NSW HIV Strategy 2016 – 2020

April - June 2017

Data Report

The NSW HIV Strategy 2016-2020

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 publicly 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.

Executive Summary

Key messages to 30 June 2017

In April to June 2017, new HIV diagnoses among gay and bisexual men in NSW continued to fall, marking 12 months of steady decline. The July 2016-June 2016 count (217) is 25% less than the average of the previous five financial years. The number of new diagnoses among gay and bisexual men in January-June 2017 (101) is the lowest count for January-June since 1985 when HIV surveillance began.

The fall in new diagnoses, despite increasing HIV testing coverage and frequency among priority populations, indicates HIV transmission in gay and bisexual men is declining. Earlier treatment initiation and high rates of treatment in people with HIV, earlier diagnosis through more frequent testing, and high uptake of pre-exposure prophylaxis (PrEP) for HIV prevention are all contributing to preventing HIV transmission in NSW.

Almost half of the new diagnoses among gay and bisexual men in January-June 2017 (46) had evidence of early stage infection, meaning they were likely infected in the 12 months prior to diagnosis. The number is a 39% fall on the average January-June count for the previous 6 years. Continuing early stage diagnoses emphasises the need to further strengthen HIV prevention by increasing PrEP access for people at high HIV risk and promoting condom use.

The number of people newly diagnosed with evidence of late diagnosis (62) remained stable in the first half of 2017. This indicates that there are still people with undiagnosed HIV infection in the community who are not receiving the health benefits of HIV treatment.

However, diagnoses among gay and bisexual men who were born overseas and heterosexuals have not declined. Further efforts are needed to:

- reach people with longstanding undiagnosed HIV infection for HIV testing
- better identify people at risk of HIV, particularly among people who identify as heterosexual or come from culturally and linguistically diverse backgrounds
- increase HIV testing in priority settings including general practice and drug and alcohol services and
- identify and support sexual and injecting partners of people newly diagnosed to test for HIV.

Treatment uptake has continued to increase with 95% of people attending clinics now on HIV treatment and the time to treatment initiation has further decreased, with more than two-thirds of people newly diagnosed with HIV between October and December 2016 initiating treatment within 6-weeks of diagnosis. However, continuing efforts are needed to retain people with HIV in care and increase the proportion on HIV treatment.

Key data to 30 June 2017

HIV INFECTIONS	Target group	Apr-Jun 2017	Compared with Apr-Jun 2011-2016 average
Number of NSW residents newly diagnosed	Total count	72	15% less (Q2 2011-2016 average=85)
	Count who were men who have sex with men (MSM)	48 (67% of total)	32% less (Q2 2011-2016 average=71)
Number of MSM newly diagnosed with evidence of early stage infection	MSM	23 (48%)	35% less (Q2 2011-2016 average=35.3)
Number and proportion of new diagnoses with evidence of late diagnosis	All new diagnoses	33 (46%)	18% more (Q2 2011-2016 average=28; 168/511-33% late)
PREVENT	**Target group**	**Mar 2016 - Jun 2017**	
Number of people receiving PrEP through EPIC-NSW	People in NSW at high risk of HIV infection	6336	
TEST	**Target group**	**Apr – Jun 2017**	**Compared with Apr-Jun 2016**
Number of HIV serology tests performed in NSW	All	138,952	3% more (n=135,164)
Number of HIV tests performed in NSW public sexual health and HIV clinics, and priority LHD settings	All	16,397	21% more (n=13,523)
	Identifying as MSM	10,131	14% more (n=8,884)
TREAT	**Target group**	**Jul 2016 – Jun 2017**	**Target**
Proportion of patients with diagnosed HIV infection in care, who were on treatment	Sexual Health and HIV Clinic attendees	95%	95%
	Select high and medium caseload general practices	95%	95%
Proportion of NSW residents newly diagnosed with HIV who commenced ART within six weeks and six months of diagnosis	Newly diagnosed cohort for January - December 2016	59% (n=186/317) on ART within six weeks of diagnosis	At least 90%
		86% (n=273/317) on ART within six months of diagnosis	100%
Proportion of NSW residents newly diagnosed who were on ART and were known to be virally supressed (VL < 200 copies/mL) at 6-month follow-up	NSW residents newly diagnosed January - December 2016	90% (n=246/273) with a post-ART VL. 96% (n=235/246) virally suppressed.	100%

Table of Contents

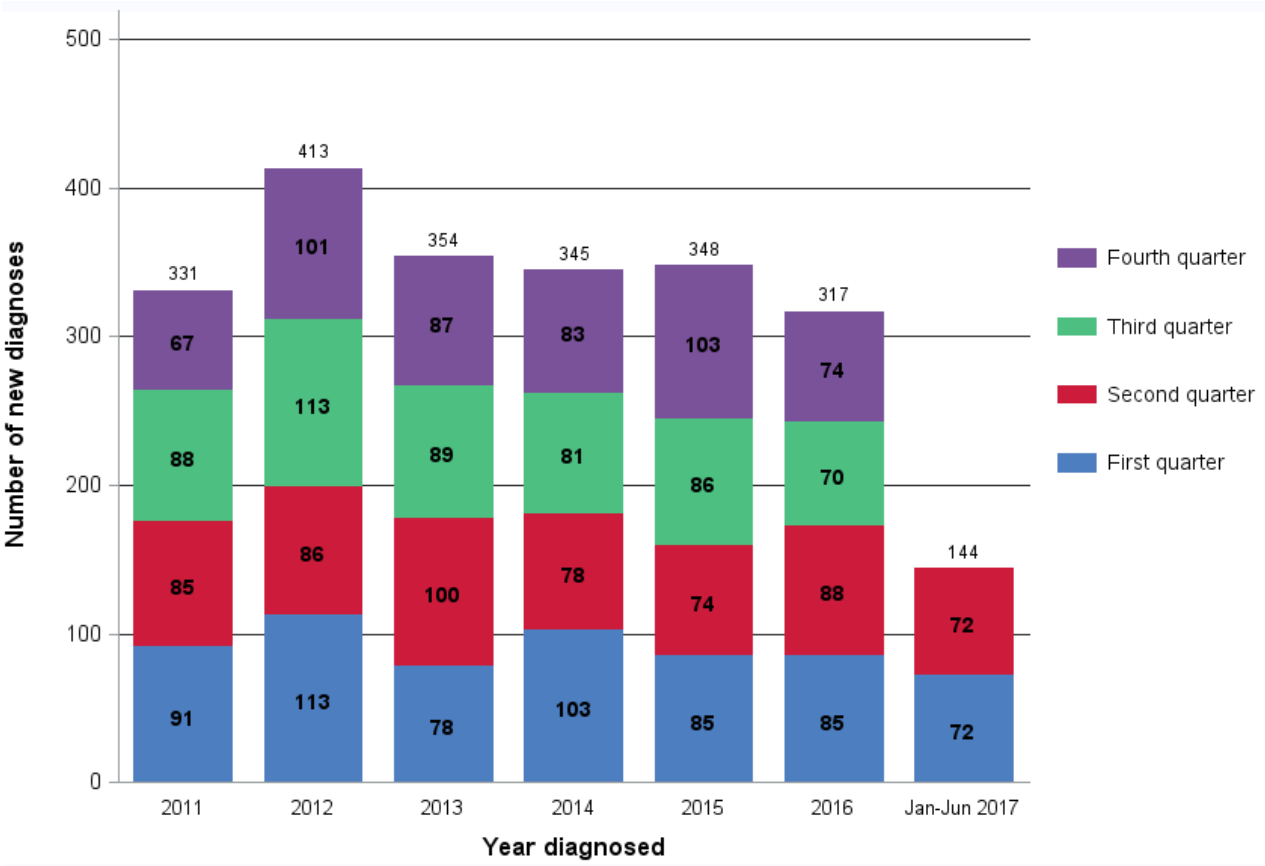
Glossary of Terms

ART	Antiretroviral therapy
CAIC	Condomless anal intercourse with casual partners
GBM	Gay and bisexual men
HIV	Human Immunodeficiency Virus
LHD	Local Health District
MSM	Men who have sex with men
NSP	Needle and syringe program
NSW	New South Wales
PBS	Pharmaceutical Benefits Scheme
PFSHC	Publicly Funded Sexual Health Clinic
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
Quarter 1 / Q1	1 January – 30 March
Quarter 2 / Q2	1 April – 30 June
Quarter 3 / Q3	1 July – 30 September
Quarter 4 / Q4	1 October – 31 December
SGCPS	Sydney Gay Community Periodic Survey
SVHN	St Vincent's Health Network

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 2011 to 30 June 2017

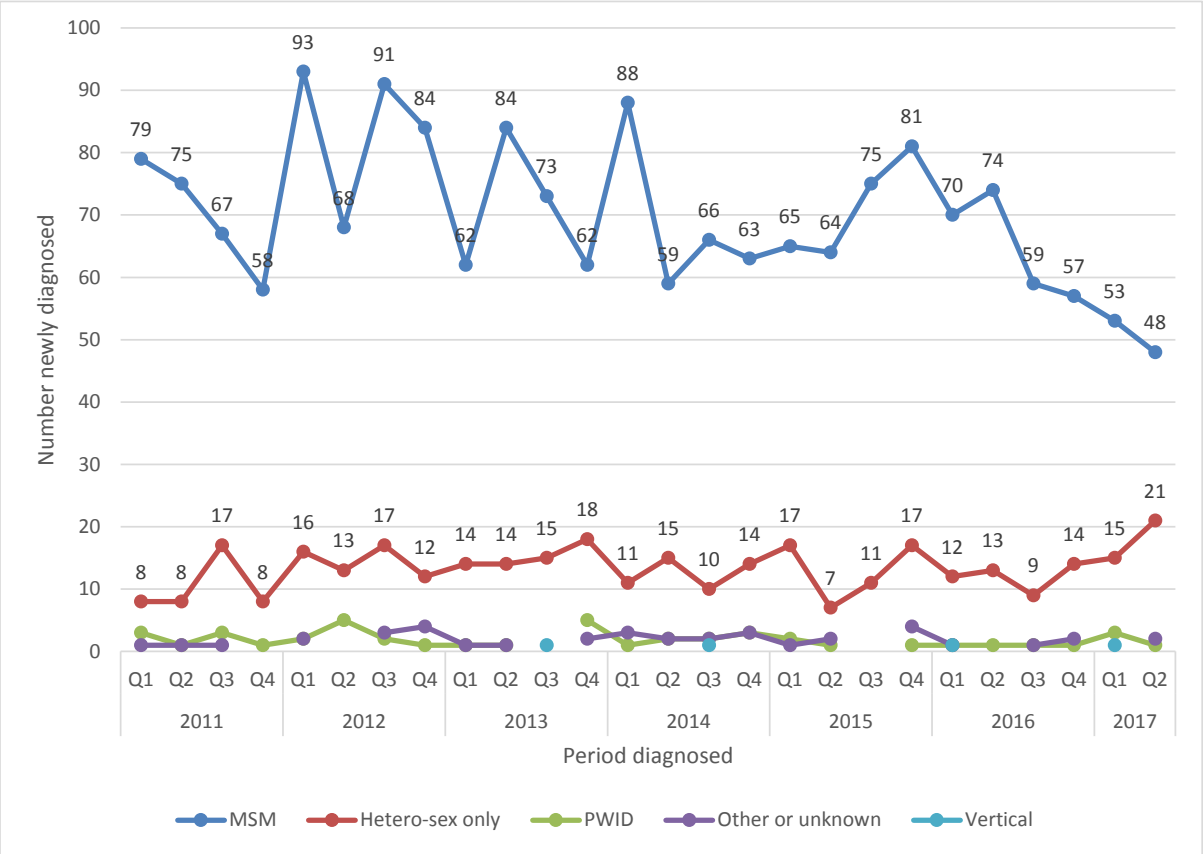


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

Comment

- From 1 April to 30 June 2017 (quarter 2 2017), 72 NSW residents were newly diagnosed with HIV infection, 15 per cent (%) less than the quarter 2 average 2011-2016 (n=85.2). This new diagnoses count of 72 is the lowest on record for any quarter 2 since 1985.
- From January to June 2017, 144 people were newly diagnosed, 19% less than the January to June average 2011-2016 (n=177.7). This new diagnoses count of 144 is the lowest on record for any January to June period since 1985.
- The decline in new diagnoses has occurred among men who have sex with men (MSM). The decline in new diagnoses in MSM has been sustained for 12 months (since quarter 3 2016, see Figure 2). From July 2016 to June 2017, 217 MSM were newly diagnosed with HIV, which was 25% less than the average of the previous five July to June periods (289). In total, 288 NSW residents were newly diagnosed with HIV infection between July 2016 and June 2017, 19% less than the average of the previous five July to June periods (358).

Figure 2: Number of NSW residents notified with newly diagnosed HIV infection from 1 January 2011 to 30 June 2017 by reported HIV risk exposure



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

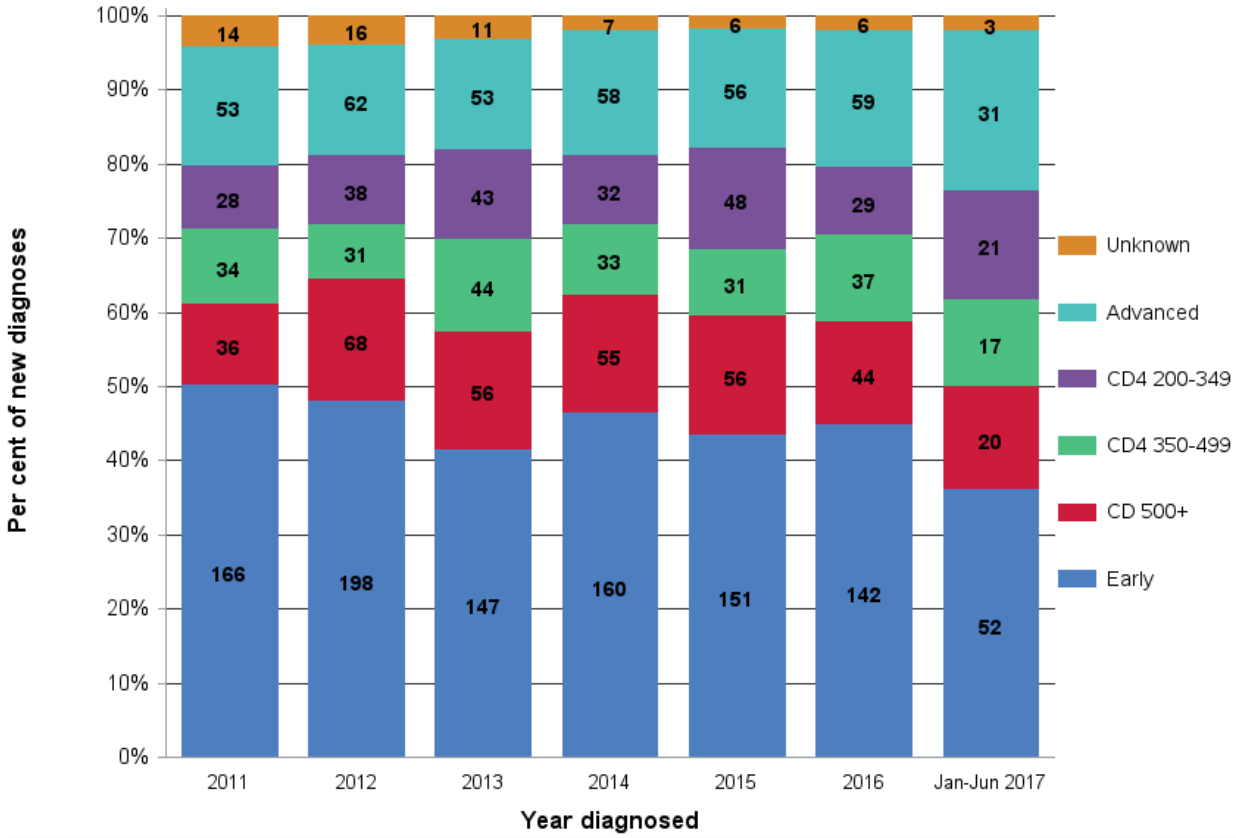
Comment

- In quarter 2 2017, 48 of 72 (67%) people newly diagnosed reported being MSM, 32% less than the average number of new diagnoses in MSM in quarter 2 2011-2016 (n=70.7). This new diagnoses count in MSM of 48 is the lowest on record for any second quarter since 1985.
- In January to June 2017, 101 of 144 (70%) people newly diagnosed reported being MSM, 31% less than the average number of new diagnoses in MSM in January to June of 2011-2016 (n=146.8). This new diagnoses count in MSM of 101 is the lowest on record for any January to June period since 1985.
- Among the 101 MSM newly diagnosed with HIV in January to June 2017, 24 (24%) had evidence of being infected in the three months prior to diagnosis, 40% less than the average number of MSM in January to June 2013-2016 (n=39.75). Evidence of being infected in the three months prior to diagnosis was defined as a negative or indeterminate Western Blot test, or a sero-conversion like illness or a report of a negative HIV test within 3 months of diagnosis.
- In quarter 2 2017, 21 of 72 (29%) people newly diagnosed reported heterosexual acquisition of HIV, 79% greater than the average number of new diagnoses in heterosexuals in quarter 2 2011-2016 (n=11.7). Four of these 21 new diagnoses were locally acquired. The extra new diagnoses were in non-Aboriginal males, diagnosed late, born locally and overseas.
- In January to June 2017, 36 of 144 (25%) people newly diagnosed reported heterosexual acquisition of HIV, 46% greater than the average number of new diagnoses in heterosexuals in January to June of 2011-2016 (n=24.7).

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 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 3a: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2011 to 30 June 2017 by stage of infection at diagnosis[1]



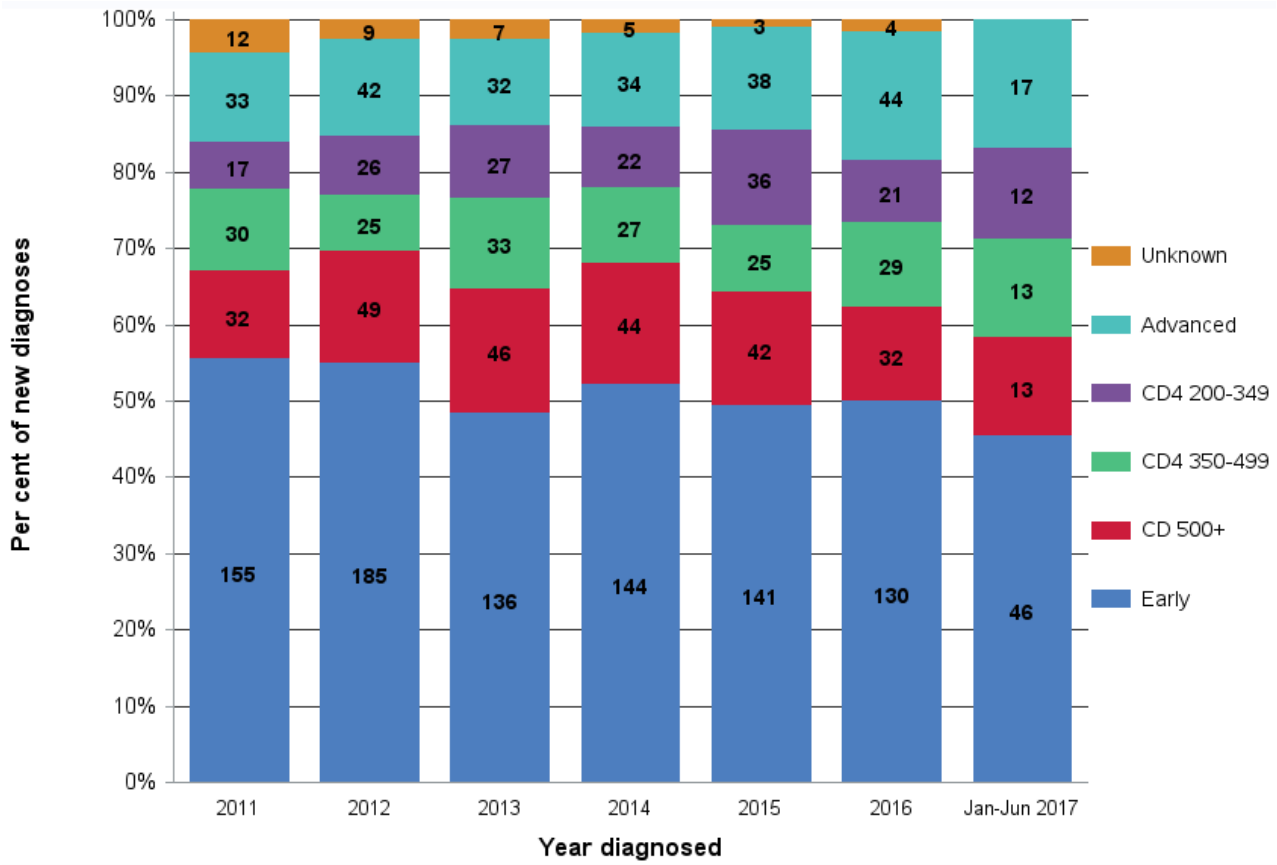
Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

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

Comment

- Of 72 people newly diagnosed in quarter 2 2017:
  - 24 (33%) were in early stage infection, 37% less compared with an average number of 37.8 people in quarter 2 2011-2016.
  - 18 (25%) were in advanced stage infection, 30% more compared with an average number of 13.8 people in quarter 2 2011-2016.
- Of 144 people newly diagnosed in January to June 2017:
  - 52 (36%) were in early stage infection, 36% less compared with an average number of 81.7 people in January to June 2011-2016.
  - 31 (22%) were in advanced stage infection, similar to the average number of 28 people in January to June 2011-2016.

Figure 3b: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2011 to 30 June 2017 reporting to be men who have sex with men (MSM) by stage of infection at diagnosis[1]

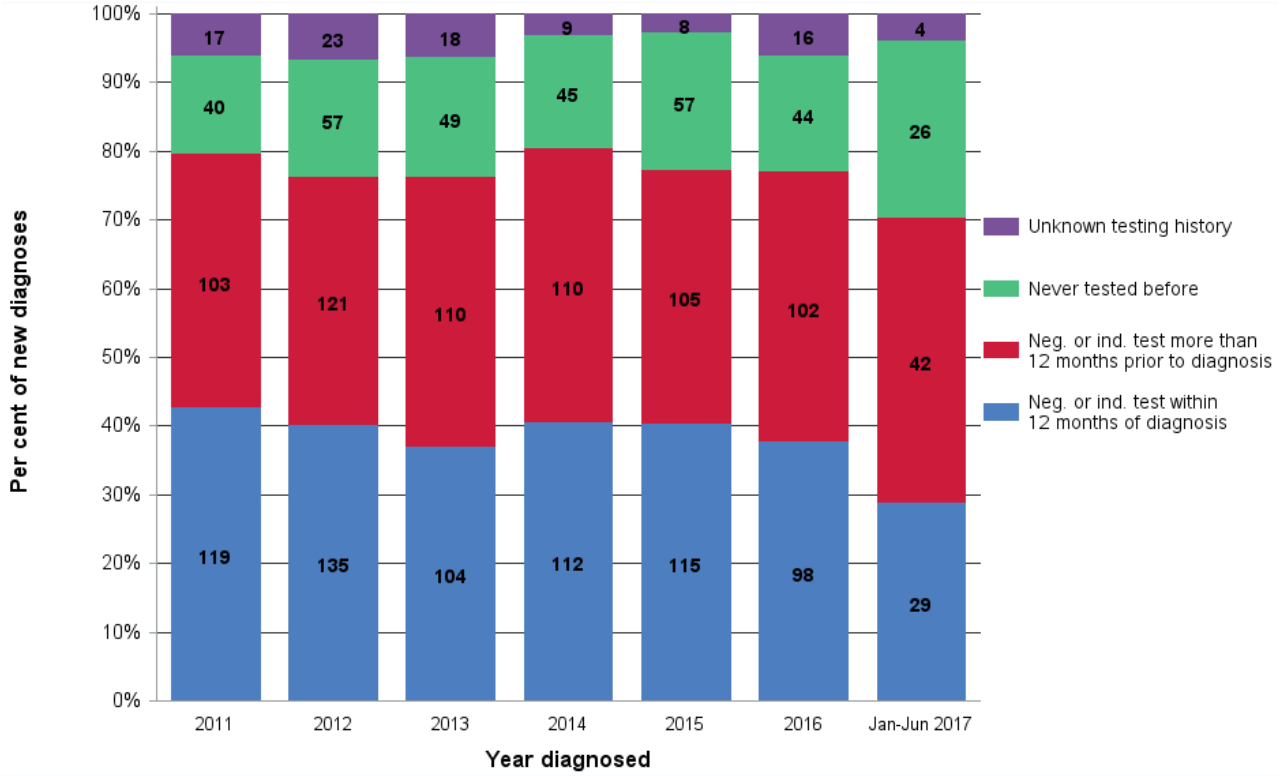


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

Comment

- Of 48 MSM newly diagnosed in quarter 2 2017:
  - 23 (48%) were in early stage infection, 35% less compared with an average number of 35.3 MSM in quarter 2 2011-2016 (212/414 [50%] were early stage).
  - 8 (17%) were in advanced stage infection, similar to the average number of 10 MSM in quarter 2 2011-2016.
- Of 101 MSM newly diagnosed in January to June 2017:
  - 46 (46%) were in early stage infection, 39% less compared with an average number of 76 MSM in January to June 2011-2016.
  - 17 (17%) were in advanced stage infection, similar to the average number of 19.3 MSM in January to June 2011-2016.

Figure 4: Per cent of NSW residents notified with newly diagnosed HIV infection from 1 January 2011 to 30 June 2017 reporting to be MSM by HIV testing history

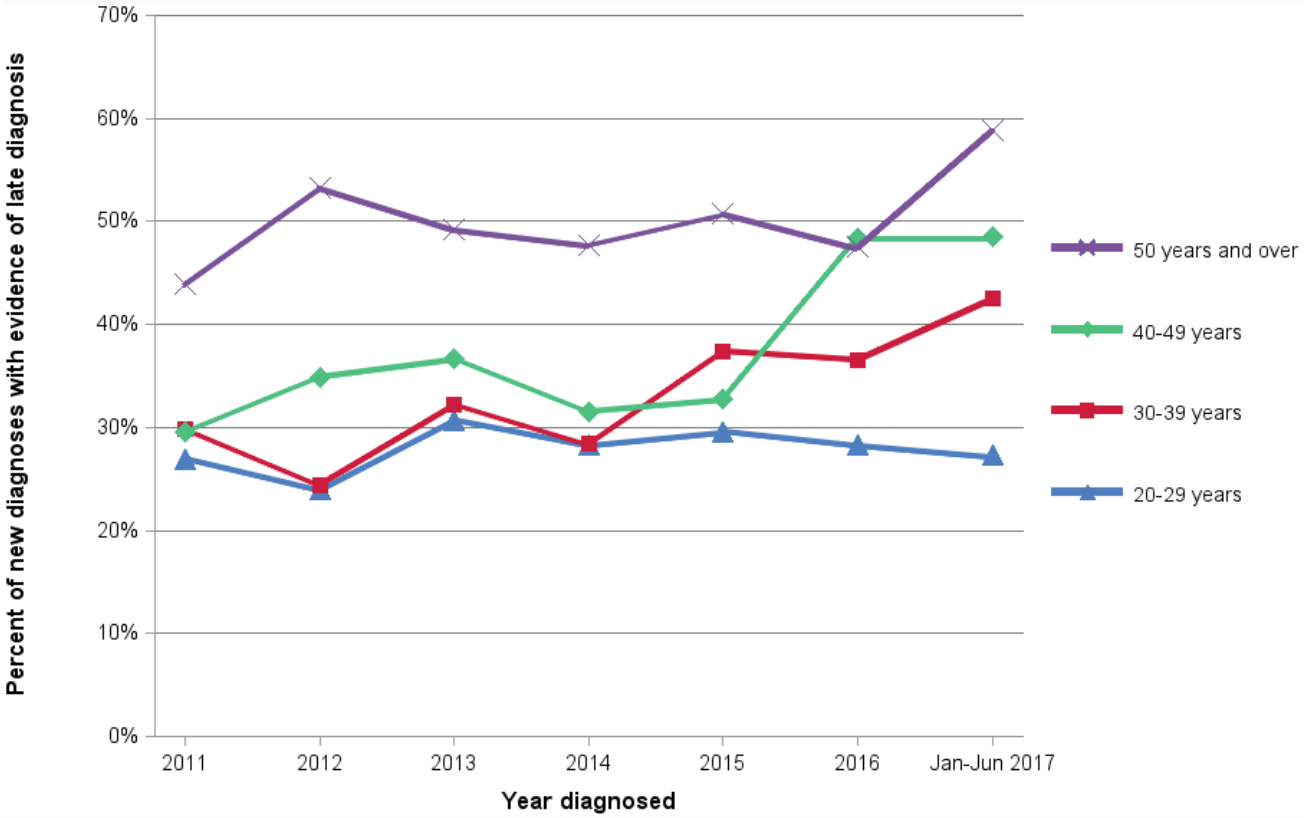


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

Comment

- Of 48 MSM newly diagnosed in quarter 2 2017:
  - 12 (25%) were reported to have had a negative or indeterminate HIV test in the 12 months prior to diagnosis, 58% less compared with an average number of 28.8 MSM in quarter 2 2011-2016.
  - 10 (21%) were reported to have never had an HIV test prior to diagnosis, similar to the average number of 13.5 MSM in quarter 2 2011-2016.
- Of 101 MSM newly diagnosed in January to June 2017:
  - 29 (29%) were reported to have had a negative or indeterminate HIV test in the 12 months prior to diagnosis, 50% less compared with an average number of 57.5 MSM in January to June 2011-2016.
  - 26 (26%) were reported to have never had an HIV test prior to diagnosis, similar to the average number of 27.2 MSM in January to June 2011-2016.

Figure 5: Late diagnosis[1] by age group at diagnosis in NSW residents notified with newly diagnosed HIV infection from 1 January 2011 to 30 June 2017



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

[1]Evidence 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 72 people newly diagnosed in quarter 2 2017, 46% (n=33) had evidence of late diagnosis, compared with 33% (168/511) in quarter 2 2011-2016 (Q2 average number=28).
- Of 144 people newly diagnosed with HIV infection in January to June 2017, the proportion with evidence of late diagnosis was:
    - 43% (n=62) overall, compared with 33% (353/1066) in January to June 2011-2016.
    - 0% (0 of 4) in those less than 20 years of age;
    - 27% (9 of 33) in those 20-29 years;
    - 43% (17 of 40) in those 30-39 years;
    - 48% (16 of 33) in those 40-49 years, and;
    - 59% (20 of 34) in those 50 years and over.

1.2 What are some of the characteristics of people newly diagnosed?

Table 1: Key characteristics of NSW residents newly diagnosed with HIV infection from January to June 2017 versus the average January to June 2011-2016.

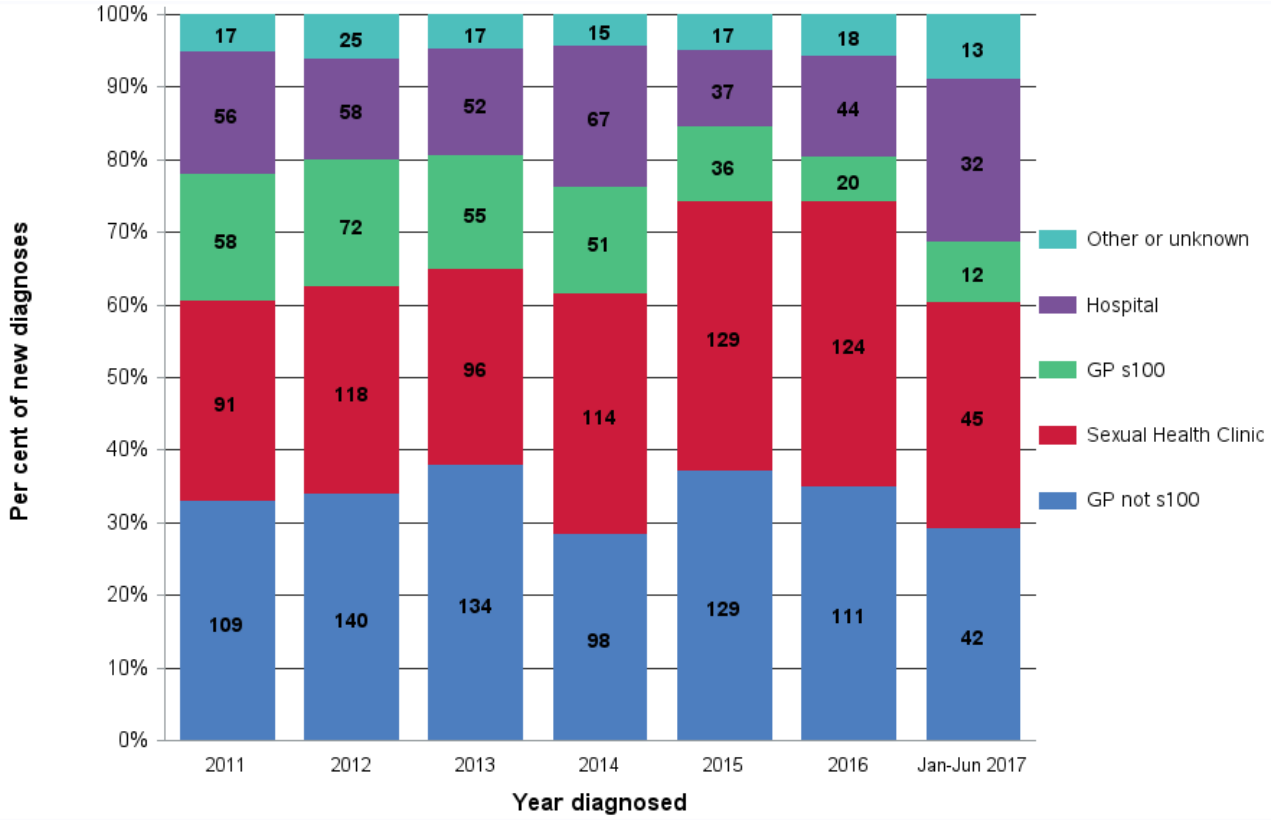
Key characteristics	Jan-Jun 2017	%	Jan-Jun 2011-2016 average number	%
Number of new diagnoses	**144**		**177.7**	
Gender				
Male	129	89.6%	165.5	93.2%
Female	12	8.3%	11.7	6.6%
Transgender	3	2.1%	0.5	0.3%
Aboriginal person status				
Aboriginal or Torres Strait Islander person	5	3.5%	4.3	2.4%
Non Aboriginal person	135	93.8%	171.8	96.7%
Unknown	4	2.8%	1.5	0.8%
Place born				
Australia	64	44.4%	97.3	54.8%
Overseas	80	55.6%	80.3	45.2%
Age in years at diagnosis				
0 to 19	4	2.8%	3.0	1.7%
20 to 29	33	22.9%	52.8	29.7%
30 to 39	40	27.8%	55.7	31.3%
40 to 49	33	22.9%	36.2	20.4%
50 and over	34	23.6%	30.0	16.9%
Reported HIV risk exposure				
MSM	101	70.1%	146.8	82.6%
Hetero-sex only	36	25.0%	24.7	13.9%
PWID	4	2.8%	3.5	2.0%
Other or unknown	2	1.4%	2.5	1.4%
Vertical	1	0.7%	0.2	0.1%
Evidence of late diagnosis*				
Yes	62	43.1%	58.8	33.1%
No	78	54.2%	111.5	62.8%
Unknown	4	2.8%	7.3	4.1%
Evidence of acute infection**			Jan-Jun 2013-2016*** (n=172.8)	
Yes	29	20.1%	42.8	24.7%
No	115	79.9%	130	75.3%

*Evidence 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. **Evidence of acute infection = a negative or indeterminate Western Blot test, or a sero-conversion like illness or a report of a negative HIV test within 3 months of diagnosis.
*** Full lab details only included in notification form since 2013.

Comment

- Notable changes when comparing Jan-June 2017 with the Jan-Jun average 2011-2016 are:
  - A 32% reduction in the number of new diagnoses with evidence of acute infection
  - A 31% reduction in the number of new diagnoses acquired via male to male sex
  - A 46% increase in the number of new diagnoses acquired via hetero-sex
  - A 34% reduction in the number of Australian born people newly diagnosed
  - A 38% reduction in the number of 20-29 year olds diagnosed
  - A 28% reduction in the number of 30-39 year olds diagnosed

Figure 6: Number of NSW residents notified with newly diagnosed HIV infection from 1 January 2011 to 30 June 2017 by type of diagnosing doctor



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017

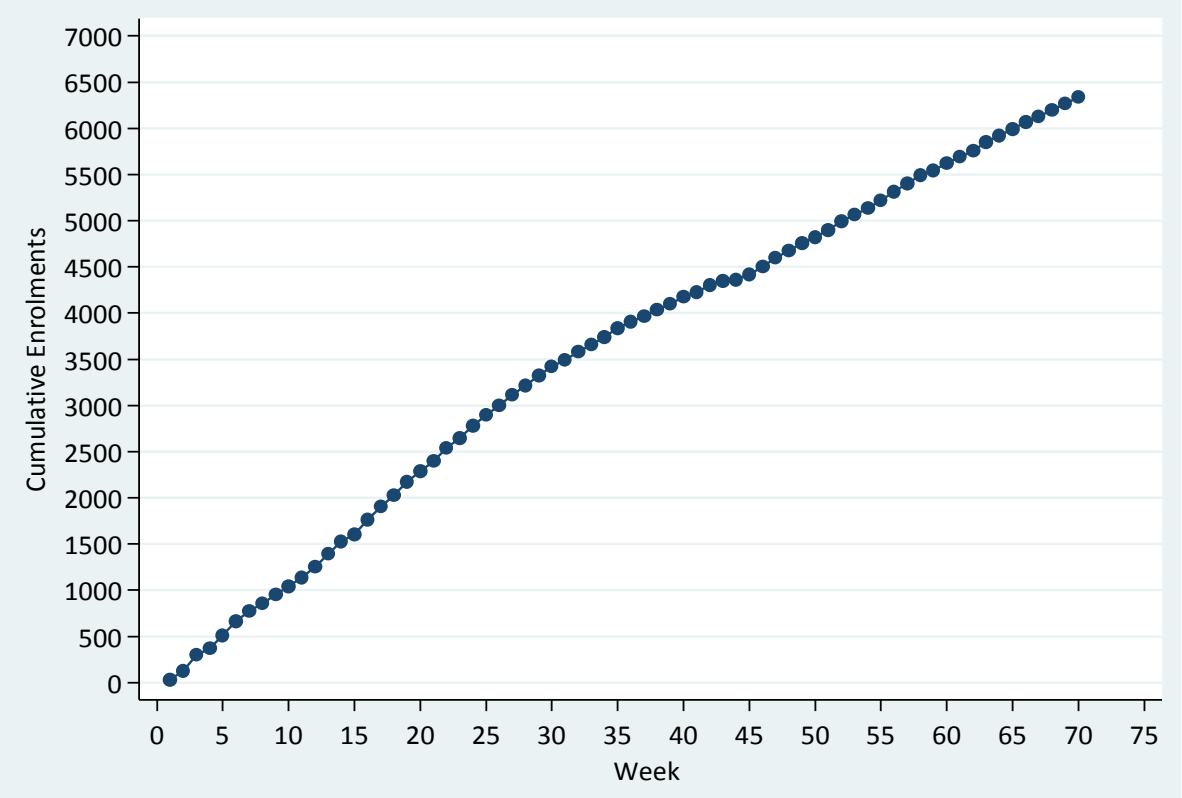
Comment

- Of 72 people newly diagnosed in quarter 2 2017:
  - 20 (28%) were diagnosed by sexual health clinics (SHC) (includes linked community testing sites), compared with 29.2 or 35% in quarter 2 2011-2016;
  - 21 (29%) were diagnosed by medical general practitioners (GPs) not accredited to prescribe ART (GP not-s100), compared with 26.7 or 31% in quarter 2 2011-2016;
  - 17 (24%) were diagnosed by hospital located doctors, compared with 14 or 16% in quarter 2 2011-2016;
  - 4 (6%) were diagnosed by GP s100 doctors (HIV specialised and accredited to prescribe ART), compared with 10.3 or 12% in quarter 2 2011-2016, and;
  - 10 (14%) were diagnosed by other doctor types such as immigration services and private medical specialists, compared with 5 or 6% in quarter 2 2011-2016.
- Of 144 people newly diagnosed in January to June 2017:
  - 45 (31%) were diagnosed by sexual health clinics (SHC) (includes linked community testing sites), compared with 56.7 or 32% in in January to June 2011-2016;
  - 42 (29%) were diagnosed by GP not-s100, compared with 60.2 or 34% in January to June 2011-2016;
  - 32 (22%) were diagnosed by hospital located doctors, compared with 27.3 or 15% in January to June 2011-2016;
  - 12 (8%) were diagnosed by GP s100 doctors, compared with 24 or 13% in January to June 2011-2016, and;
  - 13 (9%) were diagnosed by other doctor types, compared with 9.5 or 5% in January to June 2011-2016. Of 13, six were diagnosed by private medical specialists, six by immigration services, and one by blood donor service.

2. Expand HIV Prevention

2.1 Who is accessing PrEP through the EPIC-NSW trial?

Figure 7: Cumulative enrolment of participants in EPIC-NSW, by study week, from 1 March 2016 to 30 June 2017



Comment

- 6336 participants were enrolled at 24 clinics from 1 March 2016 to 30 June 2017.
- Participating clinics are: The Albion Centre (SESLHD), Albury Sexual Health (MLHD), Brookong Centre Wagga (MLHD), Clinic 16 (NSLHD), Coffs Harbour Sexual Health (MNCLHD), Dubbo Sexual Health (WNSW LHD), Dr Doong's Surgery, 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), MacCleay Street Medical Practice, 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).

Table 2: Demographic data for EPIC-NSW participants enrolled from 1 March 2016 to 30 June 2017

Characteristic	N	%
Sex		
Male	6270	99.0
Female	7	0.1
Transgender, male-to-female	48	0.8
Transgender, female-to-male	8	0.1
Other	3	<0.1
Sexual identity		
Gay/Homosexual	5962	94.1
Bisexual	308	4.9
Heterosexual	31	0.5
Other£	35	0.5
Age at enrolment (years)*		
Median (Inter-quartile range)	35 (28 to 44)	-
Age group		
< 20	59	1.0
20-29	1630	27.1
30-39	2126	35.3
40-49	1357	22.5
≥50	851	14.1
Aboriginal and/or Torres Strait Islander status**		
Non-Indigenous	5596	98.3
Aboriginal and/or Torres Strait Islander	96	1.7
Region of birth**		
Australia	3214	61.7
Oceania	199	3.8
Asia	692	13.3
Northern America	152	2.9
South America, Central America & the Caribbean	186	3.6
Europe	598	11.5
Middle East	69	1.3
Africa	102	1.9
Area of residence**		
Major cities	5588	94.2
Inner Regional	308	5.3
Outer Regional	25	0.4
Remote	4	0.1

Data Sources: EPIC-NSW enrolment and behavioural survey databases, and ACCESS Study database

Notes: £ Based on self-report. Includes queer, pansexual, gender fluid, sapio, transgender, gender neutral, men who have sex with men, non-specified and not sure.

Demographic data was not available for all participants: *Age was obtained from the enrolment[1] and ACCESS databases where available. Data were missing for 313 (4.9%) participants. **Aboriginal and/or Torres Strait Islander status and country/region of birth were obtained from the behavioural survey[2] and ACCESS database. Data were missing for 644 (10%) and 1124 (18%) participants respectively.***Area of residence (postcode) were obtained from the enrolment, behavioural survey and ACCESS databases. Data were missing for 411 (6.5%) participants.

Comment

- The participants enrolled between 1 March 2016 and 30 June 2017, for whom data was available, were predominately male (99%), 94% identified as gay/homosexual, 62% were born in Australia, 94% live in a major city and the median age was 35 years.
- Smaller proportions were born in Asia (13.3%) or Europe (11.5%), live in an inner regional, outer regional or remote area (5.8%), or identify as Aboriginal or Torres Strait Islander (1.7%).

[1] In the enrolment database, date of birth (used to calculate age) was recorded for participants who consented to data linkage; 4918 (77.6%) provided consent and data are available for 4915 participants.

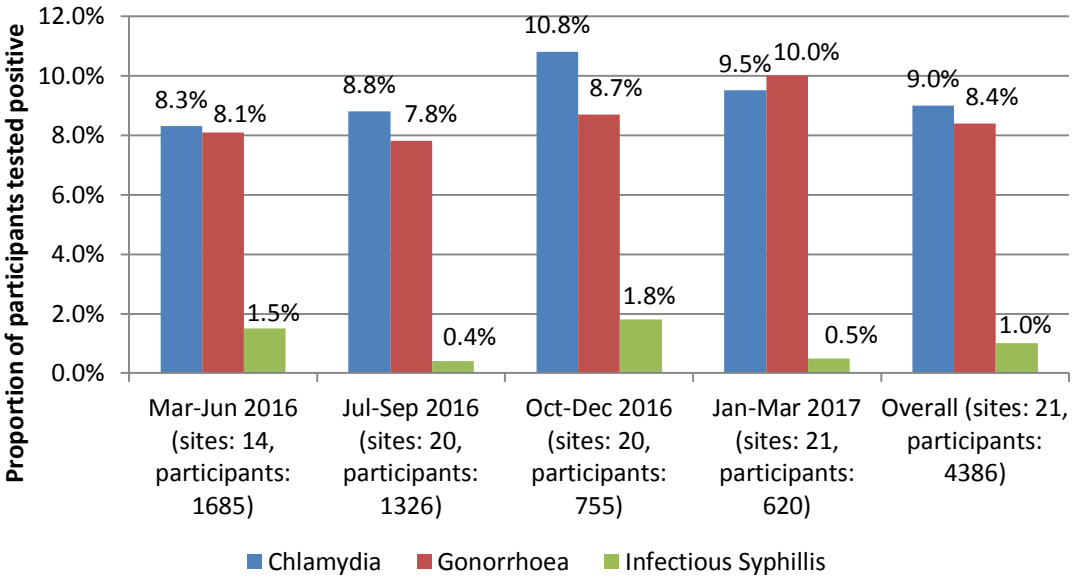
[2] 5710 (90 %) participants consented to participate in the behavioural survey and 4424 (70% of the total sample) completed it.

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

The STI prevalence of EPIC-NSW participants at enrolment provides a marker of sexual risk and how well the program is targeted. STI prevalence is defined here as the proportion of individuals tested for an STI, with a positive result.

STI testing data were available to 31 January 2017 and are based on 21 of 22 sites enrolling participants at this time. The 21 sites represent 95% of the EPIC-NSW participants enrolled by March 2017 and are: Albion Centre, Albury Sexual Health, Brookong Centre Wagga, Clinic 16, Coffs Harbour, Dubbo, HNE Sexual Health, Holden St Clinic, Illawarra, KRC, Lismore, Liverpool, Nepean Sexual Health, Orange, RPA Sexual Health, Short Street Clinic, Site 203, Site 206, Site 215, Sydney Sexual Health and Western Sydney Sexual Health.

Figure 8: Proportion of EPIC-NSW participants tested for chlamydia, gonorrhoea and/or syphilis* at the time of enrolment and who received a positive result, by quarter of enrolment, 1 March 2016 - 31 December 2016



Data Source: ACCESS study database and EPIC-NSW Temporary Data Collection.
Notes: Chlamydia/gonorrhoea/syphilis tests and results are reported to January-March (Quarter 1 2017), to allow time for data entry into patient management systems, and collation, cleaning and matching with enrolment data and analysis. STI tests are included in the analysis if they were conducted within 3 weeks of the enrolment date.
The number of sites in each quarter has increased over time as sites join EPIC-NSW. The higher number of STI tests in March-June 2016 (n=1685) reflects both the higher enrolment rate and that the period is four months long. The lower number of STI tests in Q1 2017 (n=620) reflects a lower enrolment rate in this period, and STI testing information was not available for all EPIC participants in this period at the time of reporting.
*Infectious syphilis is a diagnosis based on both clinical and laboratory information, which was only available only from public clinics at the time of reporting.

Comment

- Of the EPIC-NSW participants tested at the time of enrolment (baseline) between 1 March 2016 and 31 March 2017, the prevalence of gonorrhoea was 8.4% and the prevalence of chlamydia was 9.0%. Overall, the diagnosis rate for infectious syphilis was 1%.
- The STI prevalence has remained reasonably stable over time suggesting the program is continuing to reach men at risk of HIV.
- HIV infection at baseline is an exclusion criteria for enrolment. To date, no participant enrolled in EPIC-NSW who has commenced PrEP has tested positive for HIV during follow-up.

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/March. The data for 2017 were reported in the January - March 2017 HIV Data Report, briefly, the combined proportion of respondents reporting no anal intercourse or consistent condom use with casual partners decreased from 59.1% in 2016 to 48.0% in 2017.

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 are provided in Appendix C.

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

- 13,933,628 units of injecting equipment were distributed in NSW in 2016/17 (NSW Health NSP Minimum Data Set). Compared with 2015/16:
    - 1% (133,700 units) more units were distributed overall
    - 74,713 more units (1%) were distributed by Public NSP
    - 38,987 more units (2%) were distributed through the Pharmacy NSP Fitpack® scheme
- As at 30 June 2017, there were 1,134 NSP outlets in NSW[3], an increase 11 outlets (1%) compared with 2016 (NSW NSP Data Collection).
    - The Public NSP includes 26 primary and 313 secondary outlets, 268 automatic dispensing machines (ADMs) and internal dispensing chutes (IDCs), and the Pharmacy NSW Fitpack Scheme includes 527 pharmacies.

2.6 What proportion of people share injecting equipment in NSW?

- In 2017, 20% of respondents reported receptive syringe sharing in the previous month (NSW Needle and Syringe Program Enhanced Data Collection, 2017)[4].

[3] Updated data for NSLHD were not available at the time this report was finalised.
[4] Geddes, L, Iversen J, and Maher L. NSW Needle and Syringe Program Enhanced Data Collection Report 2017, The Kirby Institute, UNSW Australia, Sydney 2017.

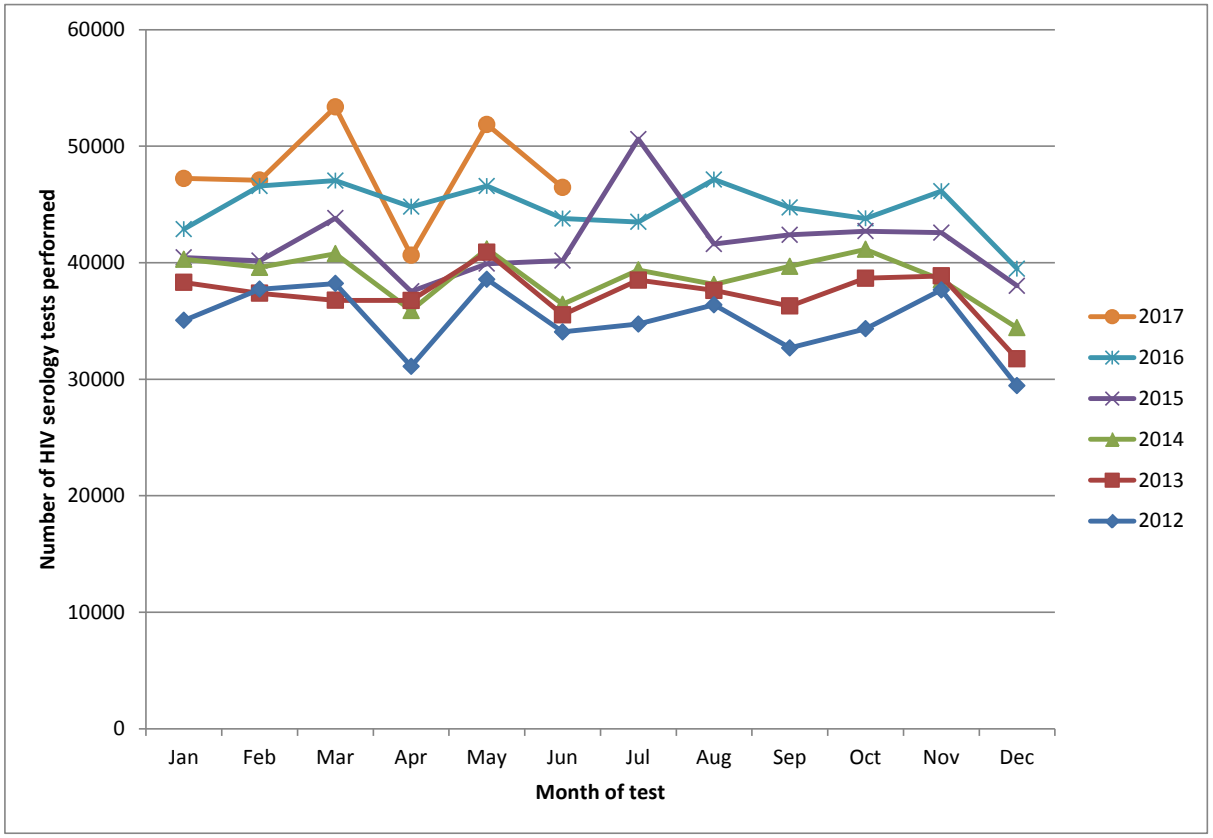
3. Increase HIV testing frequency

3.1 Is HIV testing increasing in NSW?

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 report 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 9: Number of HIV serology tests performed in 15 NSW laboratories, Jan 2012-Jun 2017



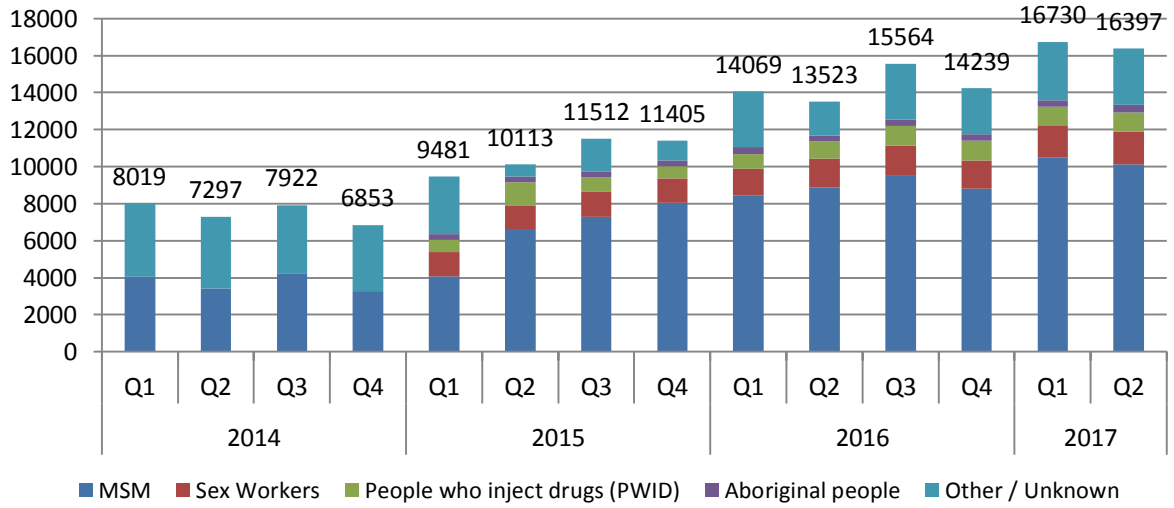
Data source: NSW Health denominator data project, extracted 7 August 2017.

Comment

- Between April and June 2017, there were 138,952 HIV serology tests performed in 15 laboratories in NSW, which compared to previous second quarters, was: 2.8% more than in 2016 (n=135,164); 18% more than in 2015 (117,628); 22% more than in 2014 (113,512); 23% more than in 2013 (n=113,174), and; 34% more than in 2012 (n=110,994).
- In January to June 2017, there were 286,626 HIV serology tests performed in 15 laboratories in NSW, which compared to previous second quarters, was: 5.5% more than in Jan-Jun 2016 (n=271,667); 18% more than in 2015 (242,075); 22% more than in 2014 (234,179); 27% more than in 2013 (n=225,615), and; 33% more than in 2012 (n=214,731).

Local Health Districts

Figure 10: Number of HIV rapid and serology tests performed in public sexual health and HIV clinics and priority LHD settings in NSW between 1 January 2014 and 30 June 2017, by quarter and priority population



Data source: NSW Health HIV Strategy Monitoring Database
Notes: Data for sex workers, PWID and Aboriginality not available in 2014; patients have been classified as other/unknown where priority population data is not available. Includes data from St Vincent's Hospital.

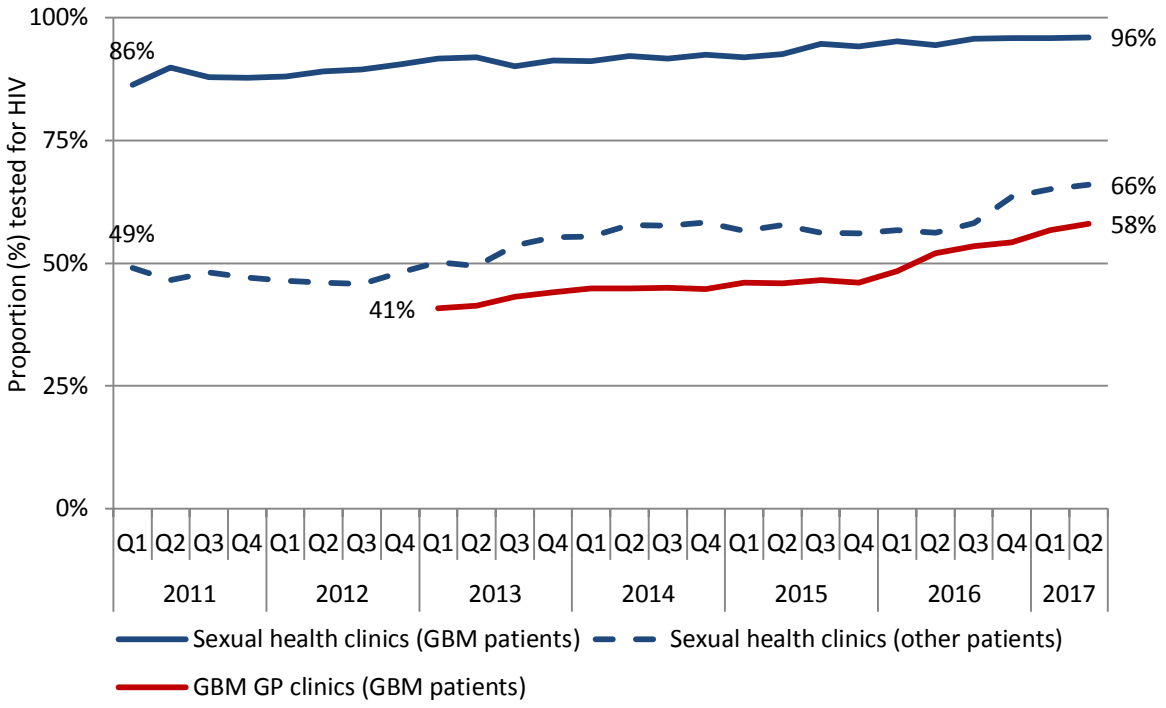
Comment

- From April-June 2017, 16,397 HIV tests were done in NSW public sexual health and HIV clinics and priority LHD settings; an increase of 21% compared with the same period in 2016 (n=13,523) and 125% compared with 2014 (n=7,297).
- This includes 10,131 HIV tests done in MSM in public sexual health and HIV clinics; a 14% (n=8,884) increase compared with the same period in 2016.
- For the first 6-months of 2017, 33,127 HIV tests in NSW public sexual health and HIV clinics and priority LHD settings; a 19% increase compared with January – June 2016 (n=27,592).
- Both rapid HIV testing and HIV serology are included. Priority settings include mental health, drug and alcohol, and emergency departments. From 1 January 2017, dried blood spot self-sampling tests are also included.

3.2 What are the HIV testing patterns in NSW?

HIV testing takes place in a range of clinical and community settings, including general practice, PFSHCs and community HIV testing sites.

Figure 11: Proportion of patients[5] attending PFSHCs and GBM GP clinics[6] 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 June 2017[7]



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

Comment

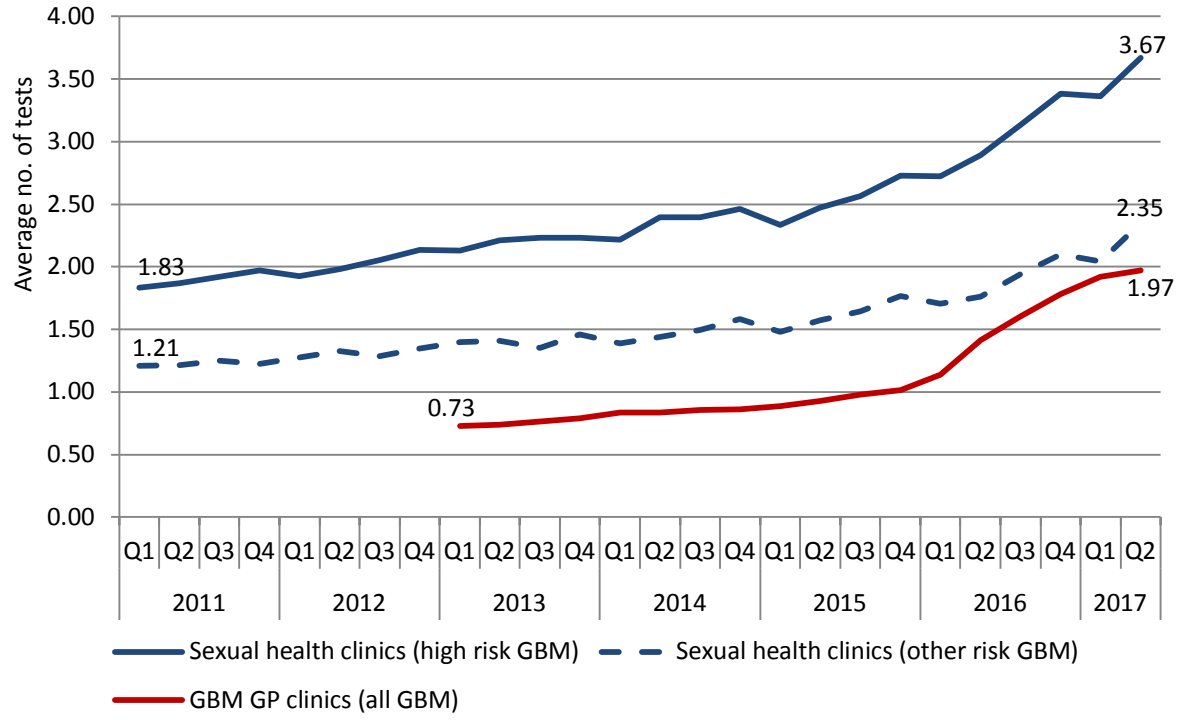
- HIV testing uptake among GBM attending PFSHCs remained high in April-June 2017 (96%).
- Testing uptake continued to increase among other patients at PFSHCs, rising from 49% in early 2011 to 66% tested in April-June 2017.
- Testing uptake increased among GBM attending GBM GP clinics from 41% in January-March 2013 to 58% in April-June 2017.

Testing uptake among Sydney Gay Community Periodic Survey respondants

- Data from the SGCPS (conducted in February/March annually) on HIV testing patterns was reported in the January – March 2017 HIV Data Report.
- Briefly, the proportion of men who have ever tested for HIV has stabilised at 87% in 2017, with 78% of non-HIV-positive men reporting an HIV test in the previous 12 months and 31% of non-HIV-positive men reporting three or more HIV tests in the previous 12 months.

[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 12: Average number of annual HIV tests at any clinic in the ACCESS network in GBM patients[8] attending PFSHCs and GBM GP clinics[9], by service type and quarter, 1 January 2011 to 30 June 2017



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

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

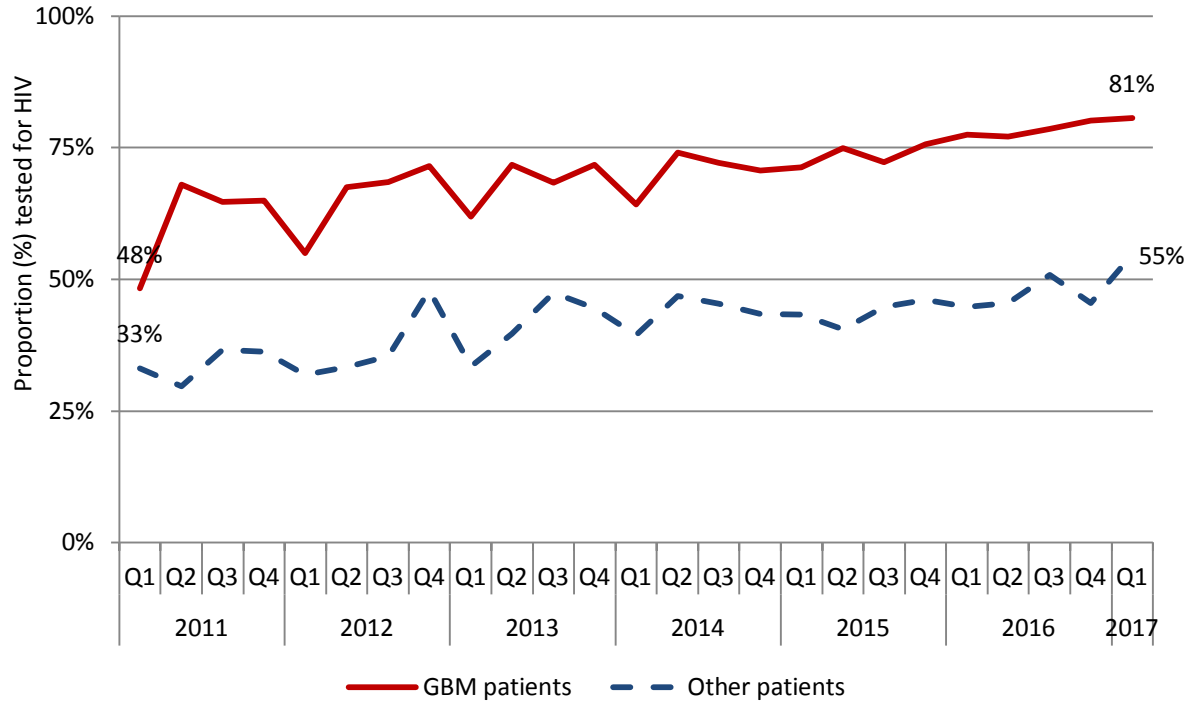
- High risk: >5 sexual partners in the three months prior to consultation AND/OR >20 sexual partners in the 12 months prior to consultation AND/OR a diagnosis for chlamydia, gonorrhoea, and/or infectious syphilis in the 24 months prior to consultation
- Other risk: Any person not otherwise meeting the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

Comment

- Testing frequency increased dramatically over time among GBM attending both PFSHCs and GBM GP clinics in NSW.
    - Between January-March 2011 and April-June 2017, the average number of tests per year among high risk GBM attending PFSHC increased doubled among high risk GBM and increased by 94% among other risk men.
    - In GBM GP clinics, the number of HIV tests per year among GBM increased by 171% from January-March 2013 to April-June 2017.

[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

Figure 13: Proportion of patients[10] attending PFSHCs and GBM GP clinics[11] who received an HIV test at any clinic in the ACCESS network within one month of an STI diagnosis[12], by GBM status and quarter, 1 January 2011 to 31 March 2017[13]



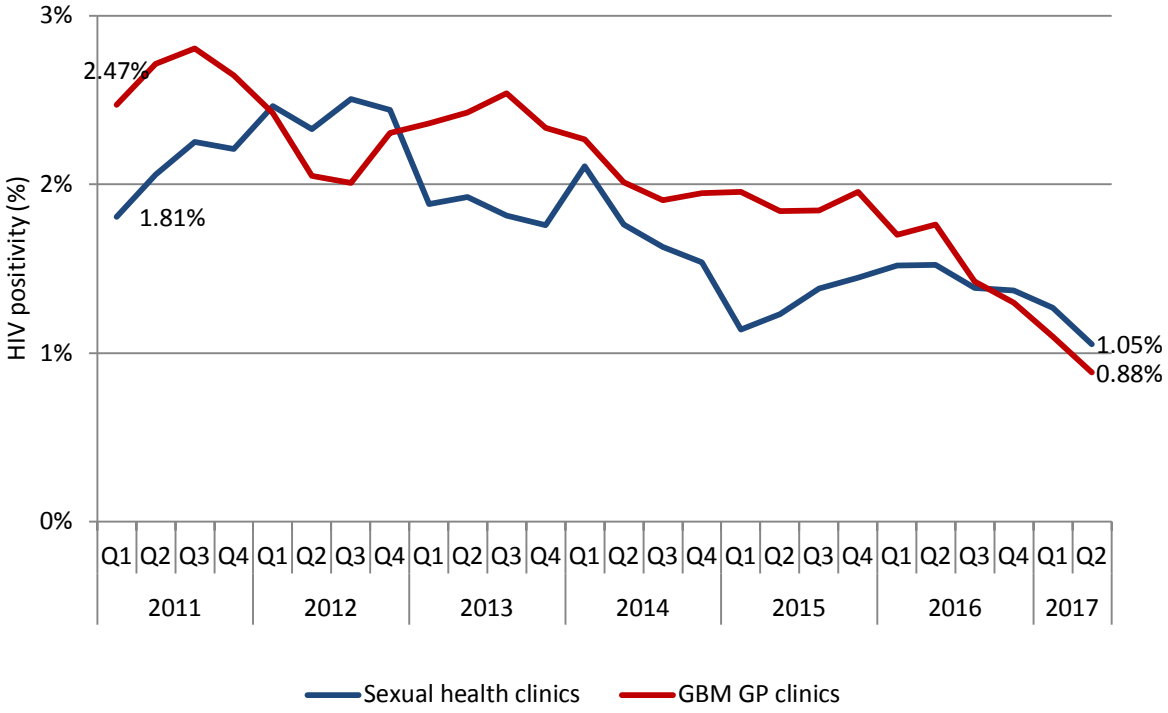
Data source: ACCESS Database, The Kirby Institute and the Burnet Institute

Comment

- The proportion of GBM who received an HIV test within one month of a STI diagnosis increased over time from 48% in early 2011 to 81% in Q1 of 2017.
- Testing in conjunction with STI diagnoses was less common overall among other patients but also increased from 33% to 55% during this period.

[10] Excludes patients known to be HIV positive
[11] GBM clinics defined as general practice clinics serving at least 50 GBM patients annually
[12] Diagnosis for chlamydia, gonorrhoea and/or infectious syphilis
[13] The period for HIV testing is one month before or after an STI diagnosis; due to this timeframe data from quarter 2 2017 have been excluded

Figure 14: Proportion of individual GBM patients[14] attending sexual health and GBM GP clinics[15] tested for HIV with a positive result (*HIV positivity*[16]) at any clinic in the ACCESS network, by service type and quarter, 1 January 2011 to 30 June 2017



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

- HIV positivity among GBM has decreased from 2.47% in 2011 to 0.88% in April-June 2017 in GBM GP clinics and from 1.81% in 2011 to 1.05% in PFSHCs
- 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.

[14] Excludes patients known to be HIV positive
[15] GBM clinics defined as general practice clinics serving at least 50 GBM patients annually
[16] 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)

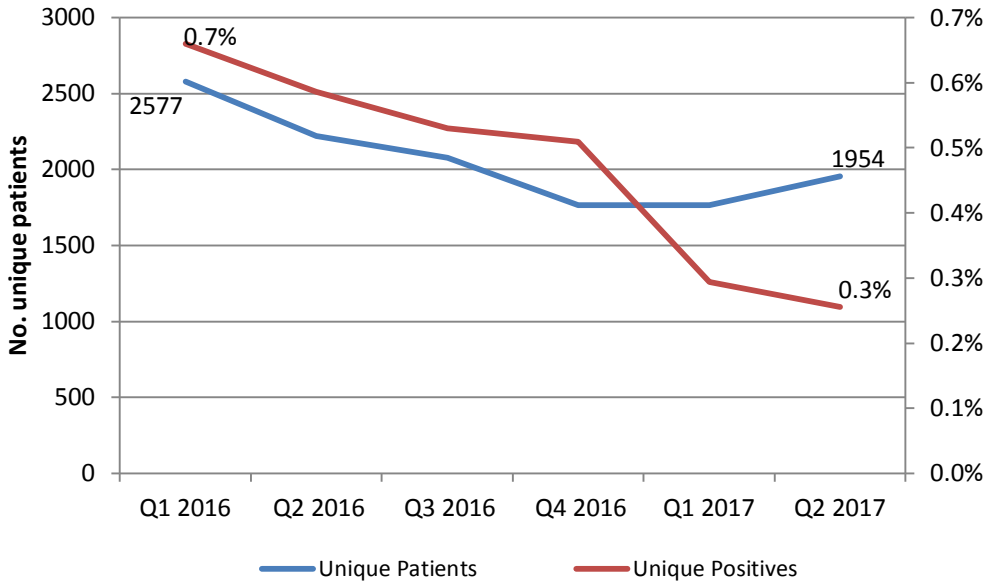
3.3 How is testing being made more accessible?

Table 3: Number of rapid HIV tests (RHT) in community based sites and proportion of clients with high risk behaviour and infrequent testing history from 1 April to 30 June 2017

Site	Number of RHT (unique)	Number of unique positive (%)	% never previously tested	% tested more than 12 months ago[#]	*% with > 5 sexual partners in last 3 months**
aTEST Surry Hills (7 hours/week)	*114 (114)*	*0 (0.0%)*	*2.6%*	*2.6%*	*58.5%*
aTEST Oxford ST (40 hours/week)	*1,736 (1,660)*	*4 (0.2%)*	*8.0%*	*13.9%*	*29.6%*
aTEST Kings Cross (3 hours/week)	*125 (-)*	*4 (3.2%)*	*40.0%*	*15.2%*	*38.1%*
aTEST Newtown (6 hours/week)	*180 (-)*	*1 (0.6%)*	*36.1%*	*16.1%*	*28.5%*

Data sources: NSW Health HIV Strategy Monitoring Database
Note: [#]Excludes 'never tested'; *Only patients who provided information on this characteristic have been included (denominator: 106; 1474; 84 and 144 patients respectively).

Figure 15: The number of unique patients who had a rapid HIV test at a community based site between 1 January 2016 and 30 June 2017 and the proportion of tests that were positive



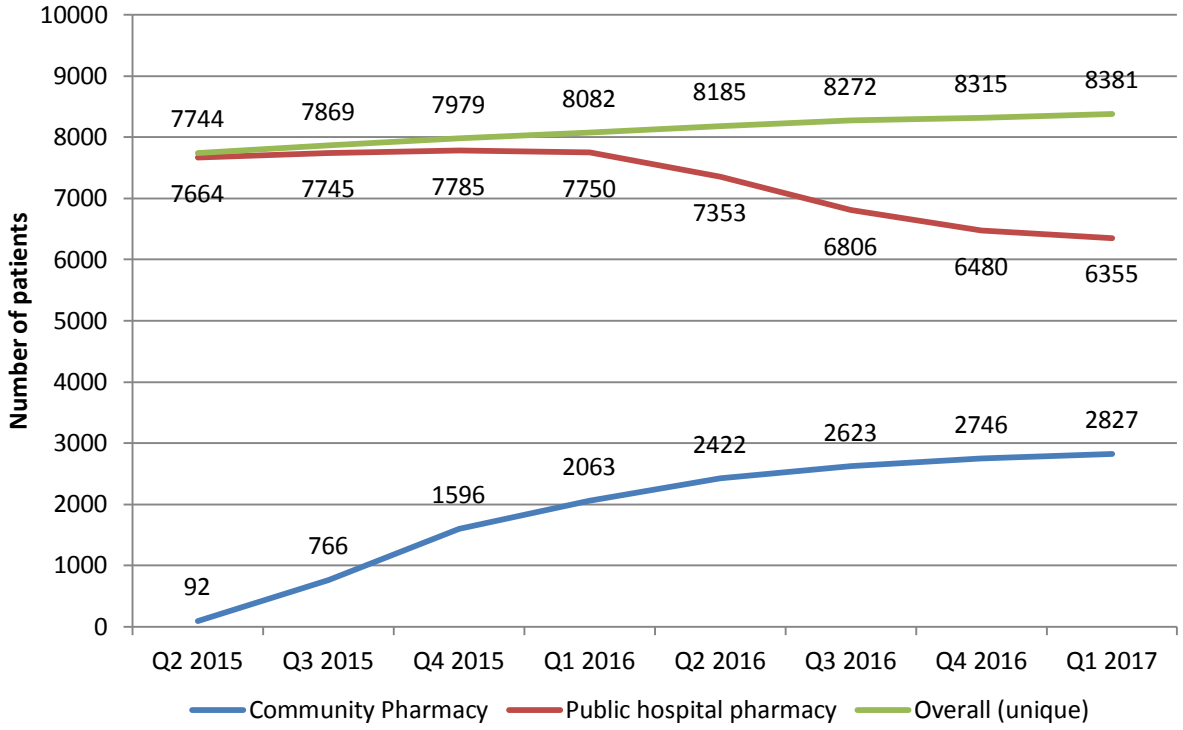
Comment

- NSW data suggests community-based testing sites are an effective testing model for engaging GBM, a high proportion of whom report high risk behaviours or infrequent testing for HIV.
- Rapid HIV testing has been effectively embedded into the mix of the testing options in NSW.

4. Increase HIV Treatment

4.1 How many people in NSW are on antiretroviral treatment?

Figure 16: The number of NSW residents who have been dispensed ART for HIV, by pharmacy type and by quarter, in the previous 12 months from 1 July 2014 to 31 March 2017

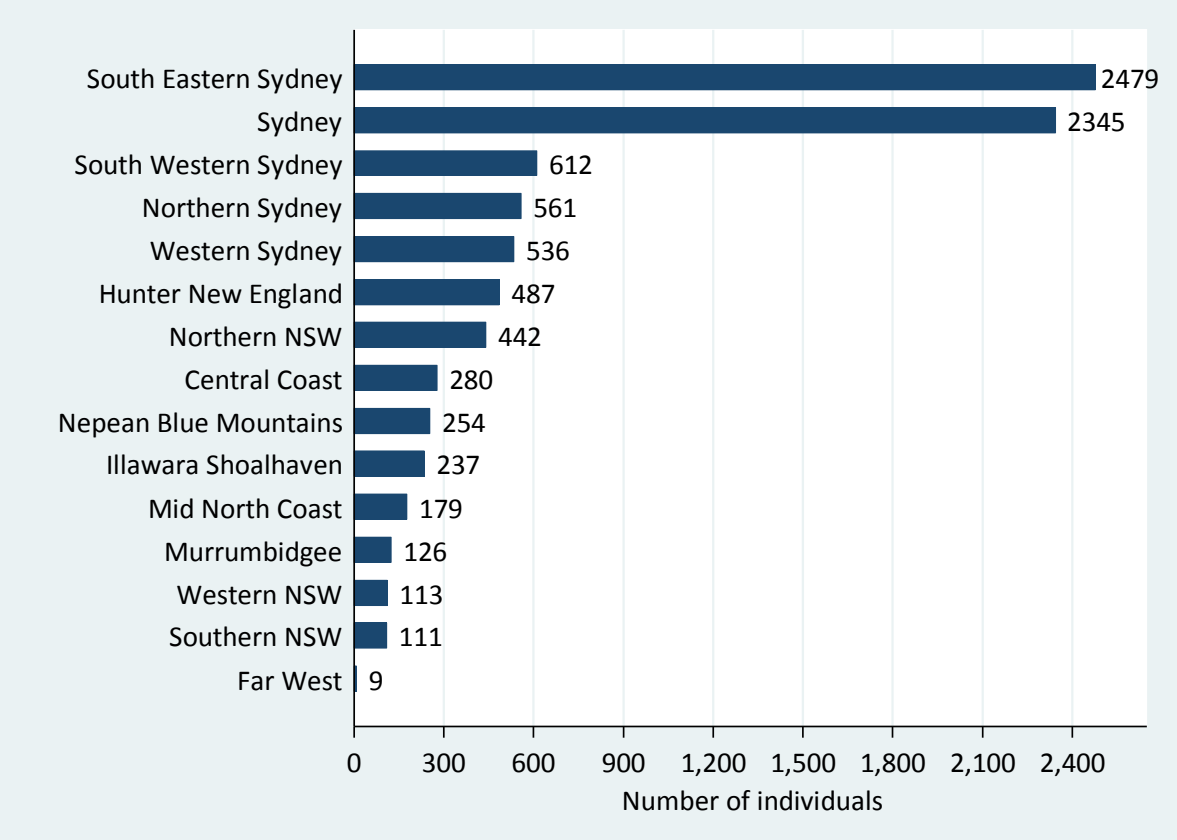


Data source: PBS Highly Specialised Drugs Programme data.
Note: The number of patients dispensed via community and public hospital pharmacies may add to a figure greater than the overall unique patients as some patients receive treatment from more than one pharmacy type within a year.
The postcode 2619 (Jerrabomberra) was previously mapped to ACT but has been included in the 2016-17 NSW data extract. As a result, the unique number of residents dispensed ART in this report differs slightly from previous reports.

Comment

- Between 1 April 2016 and 31 March 2017, 8,381 NSW residents were dispensed ART for HIV at least once in the previous 12 months.
- Since the introduction of community pharmacy dispensing on 1 July 2015, the proportion dispensed HIV ART through community pharmacies at least once in the previous 12 months has increased to 31%.
- Of the 8,381 residents dispensed ART, 91.1% were male. The majority were older with 50.6% aged 50 years or older 28.1% were aged 40-49 years and 21.3% aged 39 years or younger.

Figure 17: The number of NSW residents dispensed ART for HIV, by the LHD of patient residence, from 1 April 2016 to 31 March 2017



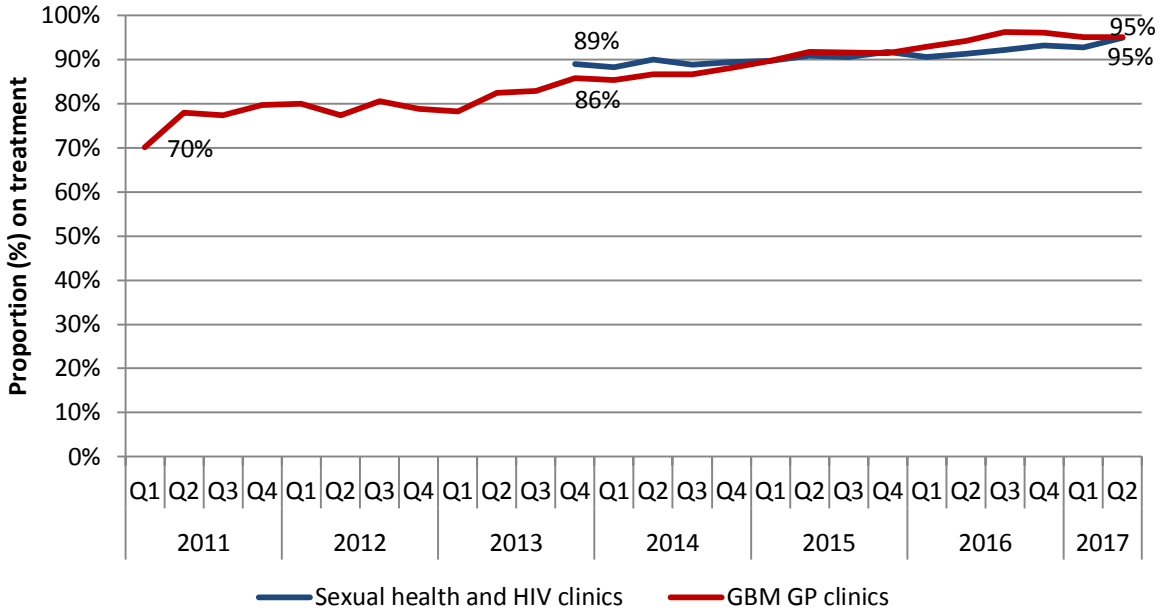
Data source: PBS Highly Specialised Drugs Programme data.
Note: The numbers displayed in the graph adds to a figure greater than the overall unique number of patients of 8,381 as some patients have resided in more than one LHD.

Comment

- 74.5% of the ART dispensed in the year ending 31 March 2017 was to patients residing in five LHDs: South Eastern Sydney, Sydney, South Western Sydney, Northern Sydney and Western Sydney LHDs.

4.2 Is the proportion of people on antiretroviral treatment coverage increasing in NSW?

Figure 18: Proportion of HIV positive patients[17] attending publicly funded sexual health and HIV clinics and GBM GP clinics[18] receiving treatment or recorded as on treatment in the previous 12 months by service type and quarter, January 2011 to June 2017



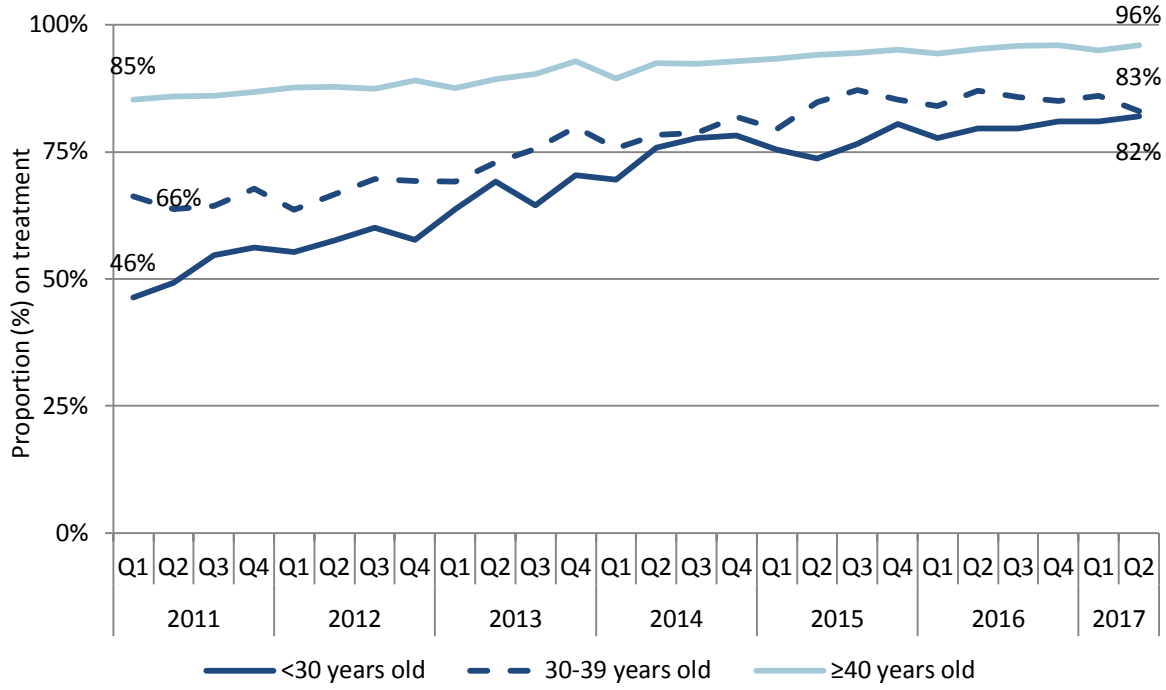
Data sources: *Publicly funded sexual health and HIV clinics* - NSW Health HIV Strategy Monitoring Database[19]
GBM GP clinics - ACCESS Database, The Kirby Institute and the Burnet Institute
Note: Data available from PFSHCs from October 2013.

Comment

- Treatment coverage among clients with HIV who received care in public HIV and sexual health clinics in NSW in the previous 12 months is high at 95%.
- Treatment coverage among patients attending GP clinics remains high at 95% in the previous 12 months.
- 94% of HIV positive patients on treatment at clinics within the ACCESS network[20] had undetectable[21] viral load at their most recent test in the previous 12 months (ACCESS Database; includes public HIV and sexual health clinics and GBM-GP clinics).

[17] Excludes patients for whom HIV care was recorded as managed elsewhere
[18] GBM clinics defined as general practice clinics serving at least 50 GBM patients annually
[19] Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.
[20] Excludes patients for whom viral load test information was not available
[21] 'Undetectable' defined as <200 RNA copies/mm^3 of blood

Figure 19: Proportion of HIV positive patients attending PFSHCs, public hospital outpatient clinics and GBM GP clinics[22] 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 June 2017



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

Comment

- Treatment uptake for HIV is higher among older patients, with 96% of patients aged 40 years or older who attended in April-June 2017 recorded as on treatment.
- Younger patients aged under 30 years, however, demonstrated the greatest increase in treatment uptake, rising from 46% in early 2011 to 82% in April-June 2017.

[22] GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

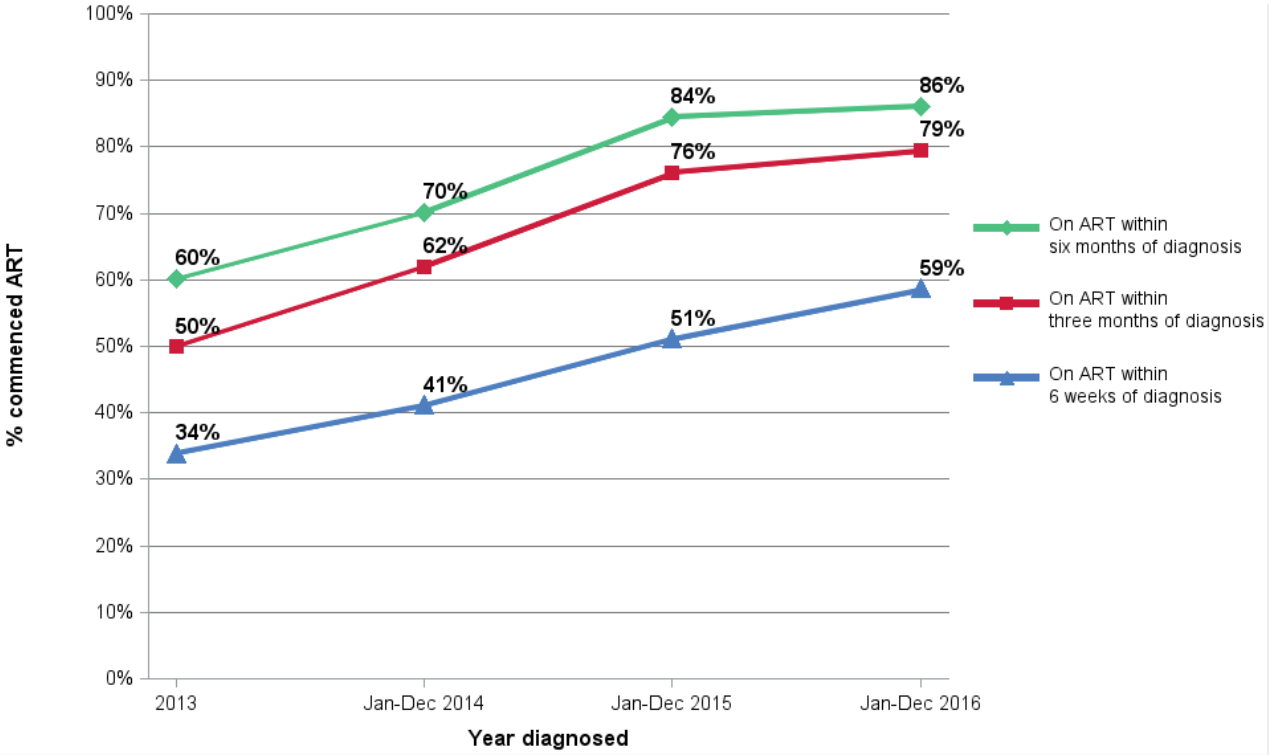
4.3 How quickly are people newly diagnosed with HIV commencing antiretroviral treatment and achieving undetectable viral load in NSW?

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 this quarter 2 2017 report, follow up data collected six months post diagnosis are reported on for 1364 NSW residents newly diagnosed with HIV infection in 2013 to 2016. Of these 1364 people, doctors returned 97% (n= 1322) of follow up forms. Data on commencement of ART from six months post diagnosis follow up form (FUF) data and HIV notification form data was combined for analysis. All new diagnoses were included irrespective of their care outcome six months post diagnosis (that is, retained in care, died, migrated out of NSW, lost to follow up, other or unknown).

Figure 23: ART commencement within six weeks, and three and six months of diagnosis, based on notification and six-months post diagnosis follow up information received so far on all* 1364 NSW residents newly diagnosed 2013 to 2016.



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017.
* The denominator is all new diagnoses 2013-2016 irrespective of care outcome six months diagnosis. There is no exclusion of people who, for example, migrated out of NSW or who died within six months of diagnosis.

Comment

- Under the 2016-2020 HIV Strategy the aim is to ensure that at least 90% of people newly diagnosed with HIV are on ART within 6 weeks of diagnosis and to further reduce the time from diagnosis to ART over the life of the Strategy.
- The most recently diagnosed cases followed up 6 months post diagnosis were the 74 NSW residents newly diagnosed 1 October to 31 December 2016, and of these:

- 68% (n=50) commenced ART within six weeks of diagnosis, 78% (n=58) within three months and 86% (n=64) within six months of diagnosis. Of 64 on ART within six month of diagnosis, 56 (88%) had a post-ART VL reported at six month follow up, and of these 51 (91%) already had a HIV VL less than 200 copies/mL.

- Of 317 NSW residents newly diagnosed in the year 2016 (first year of current Strategy):
  - 59% (n=186) commenced ART within six weeks of diagnosis, 79% (n=252) within three months and 86% (n=273) within six months of diagnosis. Of 273 on ART within six months of diagnosis, 246 (90%) had a post-ART VL reported at six month follow up, and of these 235 (96%) already had a HIV VL less than 200 copies/mL.

Figure 24: ART commencement within six weeks of diagnosis by CD4 count at diagnosis based on notification and six-months post diagnosis follow up information received so far on 1364 NSW residents newly diagnosed 2013 to 2016.

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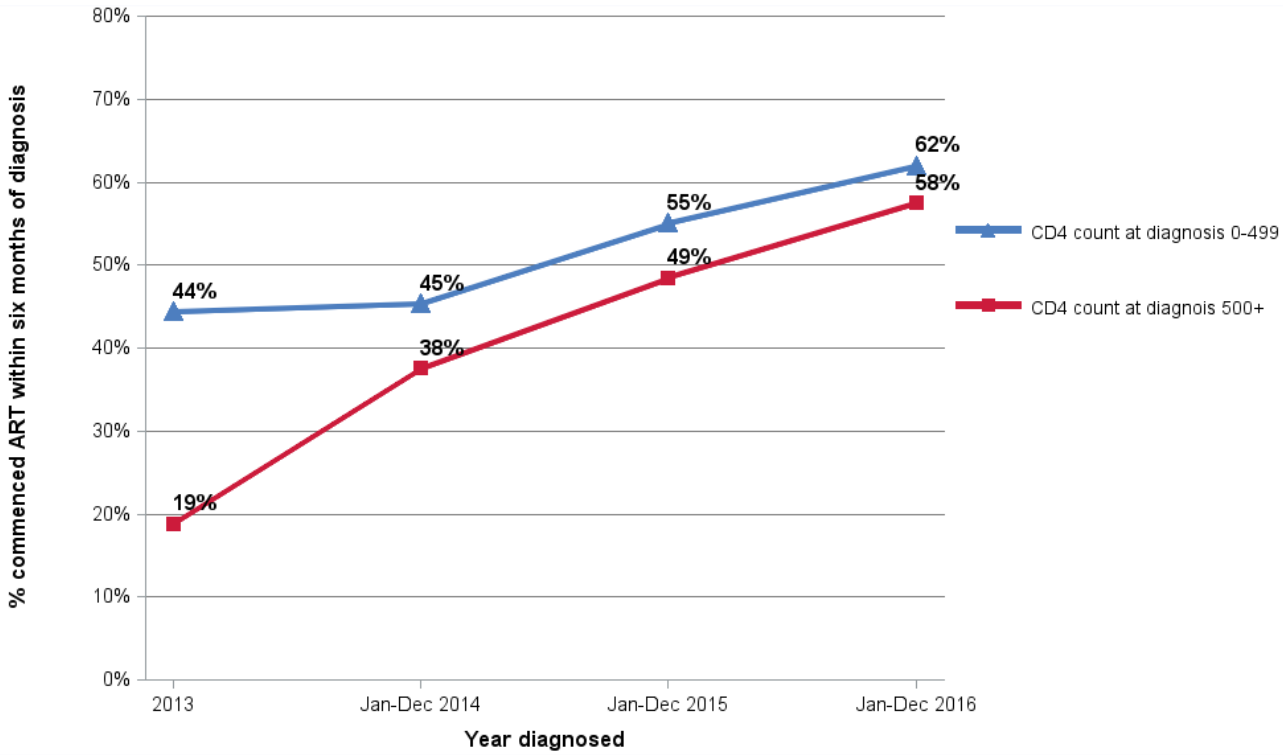
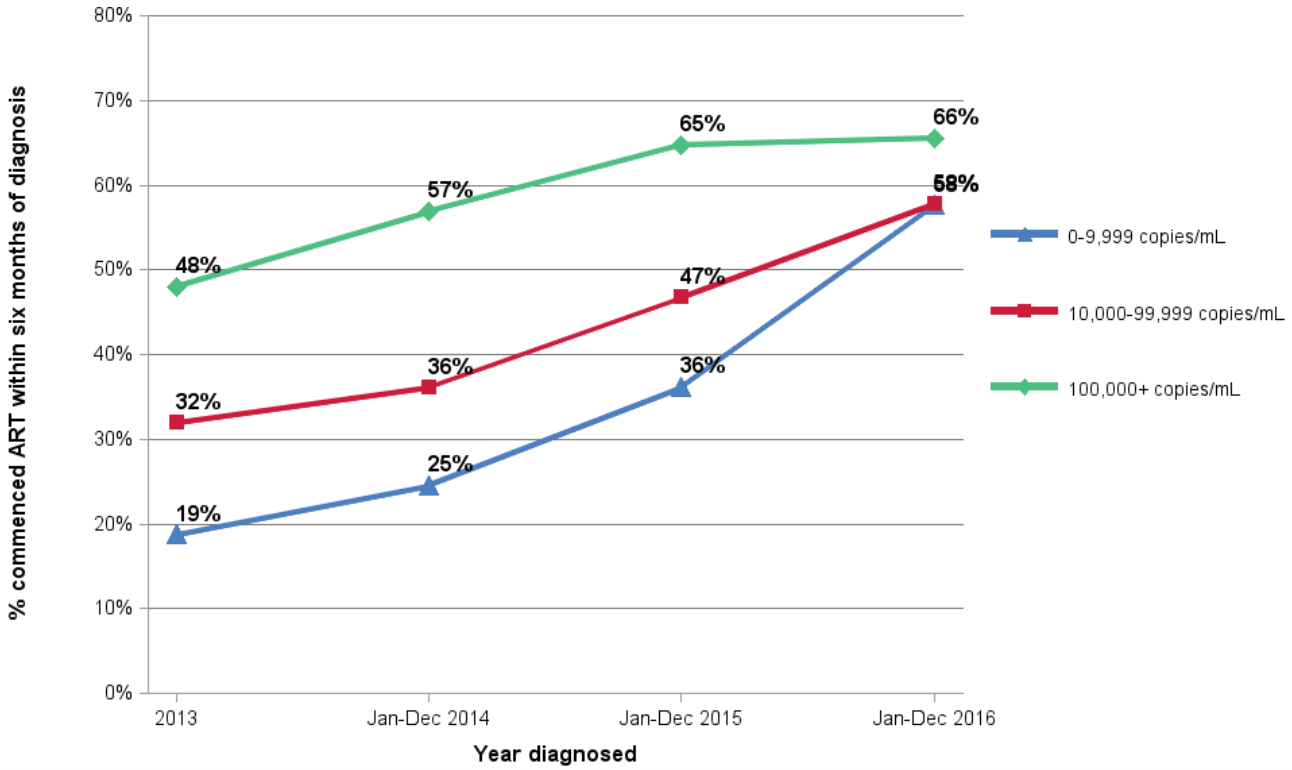


Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017
Note: excludes new diagnoses with missing CD4 at diagnosis, some of whom had commenced ART within 6 months.

Comment

- Of people with a CD4 count of 0-499 cells/µL at diagnosis, 44% of the 2013, 45% of the 2014, 55% of the 2015 and 62% of the 2016 new diagnoses cohorts had commenced ART within six weeks of diagnosis.
- Of people with a CD4 count of 500 or over at diagnosis, 19% of the 2013, 38% of the 2014, 49% of the 2015 and 58% of the 2016 new diagnoses cohorts had commenced ART within six weeks of diagnosis.

Figure 25: ART commencement within six weeks of diagnosis by HIV viral load at diagnosis of based on notification and six-months post diagnosis follow up information received so far on 1364 NSW residents newly diagnosed 2013 to 2016.



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017
Note: excludes new diagnoses with missing HIVVL at diagnosis, some of whom had commenced ART within 6 months.

Comment

- Of people with an HIV VL of 0-9,999 copies/mL at diagnosis, 19% of the 2013, 25% of the 2014, 36% of the 2015 and 58% of the 2016 new diagnoses cohorts had commenced ART within six weeks of diagnosis.
- Of people with an HIV VL of 10,000-99,999 at diagnosis, 32% of the 2013, 36% of the 2014, 47% of the 2015 and 58% of the 2016 new diagnoses cohorts had commenced ART within six weeks of diagnosis.
- Of people with an HIV VL of 100,000 or over at diagnosis, 48% of the 2013, 57% of the 2014, 65% of the 2015 and 66% of the 2016 new diagnoses cohorts had commenced ART within six weeks of diagnosis.

Appendix A: Data Sources

Notifications Data Sources

Name	Custodian	Availability	Details
Notifiable Conditions Information Management System (NCIMS)	Health Protection NSW, NSW Health	Quarterly	State wide coverage of HIV notifications received by NSW Health and their follow-up six months post diagnosis. Quarterly report restricted to notifications on NSW residents who are newly diagnosed with HIV. NCIMS contains de-identified epidemiological information including on: basic demographic data, diagnosis date, reasons for testing, CD4 count, HIV viral load (HIV VL), past testing history, risk exposure, retention in care and ART status six months post diagnosis. HIV surveillance forms available at: http://www.health.nsw.gov.au/Infectious/Pages/notification.aspx

Prevention Data Sources

Name	Custodian	Availability	Details
EPIC-NSW Enrolment and Behavioural survey databases	The Kirby Institute, UNSW Australia	Quarterly	Demographic data on all EPIC-NSW participants. Data fields include: site, age, sex, sexuality, residence, country of birth.
ACCESS study database and EPIC-NSW Temporary Data Collection	The Kirby Institute, UNSW Australia, and Burnet Institute	Quarterly	Deidentified clinical data patients attending sexual health clinics, high caseload general practice clinics and hospital outpatients clinics, which includes details on patient consultations, demographics, behaviour, testing, diagnoses and treatment/prescriptions. ACCESS is a live and real-time database, which means that data are not always available from every service and it is possible for services to be introduced and discontinued over time. These changes may introduce slight variations from one reporting period to the next.
Sydney Gay Community Periodic Survey	Centre for Social Research in Health	Annually	Repeat cross-sectional survey of gay and homosexually active men recruited at a range of gay community sites in Sydney. Data fields include sexual, drug use and testing practices related to the transmission of HIV and other STIs among gay men in Sydney. Data is self-reported. Data is collected in February-March annually and published in the following quarter.
ACON Ending HIV online survey database	ACON	Ad-hoc	Survey respondents are self-selected gay identifying men, recruited mainly through advertisements undertaken by ACON on Facebook. Contains data knowledge and attitudes of respondents towards testing, prevention and treatment.
NSW Health NSP Minimum Data Set	Centre for Population Health, NSW Health	Quarterly	Units of injecting equipment distributed in NSW by pharmacies participating in the Pharmacy NSP Fitpack® scheme and by the Public NSP

NSW NSP Data Collection	Centre for Population Health, NSW Health	6-monthly	Number of public NSP outlets by type in NSW by LHD
NSW Needle and Syringe Program Enhanced Data Collection	The Kirby Institute, UNSW Australia	Annual	Annual Survey of NSP attendees. Provides NSP client demographic, behavioural and drug use data to strengthen the state-wide prevention approach, and inform LHDs in planning for NSP service delivery at the local level. Data is self-reported. Data is collected over a two week period in late Feb/early March. The reports are circulated to CEs and key stakeholders in August. (The report may be published for the first time in 2017 TBC)

Testing Data Sources

Name	Custodian	Availability	Coverage
NSW Health denominator data project	Health Protection NSW, NSW Health	Quarterly	Number of tests in NSW
NSW Health HIV Strategy Monitoring Database	NSW Ministry of Health, NSW Health	Quarterly	Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy, includes aggregate testing data by priority population for relevant tests conducted within the LHD and community sites.
ACCESS Database	The Kirby Institute, UNSW Australia, and Burnet Institute	Quarterly	Deidentified clinical data patients attending sexual health clinics, high caseload general practice clinics and hospital outpatients clinics, which includes details on patient consultations, demographics, behaviour, testing, diagnoses and treatment/prescriptions. ACCESS is a live and real-time database, which means that data are not always available from every service and it is possible for services to be introduced and discontinued over time. These changes may introduce slight variations from one reporting period to the next.
Sydney Gay Community Periodic Survey	Centre for Social Research in Health	Annually Note: collected February-March	Repeat cross-sectional survey of gay and homosexually active men recruited at a range of gay community sites in Sydney. Data fields include sexual, drug use and testing practices related to the transmission of HIV and other STIs among gay men in Sydney. Data is self-reported. Data is collected in February-March annually and published in the following quarter.

Treatment Data Sources

Name	Custodian	Availability	Coverage
Pharmaceutical Benefits Schedule (PBS) Highly	Centre for Population Health, NSW Health	Quarterly Note: 4-6 month lag in	PBS dispensing data for HIV treatments for all NSW residents from July 2014. This data is prepared by the Commonwealth Government for

Specialised Drugs Programme data		data being provided to NSW Health.	NSW Health and captures all HIV treatment dispensing in NSW through the PBS from a public hospital, private hospital or community pharmacies.
NSW Health HIV Strategy Monitoring Database	NSW Ministry of Health, NSW Health	Quarterly	Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy, includes summarised data on treatment coverage among patients diagnosed with HIV who are 'in care'.
ACCESS Database	The Kirby Institute, UNSW Australia, and Burnet Institute	Quarterly	Deidentified clinical data patients attending sexual health clinics, high caseload general practice clinics and hospital outpatients clinics, which includes details on patient consultations, demographics, behaviour, testing, diagnoses and treatment/prescriptions. ACCESS is a live and real-time database, which means that data are not always available from every service and it is possible for services to be introduced and discontinued over time. These changes may introduce slight variations from one reporting period to the next.
Notifiable Conditions Information Management System (NCIMS)	Health Protection NSW, NSW Health	Quarterly	State wide coverage/representation of HIV notifications received by NSW Health under public health legislation and of their follow up six months post diagnosis. Quarterly report restricted to notifications on people who are NSW residents and who are newly diagnosed with HIV. NCIMS contains de-identified epidemiological information on people notified with HIV infection including on: basic demographic data, diagnosis date, reasons for testing, CD4 count, HIV viral load (HIV VL), past testing history, risk exposure, retention in care and ART status six months post diagnosis. HIV surveillance forms available at: http://www.health.nsw.gov.au/Infectious/Pages/notification.aspx

Appendix B: Characteristics of NSW residents notified with newly diagnosed HIV infection 1981 to June 2017

Case characteristics	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		1981-June 2017	%
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	
Total number	**326**	**100%**	**336**	**100%**	**305**	**100%**	**331**	**100%**	**413**	**100%**	**354**	**100%**	**345**	**100%**	**348**	**100%**	**317**	**100%**	**144**	**100%**	**18097**	**100%**
Gender																						
Male	294	90.2	295	87.8	280	91.8	310	93.7	376	91.0	324	91.5	319	92.5	319	91.7	291	91.8	129	89.6	16638	91.9
Female	32	9.8	38	11.3	23	7.5	21	6.3	36	8.7	27	7.6	25	7.2	28	8.0	22	6.9	12	8.3	1164	6.4
Transgender	0	0.0	2	0.6	2	0.7	0	0.0	1	0.2	3	0.8	1	0.3	1	0.3	4	1.3	3	2.1	47	0.3
Unknown	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	248	1.4
Aboriginal person status																						
Aboriginal or Torres Strait Islander person	8	2.5	9	2.7	7	2.3	5	1.5	13	3.1	8	2.3	7	2.0	7	2.0	10	3.2	5	3.5	194	1.1
Non-Aboriginal person	302	92.6	315	93.8	293	96.1	323	97.6	394	95.4	344	97.2	331	95.9	338	97.1	306	96.5	135	93.8	10977	60.7
Not stated	16	4.9	12	3.6	5	1.6	3	0.9	6	1.5	2	0.6	7	2.0	3	0.9	1	0.3	4	2.8	6926	38.3
Age in years at diagnosis																						
0-4	0	0.0	1	0.3	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	39	0.2
5-9	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	1	0.3	1	0.7	25	0.1
10-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	36	0.2
15-19	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	0.9	3	2.1	315	1.7
20-24	39	12.0	34	10.1	29	9.5	34	10.3	44	10.7	37	10.5	41	11.9	45	12.9	39	12.3	9	6.3	2192	12.1
25-29	58	17.8	58	17.3	56	18.4	55	16.6	77	18.6	64	18.1	51	14.8	63	18.1	60	18.9	24	16.7	3560	19.7
30-34	44	13.5	42	12.5	49	16.1	65	19.6	71	17.2	48	13.6	64	18.6	62	17.8	64	20.2	26	18.1	3600	19.9
35-39	64	19.6	59	17.6	43	14.1	59	17.8	64	15.5	42	11.9	45	13.0	45	12.9	48	15.1	14	9.7	2992	16.5
40-44	52	16.0	58	17.3	51	16.7	45	13.6	48	11.6	45	12.7	46	13.3	32	9.2	30	9.5	21	14.6	2203	12.2
45-49	32	9.8	30	8.9	30	9.8	26	7.9	38	9.2	45	12.7	30	8.7	26	7.5	32	10.1	12	8.3	1311	7.2
50-54	14	4.3	28	8.3	7	2.3	25	7.6	28	6.8	24	6.8	26	7.5	28	8.0	18	5.7	10	6.9	804	4.4
55-59	10	3.1	12	3.6	22	7.2	10	3.0	14	3.4	22	6.2	15	4.3	13	3.7	12	3.8	9	6.3	458	2.5
60-64	6	1.8	1	0.3	5	1.6	2	0.6	13	3.1	6	1.7	14	4.1	15	4.3	6	1.9	8	5.6	252	1.4
65-69	0	0.0	4	1.2	6	2.0	2	0.6	4	1.0	9	2.5	7	2.0	7	2.0	4	1.3	2	1.4	137	0.8
70 or over	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	0.0	5	3.5	85	0.5
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	88	0.5

Reported HIV risk exposure	2008	%	2009	%	2010	%	2011	%	2012	%	2013	%	2014	%	2015	%	2016	%	Jan-Jun 2017	%	1981-June 2017	%
Men who have sex with men (MSM)	236	72.4	221	65.8	226	74.1	268	81.0	322	78.0	265	74.9	257	74.5	264	75.9	236	74.4	94	65.3	11436	63.2
MSM and person who injected drugs (PWID)	11	3.4	17	5.1	8	2.6	11	3.3	14	3.4	16	4.5	19	5.5	21	6.0	24	7.6	7	4.9	551	3.0
Hetero- sex only	64	19.6	75	22.3	51	16.7	41	12.4	58	14.0	61	17.2	50	14.5	52	14.9	48	15.1	36	25.0	1689	9.3
PWID	12	3.7	12	3.6	9	3.0	8	2.4	10	2.4	7	2.0	8	2.3	4	1.1	4	1.3	4	2.8	569	3.1
Blood disorder, bld or tissue recipient	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0	277	1.5
Vertical transmission	0	0.0	2	0.6	1	0.3	0	0.0	0	0.0	1	0.3	1	0.3	0	0.0	1	0.3	1	0.7	52	0.3
Other	0	0.0	2	0.6	1	0.3	1	0.3	2	0.5	1	0.3	4	1.2	3	0.9	1	0.3	0	0.0	49	0.3
Unknown	3	0.9	6	1.8	9	3.0	2	0.6	7	1.7	3	0.8	6	1.7	3	0.9	3	0.9	2	1.4	3474	19.2
Local Health District of residence																						
South Eastern Sydney	118	36.2	106	31.5	109	35.7	124	37.5	150	36.3	126	35.6	112	32.5	128	36.8	83	26.2	44	30.6	5641	31.2
Sydney	77	23.6	92	27.4	76	24.9	88	26.6	113	27.4	87	24.6	82	23.8	84	24.1	95	30.0	28	19.4	3056	16.9
Northern Sydney	25	7.7	39	11.6	19	6.2	24	7.3	23	5.6	25	7.1	18	5.2	24	6.9	19	6.0	16	11.1	1014	5.6
Western Sydney	26	8.0	21	6.3	20	6.6	31	9.4	25	6.1	27	7.6	27	7.8	20	5.7	24	7.6	12	8.3	759	4.2
South Western Sydney	16	4.9	21	6.3	25	8.2	18	5.4	31	7.5	33	9.3	32	9.3	33	9.5	32	10.1	9	6.3	735	4.1
Hunter New England	15	4.6	17	5.1	17	5.6	10	3.0	15	3.6	18	5.1	28	8.1	19	5.5	16	5.0	3	2.1	514	2.8
Nepean Blue Mountains	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	0.6	3	2.1	265	1.5
Illawarra Shoalhaven	3	0.9	5	1.5	8	2.6	5	1.5	9	2.2	7	2.0	6	1.7	7	2.0	8	2.5	7	4.9	238	1.3
Central Coast	6	1.8	5	1.5	5	1.6	4	1.2	10	2.4	5	1.4	8	2.3	5	1.4	11	3.5	6	4.2	213	1.2
Northern NSW	4	1.2	5	1.5	8	2.6	11	3.3	5	1.2	5	1.4	7	2.0	8	2.3	5	1.6	6	4.2	211	1.2
Mid North Coast	8	2.5	6	1.8	3	1.0	4	1.2	3	0.7	6	1.7	7	2.0	6	1.7	2	0.6	1	0.7	148	0.8
Western NSW	3	0.9	3	0.9	4	1.3	3	0.9	7	1.7	5	1.4	2	0.6	2	0.6	5	1.6	3	2.1	128	0.7
Murrumbidgee-Albury	3	0.9	2	0.6	7	2.3	2	0.6	5	1.2	3	0.8	3	0.9	4	1.1	9	2.8	1	0.7	99	0.5
Southern NSW	3	0.9	6	1.8	1	0.3	2	0.6	8	1.9	4	1.1	4	1.2	2	0.6	6	1.9	2	1.4	68	0.4
Far West	0	0.0	2	0.6	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	0.0
Unknown or other	12	3.7	3	0.9	0	0.0	1	0.3	2	0.5	0	0.0	3	0.9	0	0.0	0	0.0	3	2.1	5000	27.6
Total number	**326**	**100%**	**336**	**100%**	**305**	**100%**	**331**	**100%**	**413**	**100%**	**354**	**100%**	**345**	**100%**	**348**	**100%**	**317**	**100%**	**144**	**100%**	**18097**	**100%**

Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 August 2017.

Appendix C: 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 signifi-cantly 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.