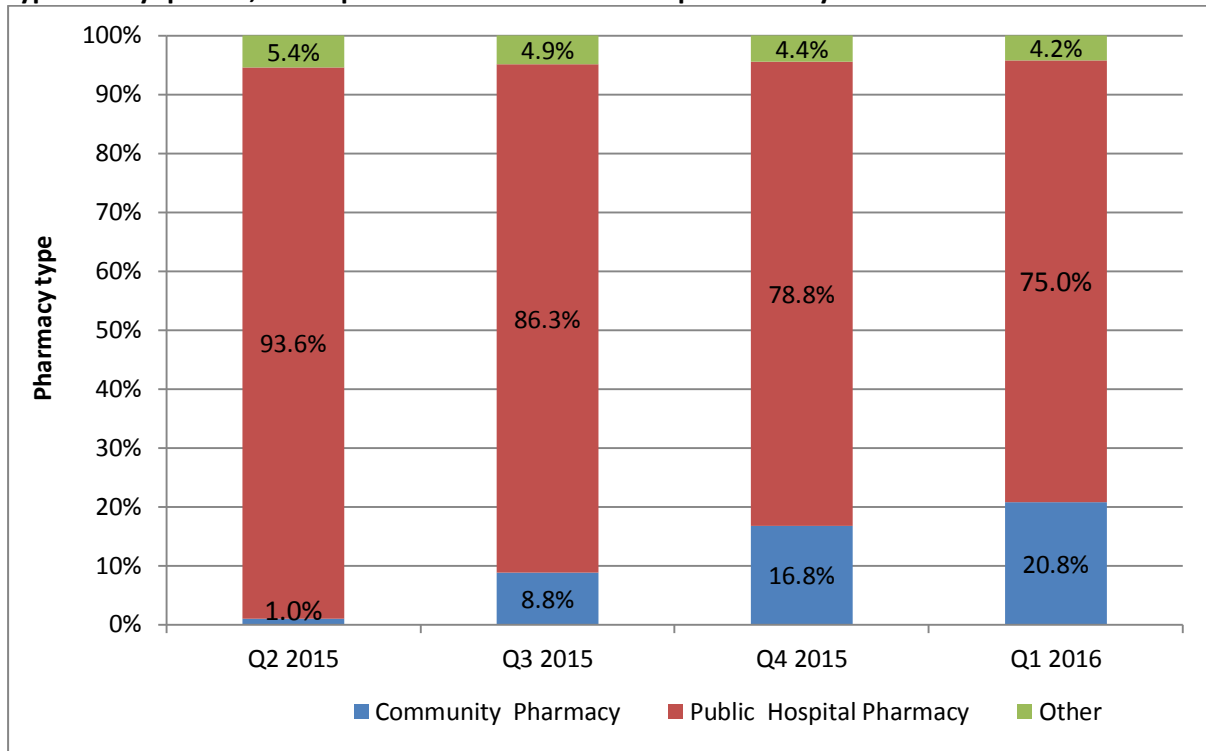
Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme data from April 2015 to March 2016 prepared for NSW Health

Comment

About three-quarters (75%) of the ART dispensed in the year ending 31 March 2016, was to patients residing in the following five LHDs: South Eastern Sydney, Sydney, South Western Sydney, Northern Sydney and Western Sydney LHDs.

²³ The numbers displayed in the graph adds to a figure greater than the overall unique number of patients of 8036 as some patients have resided in more than one LHD.

Figure 30: The proportion of NSW residents who have been dispensed ART for HIV, by pharmacy type and by quarter, in the previous 12 months for the period 1 July 2014 to 31 March 2016



Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme data from July 2014 to March 2016 prepared for NSW Health

Comment

Between 1 April 2015 and 31 March 2016, the majority of NSW residents were dispensed ART from public hospital pharmacies (75%) while dispensing through community pharmacies accounted for 21% of ART dispensing. Small proportion of patients received HIV ART through other pharmacies, including private hospital.

Since the introduction of community pharmacy dispensing on 1 July 2015, the proportion of HIV ART dispensing through community pharmacies has increased (Figure 32)²⁴.

²⁴ The Australian Government provides funding for ART for HIV under the Highly Specialised Drugs Program. These medicines can listed under one or more of the following program code: Public hospital supply item (HB), private hospital supply item (HS) or community access supply item (CA). HB item can be dispensed by public hospital pharmacies. HS item can be dispensed by an approved private hospital pharmacy or by a community pharmacy. CA item can be dispensed through community, private or public hospital pharmacies.

4.2 What are the current antiretroviral treatment prescribing patterns?

Data on the treatment status of clients who received HIV care in NSW public sexual health and HIV services in the year ending 30 September 2016 is summarised at Table 5²⁵.

Table 5: Clients who received HIV care in NSW public sexual health and HIV services from 1 October 2015 and 30 September 2016

Number (%) of patients for whom treatment information was available	3277*
Number (%) on ART	3021 (92%)

Data sources: NSW Health HIV Strategy Monitoring Database²⁶

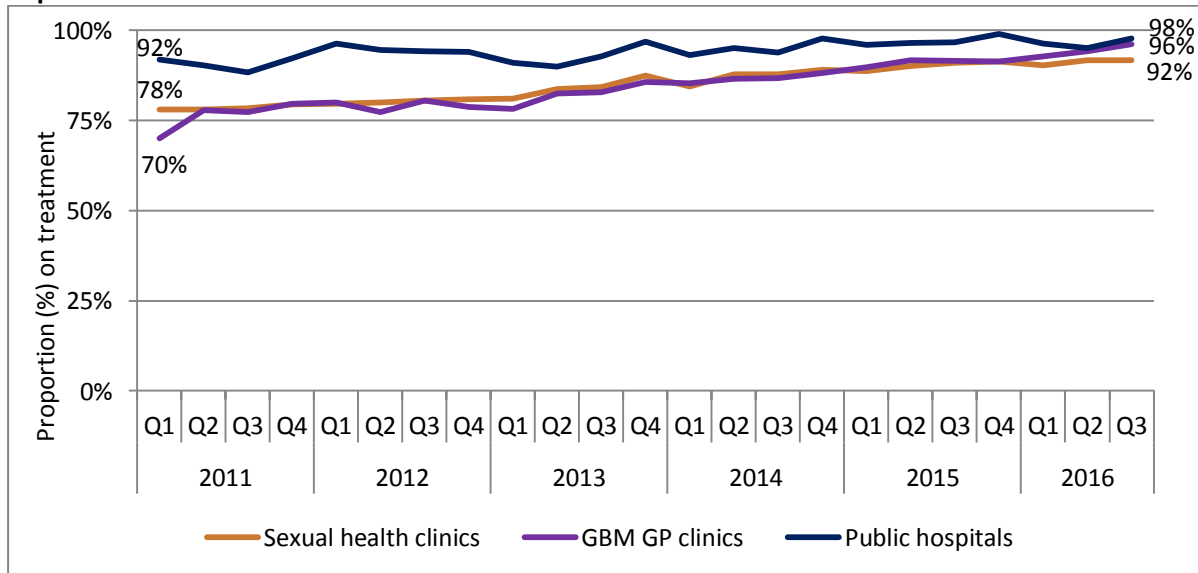
*No data submitted by the Albion Centre and Central Coast LHD

Comment

In the year ending 30 September 2016, treatment information was available for 3,277 clients with HIV who 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%.

Figures 31-33 display data from the ACCESS program database on the proportion of HIV positive patients attending PFSHCs and GBM GP clinics who received HIV treatment, by age group and 'undetectable' viral load.

Figure 31: Proportion of HIV positive patients attending PFSHCs, public hospital outpatient clinics and GBM GP clinics²⁷ who received treatment or were recorded as on treatment in the previous year at any clinic in the ACCESS network, by service type and quarter, 1 January 2011 to 30 September 2016



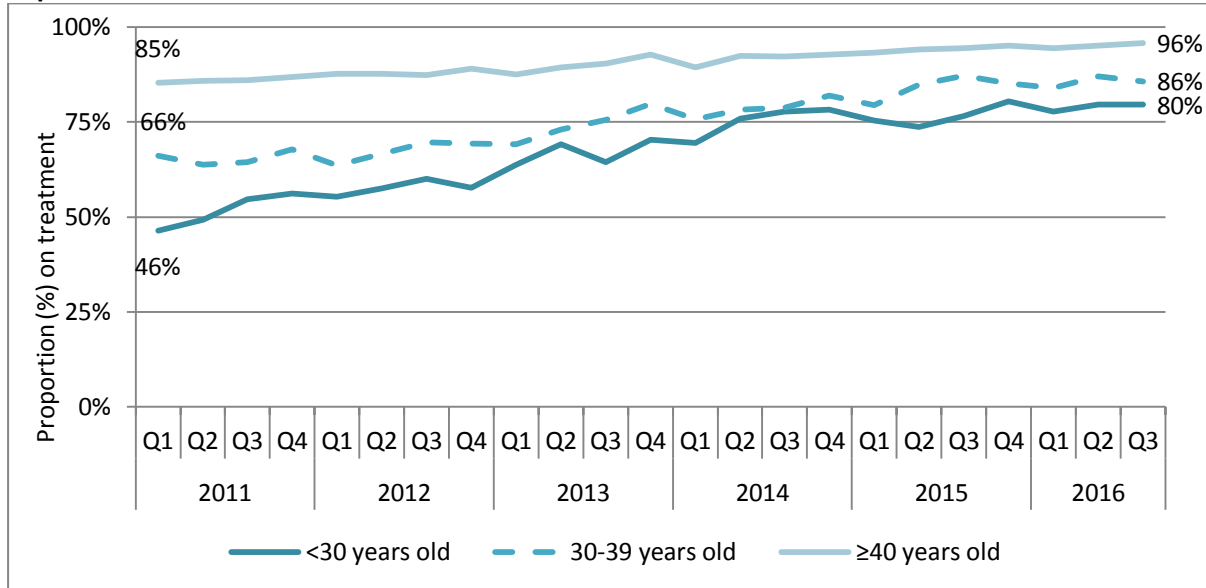
Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

²⁵ 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.

²⁶ Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.

²⁷ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

Figure 32: Proportion of HIV positive patients attending PFSHCs, public hospital outpatient clinics and GBM GP clinics²⁸ who received treatment or were recorded as on treatment in the previous year at any clinic in the ACCESS network, by age group and quarter, 1 January 2011 to 30 September 2016



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

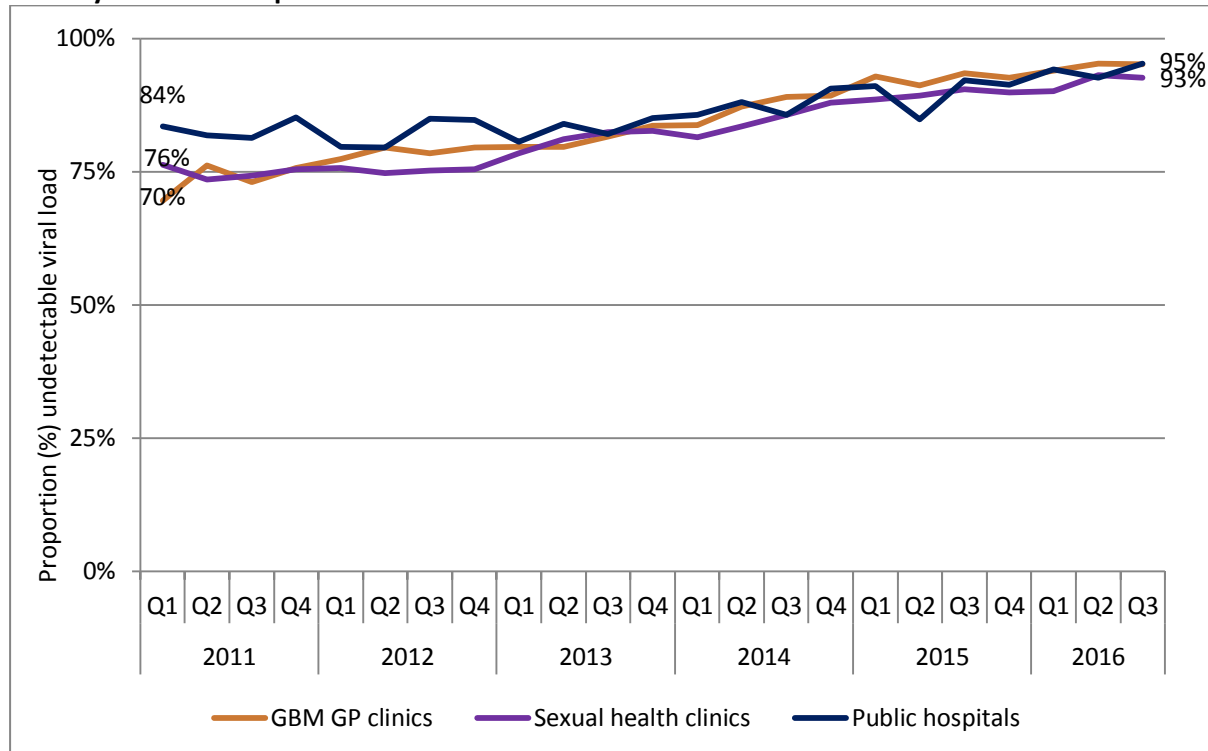
Comment

HIV treatment uptake in NSW was highest overall among patients attending public hospitals but from 2011 onward uptake increased across all service types. Treatment uptake also increased across patients of all ages since 2011. In previous reports that unlinked service data, treatment uptake was shown to converge across age groups. Using the linked dataset, however, reveals that treatment uptake is highest among older patients (96%) and lower among those 29 years and younger (80%).

In contrast to previous reports, this indicator has been calculated using linked data. Considering the potential for HIV shared care arrangements between clinics, use of the linked dataset increased the treatment uptake estimate across service types and particularly in general practice. Promisingly, nearly all HIV positive patients who attended a participating service in quarter 3 2016 were receiving antiretroviral therapy.

²⁸ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

Figure 33: Proportion of HIV positive patients on treatment at PFSHCs, public hospital outpatient clinics and GBM GP clinics²⁹ with an ‘undetectable’³⁰ viral load at their most recent test in the previous 12 month period at any clinic in the ACCESS network³¹, by service type and quarter, 1 January 2011 to 30 September 2016



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Comment

Since 2011, an increasing proportion of HIV positive patients had an undetectable viral load. Differences in undetectable viral load among HIV positive patients on treatment were minor between service types. The proportion of HIV positive patients on treatment whose viral load was undetectable increased over time. While previous reports included calculations of this indicator using unlinked data, the use of linked data does not appear to have altered the findings greatly.

4.2.2 Retention in care, ART commencement and HIV viral load suppression among NSW residents newly diagnosed with HIV from 1 January 2013 to 31 March 2016, measured at six months post diagnosis follow up

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 quarterly report, the cases reported on with respect to six months post diagnosis follow up data, will have been diagnosed at least six months prior to each report period. In this quarter 3 2016 report, six months post diagnosis follow up data is reported on 1127 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 31 March 2016. Six month post diagnosis follow up data

²⁹ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

³⁰ ‘Undetectable’ defined as <200 RNA copies/mm³ of blood

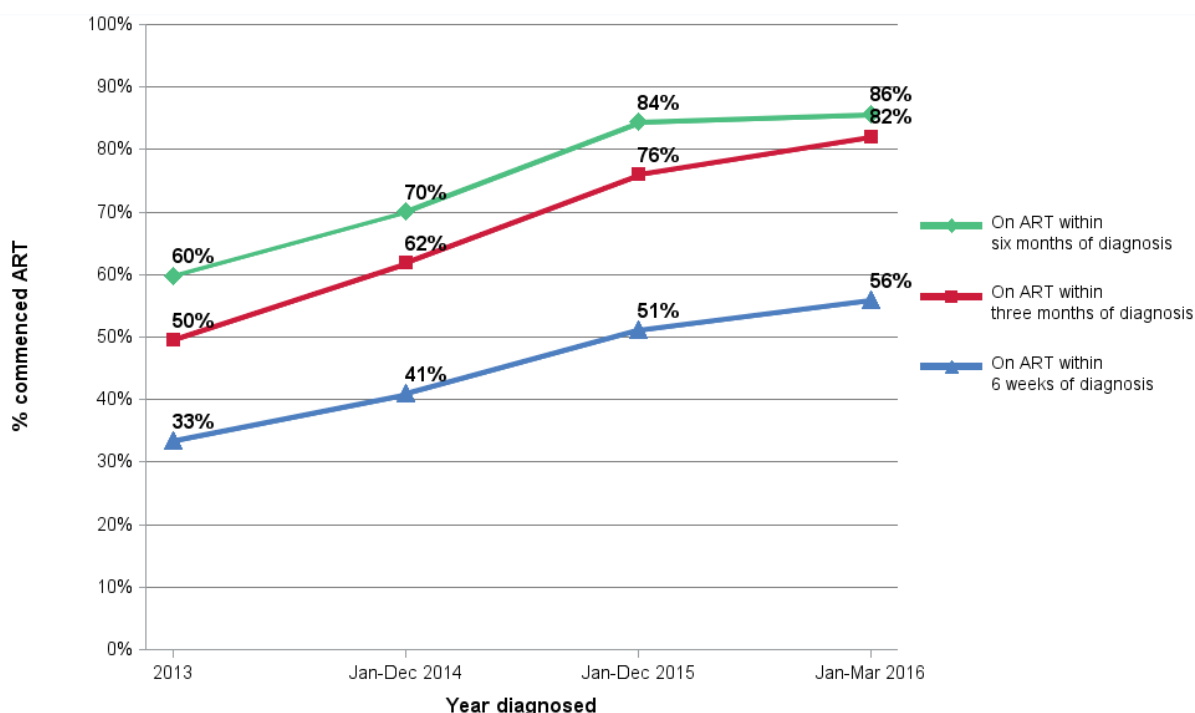
³¹ Excludes patients for whom viral load test information was not available

were available for 95% (n=1071) of the people newly diagnosed in January 2013-March 2016; this comprised follow up data on 97% (342/353) of the new diagnoses in 2013, 92% (318/344) of the new diagnoses in 2014, 97% (37/346) of the new diagnoses in 2015 and 87% (73/84) of new diagnoses in quarter 1 2016. Of the 56 new diagnoses 1 January 2013 to 31 March 2016 with no follow up form available, 29 (52%) were not eligible for follow up (as 13 had left NSW, 12 had died prior to the time of follow up and 4 for other reasons) and 27 (48%) were eligible but no form was returned.

ART uptake at six weeks, three months and by six months post diagnosis among NSW residents newly diagnosed with HIV from January 2013 to March 2016

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 irrespective of whether eligible for follow up and irrespective of care outcome reported at the six months post diagnosis follow up (i.e., retained in care, moved out of NSW, lost to follow up, died, unknown). In mid-2015 strong evidence emerged that starting ART as early as possible after diagnosis irrespective of CD4 count maximised individual health gain (START study). A key indicator to monitor against the NSW HIV Strategy 2016-2020 is the proportion of NSW residents newly diagnosed who commence ART within six weeks of diagnosis. The impact of the START study results may start to be observed in the six months post diagnosis follow up data on people newly diagnosed in the third or the fourth quarter 2015 onwards, while the impact of policy and program work under the NSW HIV Strategy 2016-2020 may start to be observed in the follow up data on people newly diagnosed in quarter 1 2016 onwards.

Figure 34 and Table 6: ART commencement status at six weeks, three and six months post diagnosis, among 1046 NSW residents newly diagnosed from January 2013 to March 2016



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Table 6: ART commencement status reported at six months post diagnosis follow up on 1046 NSW residents newly diagnosed from 1 January 2013 to 31 March 2016 2015

ART status six months post diagnosis	2013	%	2014	%	2015	%	Jan-Mar 2016	%	Total	%
On ART within a 6 weeks of diagnosis	118	33	141	41	177	51	47	56	483	43
On ART more than 6 weeks but within 3 months of diagnosis	57	16	72	21	86	25	22	26	237	21
On ART more than 3 months but within 6 months of diagnosis	36	10	28	8	29	8	3	4	96	9
No ART by six months post diagnosis	103	29	80	23	38	11	4	5	225	20
ART status six months post diagnosis unknown	39	11	23	7	16	5	8	10	86	8
Total	353	100	344	100	346	100	84	100	1127	100

Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

The latest available six months follow up data are for those newly diagnosed in quarter 1 2016. Of the 84 new diagnoses in January to March 2016, 56% (n=47) had commenced ART within six weeks, 82% (n=69) within three months and 86% (n=72) within six months of diagnosis. Of the 72 new

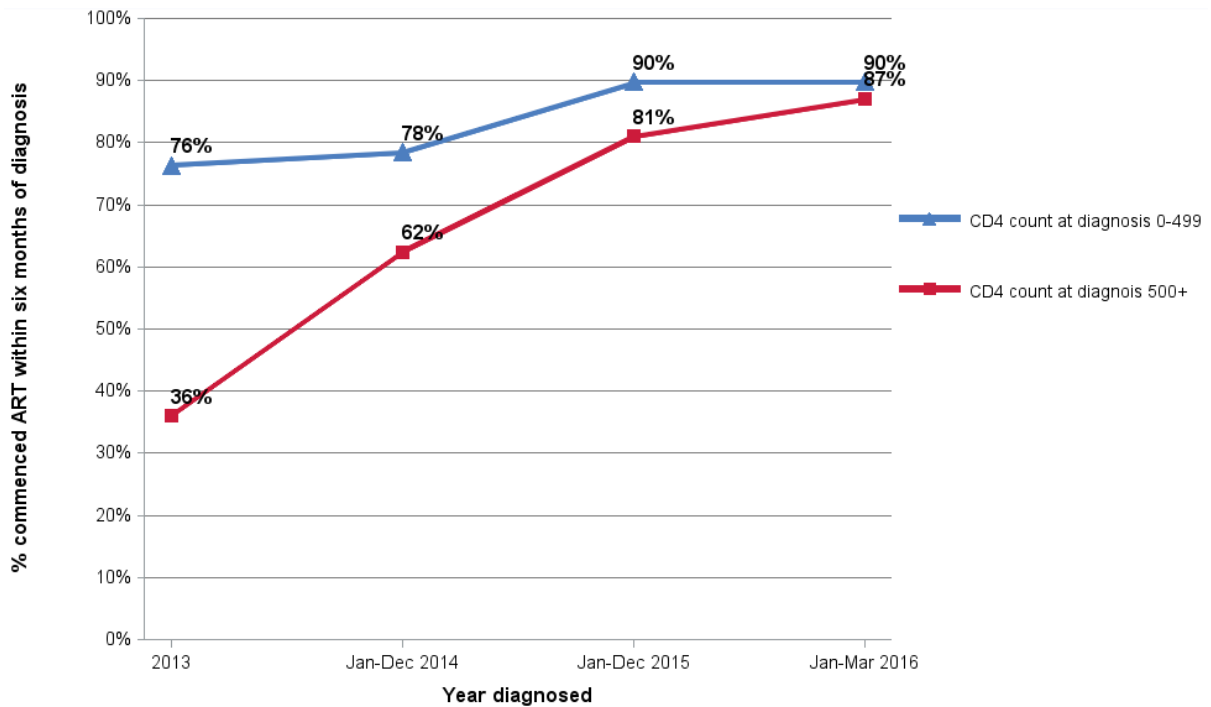
diagnoses in January to March 2016 which had commenced ART within six months of diagnosis, 85% (n=61) had a post-ART viral load available at the time of follow up and of these 61, 97% (n=59) had achieved viral suppression (VL < 400 copies/mL) by the time of six months post diagnosis follow up.

Since 2013, increasing proportions of people newly diagnosed in NSW have commenced ART within 6 weeks of diagnosis. Of 1127 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 31 March 2016, 43% (n=483) had commenced ART within six weeks of diagnosis. This comprises 33% (118/353) of people newly diagnosed in 2013, 41% (143/344) of those diagnosed in 2014, 51% (177/346) of those diagnosed in 2015 and 56% of those diagnosed in quarter 1 2016.

Of 1127 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 31 March 2016, 64% (n=720) had commenced ART within three months of diagnosis. This comprises 50% (175/353) of people newly diagnosed in 2013, 62% (213/344) of people newly diagnosed in 2014, 76% (263/346) of people newly diagnosed in 2015 and 82% (69/84) of people newly diagnosed in quarter 1 2016.

Of 1127 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 31 March 2016, 72% (n=816) had commenced ART within six months of diagnosis. This comprises 60% (211/353) of people newly diagnosed in 2013, 70% (241/344) of people newly diagnosed in 2014, 84% (292/346) of people newly diagnosed in 2015 and 86% (72/84) of people newly diagnosed in quarter 1 2016.

Figure 35: CD4 count at diagnosis of NSW residents notified with newly diagnosed HIV infection in 2013, 2014, 2015 and January to March 2016 and per cent which had commenced ART within six months of diagnosis



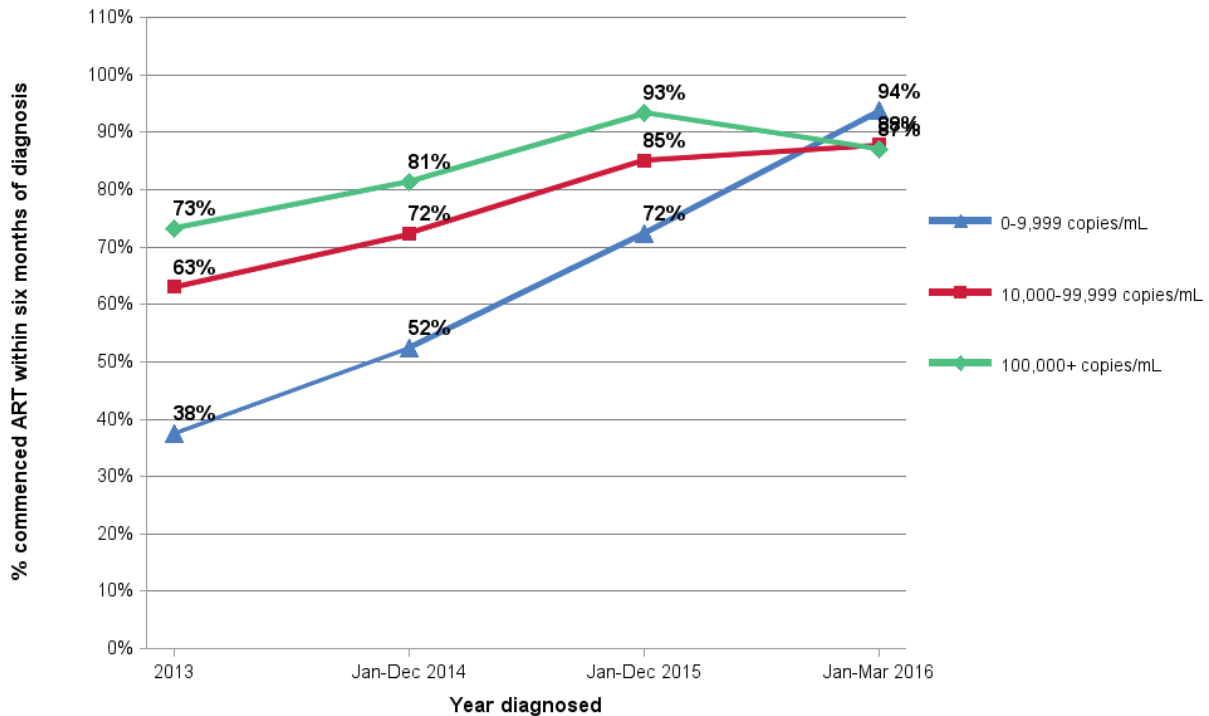
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016
Note: excludes new diagnoses with missing CD4 at diagnosis, some of whom had commenced ART within 6 months.

Comment

The proportion of people newly diagnosed with a CD4 count of 0-499 cells/ μ L who commenced ART within six months of diagnosis was 76% of the 2013, 78% of the 2014, 90% of the 2015 and 90% of the quarter 1 2016 new diagnoses cohorts.

The proportion of people newly diagnosed with a CD4 count of 500 or over who commenced ART within six months of diagnosis was 36% of the 2013, 62% of the 2014, 81% of the 2015 and 87% of the quarter 1 2016 new diagnoses cohorts.

Figure 36: HIV viral load at diagnosis of NSW residents notified with newly diagnosed HIV infection in 2013, 2014, 2015 and January to March 2016 and per cent which had commenced ART within six months of diagnosis



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016
Note: excludes new diagnoses with missing HIVVL at diagnosis, some of whom had commenced ART within 6 months.

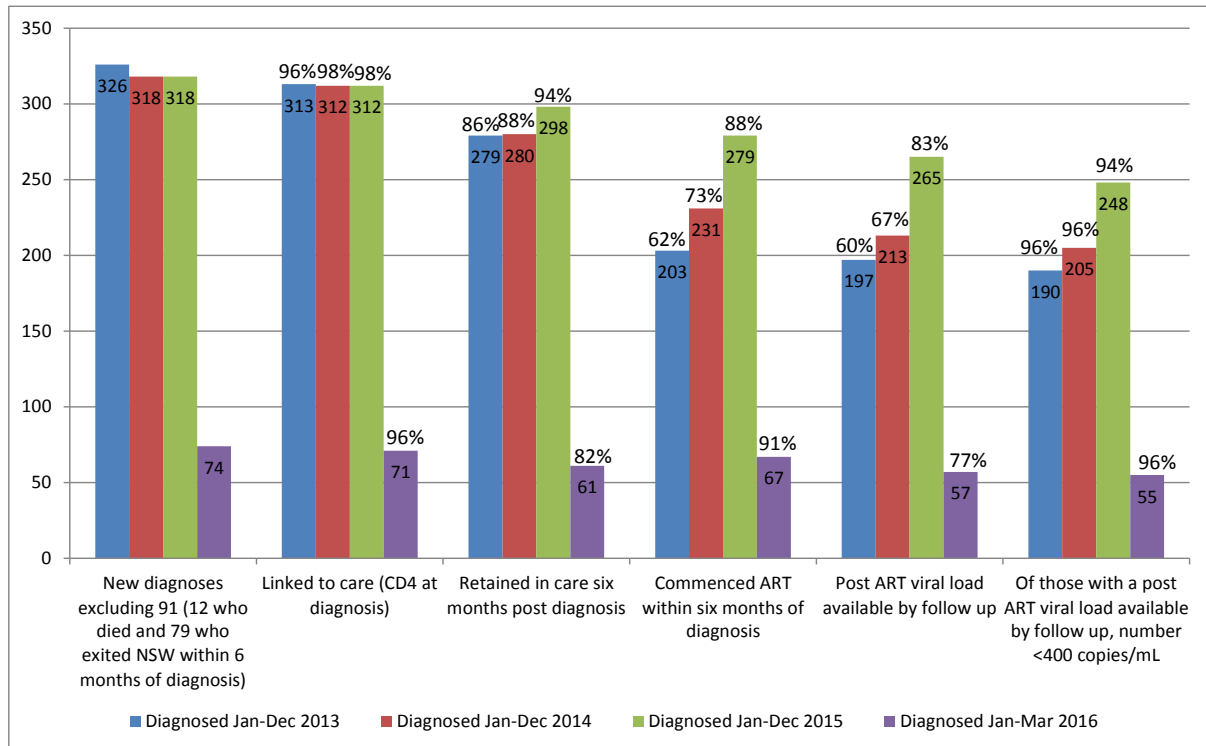
Comment

The proportion of people newly diagnosed with a HIV VL of 0-9,999 copies/mL who commenced ART within six months of diagnosis was 38% of the 2013, 52% of the 2014, 72% of the 2015 and 94% of the quarter 1 2016 new diagnoses cohorts.

The proportion of people newly diagnosed with a HIV VL of 10,000-99,999 who commenced ART within six months of diagnosis was 63% of the 2013, 72% of the 2014, 85% of the 2015 and 88% of the quarter 1 2016 new diagnoses cohorts.

The proportion of people newly diagnosed with a HIV VL of 100,000 or over who commenced ART within six months of diagnosis was 73% of the 2013, 81% of the 2014, 93% of the 2015 and 87% of the quarter 1 2016 new diagnoses cohorts.

Figure 37: HIV care cascade indicators measured six months post diagnosis on 1036 of 1127 NSW residents newly diagnosed with HIV infection in January 2013 to March 2016



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016

Comment

Notification and six months post diagnosis follow up data on NSW residents newly diagnosed in January 2013 to March 2016 was used to construct an HIV care cascade. The HIV care cascade reflects their linkage to HIV services, retention in care, early uptake of treatment and subsequent HIV viral load suppression.

Of 1127 NSW residents newly diagnosed HIV infection from 1 January 2013 to 31 March 2016, 12 were reported dead and 79 reported to have permanently left NSW (56 for overseas, 19 for interstate or 4 to an unspecified destination) prior to the six months post diagnosis follow up period. These 91 were excluded from cascade. In total 92% (n=1036) of the 1127 new diagnoses January 2013-March 2016 were included in the cascade, comprising 326 of 353 diagnosed in 2013, 318 of 344 diagnosed in 2014, 318 of 346 diagnosed in 2015 and 74 of 84 diagnosed in quarter 1 2016.

Cascade indicators for quarter 1 2016 new diagnoses are underrepresented in this report due to delay in return of some follow forms.

Since 2013, increasing proportions of people newly diagnosed in NSW have been linked to HIV services, retained in care, commenced ART, had a post-ART viral load and achieved viral load suppression within six months of diagnosis. The respective proportions of the 2013, 2014, 2015 and quarter 1 2016 new diagnoses cohorts which were: linked to care was 96%, 98%, 98% and 96%; retained in care six months post diagnosis was 86%, 88%, 94% and 82%; commencing ART within six months of diagnosis was 62%, 73%, 88% and 91%; had a post-ART viral load by time of follow up was 60%, 67%, 83% and 77%, and; post-ART had achieved viral suppression by six months follow up was 96%, 96%, 94% and 96%.

Overall of 1036 NSW residents newly diagnosed with HIV infection in January 2013 to March 2016 not known to have left NSW (additional 79) or died (additional 12) within six months of diagnosis, 97% (n=1008) were linked to care (CD4 count at diagnosis used as proxy measure); 89% (n=918) were reported to be retained in care six months post diagnosis; 75% (n=780) had commenced ART within six months of diagnosis; 71% (n=732) had a post-ART viral load by time of follow up, and 95% (n=698/732) of these had achieved post-ART viral suppression by six months follow up (VL < 400 copies/mL).

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 30/09/2016

Demographics	1981-2007	%	2008	%	2009	%	2010	%	2011	%	2012	%	2013	%	2014	%	2015	%	Q1-3 2016	%	1981-30/9/16	%
Gender	14839	100	326	100	336	100	305	100	330	100	412	100	353	100	344	100	346	100	242	100	17833	100
Male	13664	92.1	294	90.2	295	87.8	280	91.8	309	93.6	375	91.0	323	91.5	319	92.7	317	91.6	224	92.6	16400	92.0
Female	898	6.1	32	9.8	38	11.3	23	7.5	21	6.4	36	8.7	27	7.6	24	7.0	28	8.1	16	6.6	1143	6.4
Transgender	30	0.2	0	0	2	0.6	2	0.7	0	0	1	0.2	3	0.8	1	0.3	1	0.3	2	0.8	42	0.2
Unknown	247	1.7	0	0	1	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	248	1.4
Aboriginal person status																						
Aboriginal or Torres Strait Islander person	113	0.8	8	2.5	9	2.7	7	2.3	5	1.5	12	2.9	8	2.3	7	2.0	6	1.7	8	3.3	183	1.0
Non-Aboriginal person	7875	53.1	302	92.6	315	93.8	293	96.1	323	97.9	394	95.6	343	97.2	329	95.6	337	97.4	232	95.9	10743	60.2
Not stated	6851	46.2	16	4.9	12	3.6	5	1.6	2	0.6	6	1.5	2	0.6	8	2.3	3	0.9	2	0.8	6907	38.7
Age (years) at diagnosis																						
0-4	37	0.2	0	0	1	0.3	1	0.3	0	0	0	0	0	0	0	0	0	0	0	0	39	0.2
5-9	21	0.1	0	0	1	0.3	0	0	0	0	0	0	1	0.3	0	0	0	0	1	0.4	24	0.1
10-14	35	0.2	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0	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	3	1.2	311	1.7
20-24	1836	12.4	39	12.0	34	10.1	29	9.5	34	10.3	44	10.7	37	10.5	41	11.9	45	13.0	28	11.6	2167	12.2
25-29	2989	20.1	58	17.8	58	17.3	56	18.4	55	16.7	77	18.7	64	18.1	51	14.8	63	18.2	49	20.2	3520	19.7
30-34	3059	20.6	44	13.5	42	12.5	49	16.1	65	19.7	71	17.2	48	13.6	64	18.6	61	17.6	48	19.8	3551	19.9
35-39	2502	16.9	64	19.6	59	17.6	43	14.1	59	17.9	64	15.5	42	11.9	45	13.1	45	13.0	30	12.4	2953	16.6
40-44	1769	11.9	52	16.0	58	17.3	51	16.7	44	13.3	47	11.4	44	12.5	46	13.4	32	9.2	23	9.5	2166	12.1
45-49	1006	6.8	32	9.8	30	8.9	30	9.8	26	7.9	38	9.2	45	12.7	29	8.4	26	7.5	25	10.3	1287	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	28	8.1	14	5.8	787	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	3.5	11	4.5	445	2.5
60-64	176	1.20	6	1.80	1	0.30	5	1.60	2	0.60	13	3.20	6	1.70	14	4.10	15	4.30	6	2.50	244	1.4
65-69	92	0.6	0	0	4	1.2	6	2.0	2	0.6	4	1.0	9	2.5	7	2.0	7	2.0	4	1.7	135	0.8
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	0	0	80	0.4
Unknown	88	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	0.5

Reported HIV risk	1981-2007	%	2008	%	2009	%	2010	%	2011	%	2012	%	2013	%	2014	%	2015	%	Q1-3 2016	%	1981-30/9/16	%
Men who have sex with men (MSM)	9015	60.8	236	72.4	221	65.8	226	74.1	267	80.9	321	77.9	264	74.8	257	74.7	263	76.0	185	76.4	11255	63.1
MSM and injects drugs	401	2.7	11	3.4	17	5.1	8	2.6	11	3.3	14	3.4	16	4.5	19	5.5	20	5.8	16	6.6	533	3.0
Hetero-sex only	1152	7.8	64	19.6	75	22.3	51	16.7	41	12.4	58	14.1	61	17.3	49	14.2	52	15.0	34	14.0	1637	9.2
Person who has injected drugs	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	1.2	4	1.7	563	3.2
Blood disorder, blood or tissue recipient	275	1.9	0	0	1	0.3	0	0	0	0	0	0	0	0	0	0	1	0.3	0	0	277	1.6
Vertical transmission	45	0.3	0	0	2	0.6	1	0.3	0	0	0	0	1	0.3	1	0.3	0	0	1	0.4	51	0.3
Other	34	0.2	0	0	2	0.6	1	0.3	1	0.3	2	0.5	1	0.3	4	1.2	3	0.9	0	0	48	0.3
Unknown	3428	23.1	3	0.90	6	1.8	9	3.0	2	0.6	7	1.7	3	0.8	6	1.7	3	0.9	2	0.8	3469	19.5
LHD of residence																						
South Eastern Sydney	4539	30.6	118	36.2	106	31.5	109	35.7	123	37.3	150	36.4	124	35.1	112	32.6	128	37.0	67	27.7	5576	31.3
Sydney	2232	15.0	77	23.6	92	27.4	76	24.9	88	26.7	113	27.4	87	24.6	82	23.8	83	24.0	67	27.7	2997	16.8
Northern Sydney	782	5.3	25	7.7	39	11.6	19	6.2	24	7.3	23	5.6	25	7.1	18	5.2	24	6.9	17	7.0	996	5.6
Western Sydney	525	3.5	26	8.0	21	6.3	20	6.6	31	9.4	25	6.1	27	7.6	27	7.8	20	5.8	16	6.6	738	4.1
South Western Sydney	484	3.3	16	4.9	21	6.3	25	8.2	18	5.5	30	7.3	33	9.3	31	9.0	33	9.5	24	9.9	715	4.0
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	17	4.9	10	4.1	493	2.8
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	2	0.8	261	1.5
Illawarra Shoalhaven	173	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	7	2.9	230	1.3
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	9	3.7	205	1.1
Northern NSW	147	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	3	1.2	202	1.1
Mid North Coast	102	0.7	8	2.5	6	1.8	3	1.0	4	1.2	3	0.7	6	1.7	7	2.0	6	1.7	1	0.4	146	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	4	1.7	124	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	1.2	7	2.9	96	0.5
Southern NSW	30	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	5	2.1	65	0.4
Far West	4	0.0	0	0	2	0.6	0	0	0	0	2	0.5	0	0	0	0	0	0	0	0	8	0.0
Unknown or other	4948	33.3	13	4.0	4	1.2	1	0.3	1	0.3	3	0.7	2	0.6	4	1.2	2	0.6	3	1.2	4981	27.9
Total (ALL)	14839	100	326	100	336	100	305	100	330	100	412	100	353	100	344	100	346	100	242	100	17833	100

Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 November 2016.

Appendix B: Ending HIV Seven Statements Evaluation, ACON 2013-2016

The table below shows the figures over the eight 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)	MAR 2016 (n=515)	SEP 2016 (n=520)	+/-
Everything has changed, we can now dramatically reduce HIV transmission	48%	59%	59%	67%	61%	71%	77%	86%	+38
Now more than ever, gay men need to know their HIV status	81%	85%	86%	90%	89%	91%	92%	92%	+11
Sexually active gay men should take an HIV test at least twice a year	88%	87%	92%	93%	89%	92%	93%	96%	+8
HIV treatments now offer increased health benefits and fewer side effects	65%	66%	67%	73%	69%	75%	77%	78%	+13
HIV treatments significantly reduce the risk of passing on HIV	33%	42%	50%	64%	59%	69%	73%	83%	+50
Early HIV treatment is better for your health and can help protect your sex partners	74%	80%	89%	91%	92%	93%	93%	95%	+21
Condoms continue to be the most effective way of preventing HIV transmission	95%	92%	92%	91%	91%	85%	94%	94%	-1

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.