

NSW HIV Strategy 2021 – 2025

Quarter 4 and Annual Data Report 2022



The NSW HIV Strategy 2021 – 2025

New ways to prevent, test and treat mean that the virtual elimination of HIV transmission in NSW, once inconceivable, is now a realistic and achievable goal. The HIV Strategy is a plan for the virtual elimination of HIV transmission in NSW for all. The goals of the strategy are to prevent transmission, normalise testing, start and maintain treatment soon after diagnosis and reduce stigma.

Communique

NSW made further progress towards the virtual elimination of HIV transmission in Q4 2022, with a 23% decrease in diagnoses. However, declines in HIV diagnoses are likely still influenced by the effects of the COVID-19 pandemic response including lower levels of testing and altered health seeking behaviour, service provision and access. Progress towards the elimination of HIV transmission has been greatest in inner Sydney where $\geq 20\%$ of adult men are estimated to be gay. MSM living in outer suburban and regional areas with lower concentrations of gay-identified men have not experienced the same level of declines in HIV diagnoses. HIV testing increased in Q4 but remains lower than pre-pandemic levels in 2019. NSW Health is urging people at risk to re-engage with health services, get an HIV test and use PrEP for HIV prevention.

Executive summary

NSW made further progress towards the virtual elimination of HIV transmission, though influenced by the effects of the COVID-19 pandemic

- In Q4 2022, 51 NSW residents were newly diagnosed with HIV, a 23% drop compared to the Q4 average for the last five years. Of 51 HIV diagnoses, 84% were preventable in NSW and 35% had evidence of late diagnoses.
- A quarter of new diagnoses had evidence of an infection occurring within the last 12 months (early infection), 40% less than the Q4 average for the last five years.
- This decline in diagnoses is encouraging but is also driven by the ongoing effects of COVID-19, including lower levels of testing and altered service provision and access.
- In Q4, 67% of HIV diagnoses were men who have sex with men (MSM) and 29% were people with heterosexual exposure only (HET). There was a 31% drop among MSM and 14% rise among HET compared with the new diagnosis Q4 averages for the last five years.
- In Q4, 9% of MSM diagnosed resided in inner Sydney, 69% less than the 5-year Q4 average; and 71% of MSM diagnosed resided in outer suburban and regional areas where $<5\%$ of men are estimated to be gay, 22% less than the 5-year Q4 average.

HIV Testing increased overall but remains lower than pre-pandemic levels in 2019

- HIV testing in public and private laboratories in Q4 2022 (n=139,777) was 7% higher than Q4 2021. This result is 5% lower than Q4 2019.
- The number of HIV tests in PFSHCs (n=10,779) was 38% higher than Q4 2021. This result is 23% lower than Q4 2019.
- Peer-led community based rapid testing at [\[Test\] Oxford Street](#) remained high and well targeted in Q4 2022.

The progress made to increase testing and PrEP in Q4 is supported by strong community messaging to re-engage with PrEP and testing

- A social media toolkit for HIV Awareness Week 2022 (24 – 30 Nov) targeted health professionals to encourage them to offer HIV testing as part of routine healthcare practice. The toolkit includes

copy for community facing communications. Local Health Districts adapt the toolkit assets to their local context and activities including social media posts, website banners and newsletters.

- The Multicultural HIV and Hepatitis Service (MHAHS) ran a multimedia HIV Awareness Week/World AIDS Day campaign from 25 November to 8 December 2022 across 8 priority communities: African, Arabic-speaking, Chinese-speaking, Indonesian, Portuguese-speaking, Spanish-speaking, Thai, and Vietnamese. The campaign generated: 4 media pick ups; 16 print and digital ads; 402 Community Service Announcements (CSA's) broadcasted; 25,789 social media campaign reach (organic & paid); and 599 engagements.
- People at risk of HIV can get tested confidentially and easily at their local GP or sexual health service. Online services such as you[TEST] provide peer support to choose an ATOMO self-test or Dried Blood Spot test.
- NSW is working with partners to expand peer led testing models in outer Sydney suburban and regional NSW.
- The International Students Hub provides information on sexual and reproductive health with links to services to assist students navigate the health system in NSW.

The time from HIV diagnosis to treatment initiation continues to improve

- Over half of the NSW residents diagnosed with HIV in Q4 2022 initiated treatment within two weeks of diagnosis.
- The median number of days from diagnosis to treatment remains 14 days.
- Of those on treatment, 78% had an undetectable viral load by the six-month follow-up.

Key data – Q3, 2022

HIV INFECTIONS	Target group	Jan – Dec 2022	Compared with 2017-2021 average
All NSW residents	All new diagnoses	167	33% less (av. n = 251)
	MSM	119	38% less (av. n = 191.6)
	Australian-born MSM	55	34% less (av. n = 83.4)
	Overseas-born MSM	64	41% less (av. n = 108.2)
	HET	38	24% less (av. n = 50)
NSW residents with evidence of early stage infection	All new diagnoses	50	40% less (av. n = 82.8)
	MSM	43	42% less (av. n = 74.2)
	Australian-born MSM	23	40% less (av. n = 38.4)
	Overseas-born MSM	20	44% less (av. n = 35.8)
	HET	6	27% less (av. n = 8.2)
NSW residents with evidence of late diagnosis	All new diagnoses	69	29% less (av. n = 97.8)
	MSM	45	34% less (av. n = 68)
	Australian-born MSM	21	10% less (av. n = 23.4)
	Overseas-born MSM	24	46% less (av. n = 44.6)
	HET	21	16% less (av. n = 25)
PREVENT	Target group	April 2018 – December 2022	
People dispensed PrEP through PBS at least once	People at risk	26,140	

TEST	Target group	Jan – Dec 2022	Compared with Jan-Dec 2021
HIV serology tests performed in NSW	All	558,613	3% more (n = 541,800)
HIV tests performed in NSW public sexual health clinics.	All	40,658	18% more (n=34,349)
	MSM	23,714	12% more (n=21,214)
HIV DBS tests (Nov 2016 – Dec 2022)		5,448 Jan-Dec 2022 (3 HIV positive)	152% more (n= 2,159)
TREAT	Target group	2022	Target
Patients with diagnosed HIV infection in care, who were on treatment	Sexual Health and HIV Clinic attendees	98%	95%
	Select high caseload general practices	100%	95%
New diagnoses who initiated ART within two weeks of diagnosis	Newly diagnosed Jan-Jun 2022 (n=78)	54%	90%
New diagnoses reporting viral suppression at 6-month follow-up	Newly diagnosed Jan-Jun2022 (n=78)	78%	100%

Annual Targets

HIV INFECTIONS	Target group	Baseline 2008-12	2022	Target	Next update due
1.i 90% reduction in the rate of HIV infection preventable in NSW	Australian-born; Overseas-born in Australia > 4 years; Overseas-born in Australia for 4 years or less, and not late HIV diagnosis.	3.8 / 100000	1.7 / 100000	0.38 / 100000	Q4 2023
PREVENT	Target group	2022	Target		
1.i MSM who have sex with male casual partners report at least one form of prevention for safe sex	MSM at risk in the Sydney Gay Community Periodic Survey	80.4%	90%		Q2, 2023
1.ii HIV negative MSM who have sex with male casual partners without a condom, take PrEP	MSM at risk in the Sydney Gay Community Periodic Survey	69.7%	90%		Q2, 2023
1.iii 20% or lower reported receptive syringe sharing among PWID	People who inject drugs	17%	20%		Q3, 2023

TEST	Target group	2021	Target	Next update due
2.i People living with HIV in NSW are diagnosed (2021)¹	People at risk	94%	95%	Q4, 2023
TREAT	Target group	2021	Target	
3.i New diagnoses who initiated ART within two weeks of diagnosis	Newly diagnosed Jan – Jun 2022 (n=78)	54%	90%	Q1, 2023
3.ii Patients with diagnosed HIV in care, who were on treatment¹	People on treatment in NSW	93%	95%	Q4, 2023
3.ii Patients with diagnosed HIV in care, who were on treatment	Sexual Health and HIV Clinic attendees	98%	95%	Q1, 2023
	Select high caseload general practices	100%	95%	Q2, 2023
3.ii NSW residents on treatment have an undetectable viral load¹	People on treatment in NSW	98%	95%	Q4, 2023
3.iii People living with HIV in NSW report good quality of life²	All	61% (2019)	75%	Q1, 2023

STIGMA	Target group	Baseline (2018-2020)	Change (2021 or 2022)	Target	
4.i Experience of stigma by people at risk and living with HIV in NSW healthcare settings	People living with HIV	28%	7% reduction	75% (reduction)	Q4, 2023
	MSM	31%	19% reduction		Q4, 2023
	People who inject drugs	84%	-		Q2, 2023
	Sex workers	92%	-		Q2, 2023
4.ii Discriminatory attitudes held towards people at risk and living with HIV	Health care workers			75% (reduction)	
	• HIV	32%	3% increase ³		Q4, 2023
	• Sexual orientation	26%	27% decrease		Q4, 2023
	• PWID	68%	3% increase ⁴		Q4, 2023
	• Sex workers	43%	5% increase ⁵		Q4, 2023
	General public				
	HIV	49%	-		TBA
	Sexual orientation	38%	-		TBA
PWID	77%	-	TBA		
Sex workers	53%	-	TBA		

¹ Unpublished analysis using data to December 2021 by the Kirby Institute, UNSW

² Norman, T and Power, J (2021) HIV Futures 9: Brief report on NSW Participants. Melbourne, La Trobe University, unpublished

³ Note some improvement: the proportion who reported that they would 'sometimes', 'often', or 'always' behave negatively towards other people because of their HIV decreased from 18% in 2021 to 12% in 2022.

⁴ Note some improvement: the proportion who reported that they would 'sometimes', 'often', or 'always' behave negatively towards other people because of their injecting drug use decreased from 49% in 2021 to 43% in 2022.

⁵ Note some improvement: the proportion who reported that they would 'sometimes', 'often', or 'always' behave negatively towards other people because of their sex work decreased from 26% in 2021 to 23% in 2022.

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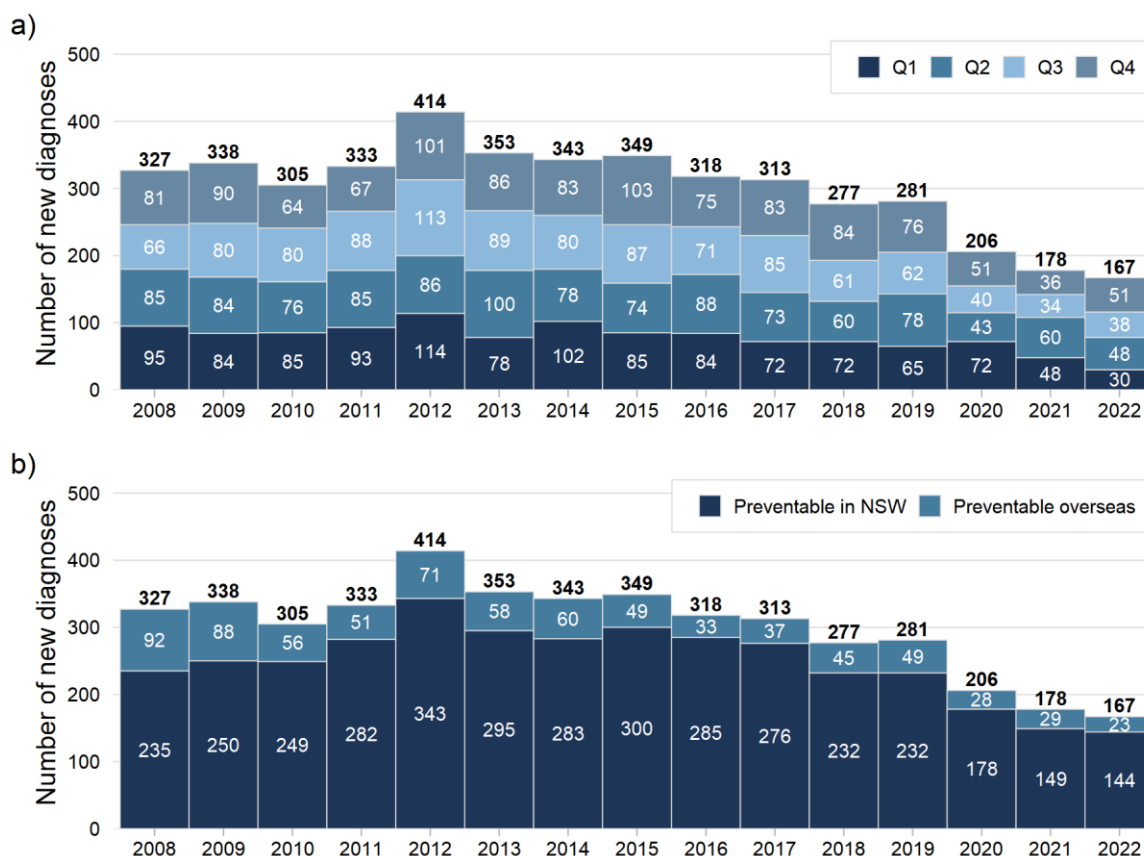
Glossary of Terms

ART	Antiretroviral therapy
CAIC	Condomless anal intercourse with casual partners
CTG	Closing the Gap
GBM	Gay and bisexual men
HIV	Human Immunodeficiency Virus
LHD	Local Health District
MSM	Men who have sex with men
HET	People with heterosexual risk exposure
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
SVHN	St Vincent's Health Network

1. Reduce HIV transmission

1.1 How many cases are notified?

Figure 1: Number of NSW residents with newly diagnosed HIV infection, 2008 to 2022



Source: Notifiable Conditions Information Management System, Health Protection NSW, 14 February 2023

In October to December (Q4) 2022:

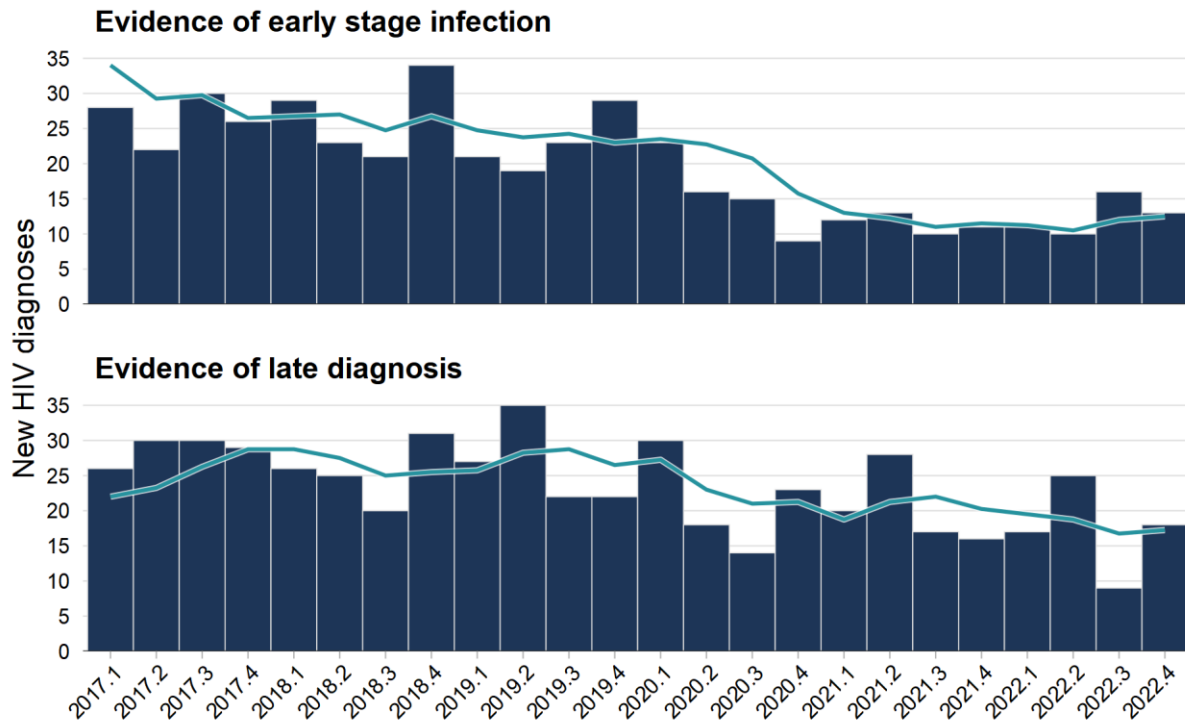
- Fifty-one NSW residents were notified to NSW Health with a newly diagnosed HIV infection, 23% less than the Q4 2017-2021 average of 66.0 (Figure 1a).
- Of 51, 43 (84%) HIV diagnoses were preventable in NSW, 22% less than the Q4 2017-2021 average of 55.4 (Figure 1b).
- Of 51, 13 (25%) had evidence their infection was acquired within one year of diagnosis (early stage infection), 40% less than the Q4 2017-2021 average of 21.8 (Figure 2).
- Of 51, 18 (35%) had evidence of late diagnosis, 26% less than the Q4 2017-2021 average of 24.2 (Figure 2).

In 2022:

- One hundred and sixty-seven NSW residents were notified to NSW Health with a newly diagnosed HIV infection, 33% less than the 2017-2021 average of 251.0 (Figure 1a).
- Of 167, 144 (86%) HIV diagnoses were preventable in NSW, 33% less than the 2017-2021 average of 213.4 (Figure 1b).
- Of 167, 50 (30%) had evidence of early stage infection, 40% less than the 2017-2021 average of 82.8 (Figure 2).

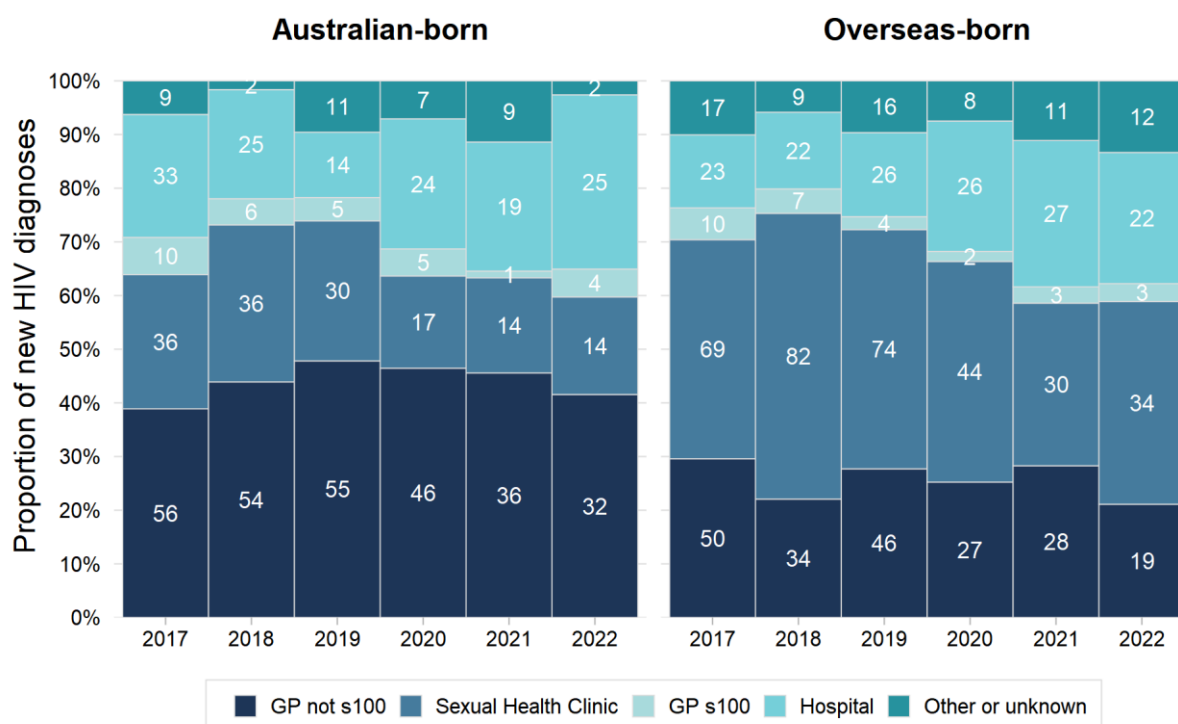
- Of 167, 69 (41%) had evidence of late diagnosis, 29% less than the 2017-2021 average of 97.8 (Figure 2).

Figure 2: New HIV diagnoses by evidence of early stage infection or late diagnosis, 2017 to 2022



Note: Bars represent diagnoses per quarter and lines represent a rolling four quarter average of diagnoses
 Early stage infection: 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. Late diagnosis: a CD4 count of less than 350 or an AIDS defining illness at the time or within three months of diagnosis, in the absence of 'early' criteria.

Figure 3: Type of diagnosing doctor for new HIV diagnoses, 2017 to 2022



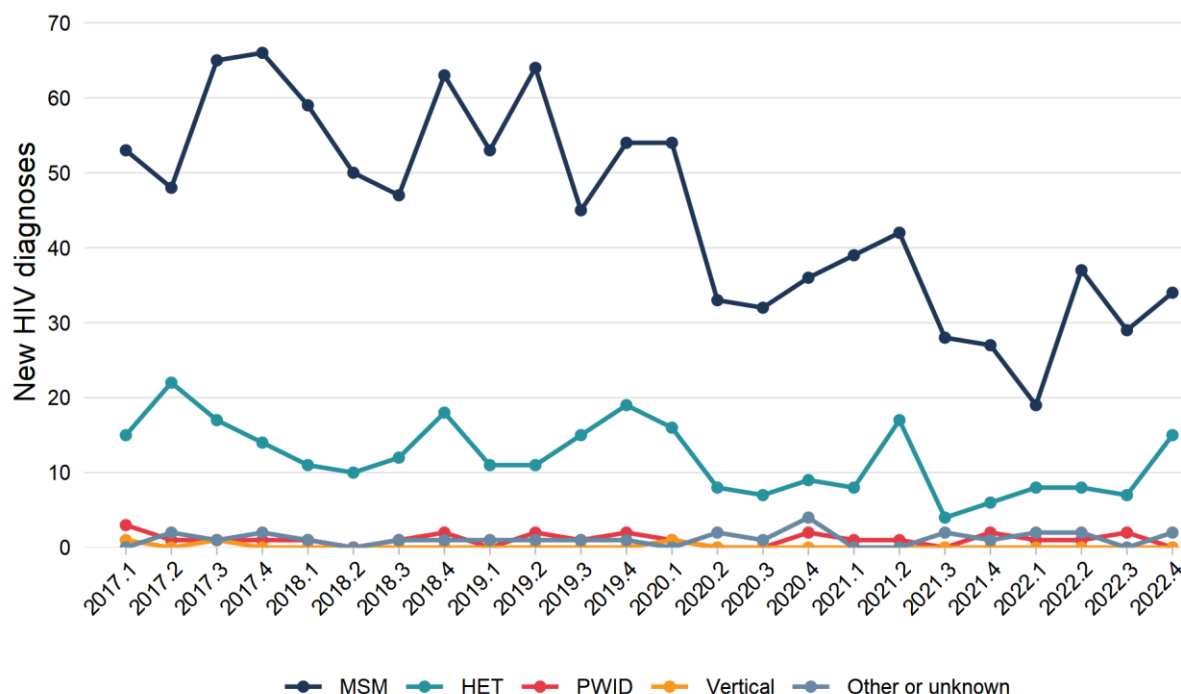
Of 77 Australian-born NSW residents with newly diagnosed HIV infection in 2022 (Figure 3):

- Thirty-two (42%) were diagnosed by general practitioners (GPs) not accredited to prescribe antiretroviral therapy, 35% less than the comparison period (av. n=49.4);
- Fourteen (18%) were diagnosed by sexual health centres including community testing sites, 47% less than the 2017-2021 average (av. n=26.6);
- Twenty-five (33%) were diagnosed by hospital doctors, 9% more than the comparison period (av.n=23.0);
- Four (5%) were diagnosed by GP s100 doctors (HIV specialised and accredited to prescribe ART), 26% less than 5.4, the average for 2017-2021, and;
- Two (3%) were diagnosed by other doctor types, 74% less than the average for 2017-2021 (av. n=7.6).

Of 90 overseas-born NSW residents with newly diagnosed HIV infection in 2022 (Figure 3):

- Nineteen (21%) were diagnosed by GPs not accredited to prescribe antiretroviral therapy, 49% less than the comparison period (av. n=37.0);
- Thirty-four (38%) were diagnosed by sexual health centres including community testing sites, 43% less than the 2017-2021 average (av. n=59.8);
- Twenty-two (24%) were diagnosed by hospital doctors, 11% less than the comparison period (av.n=24.8);
- Three (3%) were diagnosed by GP s100 doctors, 42% less than 5.2, the average for 2017-2021;
- Twelve (13%) were diagnosed by other doctor types, similar to the average for 2017-2021 (av. n=12.2).

Figure 4: New HIV diagnoses by reported risk exposure, 2017 to 2022



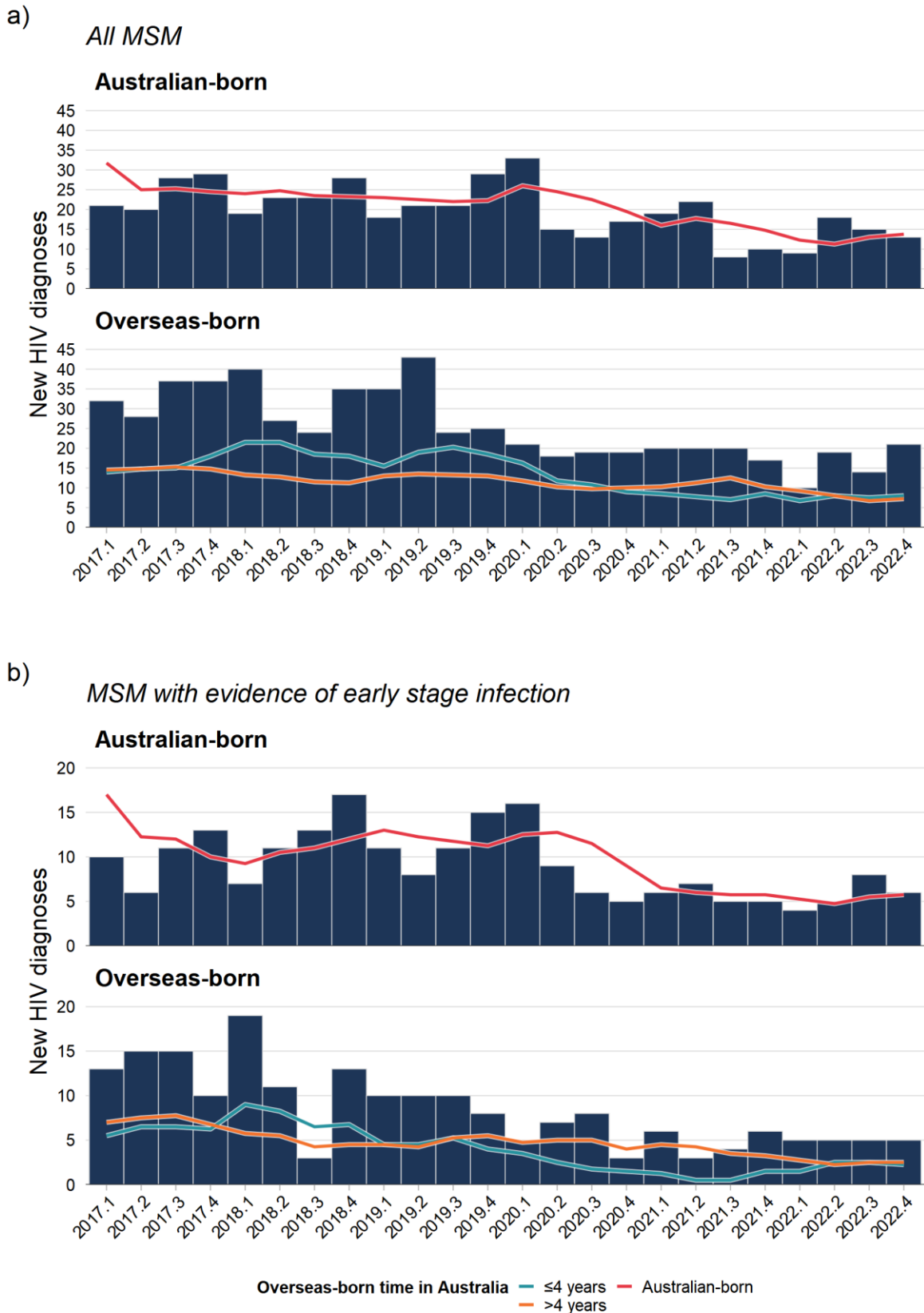
In October to December (Q4) 2022:

- Thirty-four (67%) were men who have sex with men (MSM) and fifteen (29%) were people with heterosexual exposure only (HET). This is 31% fewer MSM, and 14% more HET compared with the new diagnosis averages of Q4 2017-2021 (av. n MSM = 49.2; av. n HET = 13.2).
- Of 15 HET, eight were female and seven were male. This is 60% more females and 15% fewer males when compared to the new diagnosis averages of Q4 2017-2021 (av. n female = 5.0; av. n male = 8.2).

In 2022:

- Of 167, 119 (72%) were MSM, 38 (23%) were HET, four (2%) likely acquired HIV via injecting drugs, and six (4%) via another exposure (Figure 4). This is 38% fewer MSM and 24% fewer HET compared with the new diagnosis averages for 2017-2021 (av. n MSM = 191.6; av. n HET = 50.0) (Figure 4).
- Of 38 HET, 19 were female, 18 were male and one was transgender. This is 9% more females and 45% fewer males when compared to the new diagnosis averages for 2017-2021 (av. n female = 17.4; av. n male = 32.6).

Figure 5: New HIV diagnoses in MSM by place of birth, with overseas-born by years living in Australia, 2017 to 2022



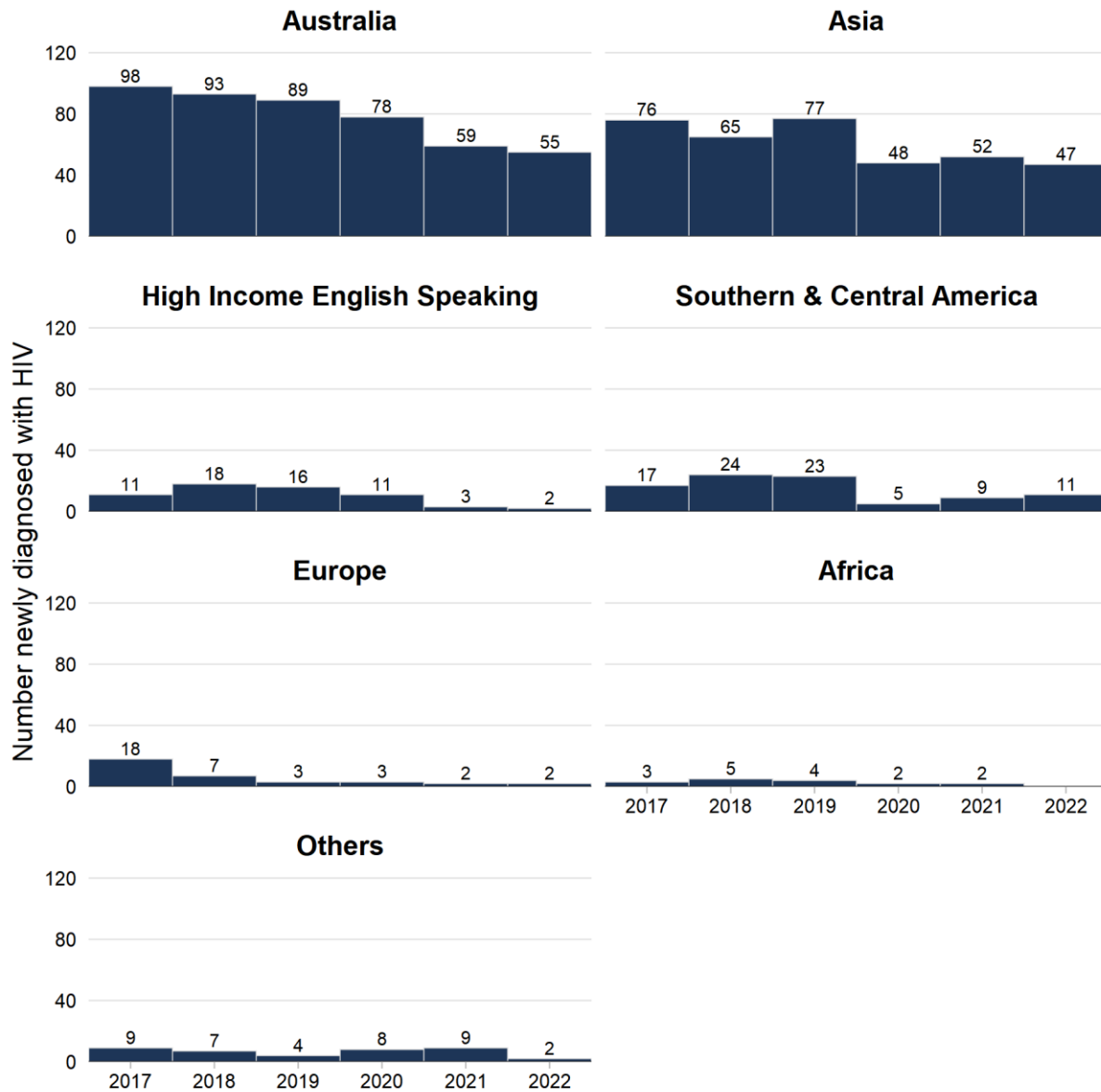
Note: Bars represent diagnoses per quarter and lines represent a rolling four quarter average of diagnoses.
In October to December (Q4) 2022:

- Thirteen of the 34 (38%) newly diagnosed MSM were Australian-born, 42% less than the average for Q4 2017-2021 (av. n=22.6). Six of 13 (46%) Australian-born newly diagnosed MSM had evidence their infection was acquired within one year of diagnosis (early stage infection), 45% less than the Q4 2017-2021 average of 11.0.
- Twenty-one of the 34 (62%) newly diagnosed MSM were overseas-born, 21% less than the average for Q4 2017-2021 (av. n=26.6). Fourteen of these MSM had lived in Australia for four years or less at the time of HIV diagnosis, 4% less than the Q4 2017-2021 average of 14.6, six had lived in Australia for more than four years, 46% less than the comparison period average of 11.2 and one for an unknown length of time. Five of 21 (24%) overseas-born newly diagnosed MSM had evidence of early stage infection, 38% less than the Q4 2017-2021 average of 8.0.

In 2022:

- Fifty-five of 119 (46%) MSM newly diagnosed were Australian-born, 34% less than the average for 2017-2021 (av. n=83.4) (Figure 5). These people ranged from 21-84 years old with a median age of 34. Twenty-three of 55 (42%) Australian-born newly diagnosed MSM had evidence of early stage infection, 40% less than the 2017-2021 average (av. n=38.4) (Figure 5).
- Sixty-four of 119 (54%) MSM newly diagnosed were overseas-born, 41% less than the 2017-2021 average (av. n=108.2) (Figure 5). These people ranged from 22-60 years old with a median age of 33. Thirty-two of these MSM had lived in Australia for four years or less at the time of their HIV diagnosis, 44% less than the 2017-2021 average of 57.6, 29 lived in Australia for more than four years, 39% less than the comparison period average of 47.4 and three for an unknown length of time. Twenty of 64 (31%) overseas-born newly diagnosed MSM had evidence of early stage infection, a 44% reduction compared to the 2017-2021 average (av. n=35.8) (Figure 5). Of these 20 with early stage infection, nine had been in NSW for four years or less, while 10 lived in Australia for more than four years and one for an unknown length of time.

Figure 6: New HIV diagnoses in MSM by world area of birth, 2017 to 2022

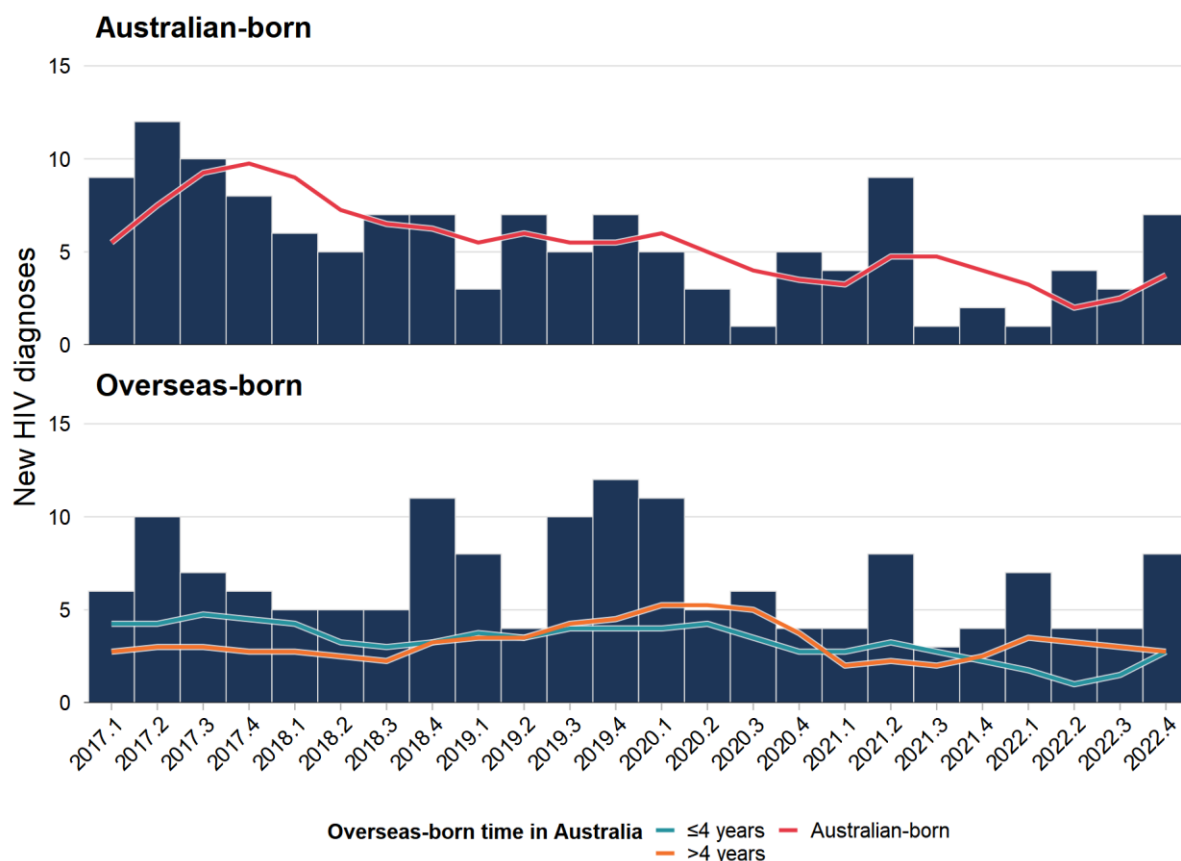


High-Income English-Speaking countries include Canada, USA, United Kingdom, Ireland and New Zealand

Comments on Figure 6

- Of 119 MSM newly diagnosed in NSW during 2022, 46% were born in Australia, 26% in South-East Asia, 9% in Southern & Central America, 7% in each of North-East Asia and Southern & Central Asia, and less than 5% in North-West Europe, North Africa & the Middle East and Southern & Eastern Europe.

Figure 7: New HIV diagnoses in HET by place of birth, with overseas-born by years living in Australia, 2017 to 2022



In 2022:

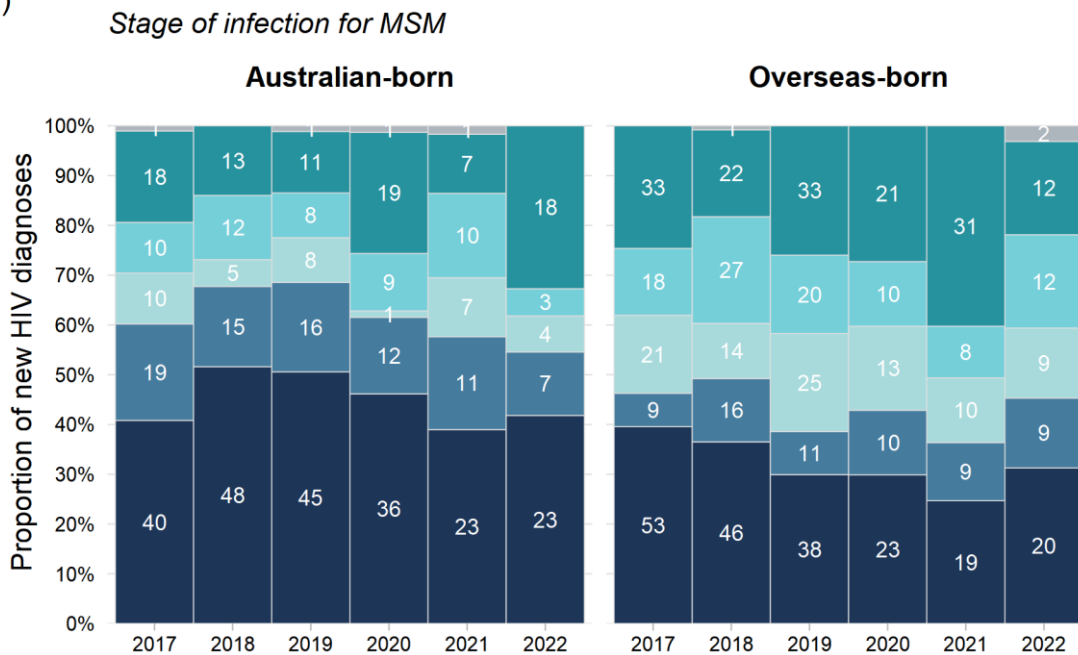
- Fifteen of 38 (39%) HET newly diagnosed were Australian-born, 35% less than the average for 2017-2021 (av. n=23.2) (Figure 7). These people ranged from 18-65 years old with a median age of 52. Five of 38 (13%) Australian-born newly diagnosed HET had evidence of early stage infection, similar to the 2017-2021 average (av. n=4.8).
- Twenty-three of 38 (61%) HET newly diagnosed were overseas-born, 14% less than the 2017-2021 average (av. n=26.8) (Figure 7). These people ranged from 17-58 years old with a median age of 40. Eleven of these HET had lived in Australia for four years or less at the time of their HIV diagnosis, 18% less than the 2017-2021 average of 13.4, 11 had lived in Australia for more than four years, 18% less than the comparison period average of 13.4 and one for an unknown length of time. One of 23 (4%) overseas-born newly diagnosed HET had evidence of early stage infection, a 71% reduction compared to the 2017-2021 average (av. n=3.4).

1.2 What is the stage of infection at diagnosis?

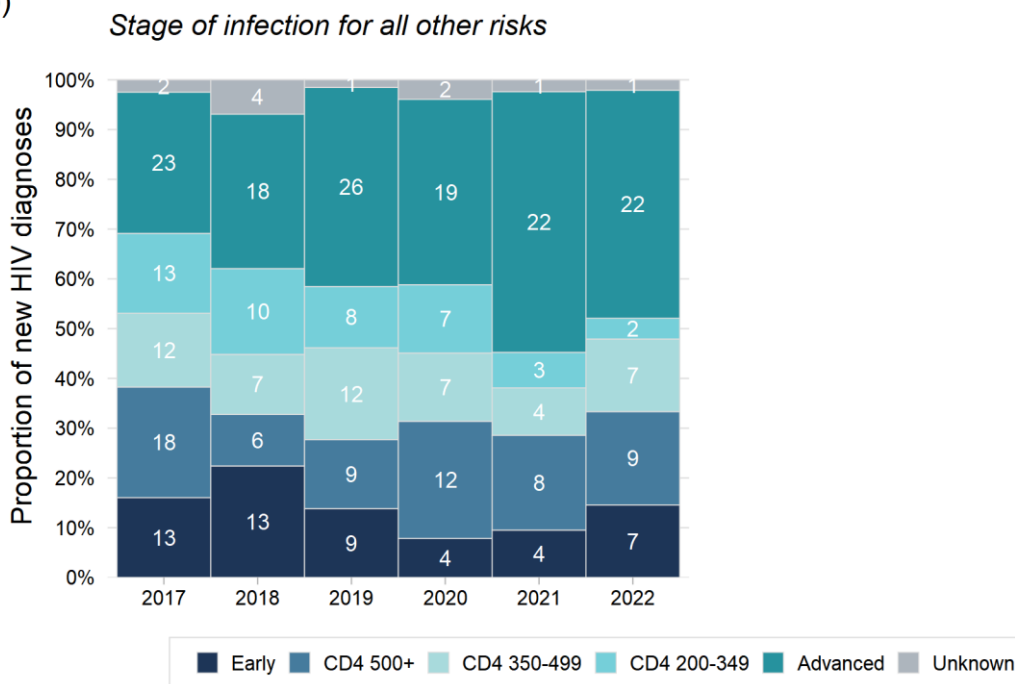
Early stage infection is evidence of HIV infection acquired within 12 months of diagnosis, such as a sero-conversion illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or an AIDS defining illness at diagnosis. **Advanced stage** is a CD4 count less than 200 or an AIDS defining illness in absence of 'Early' criteria. Categories of **CD4 500+, 350-499, 200-349** exclude early and advanced stage cases. Cases with a CD4 count less than 350 or are advanced stage are considered to have evidence of **late diagnosis**.

Figure 8: Stage of infection in newly diagnosed NSW residents, 2017 to 2022

a)



b)

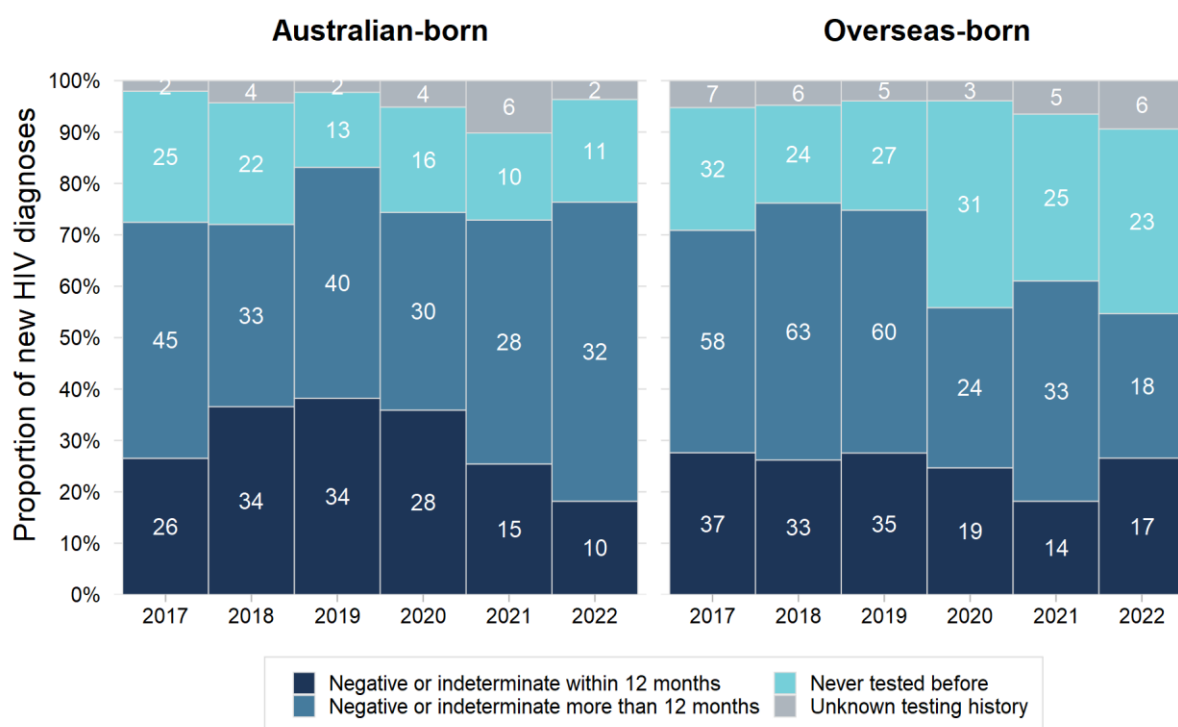


Comment on Figure 8

- Of 55 Australian-born MSM newly diagnosed in 2022, 23 (42%) had evidence of early stage infection, 40% less than the 2017-2021 average of 38.4. Twenty-one (38%) had evidence of late diagnosis, 10% less than the comparison period average (av. n=23.4) (Figure 8a).

- Of 64 overseas-born MSM newly diagnosed in 2022, 20 (31%) had evidence of early stage infection, 44% less than the comparison period average of 35.8. Twenty-four (38%) had evidence of late diagnosis, 46% less than the comparison period average of 44.6 (Figure 8a).
- The number of new diagnoses in NSW residents who were not MSM was 19% lower in 2022 (n=48) compared to the five-year average (n=59.4). There were 24 with evidence of late diagnosis, 19% less than the 2017-2021 average of 29.8 (Figure 8b).

Figure 9: HIV testing history in newly diagnosed MSM, 2017 to 2022



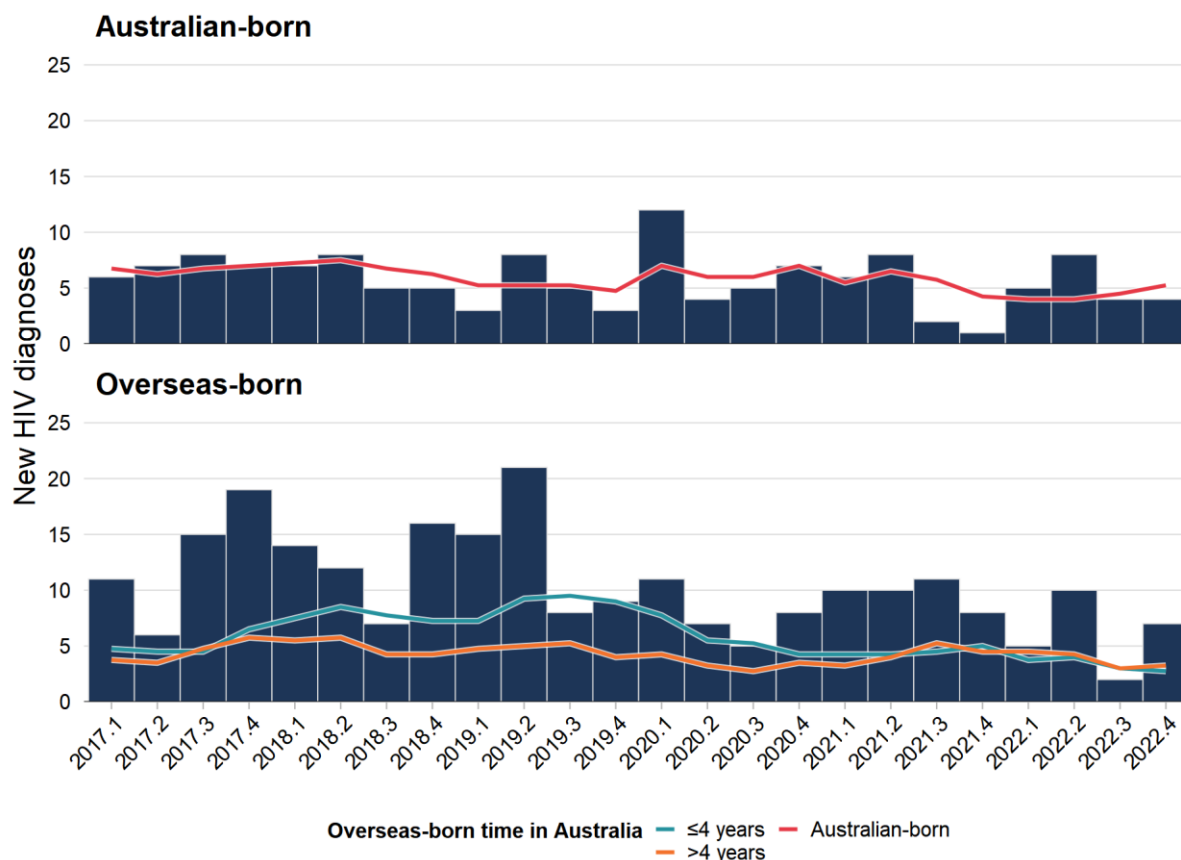
Of 55 Australian-born MSM newly diagnosed during 2022:

- Ten (18%) were reported (by a laboratory, a doctor, or the patient) to have had a negative or indeterminate HIV test within 12 months of diagnosis.
- Thirty-two (58%) were reported to have had a negative or indeterminate HIV test sometime in the past, but not within 12 months of diagnosis.
- Eleven (20%) reported not ever having had an HIV test prior to diagnosis.
- Over three quarters had not been testing according to guidelines.
- Twenty-one (38%) had evidence of late diagnosis.

Of 64 overseas-born MSM newly diagnosed during 2022:

- Seventeen (27%) were reported (by a laboratory, a doctor, or the patient) to have had a negative or indeterminate HIV test within 12 months of diagnosis.
- Eighteen (28%) were reported to have had a negative or indeterminate HIV test sometime in the past, but not within 12 months of diagnosis.
- Twenty-three (36%) reported not ever having had an HIV test prior to diagnosis.
- Almost two thirds had not been testing according to guidelines.
- Twenty-four (38%) had evidence of late diagnosis.

Figure 10: New HIV diagnoses with evidence of late diagnosis in MSM by place of birth, with overseas-born by years living in Australia, 2017 to 2022

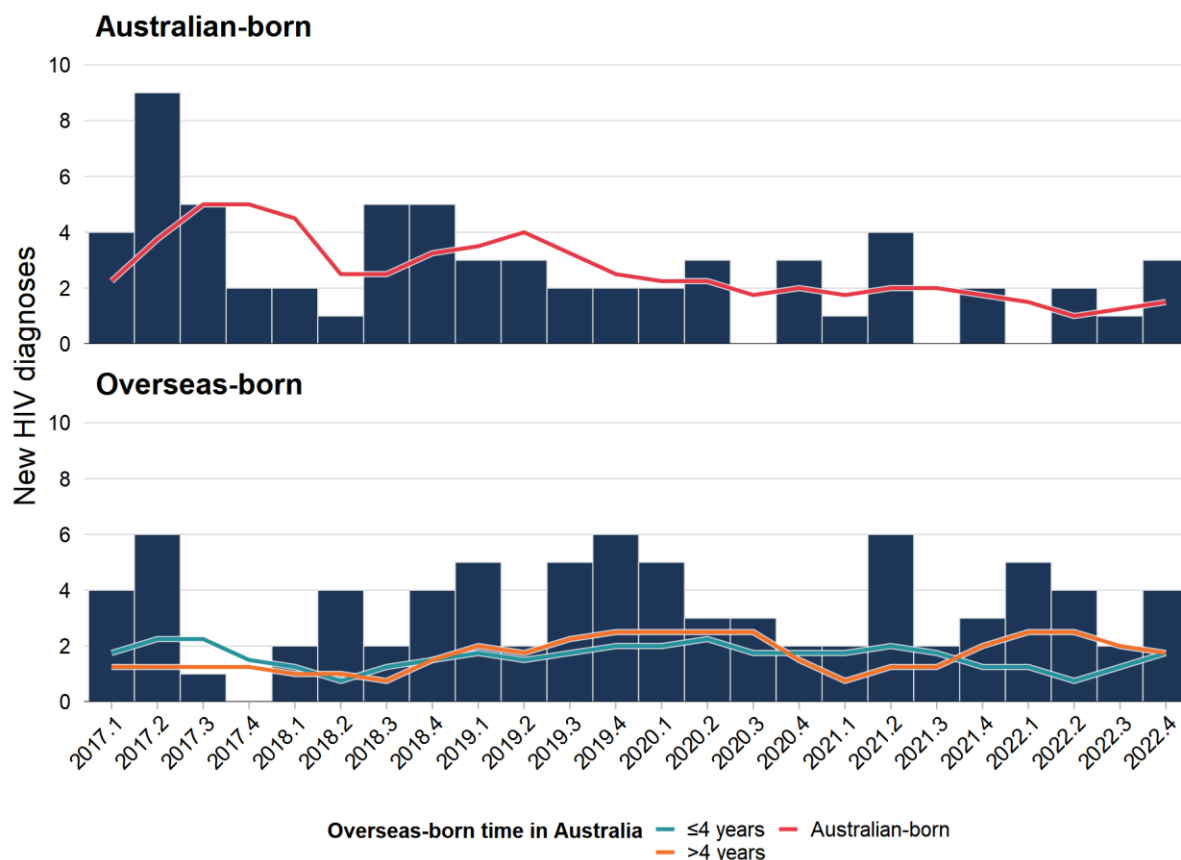


Note: Bars represent diagnoses per quarter and lines represent a rolling four quarter average of diagnoses.

In 2022:

- Of 69 NSW residents with evidence of late HIV diagnosis, 45 (65%) were MSM, 34% less than the 2017-2021 average count of 68.0.
- Twenty-one (47%) of the 45 MSM with evidence of late diagnosis were Australian-born, 10% less than the 2017-2021 average count of 23.4 (Figure 10).
- Twenty-four (53%) of the 45 MSM with evidence of late diagnosis were overseas-born, a 46% decrease relative to the 2017-2021 average count of 44.6 (Figure 10). Eleven of these 24 MSM had lived in Australia for four years or less at the time of their HIV diagnosis, 57% less than the 2017-2021 average of 25.6, while 13 had lived in Australia for more than four years, 26% less than the comparison period average of 17.6.

Figure 11: New HIV diagnoses with evidence of late diagnosis in HET by place of birth, with overseas-born by years living in Australia, 2017 to 2022



Note: Bars represent diagnoses per quarter and lines represent a rolling four quarter average of diagnoses.

In 2022:

- Of 69 NSW residents with evidence of late HIV diagnosis, 21 (30%) were HET, 16% less than the 2017-2021 average count of 25.0.
- Six (29%) of the 21 HET with evidence of late diagnosis were Australian-born, 48% less than the 2017-2021 average count of 11.6 (Figure 11).
- Fifteen (71%) of the 21 HET with evidence of late diagnosis were overseas-born, a 12% increase relative to the 2017-2021 average count of 13.4 (Figure 11). Seven of these 14 HET had lived in Australia for four years or less at the time of their HIV diagnosis, 9% more than the 2017-2021 average of 6.4, while seven had lived in Australia for more than four years, identical to the comparison period average of 7.0 and one was unknown.

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

Table 1: Characteristics of Australian-born and overseas-born MSM newly diagnosed in 2022 vs the 2017-2021 average count, and the count difference

Case characteristics	Australian-born MSM			Overseas-born MSM		
	2017-2021 average	2022	Count (%) diff.	2017-2021 average	2022	Count (%) diff.
Number	83.4	55	-28.4 (-34%)	108.2	64	-44.2 (-41%)
Gender						
<i>Male</i>	82.8	55	-27.8 (-34%)	104.8	63	-41.8 (-40%)
<i>Transgender¹</i>	0.6	0	-0.6 (-100%)	3.4	1	-2.4 (-71%)
Age at diagnosis						
<i>0 to 19</i>	1.2	0	-1.2 (-100%)	1.4	0	-1.4 (-100%)
<i>20 to 29</i>	22	14	-8 (-36%)	41.8	22	-19.8 (-47%)
<i>30 to 39</i>	23.6	21	-2.6 (-11%)	39	25	-14 (-36%)
<i>40 to 49</i>	16.8	13	-3.8 (-23%)	16.2	9	-7.2 (-44%)
<i>50 and over</i>	19.8	7	-12.8 (-65%)	9.8	8	-1.8 (-18%)
Evidence of early stage infection²						
<i>Yes</i>	38.4	23	-15.4 (-40%)	35.8	20	-15.8 (-44%)
<i>No</i>	45	32	-13 (-29%)	72.4	44	-28.4 (-39%)
Evidence of late diagnosis³						
<i>Yes</i>	23.4	21	-2.4 (-10%)	44.6	24	-20.6 (-46%)
<i>No</i>	59.2	34	-25.2 (-43%)	63.4	38	-25.4 (-40%)
<i>Unknown</i>	0.8	0	-0.8 (-100%)	0.2	2	+1.8 (+900%)
Area of residence⁴						
<i>≥20%</i>	11.6	2	-9.6 (-83%)	17.6	9	-8.6 (-49%)
<i>5-19.99%</i>	12	8	-4 (-33%)	29.2	19	-10.2 (-35%)
<i><5%</i>	59.8	45	-14.8 (-25%)	61.4	36	-25.4 (-41%)
Place most likely acquired HIV						
<i>Australia</i>	71.6	52	-19.6 (-27%)	57.8	31	-26.8 (-46%)
<i>Overseas</i>	10.6	3	-7.6 (-72%)	47.6	30	-17.6 (-37%)
<i>Unknown</i>	1.2	0	-1.2 (-100%)	2.8	3	+0.2 (+7%)
Reported HIV risks						
<i>MSM</i>	69.4	47	-22.4 (-32%)	101.6	57	-44.6 (-44%)
<i>MSM and IDU</i>	14	8	-6 (-43%)	6.6	7	+0.4 (+6%)

¹This case was a trans-woman whose most likely risk exposure was sex with cisgender men. This was confirmed by case review, as further detail is not yet routinely collected.

²Evidence of early stage infection/being infected in the 12 months prior to diagnosis: a sero-conversion illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or an AIDS defining illness at diagnosis.

³Evidence 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 sero-conversion illness and/or a negative or indeterminate HIV test in the 12 months prior to diagnosis.

⁴Areas grouped based on the estimated proportion of adult males who identify as gay in each postcode in NSW. A summary of postcodes in each area is in Appendix E.

Figure 12a: New HIV diagnoses with evidence of early stage infection in MSM by place of birth and place of likely HIV acquisition, with overseas-born by years living in Australia, 2017 to 2022

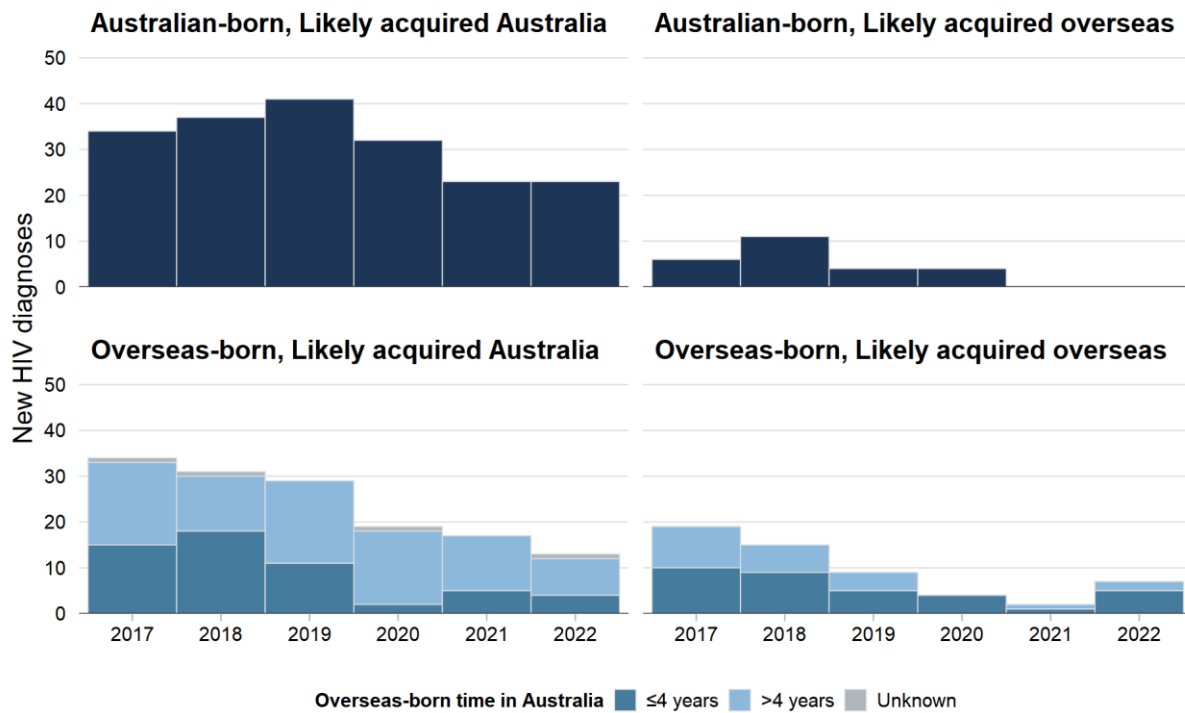
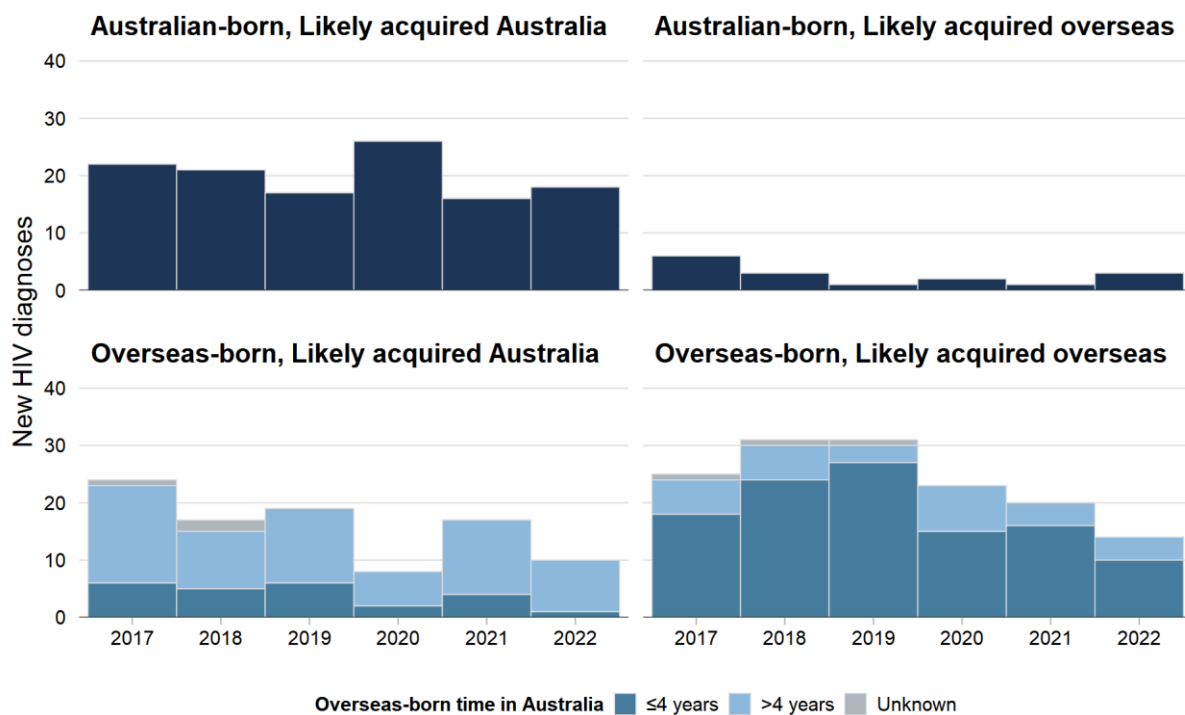


Figure 12b: New HIV diagnoses with late diagnosis in MSM by place of birth and place of likely HIV acquisition, with overseas-born by years living in Australia, 2017 to 2022



Of 55 Australian-born MSM newly diagnosed in 2022:

- Fifty-two (95%) likely acquired HIV in Australia, 27% less than the 2017-2021 average of 71.6, and three (5%) likely acquired HIV overseas, 72% less than in the comparison period (av. n=10.6).
- Of 52 who likely acquired HIV in Australia, 23 (44%) had evidence of early stage infection, 31% less than the 2017-2021 average of 33.4 (Figure 12a). Eighteen (35%) had evidence of late diagnosis, 12% less than the 2017-2021 average of 20.4 (Figure 12b).
- Of three who likely acquired HIV overseas none had evidence of early stage infection, compared to the 2017-2021 average of 5.0 (Figure 12a). Three had evidence of late diagnosis, similar to the 2017-2021 average of 2.6 (Figure 12b).

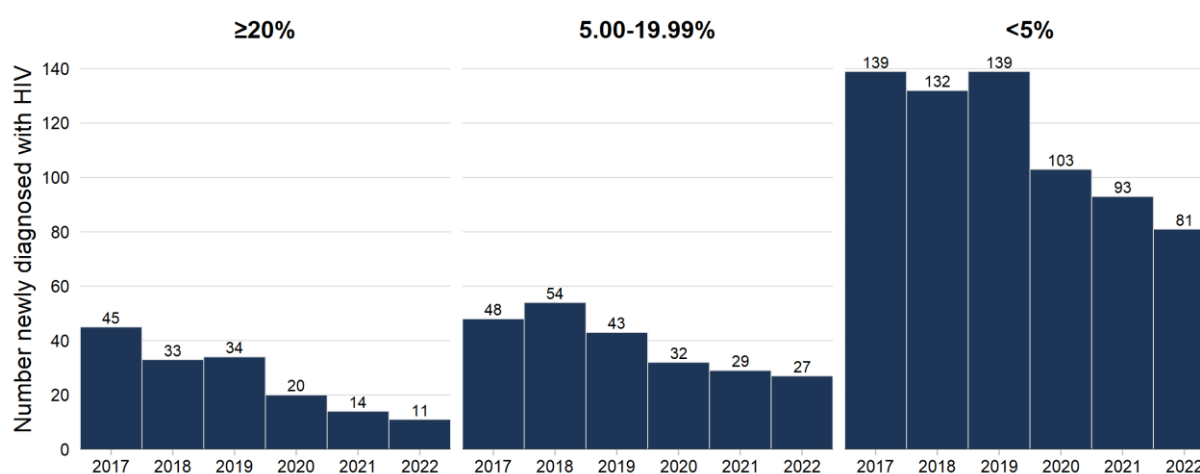
Of 64 overseas-born MSM newly diagnosed in 2022:

- Thirty-one (48%) likely acquired HIV in Australia, 46% less than the average for 2017-2021 (av. n=57.8), and 30 (47%) likely acquired HIV overseas, 37% less than the comparison period (av. n=47.6). Three were unknown.
- Of 31 who likely acquired HIV in Australia, 13 (42%) had evidence of early stage infection, 50% less than the 2017-2021 average of 26.0 (Figure 12a). Ten (32%) had evidence of late diagnosis 41% less than the 2017-2021 average of 17.0 (Figure 12b).
- Of 30 who likely acquired HIV overseas seven (23%) had evidence of early stage infection (Figure 12a), 29% less than the comparison period average of 9.8. Fourteen (47%) had evidence of late diagnosis, 46% less than the 2017-2021 average of 26.0 (Figure 12b).
- For those diagnosed late, the majority who likely acquired HIV in Australia had lived here for more than four years, while most of those who likely acquired HIV overseas had lived here for four years or less (Figure 12b).

Area of residence for people newly diagnosed

These areas have been grouped together based on recent estimates⁶ for the proportion of adult males who identify as gay and reside in each postcode in NSW. These estimates per postcode are based on Australian Census data for co-habiting male couples and survey data on the proportion of gay males who cohabit⁷. The grouped postcodes are defined as those with $\geq 20\%$, 5-19.9% and $< 5\%$ of adult males estimated to be gay. Overall, 23% of gay men in NSW were estimated to live in the $\geq 20\%$ area, 24% in the 5-19.9% area and 53% in the $< 5\%$ area. A summary of recent trends among HIV diagnoses in these areas can be found in the [Trends in HIV and HIV prevention indicators in gay, bisexual and other men who have sex with men in NSW, 2015-2019](#) report, published by the Kirby Institute in partnership with NSW Health. A summary of postcodes in each area can be found in Appendix E.

Figure 13: New HIV diagnoses in MSM by area of residence, 2017 to 2022



In October to December (Q4) 2022:

- Three of 34 (9%) MSM newly diagnosed resided in the $\geq 20\%$ area, 69% less than the average for Q4 2017-2021 (av. n=9.6) (Figure 13). One of three (33%) MSM residing in the $\geq 20\%$ area had evidence of early stage infection, 78% less than the Q4 2017-2021 average (av. n=4.6) (Figure 14a). One of three (33%) in the $\geq 20\%$ area had evidence of late diagnosis, 55% less than the Q4 2017-2021 average (av. n=2.2) (Figure 14b).
- Eight of 34 (24%) MSM newly diagnosed resided in the 5-19% area, 9% less than the average for Q4 2017-2021 (av. n=8.8) (Figure 13). Three of eight (38%) MSM residing in the 5-19% area had evidence of early stage infection, 67% more than the Q4 2017-2021 average (av. n=1.8) (Figure 14a). One of eight (13%) MSM residing in the 5-19% area had evidence of late diagnosis, 80% less than the comparison period average (av. n=5.0) (Figure 14b).
- Twenty-three of 34 (68%) MSM newly diagnosed resided in the $< 5\%$ area, 25% less than the average for Q4 2017-2021 (av. n=30.8) (Figure 13). Seven of 23 (30%) MSM residing in the $< 5\%$ area had evidence of early stage infection, 44% less than the Q4 2017-2021 average (av. n=12.6).

⁶ Callander D, Mooney-Somers J, Keen P, Guy R, Duck T, Bavinton BR, et al. Australian 'gayborhoods' and 'lesborhoods': a new method for estimating the number and prevalence of adult gay men and lesbian women living in each Australian postcode. *International Journal of Geographical Information Science*. 2020:1-17.

⁷ Van de Ven P, Rawstorne P, Crawford J, Kippax S. Increasing proportions of Australian gay and homosexually active men engage in unprotected anal intercourse with regular and with casual partners. *AIDS Care*. 2002;14(3):335-41.

(Figure 14a). Nine of 23 (39%) MSM residing in the <5% area had evidence of late diagnosis, similar to the Q4 2017-2021 average (av. n=9.4) (Figure 14b).

In 2022:

- Eleven of 119 (9%) MSM newly diagnosed resided in the $\geq 20\%$ area, 62% less than the average for 2017-2021 (av. n=29.2) (Figure 13). Six of 11 (55%) MSM residing in the $\geq 20\%$ area had evidence of early stage infection, 54% less than the 2017-2021 average (av. n=13.0) (Figure 14a). Two of 11 (18%) MSM residing in the $\geq 20\%$ area had evidence of late diagnosis, 74% less than the 2017-2021 average (av. n=7.8) (Figure 14b).
- Twenty-seven of 119 (23%) MSM newly diagnosed resided in the 5-19% area, 34% less than the average for 2017-2021 (av. n=41.2) (Figure 14). Seven of 27 (26%) MSM residing in the 5-19% area had evidence of early stage infection, 43% less than the 2017-2021 average (av. n=12.2) (Figure 15a). Nine of 27 (33%) MSM residing in the 5-19% area had evidence of late diagnosis, 49% less than the 2017-2021 average (av. n=17.6) (Figure 14b).
- Eighty-one of 119 (68%) MSM newly diagnosed resided in the <5% area, 33% less than the average for 2017-2021 (av. n=121.2) (Figure 13). Thirty of 81 (37%) MSM residing in the <5% area had evidence of early stage infection, 39% less than the 2017-2021 average (av. n=49.0) (Figure 14a). Thirty-four of 81 (42%) MSM residing in the <5% area had evidence of late diagnosis, 20% less than the 2017-2021 average (av. n=42.6) (Figure 14b).

Figure 14a: New HIV diagnoses with evidence of early stage infection in MSM by area of residence, 2017 to 2022

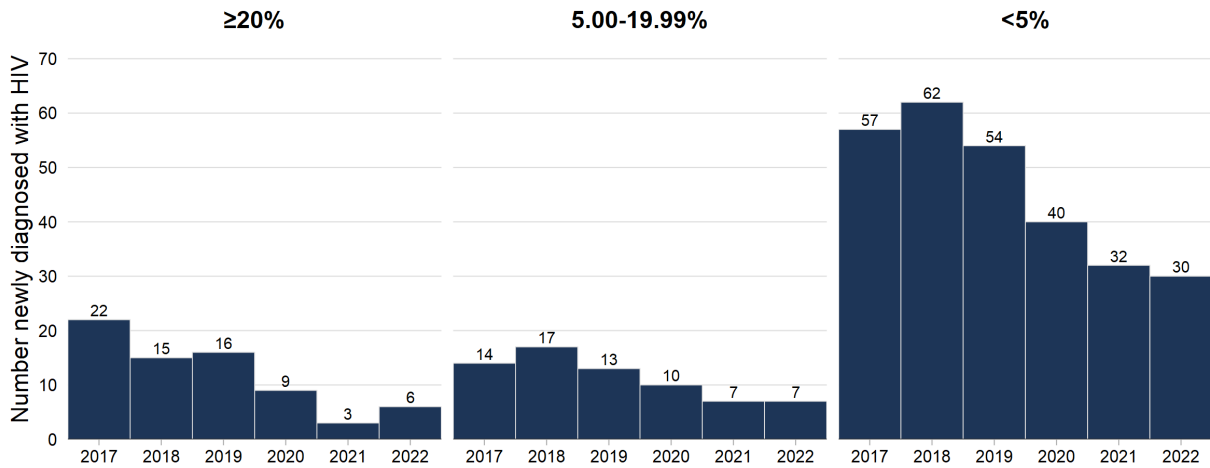
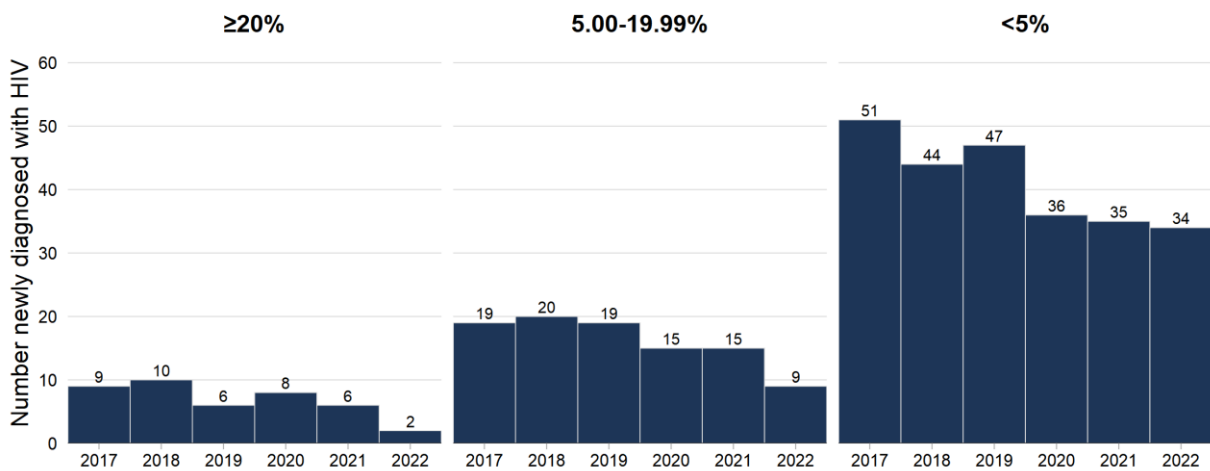


Figure 14b: New HIV diagnoses with evidence of late diagnosis in MSM by area of residence, 2017 to 2022



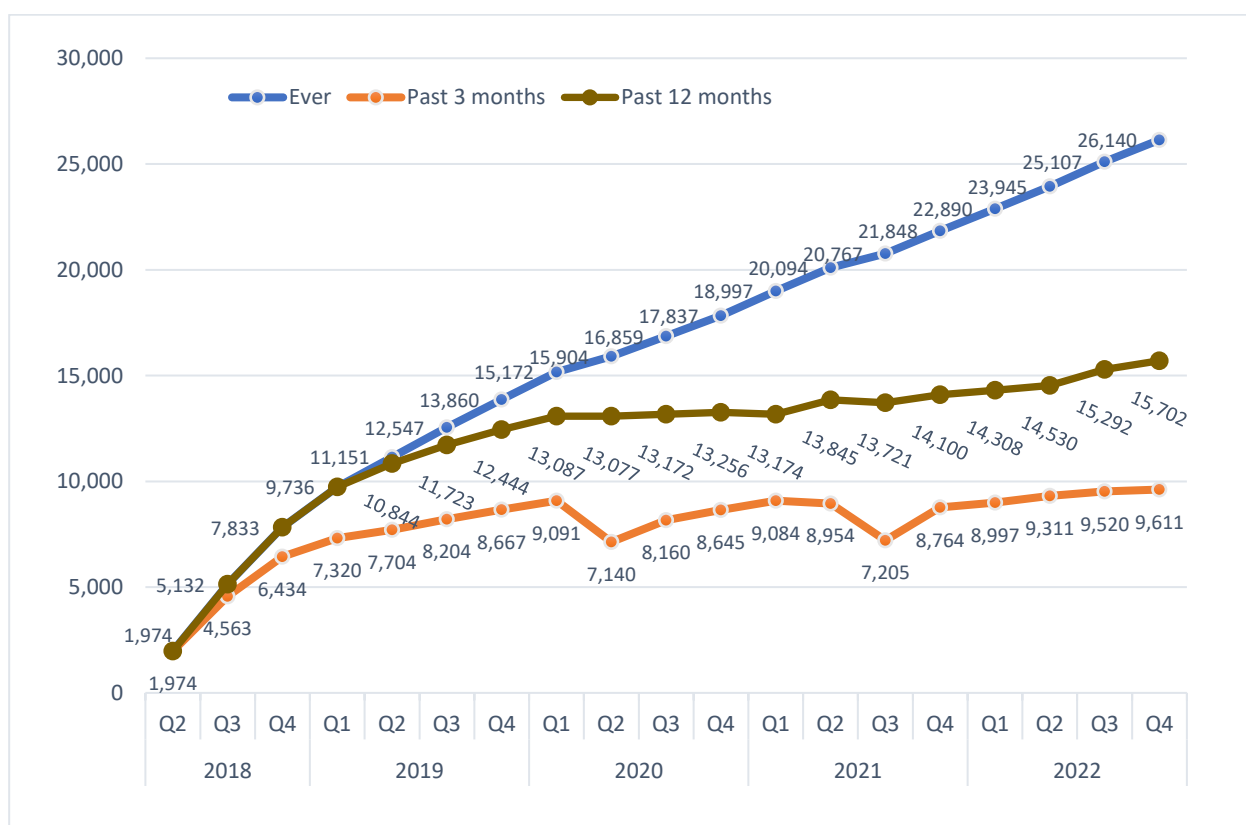
2. Expand HIV Prevention

2.1 How many people were prescribed PrEP on the Pharmaceutical Benefits Scheme (PBS)?

Between 1 April 2018 and 31 December 2022:

- A total of 26,140 (unique number) NSW residents were dispensed PrEP at least once under the PBS for HIV prevention.
- Of the 26,140 residents on PrEP, 98% were male.
- Among those who initiated PrEP, 82% were prescribed by GP; 17% were dispensed by a specialist and 1% by unknown and other specialty.
- A total of 510 (2.0%) NSW residents were eligible and prescribed under the Closing the Gap (CTG) program.

Figure 15: Total number of unique clients dispensed PrEP between April 2018 (blue line) to December 2022 compared to the quarterly number of unique clients dispensed PrEP (orange line)



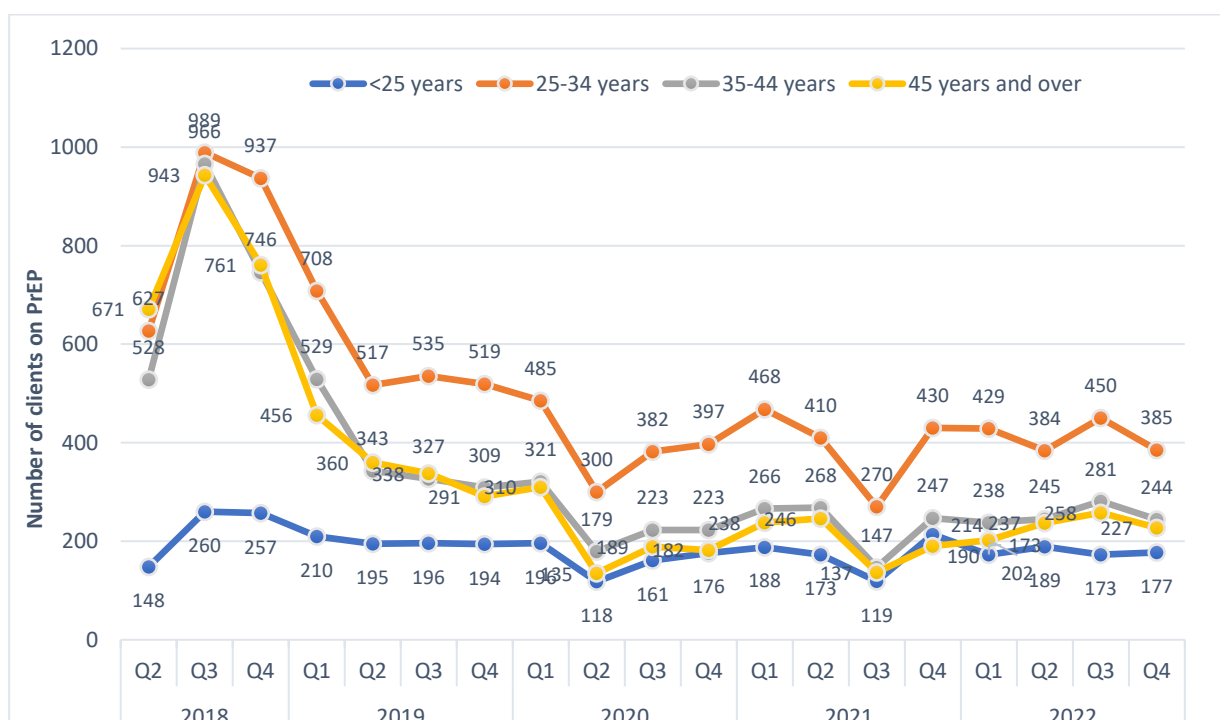
Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme (PBS)

Note: Based on the quantity and date dispensed, it is estimated that 15,702 unique residents were taking PrEP in the past 12 months and 9,611 unique residents were taking PrEP between July and December 2022. The quarterly number of unique residents (orange line) is lower than the total number of unique clients (blue line). The reasons for this could include: people discontinuing PrEP; moving interstate or internationally; accessing PrEP from other sources including self-importation; or changes to dosing regimens such as on-demand use.

Comment on Figure 15

- Between April 2018 and December 2022, the total number of unique NSW residents ever prescribed PrEP under the PBS for HIV prevention increased steadily overtime to 26,140 people (blue line).
- Between October and December 2022, the quarterly number of unique NSW residents prescribed PrEP under the PBS for HIV prevention increased by 1% from 9,520 in Q2 2022 to 9,611 people in Q4 2022 (orange line). This result also marks a 10% increase compared to Q4 2021.

Figure 16: Number of people in each age group dispensed PrEP for the first time between April 2018 to December 2022

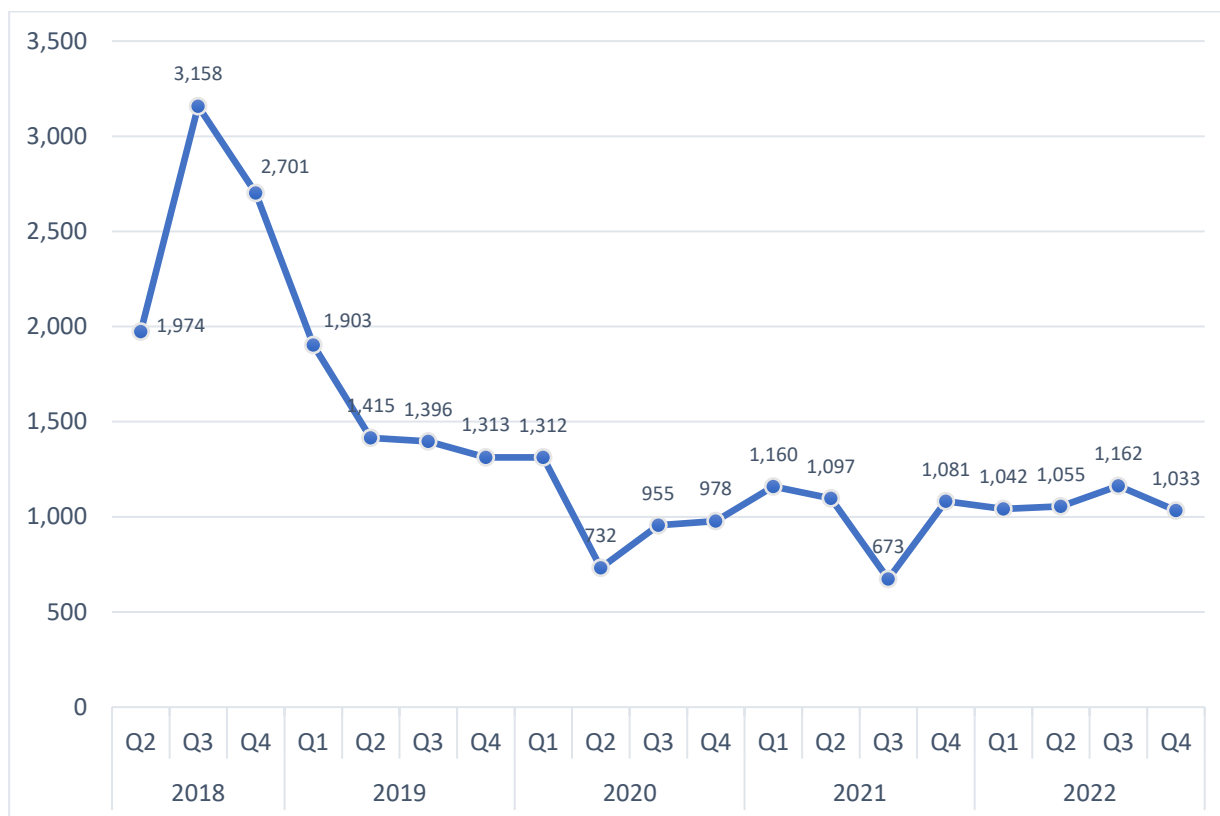


Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme (PBS)

Comments on Figure 16

- Since April 2018, 3,517 (14%) unique clients dispensed PrEP were aged under 25 years, 9,622 (37%) were between the ages of 25 and 34 years, 6,630 (25%) were between 35 and 44 years and 6,371 (24%) aged 45 years and older.
- PrEP initiation is highest among those aged between 25 and 34 years. Initiations increased among those aged 25 years and younger people in Q4 2022. PrEP initiations decreased among those aged over 25 years in Q4 2022.

Figure 17: Number of people dispensed PrEP under the PBS for the first time by quarter between April 2018 to December 2022

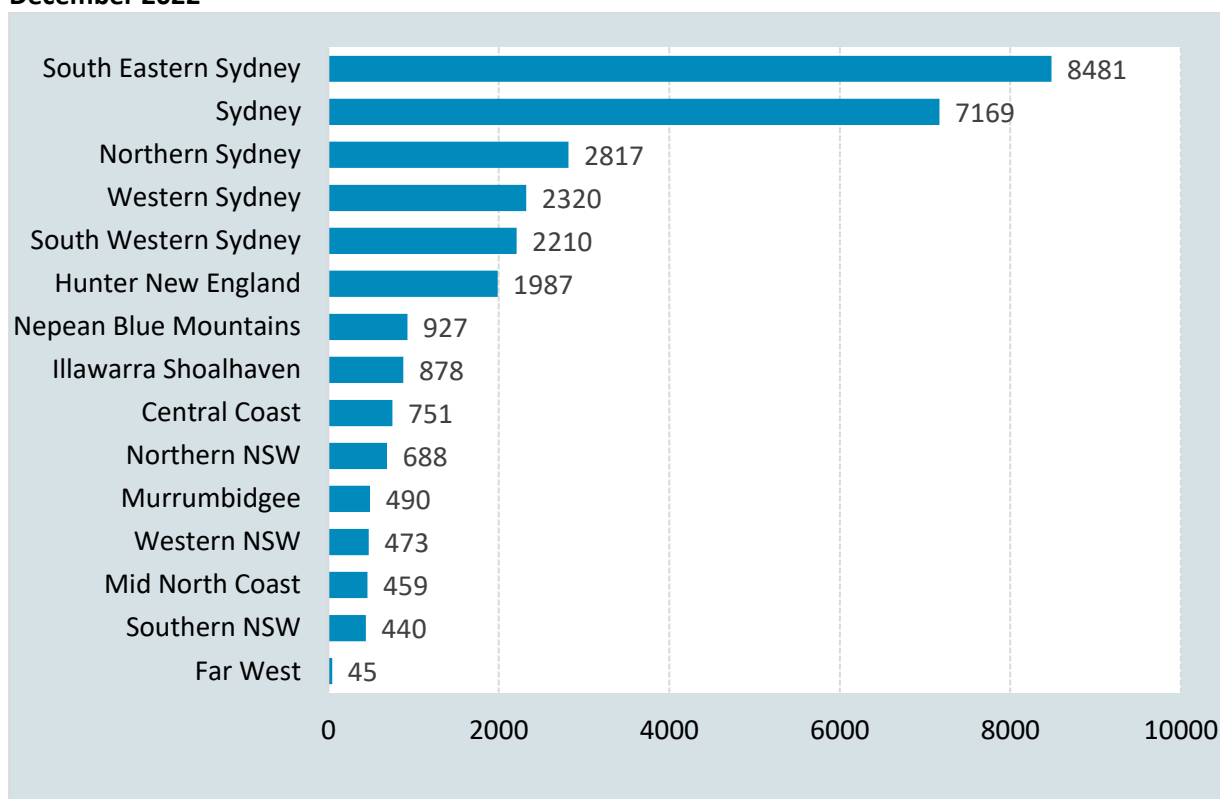


Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme (PBS)

Comments on Figure 17

- The number of people dispensed PrEP under the PBS for the first time increased significantly between July-September 2018. This was partly due to people transitioning from the EPIC-NSW study to the PBS.
- The number of new people dispensed PrEP under the PBS has declined gradually over time and fluctuated during COVID restrictions.
- PrEP initiations have recovered from reductions during heavier COVID restrictions in Q2 2020 and Q3 2021.
- In Q4 2022, PrEP initiations decreased by 11% to 1,033 people from 1,162 in Q3 2022.

Figure 18: Number of NSW residents dispensed PrEP by LHDs of patient residence from April 2018 to December 2022⁸



Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme (PBS)

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 LHDs within a year. Due to boundary changes or movements in and or out of NSW, the overall unique number of individuals presented in the above graph may differ slightly from previous reports.

Comments on Figure 18

Between April 2018 to September 2022:

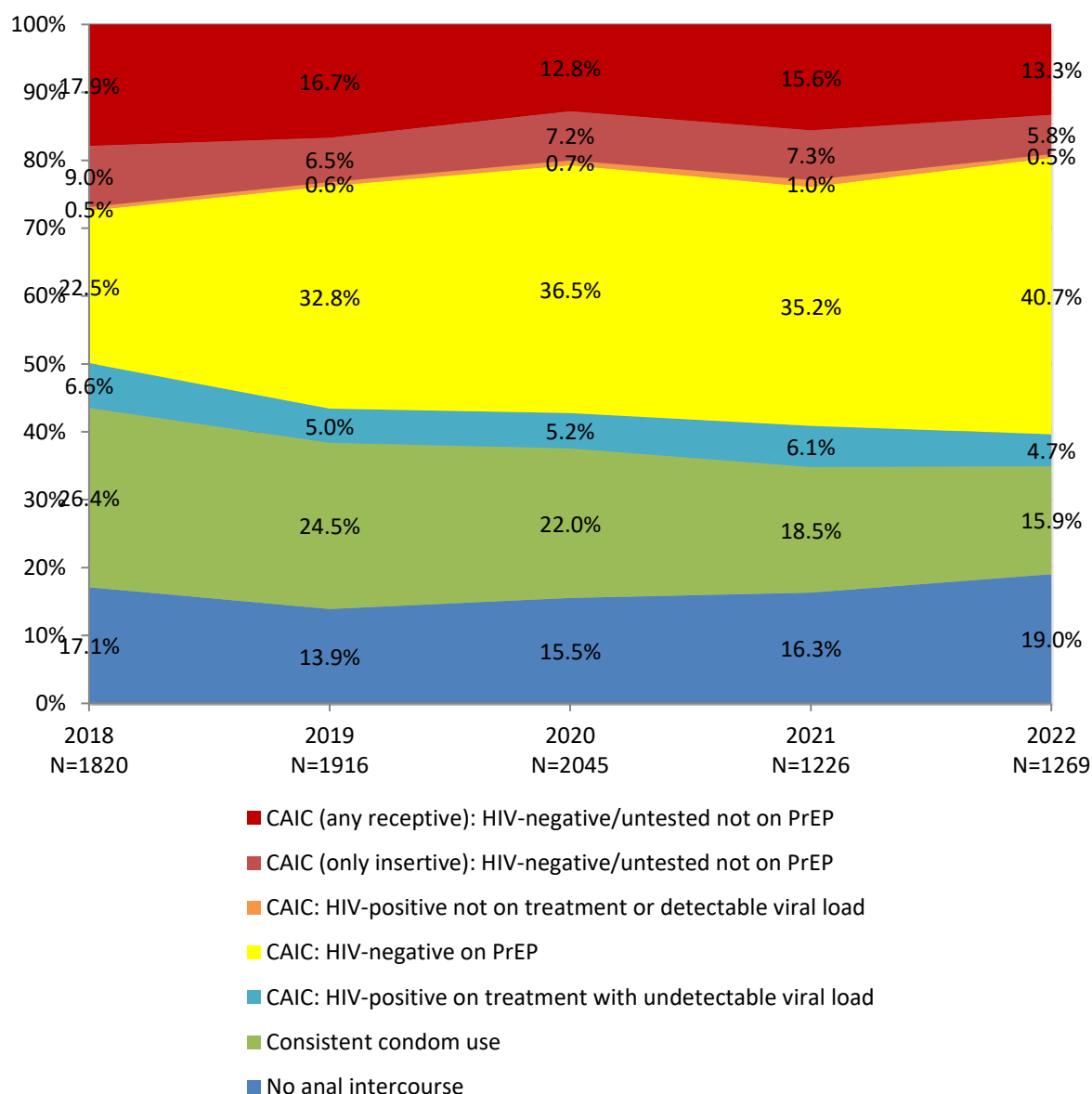
- Almost 83% of people dispensed PrEP under the PBS in NSW were residents of South Eastern Sydney (28%) and Sydney LHDs (24%), followed by Northern Sydney (9.3%), Western Sydney (7.7%), South Western Sydney (7.3%), and Hunter New England (6.6%).

⁸ PrEP was available under the PBS from April 2018.

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

The use of condoms, PrEP and undetectable viral load by gay and bisexual men are measured through the annual Sydney Gay Community Periodic Survey (SGCPS), conducted each year during February/March. Normally, approximately 80% of participants are recruited face-to-face at venues and events. Due to COVID-19, the 2021 round was conducted entirely online, while the 2022 round recruited 47% of participants face-to-face at Fair Day and 53% online. These changes to recruitment may have affected the sample profile and should be borne in mind when interpreting the results.

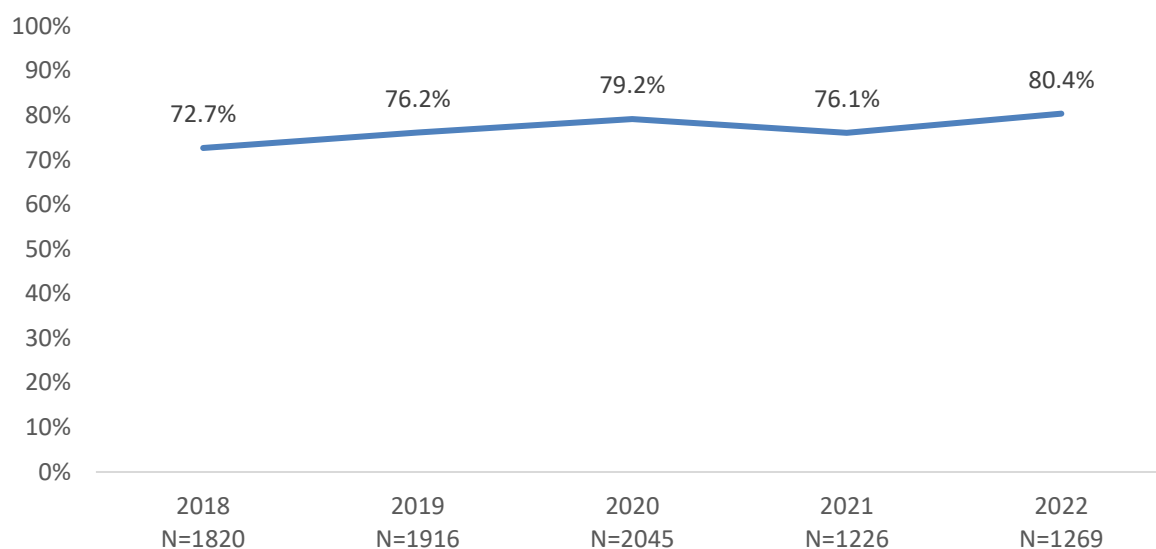
Figure 19: Proportion of gay and bisexual men with casual partners reporting condom use, biomedical prevention and any condomless anal intercourse in the previous six months, 2018 to 2022



Data source: Sydney Gay Community Periodic Survey, Centre for Social Research in Health, UNSW Sydney.

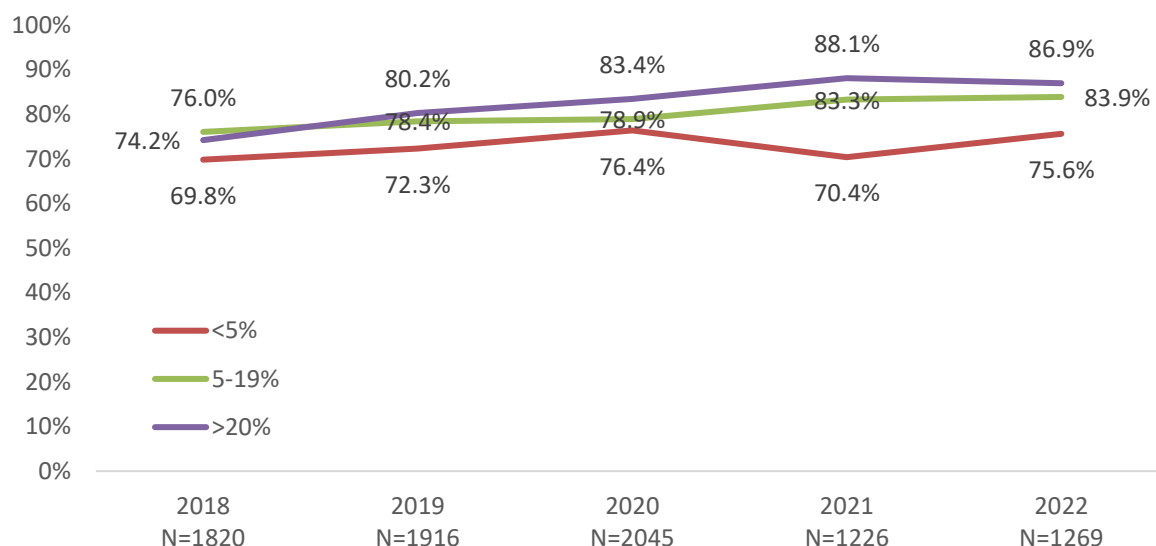
Note: CAIC = condomless anal intercourse with casual male partners. Consistent condom use includes men who report condom use for anal sex with casual male partners in the 6 months prior to survey and no condomless anal intercourse with those partners.

Figure 20: Proportion of gay and bisexual men with casual partners reporting safe sex in the previous six months (net prevention coverage)



Data source: Sydney Gay Community Periodic Survey, Centre for Social Research in Health, UNSW Sydney.

Figure 21: Proportion of gay and bisexual men with casual partners reporting safe sex in the previous six months (net prevention coverage), stratified by proportion of gay residents in the participant's postcode



Comment on Figures 19 – 21

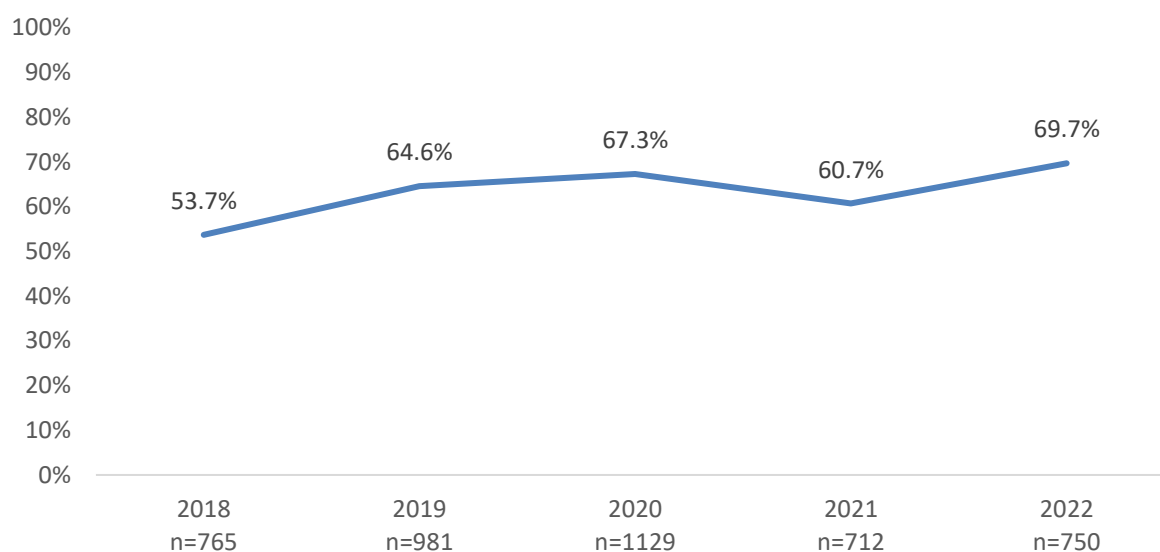
The SGPCS data show a rapid increase in PrEP use over time. PrEP became the most commonly used HIV prevention strategy by gay and bisexual men with casual partners in 2019. The proportion of gay men with casual male partners who reported PrEP use and condomless anal intercourse was 40.7% in 2022, compared to 22.5% in 2018.

- As PrEP use has increased, consistent condom use has fallen. In 2022, 15.9% of gay men with casual partners reported consistent condom use, compared to 26.4% in 2018.
- The proportion of gay men with casual partners who reported being HIV-positive, having an undetectable viral load and condomless anal intercourse has remained stable between 2018 and 2022 at 5-7%.
- The proportion of gay men with casual partners who reported being HIV-positive, not on treatment or having a detectable viral load and who reported CAIC is also stable and was 0.5% in 2022.
- In 2022, the proportion of gay men with casual partners who were HIV-negative or untested, not on PrEP and who reported any CAIC (insertive or receptive) was 19.1%, compared to 26.9% in 2018. The proportion of gay men who are susceptible to HIV infection has decreased in Sydney as PrEP use has increased.
- 'Net prevention coverage', i.e., the proportion of gay men with casual partners who report any form of safe sex, such as avoiding anal intercourse, condom use, PrEP use or undetectable viral load, has increased from 72.7% in 2018 to 80.4% in 2022.
- Net prevention coverage was highest among participants who lived in suburbs with the largest proportion of gay residents and lowest in suburbs with few gay residents. The gap in net prevention coverage between participants from suburbs with <5% gay residents and those from suburbs with >20% gay residents has widened since 2020.
- It should be noted that, due to COVID-19, in 2022 53.0% of participants reported a reduced number of sex partners in the previous six months. Among current and former PrEP users, 42.5% said they had reduced their use and 12.5% said they had stopped due to COVID-19.

Sydney Gay Community Periodic Survey – PrEP coverage among gay and bisexual men reporting condomless sex with casual partners

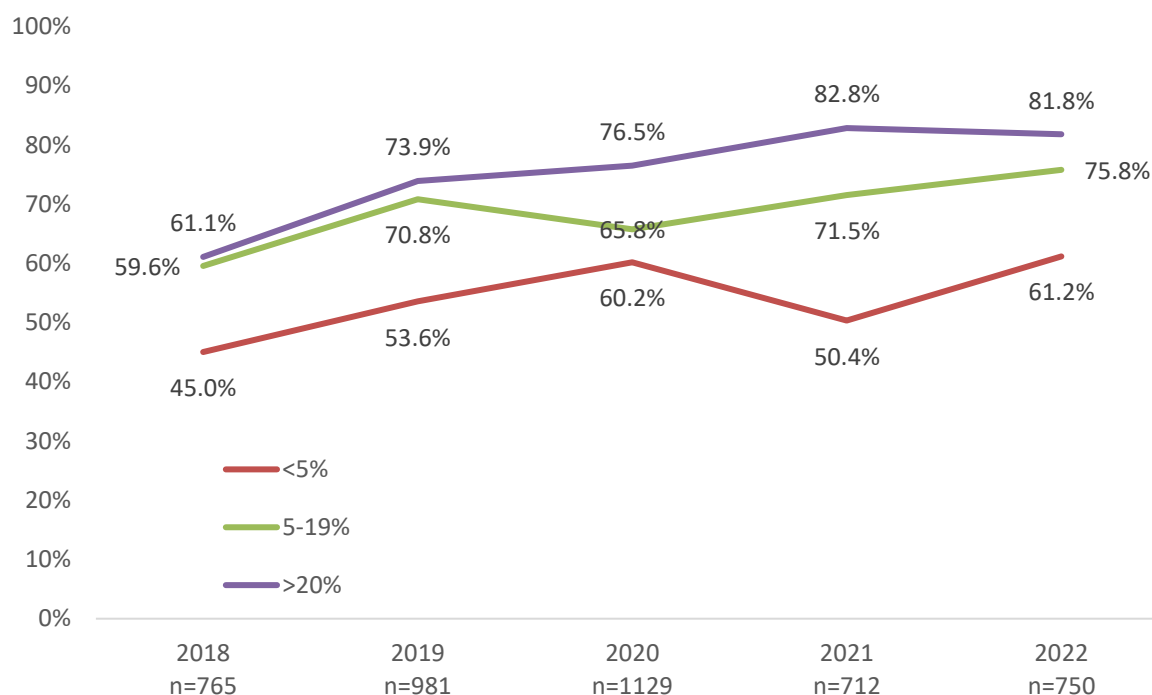
The NSW HIV Strategy includes a target to increase the proportion of PrEP use by gay and bisexual men who have condomless sex with casual partners to 90%. We assess sex with casual male partners and PrEP use in the Sydney Gay Community Periodic Survey.

Figure 22: Proportion of non-HIV-positive men gay and bisexual men who had condomless sex with casual male partners and were using PrEP in the previous six months, 2018 to 2022



Data source: Sydney Gay Community Periodic Survey, Centre for Social Research in Health, UNSW Sydney.

Figure 23: Proportion of non-HIV-positive men gay and bisexual men who had condomless sex with casual male partners and were using PrEP in the previous six months, stratified by the proportion of gay residents in the participant’s postcode, 2018 to 2022



Comment on Figure 22 and Figure 23

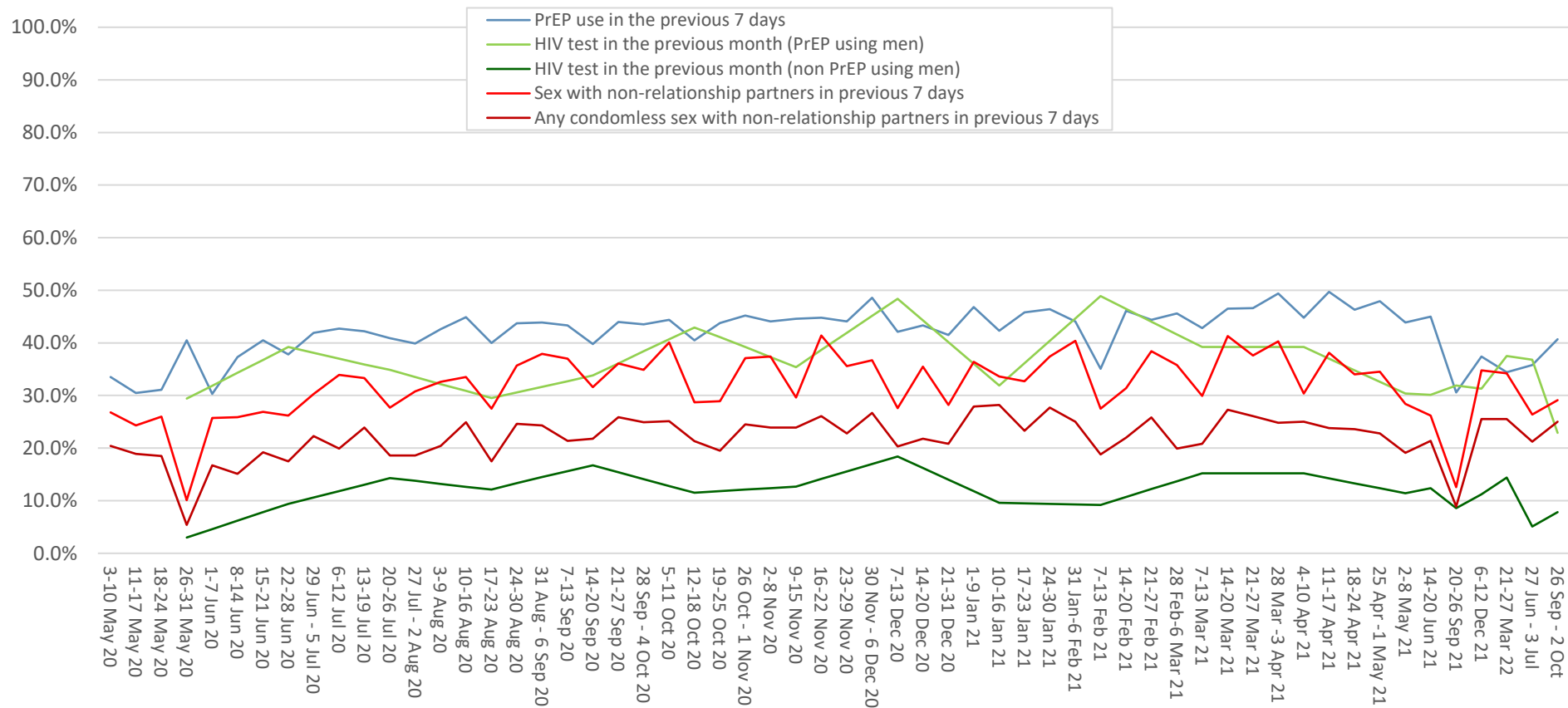
- PrEP use by gay and bisexual men who had condomless sex with casual male partners has increased from 53.7% in 2018 to 69.7% in 2022.
- While there was a slight fall in PrEP coverage between 2020 and 2021 (from 67.3% to 60.7%), this was in the context of COVID-19, and the upward trend in PrEP use resumed in 2022 as COVID-19 restrictions were eased.
- PrEP use by men who had condomless sex with casual male partners was highest among those living in postcodes with higher proportions of gay residents, and appears to have stabilised at approximately 80% in suburbs with >20% gay residents. PrEP use by men who had condomless sex with casual male partners was lowest in suburbs with <5% gay residents, although the gap in PrEP coverage between suburbs with <5% gay residents and those with >20% gay residents narrowed between 2021 and 2022.
- Among participants who reported taking PrEP in the six months prior to the 2022 survey (n=754), the majority used it daily or most days (65.5%), while 27.7% used PrEP around the time of sex but not daily (on demand or event-based dosing). A small proportion of PrEP users (4.8%) reported using PrEP daily for a limited period of time (periodic dosing). In 2022, the most common way to obtain PrEP was from a chemist (87.8%), followed by buying it online from overseas (8.3%).

2.3 Effect of COVID-19 on ongoing trends in sexual behaviour, PrEP use, and HIV/STI testing among gay and bisexual men?

The [Following Lives Undergoing Change](#) (Flux) cohort study of gay and bisexual men has collected data on sexual behaviour, PrEP use, and HIV testing during the COVID-19 pandemic commencing in early May 2020. In late June 2020 and in quarter 2 of 2022, new participants commenced being enrolled in the study each week to supplement the continuing cohort. Weekly data collection continued between 3rd May 2020 and 8th May 2021, after which data collection occurred quarterly. Individual questions refer to the same periods (previous seven days or four weeks) for Figures 24a and three months for Figures 24b and 24c.

Figure 24a shows the weekly and quarterly results for sexual behavior and PrEP use since 3rd May 2020 among NSW respondents since 2020.

Figure 24a: Sex with non-relationship partners, PrEP use, and HIV testing (3rd May 2020 – 2nd October 2022)



Data source: [Following Lives Undergoing Change Study](#), Kirby Institute, UNSW Sydney. Note: Data are reported for non HIV-positive respondents in NSW. Sex with non-relationship male partners refers to any sexual contact with casual partners or other partners with whom respondents were not in a relationship, as reported in the previous seven days, i.e. during the specified reporting week. PrEP use was for current use at the time of the survey and was recorded for all participants who did not report being HIV-positive. Since March 2020, 458 non-HIV-positive participants living in New South Wales took part in Flux, of which,

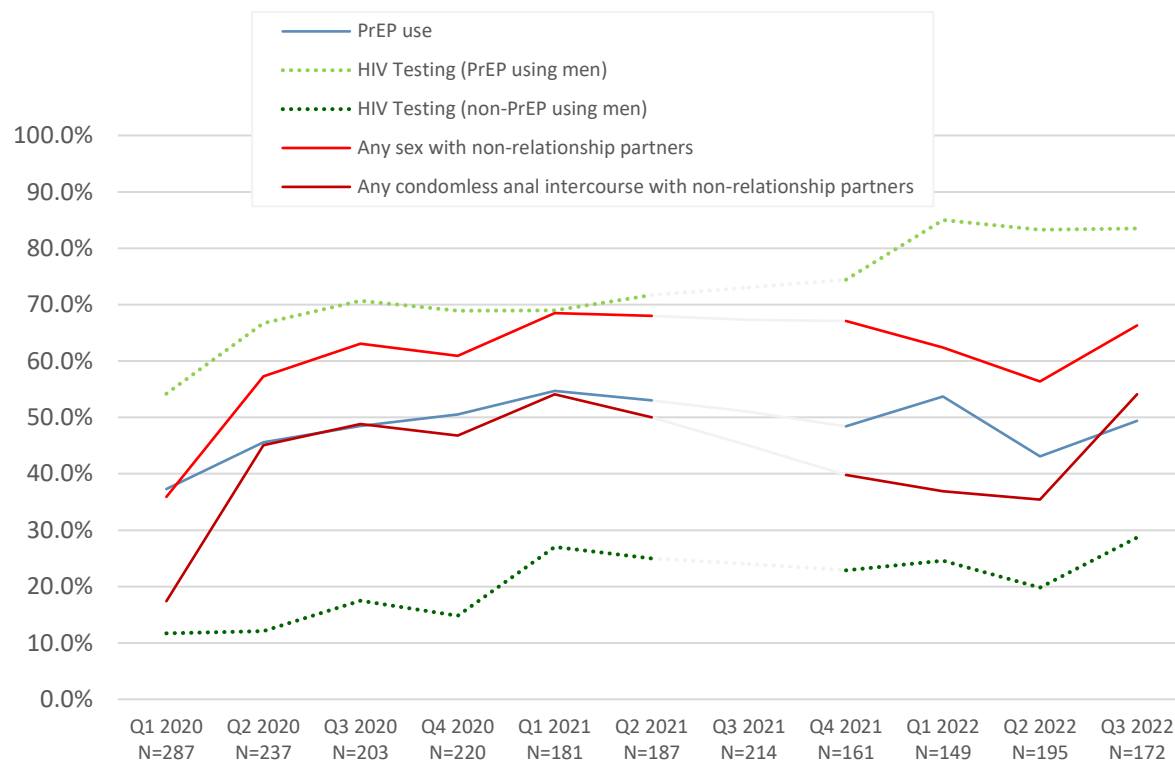
172 responded in Quarter 3 of 2022. In Quarter 2 of 2022, 79 we newly recruited. Compared to the existing cohort, newly recruited men were younger and less sexually active, but otherwise similar on key demographics. Also, although less sexually active they were as likely to report sex with any non-relationship partners.

Comment on Figure 24a

- Since early May 2020, the prevalence of PrEP use has steadily increased. However, there was a reduction in PrEP use reported in the previous seven days following the NSW outbreak of the Omicron COVID-19 variant in Quarter 3 of 2021, since when rates of PrEP use have partially recovered.
- Similar trends were observed for men reporting sex with non-relationship partners and in condomless anal intercourse with non-relationship partners.
- Prevalence of HIV testing among non-HIV-positive men not using PrEP remains stable between Quarter 2 of 2022 and Quarter 3 of 2022. HIV testing among non-HIV-positive men who use PrEP decreased.

Figure 24b shows the quarterly results for sexual behaviour, PrEP use, and HIV testing between Quarter 1 of 2020 and Quarter 3 of 2022 among NSW respondents.

Figure 24b: Sex with non-relationship partners, PrEP use and HIV testing by week reported in the previous three months (Quarter 1 2020 – Quarter 3 2022)



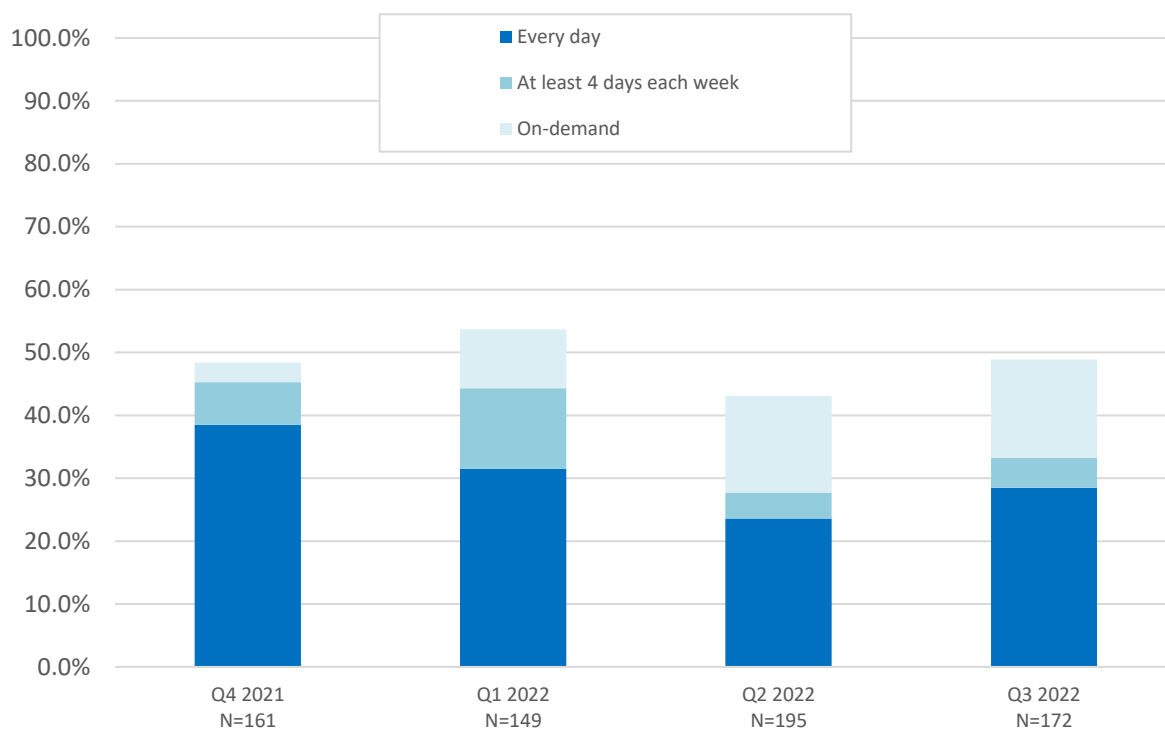
Data source: [Following Lives Undergoing Change Study](#), Kirby Institute, UNSW Sydney. Note: Data are reported for non HIV-positive respondents in NSW. Sex with non-relationship male partners refers to any sexual contact with casual partners or other partners with whom respondents were not in a relationship, as reported for the previous 3 months, i.e. during the specified reporting quarter. PrEP use was for current use at the time of the survey and was recorded for all participants who did not report being HIV-positive. Testing in the previous 3 months is reported for non HIV-positive men according to their current use of PrEP at the time of the survey in each reporting period. Since March 2020, 458 non-HIV-positive participants living in New South Wales took part in Flux quarterly data collection, of which 172 responded in Quarter 3 of 2022. In Quarter 2 of 2022, 79 we newly recruited. Newly recruited men were younger but otherwise similar on key demographics.

Comment on Figure 24b

- The prevalence of PrEP use, HIV testing, sex with non-relationship partners, and condomless anal intercourse with non-relationship partners reported in the past three months have increased between Quarter 2 of 2022 and Quarter 3 of 2022 (Figure 23a).
- Between Quarter 2 of 2022 and Quarter 3 of 2022, the prevalence of PrEP use increased from 43.1% to 49.4%, representing a 14.6% increase.
- Similarly, the prevalence of sex with non-relationship partners increased from 54.6% to 66.3%, representing a 21.4% increase, and the prevalence of condomless anal intercourse with non-relationship partners increased from 35.4% to 54.1%, representing a 52.8% increase.
- Between Quarter 2 of 2022 and Quarter 3 of 2022, the prevalence of HIV testing among men who used PrEP remained stable. However, the prevalence of HIV testing among men not using PrEP increased from 19.8% to 28.7%, representing a 44.9% increase.

Figure 24c shows the quarterly results for PrEP use and self-reported dosing in the past 3 months between Quarter 4 of 2021 and Quarter 3 of 2022 among NSW respondents.

Figure 24c: Self-reported PrEP dosing in the past 3 months (Quarter 4 of 2021 – Quarter 3 of 2022)



Data source: [Following Lives Undergoing Change Study](#), Kirby Institute, UNSW Sydney. Note: Data are reported for non HIV-positive respondents in NSW. Men who reported any PrEP use were asked to report their usual PrEP dosing method in the previous three months. Since March 2020, 458 non-HIV-positive participants living in New South Wales took part in Flux, of which 172 responded in Quarter 3 of 2022. In Quarter 2 of 2022, 79 we newly recruited. Compared to the existing cohort, newly recruited men were younger and less sexually active, but otherwise similar on key demographics. Variations between Quarters 1 and 2 in 2022 may be due to the variations in the sample.

Comment on Figure 24c

- In Quarter 3 of 2022, 49.4% of non-HIV positive men reported using PrEP in the previous three months. Among those men, 28.5% said daily use, 4.7% reported taking PrEP at least four days each week, and 15.7% reported on-demand use.
- Between Quarter 2 of 2022 and Quarter 3 of 2022, the proportion of dosing preference remained fairly stable.

2.4 Community mobilisation “Ending HIV”

Since 2013, ACON has monitored the knowledge and attitudes of gay men in regards to key messages in 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?

From January to December 2022,

- 14,338,864 units of injecting equipment were distributed in NSW.
 - The LHDs with the highest number of units of injecting equipment distributed were Hunter New England, Sydney, South Western Sydney, Western Sydney and South Eastern Sydney.

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

- In 2022, 17% of respondents reported receptive syringe sharing in the previous month (NSW Needle and Syringe Program Enhanced Data Collection, 2022)⁹.

⁹ Geddes, L, Iversen J, and Maher L. NSW Needle and Syringe Program Enhanced Data Collection Report 2013-2022, The Kirby Institute, UNSW Australia, Sydney 2022.

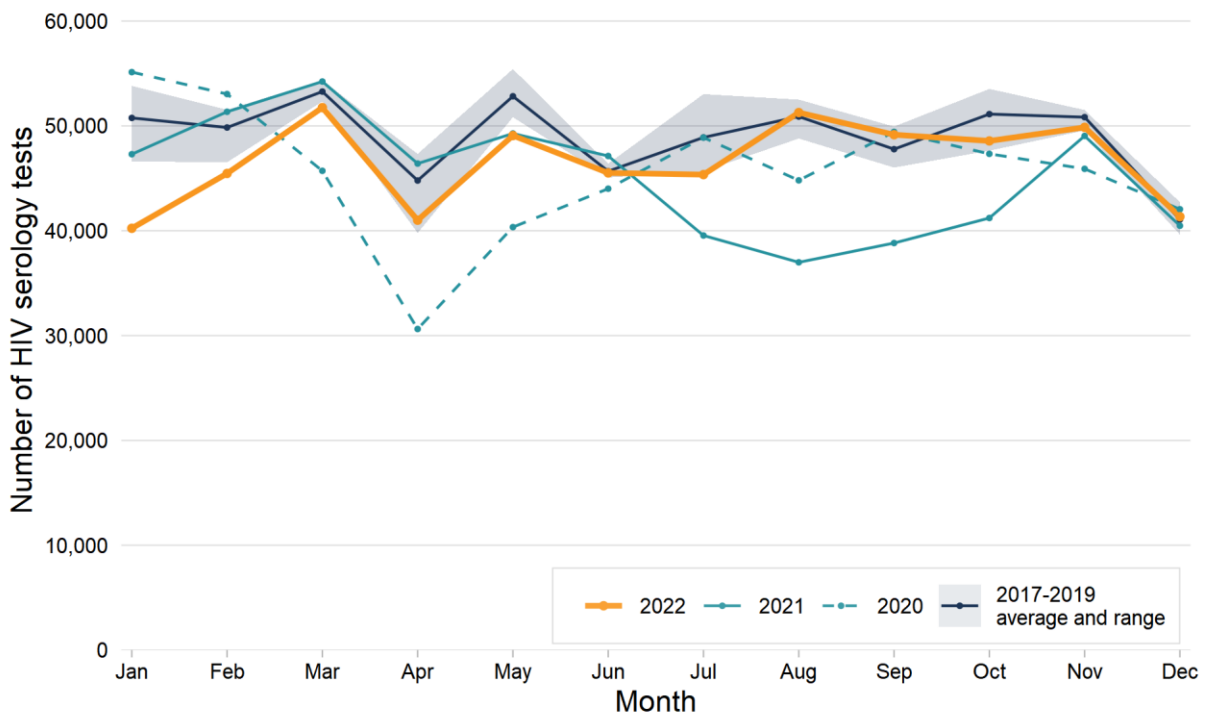
3. Increase HIV testing frequency

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 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 25: Number of HIV serology tests performed in 15 NSW laboratories, 2017 to 2022



Data source: NSW Health denominator data project, out 6 February 2023.

Comments on Figure 25

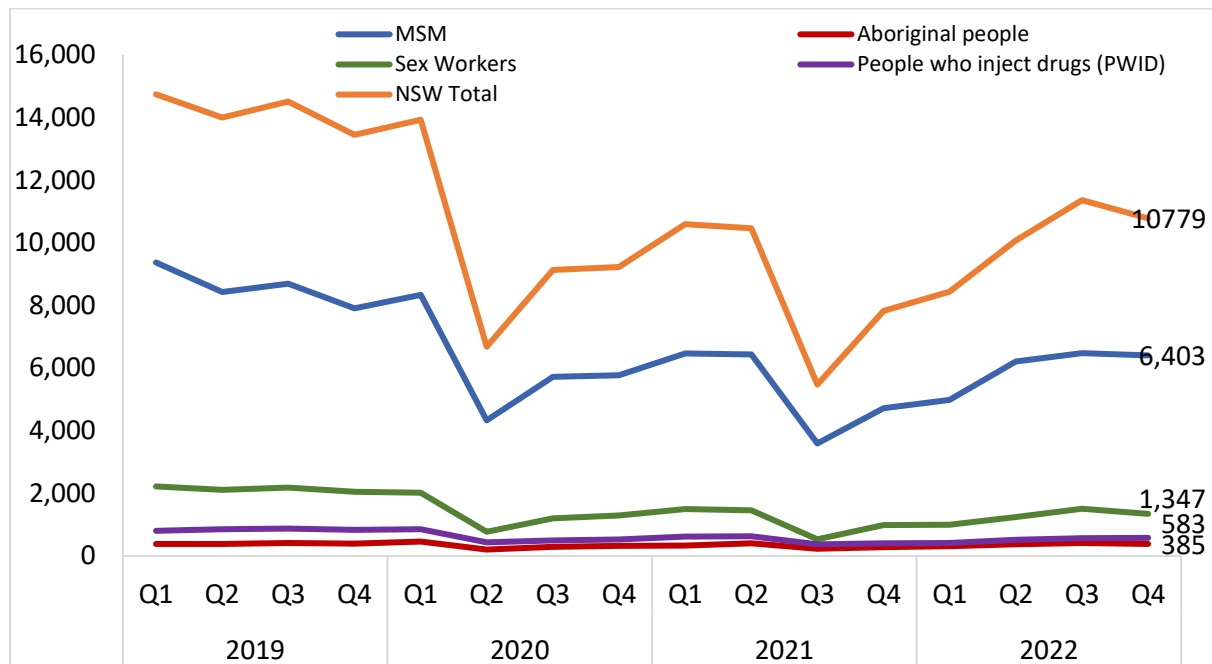
In October to December (Q4) 2022:

- 139,777 HIV serology tests were performed in 15 laboratories in NSW, which was 7% more than Q4 2021 (n=130,737), 3% more than Q4 2020 (n=135,290), 5% less than Q4 2019 (n=147,769), 3% less than Q4 2018 (n=144,460), and 2% more than Q4 2017 (n=136,848).

In 2022:

- 558,613 HIV serology tests were performed in 15 laboratories in NSW, which was 3% more than 2021 (n=541,800), 2% more than 2020 (n=547,287), 9% less than 2019 (n=612,013), 6% less than 2018 (n=592,318), and similar to 2017 (n=559,010).

Figure 26: Number of HIV tests performed in public sexual health clinics in NSW between January 2019 and December 2022, by quarter and priority population



Data source: NSW Health HIV Strategy Monitoring Database

Note: The sum of the groups may be greater than the total of tests because individuals who belong to more than one priority population are counted in each grouping that they belong.

Note: Central Coast data becomes available from April to June 2022 after solving data collection system problems

Note: Testing data from Illawarra Shoalhaven and Northern Sydney LHDs is included in the total number of tests, but is excluded from priority population groups in Q3 2021 and 2022 for Illawarra Shoalhaven and Q4 2021 and Q1 2022 for Northern Sydney due to data system issues.

Comments on Figure 26

In October to December 2022:

- The number of HIV tests in PFSHCs (n=10,779) decreased by 5% compared to Q3 2022 (n=11,363). This result is 38% higher than the number of tests in Q4 2021 (n=7,822) and 17% more than Q4 2020 (n=9,227) when COVID pandemic started. This result is 23% lower than Q4 2019 (13,923).
- Testing remained targeted with 6,403 of 10,779 (59%) HIV tests in PFSHCs done by MSM.
- Of 10,779 tests in PFSHCs where country of birth was recorded, 56% (6,037) were Australian-born, 40% (4,344) overseas-born and 4% (398) unknown.
- The number of HIV tests performed in other public health settings not included in the Figure above includes:
 - 1,886 in Emergency Department;
 - 563 in Mental Health;
 - 448 in Drug and Alcohol;
 - 503 in Needle and Syringe Program, Youth Block, Immunology, Infectious diseases, Liver Clinic, Chest Clinic and Psychiatry Clinic.

Dried Blood Spot testing

[Dried Blood Spot](#) (DBS) is an innovative finger stick test for HIV and hepatitis C that is accessed by eligible people online (home-testing) or via a settings-based approach. The NSW DBS Self-Sampling HIV Testing Pilot Program aims to increase testing among high-risk populations who experience barriers to testing through conventional services.

In September 2019, the pilot was updated to expand access to at-risk populations. As part of the update, participants can be tested for hepatitis C without an HIV test. People eligible for a hepatitis C test can still opt-in for an HIV test.

Table 2: Recruitment data for the NSW DBS Self-Sampling HIV and HCV Testing Pilot, November 2016 to December 2022

Recruitment indicators	2022 (Jan - Dec)	Total (Nov 2016–Dec 2022)
Number of registrations for DBS test (including Hepatitis C)	6,791	19,688
Number of registrations for DBS requesting HIV testing	6,398/6,791 (94%)	18,575/19,688 (94%)
Number (%) of people who registered for a HIV DBS kit who had never tested before or had tested over 2 years ago**	3,620/6,398 (56%)	9,193/18,575 (50%)
Proportion of returned HIV DBS kits	5,448/6,398 (85%)	15,778/18,575 (85%)
Number of HIV DBS tests performed	5,448	15,778
Number (%) of reactive HIV tests*	3	14

Data Source: NSW Dried Blood Spot Research database.

* Reactive HIV tests were confirmed positive by venous testing and linked into care. Participants with known HIV positive status when accessing DBS testing removed from total.

** Based on registrations for DBS requesting HIV testing (excludes registrations for hepatitis C DBS test only)

Comments on Table 2

In January to December 2022:

- There was a total of 5,448 HIV DBS tests performed in NSW.
- 56% of people who registered for a HIV DBS test had never previously tested for HIV or had been tested more than 2 years ago.
 - Of these, 2841 (78%) were Australian born and 579 (22%) were overseas born.
- 85% of registrations for DBS requesting HIV testing between January and December 2022 were returned for testing.

In November 2016 to December 2022 (over the entire pilot):

- 50% people who registered for a HIV DBS test had never previously tested for HIV or had tested more than 2 years ago.
 - Of these 6,920 (75%) were Australian-born and 2,273 (25%) were overseas-born.
- 85% of registrations for DBS requesting HIV testing were returned.

Table 3: Number of HIV tests completed per eligibility criteria* for the NSW DBS Self-Sampling HIV and HCV Testing Pilot, November 2016 to December 2022

Target population	2022 (Jan - Dec) Total number of HIV tests n = 5,448	(Nov 2016 – September 2022) Total number of HIV tests n =15,778
MSM ****	521 (10%)	2,924 (19%)
From high prevalence country***	440 (8%)	1,598 (10%)
Partners from Asia/Africa	617 (11%)	2,292 (15%)
Aboriginal people**	1,674 (31%)	4,427 (28%)
Ever injected drugs**	3,191 (59%)	8,658 (55%)

Data Source: NSW DBS Research Database

*Participants can have profile for more than one target population.

**Aboriginal people and people who have ever injected drugs included from September 2017. Hepatitis C RNA testing included from September 2017.

***High prevalence countries include countries within Africa or Asia and the following specific countries: Belize, Haiti, Bahamas, Jamaica, Guyana, Barbados, Suriname, Djibouti, Russian Federation, Trinidad and Tobago and Panama.

**** MSM include trans-men who have sex with (cis- or trans-) men and cis-men who have sex with trans-men

Comment on Table 3

Between January to December 2022:

- Of 5,448 HIV DBS tests, 10% were done by MSM (n=521), which is lower than 2021, when 21% of tests were done by MSM.
 - Of 521 MSM tested, 73% were Australian-born, and 27% were overseas-born MSM.
- 8% of HIV DBS tests were done by people from high prevalence countries.
- 11% of HIV DBS tests were done by people who had partners from Asia/Africa.
- 31% of HIV DBS tests were done by Aboriginal people.
- 59% of tests were done by people who had ever injected drugs, lower than 2021, when 63% of tests were done by people who had ever injected drugs.

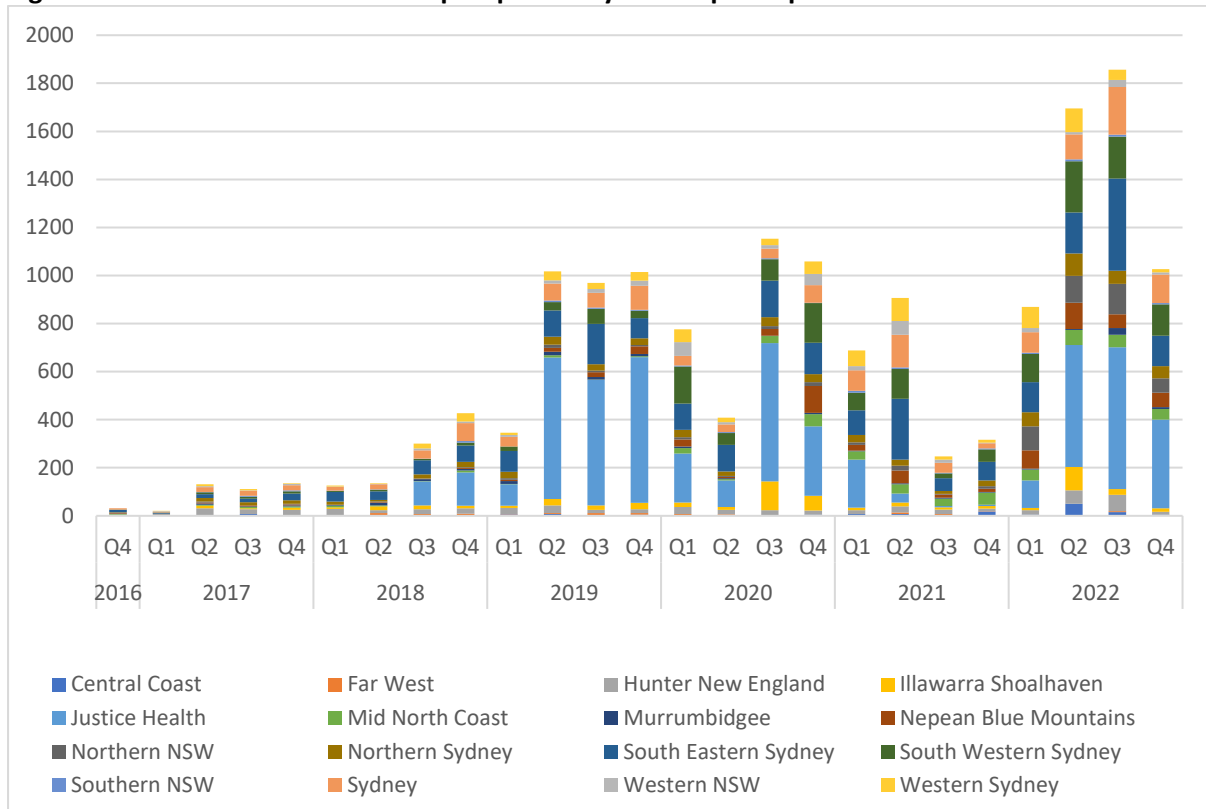
Of non-Justice Health HIV DBS tests (n=3,867) in 2022:

- 19% were overseas-born (n=743)
- 13% were MSM (n=489)
- 9% were from a high prevalent country (n=355)
- 11% had a partner from Asia or Africa (n=423)
- 27% were by Aboriginal people (n=1,044)
- 61% were people who have ever injected drugs (n=2,365)

In November 2016 to December 2022 (over the entire pilot):

- Of 15,778 HIV DBS tests, 19% were done by MSM (n=2,924)
 - Of 2,924 MSM tested, 71% were Australian-born MSM and 29% were overseas-born MSM.
- 10% of DBS tests were done by people from high prevalence countries.
- 15% of DBS tests were done by people who had partners from Asia/Africa.
- 28% of HIV DBS tests were done by Aboriginal people.
- 55% of tests were done by people who had ever injected drugs.

Figure 27: DBS HIV tests conducted per quarter by LHD of participant’s residence



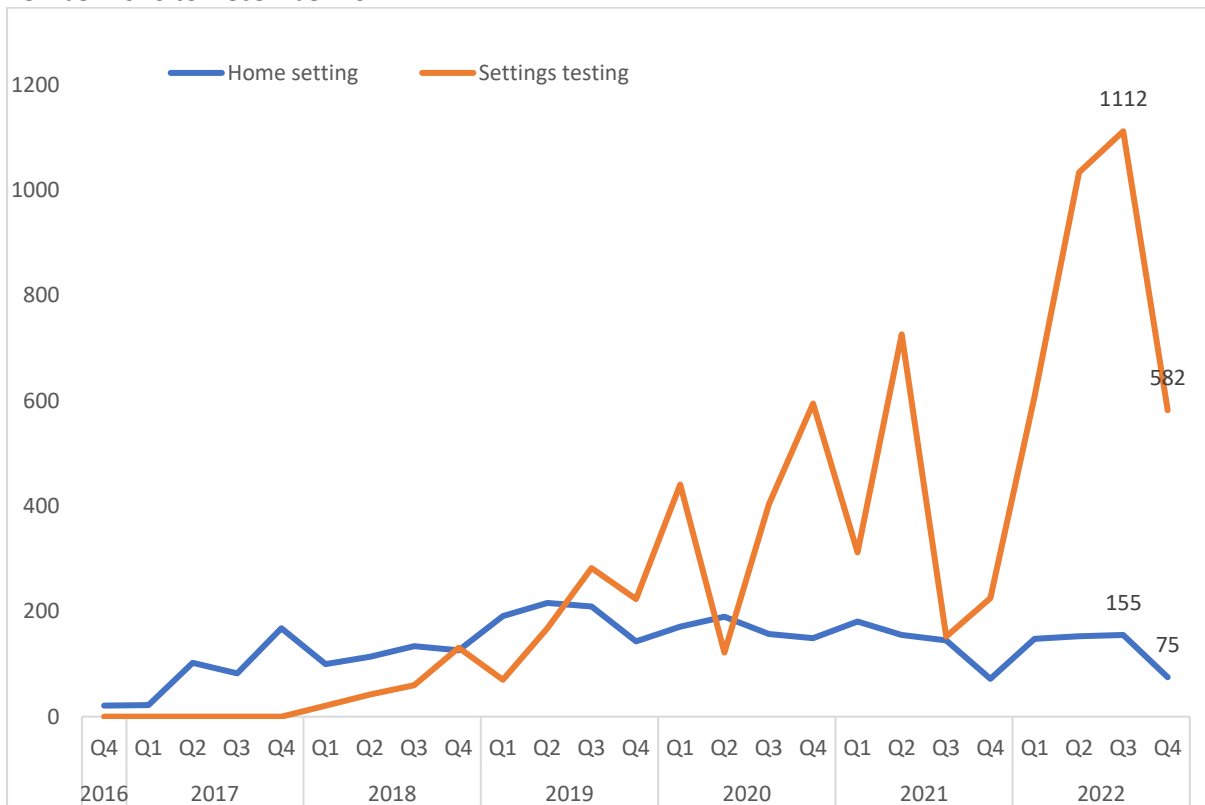
Data Source: NSW DBS Research Database

Comments on Figure 27

In January to December 2022:

- There was a total of 5,448 HIV DBS tests in NSW, which is 152% higher than 2021 (n=2,159), and 60% higher compared to 2020 (n=3,397).

Figure 28: HIV DBS tests done at home (ordered online) and settings-based tests per quarter, November 2016 to December 2022



Note: Justice Health is excluded from the figure. Settings include drug and alcohol, sexual health services, and needle and syringe programs

Comments on Figure 28

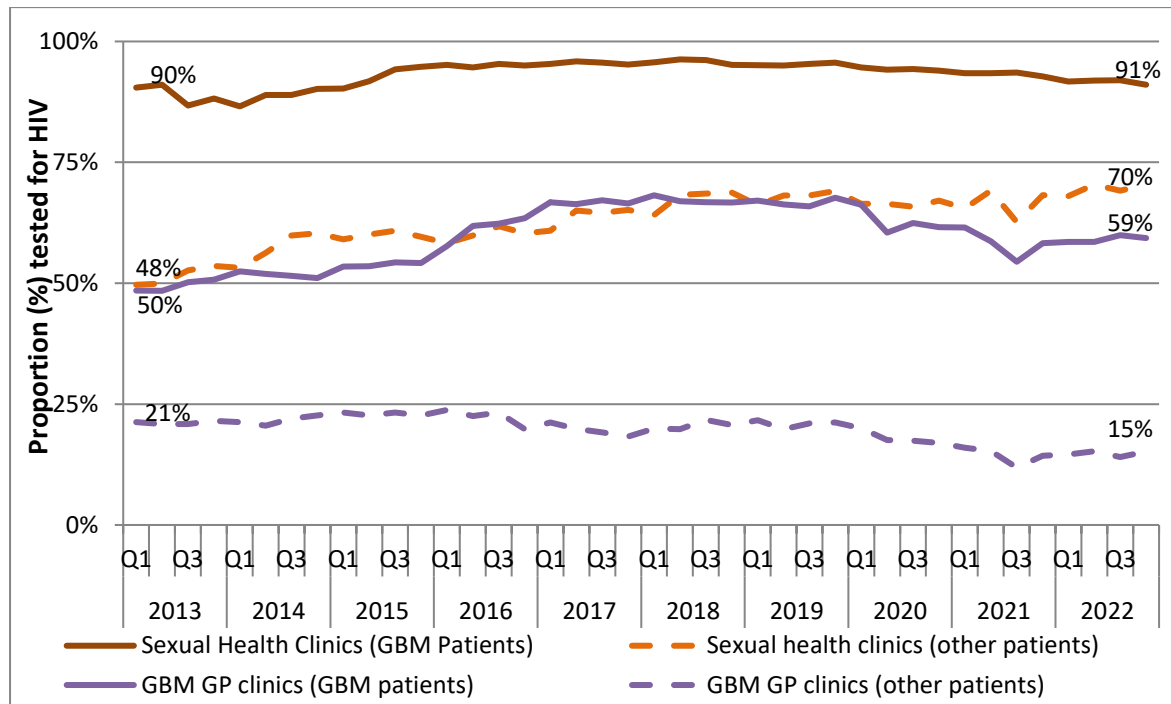
In October to December 2022:

- The home testing (531) decreased by 0.7% HIV DBS tests compared to 2021 (535).
- The Settings-based testing (3336) increased by 143% HIV DBS tests (excluding Justice Health) compared to 2021 (1375).

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 29: Proportion of patients¹⁰ attending PFSHCs and GBM GP clinics¹¹ tested at least once for HIV at any clinic in the ACCESS network in the previous year, by quarter and service type, 1 January 2013 to 31 December 2022¹²



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

Comments on Figure 29

- HIV testing uptake among GBM attending PFSHCs remained consistently high in the fourth quarter of 2022 (91%). Testing uptake increased over time among other patients¹³ attending PFSHCs, rising from 48% in Q1 of 2013 to 70% in Q4 of 2022.
- Testing uptake also increased among GBM attending GBM GP clinics (from 50% in Q1 of 2013 to 58% in Q2 of 2022).
- Testing amongst other patients attending GBM GP clinics stayed relatively consistent from 2013 to end of Q1 of 2020. Testing declined in this group from 21% in Q1 2020 to 15% in Q4 2022.

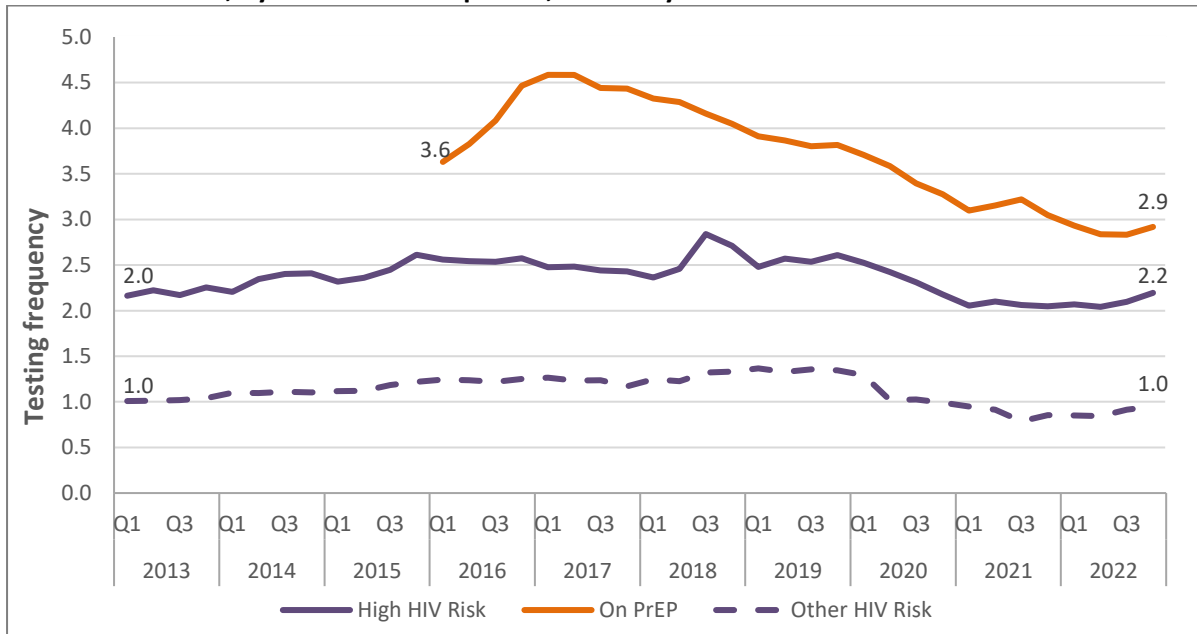
¹⁰ Excludes patients known to be HIV positive

¹¹ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually;

¹² 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

¹³ Includes all other populations including women, heterosexual men, and trans/gender diverse people

Figure 30: Average number of annual HIV tests among GBM patients¹⁴ attending any clinic in the ACCESS network¹⁵, by HIV risk¹⁶ and quarter, 1 January 2013 to 31 December 2022



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

Comment on Figure 30

In this report, the definition of risk relative to HIV has been adapted to reflect a more nuanced assessment of clinical data that explicitly excludes men accessing PrEP. The updated categories for risk are defined as follows:

- **High risk:** assigned to men not on PrEP who, on the basis of a hierarchical decision tree, had a history of a rectal STI in the 24 months prior, evidence of inconsistent condom use, 20 or more partners, or evidence of injecting drug use over the past 12 months
- **Other risk:** Any man not on PrEP not otherwise meeting the criteria of 'high risk'

This change to the definition of 'high risk' means that the frequency of HIV testing among this group is lower than in previous reports because it excludes men accessing PrEP.

Men identified within ACCESS as having a reason for visit as "PrEP" and/or a PrEP script were considered as on PrEP.

The average number of HIV tests among high risk GBM stayed consistent from Q1 2013-Q2 2018, followed by an increase to 2.8 tests on average at the end of Q3 2018. In this group, testing frequency

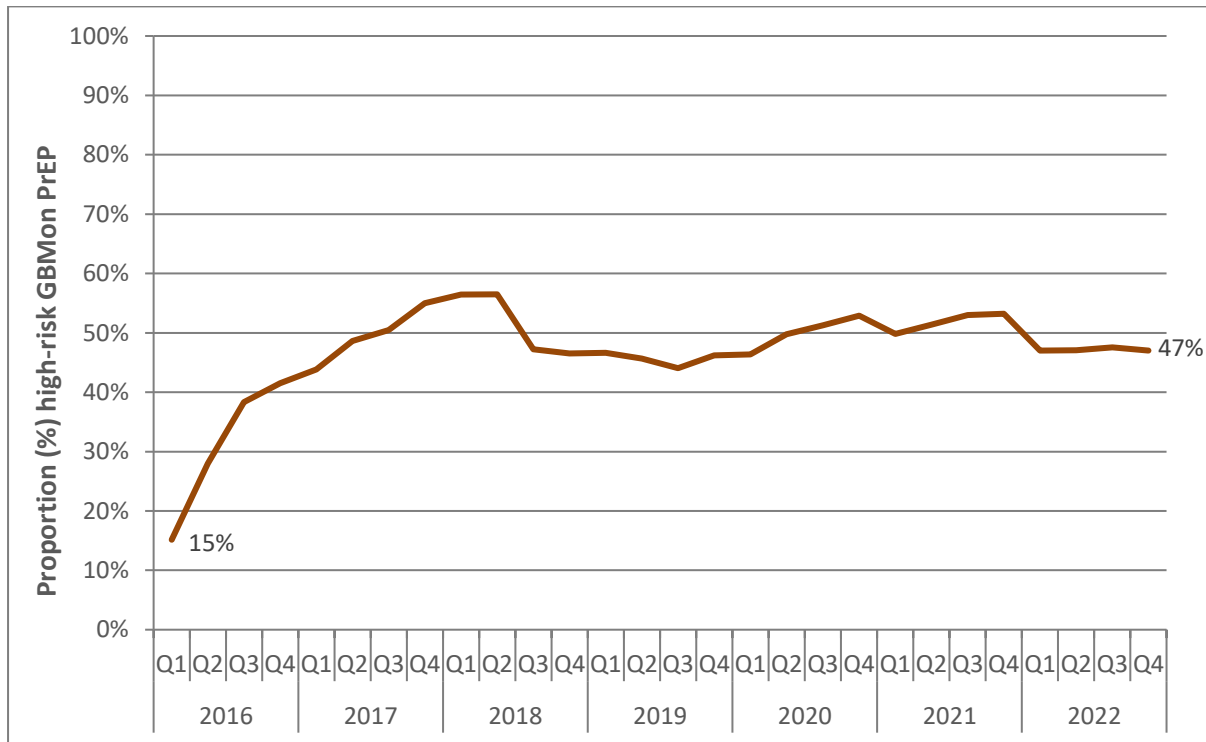
¹⁴Excludes patients known to be HIV positive

¹⁵ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

¹⁶ High risk defined by GBM patients who are not on PrEP and reported injecting drug use in the last year, more than 12 partners/year and inconsistent condom use or history of a rectal STI in the past two years. Hospital data were not included in analysis

decreased to 2.2 at the end of Q4 2022. Drops in testing frequency from Q2 2022 onwards likely occurred due to various restrictions due to the COVID-19 pandemic. Testing stayed relatively consistent among men of other risk profiles from Q1 2013 to Q4 2022.

Figure 31 Proportion of high-risk HIV¹⁷ GBM patients¹⁸ on PrEP¹⁹ attending PFSHCs and GBM GP clinics²⁰ in the ACCESS network, 1 January 2013 to 31 December 2022



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

Comment on Figure 31

Here, the definition of risk relative to HIV has been assigned to men with a history of a rectal STI in the 24 months prior, evidence of inconsistent condom use and 20 or more partners, or evidence of injecting drug use over the past 12 months.

Men identified within ACCESS as having a reason for visit as “PrEP” and/or a PrEP script were considered as on PrEP.

Over time, the proportion of high-risk GBM patient on PrEP increased from 15% in Q1 2016 to 47% in Q4 2022. The largest increase in PrEP uptake occurred between Q1 2016 and Q2 2018 (15% to 56%).

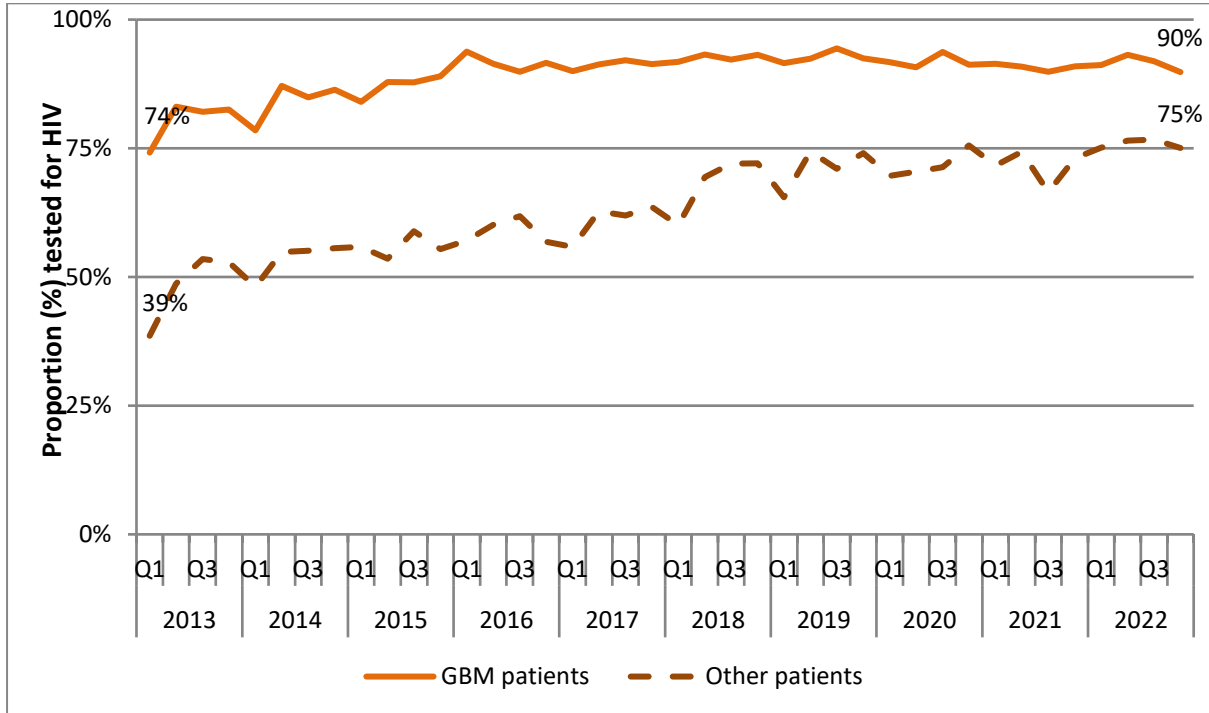
¹⁷ High risk defined by GBM patients who reported injecting drug use in the last year, more than 20 partners/year and inconsistent condom use, or history of a rectal STI in the past two years.

¹⁸ Excludes patients known to be HIV positive

¹⁹ On PrEP defined by men who had a PrEP script and/or a reason for visit as “PrEP”

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

Figure 32: Proportion of patients²¹ attending PFSHCs and GBM GP clinics²² combined who received an HIV test at any clinic in the ACCESS network in conjunction with an STI diagnosis²³, by GBM status and quarter, 1 January 2013 to 31 December 2022



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

Comment on Figure 32

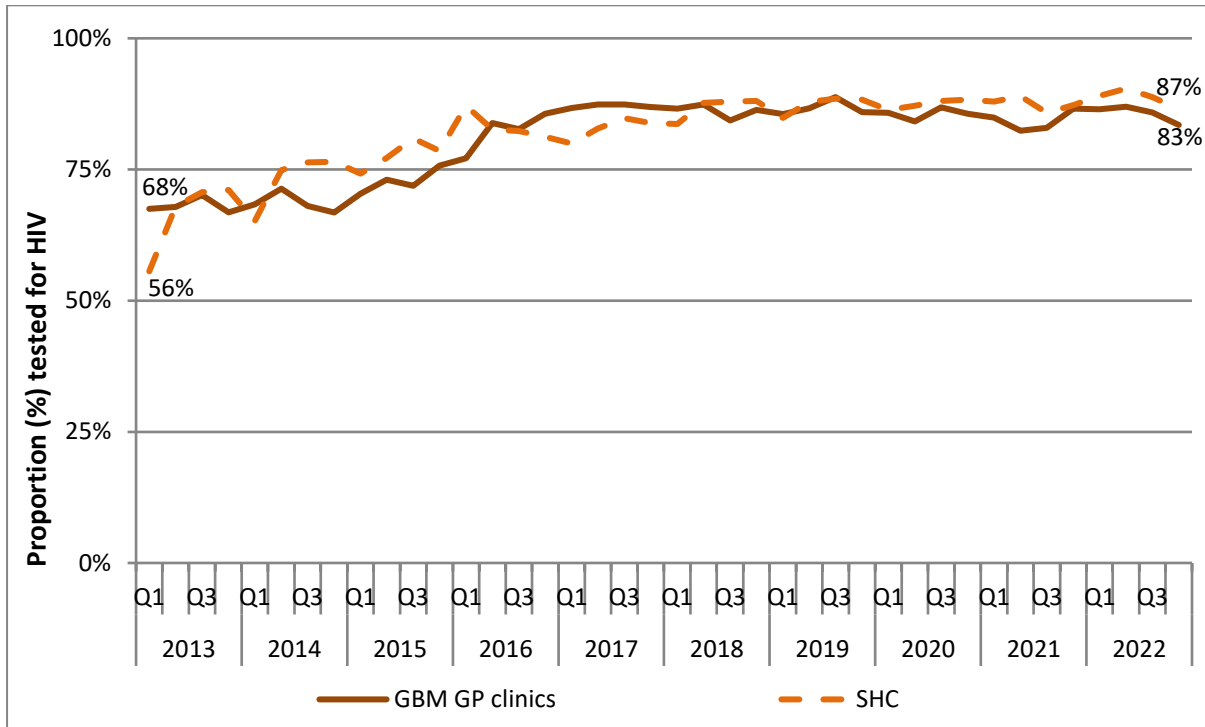
- The proportion of GBM who received an HIV test in conjunction with an STI diagnosis increased over time from 74% in Q1 2013 to 90% in Q4 of 2022.
- Testing in conjunction with STI diagnoses was less common overall among other patients but also increased during this period (39% to 75%).

²¹ Excludes patients known to be HIV positive

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

²³ Diagnosis for chlamydia, gonorrhoea and/or infectious syphilis; any HIV test conducted at least 60 days before or at most 30 days after a diagnosis was recorded

Figure 33: Proportion of patients²⁴ attending PFSHCs and GBM GP clinics²⁵ who received an HIV test at any clinic in the ACCESS network in conjunction with an STI diagnosis²⁶, by service type and quarter, 1 January 2013 to 31 December 2022



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

Comment on Figure 33

Testing in conjunction with STI diagnosis was highest in PFSHCs, increasing from 56% in Q1 2013 to 87% at the end of Q4 2022.

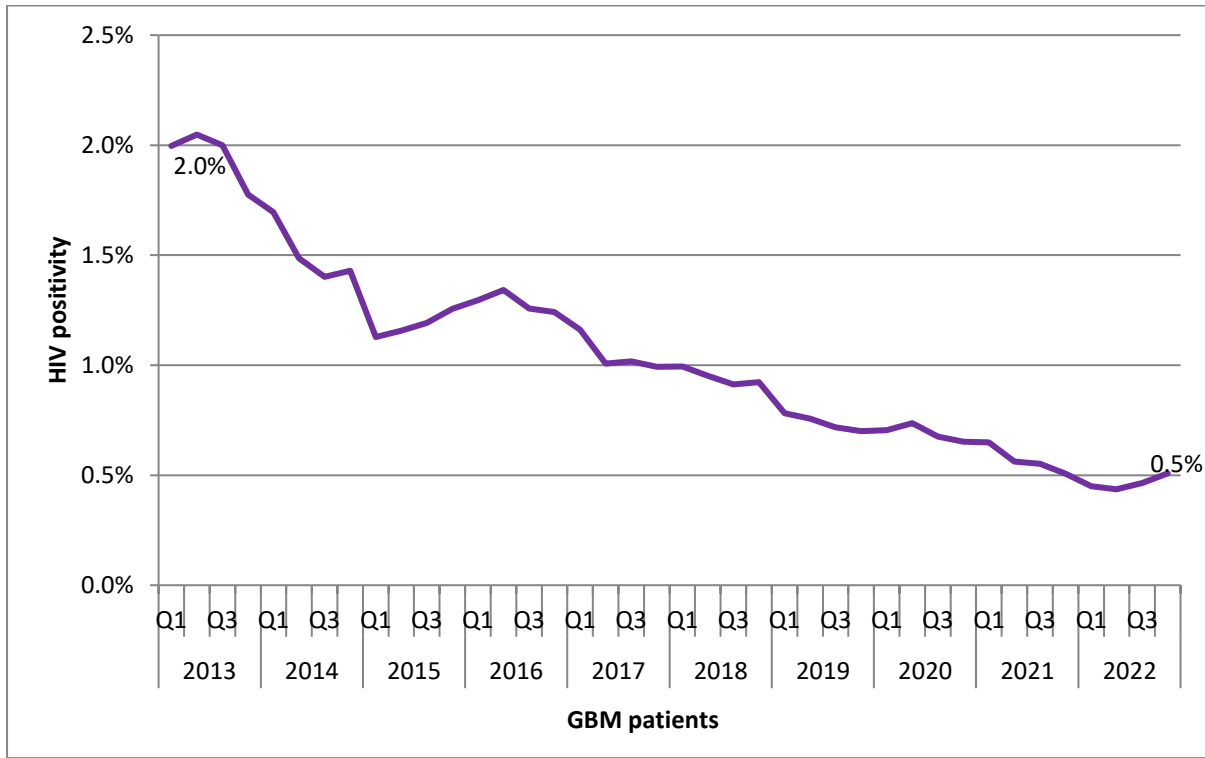
GBM GP clinics also saw an increase in the proportion of patients tested from 68% in Q1 of 2013 to 83% at the end of Q4 2022.

²⁴ Excludes patients known to be HIV positive

²⁵ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

²⁶ Diagnosis for chlamydia, gonorrhoea and/or infectious syphilis; any HIV test conducted at least 60 days before or at most 30 days after a diagnosis was recorded

Figure 34: Proportion of individual GBM patients²⁷ tested for HIV with a positive result (HIV positivity²⁸) at any clinic in the ACCESS network, by quarter, 1 January 2013 to 31 December 2022



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

Comment on Figure 34

- Over time, HIV positivity among GBM attending PFSHCs and GBM GP clinics decreased from 2.0% in Q1 2013 to 0.5% in Q4 2022.

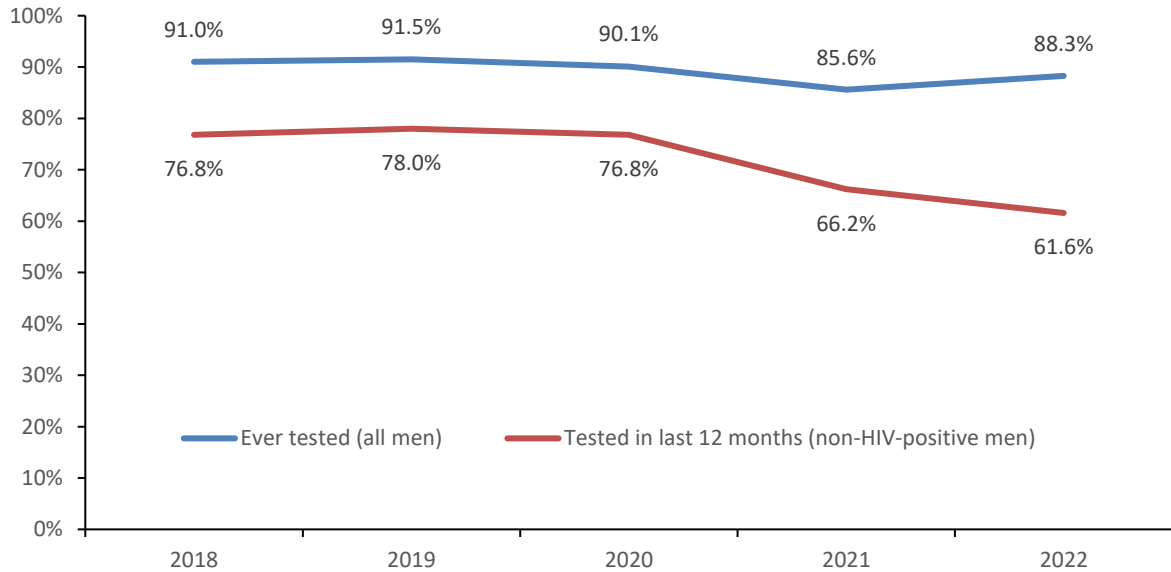
²⁷ Excludes patients known to be HIV positive

²⁸ 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)

Sydney Gay Community Periodic Survey - HIV testing

HIV testing history is assessed in the annual Sydney Gay Community Periodic Survey (SGCPS), conducted each year during February/March. In recent years, frequency of testing has been added to the survey alongside lifetime testing and recent testing.

Figure 35: Lifetime HIV testing and testing in the previous 12 months; Sydney Gay Community Periodic Survey, 2018 to 2022



Data source: Sydney Gay Community Periodic Survey, Centre for Social Research in Health, UNSW Sydney.

Figure 36: Lifetime HIV testing, stratified by proportion of gay residents in the participant's postcode; Sydney Gay Community Periodic Survey, 2018 to 2022

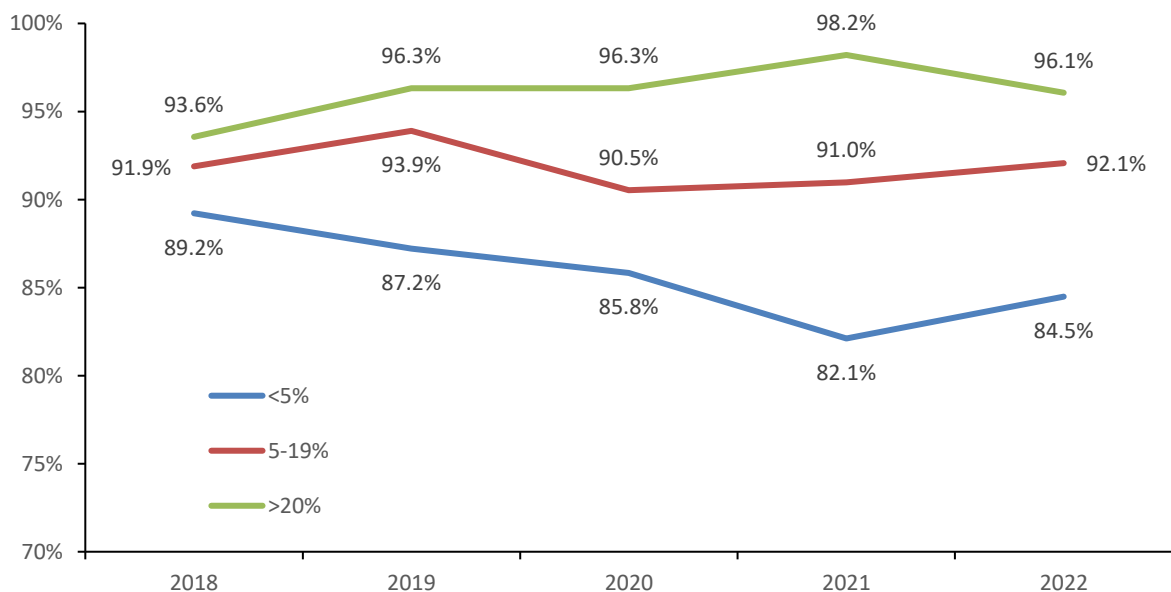
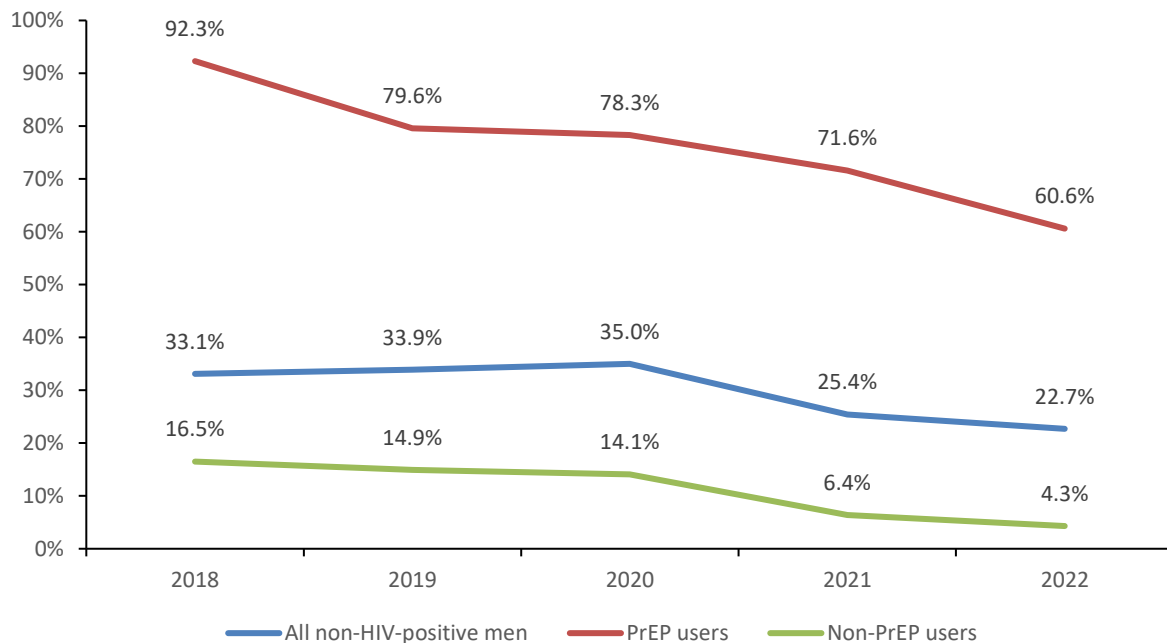


Figure 37: Non-HIV-positive gay and bisexual men reporting three or more HIV tests in the previous 12 months, stratified by PrEP use; Sydney Gay Community Periodic Survey, 2018 to 2022



Data source: Sydney Gay Community Periodic Survey, Centre for Social Research in Health, UNSW Sydney.

Comment on Figure 35 – Figure 37

- The SGCPs data show that lifetime testing (ever having been tested for HIV) is relatively stable and was 88.3% in 2022 (compared with 91.0% in 2018).
- Lifetime testing has consistently been higher among participants living in suburbs with higher proportions of gay residents. The proportion of participants in suburbs with >20% gay residents who had ever tested for HIV increased from 93.6% in 2018 to 96.1% in 2022, while the proportion from suburbs with <5% gay residents decreased from 89.2% in 2018 to 84.5% in 2022.
- Testing in the previous 12 months by non-HIV-positive men was stable between 2018 and 2020 (at 77-78%) but decreased to 61.6% in 2022. The impact of COVID-19 on HIV testing appears to have continued between 2021 and 2022, with levels of recent HIV testing remaining suppressed.
- Higher frequency testing (three or more HIV tests per year) by non-HIV-positive men had increased from 28.8% in 2017 to 35.0% in 2020, then decreased to 25.4% in 2021.
- Higher frequency testing remains far more common among PrEP users than non-users. Higher frequency testing by PrEP users has decreased over time from 92.3% in 2018 to 60.6% in 2022, which probably reflects PrEP users attending fewer appointments to get repeat prescriptions, less sexual activity during COVID-19, and the growing use of non-daily dosing. Higher frequency testing has become less common among non-HIV-positive men not on PrEP (from 16.5% in 2018 to 4.3% in 2022).

3.3 How is testing being made more accessible?

Table 4: Number of rapid HIV tests in community based sites and proportion of clients with high risk behaviour and infrequent testing history in October to December 2022

Non-traditional Settings	Number of RHT	Number of HIV antibody tests	% Unique Positive	% never previously tested	% tested more than 12 months ago [#]	% with > 5 sexual partners in last 3 months*	% overseas-born
Community-based							
a[TEST] Surry Hills	82	188	0.00%	9.6%	17.3%	23.9%	66%
a[TEST] Oxford ST	476	1,142	0.26% (n=3)	6.1%	15.4%	26.9%	60%
a[TEST] Kings Cross	Not operating due to COVID-19						

Data sources: NSW Health HIV Strategy Monitoring Database¹⁷

Note: In Apr-Jun 2022, aTest Surry Hills started reporting data from this quarter; a[TEST] Kings Cross were not operating due to COVID-19. a[TEST] Newtown site was closed during COVID-19 and will require resourcing to secure a new site. In Oct-Dec 2022, the total number of unique patients at aTest Surry Hills is 197, at aTest Oxford St is 1,202. Some patients at this site have an HIV antibody test without a rapid test, which accounts for the additional HIV antibody tests above.

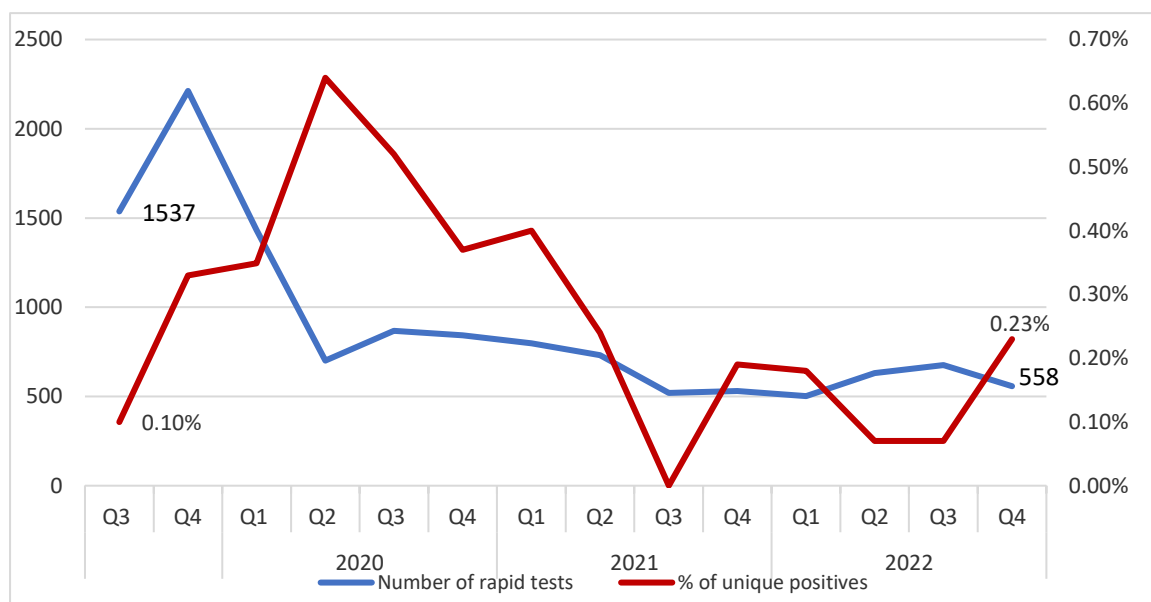
Note: Unique positive is for HIV antibody tests and incorporates positive results for HIV tests done without a rapid test at Oxford St aTest sites.

Note: Clients' risk behaviour and infrequent testing history is calculated by total unique patients at Oxford St and Surry Hills (n=1,399); and patients having a rapid test attending Kings Cross (currently closed).

#Does not include 'never tested'; *Only patients who provide information on this characteristic is included.

Note: The proportion of overseas-born clients is calculated amongst unique clients

Figure 38: The number of unique patients who had a rapid HIV test at a community based site between July 2019 and December 2022 and the proportion of antibody tests that were positive



Data sources: NSW Health HIV Strategy Monitoring Database²⁹

Note: Positivity is based on the result of the confirmatory HIV antibody test for rapid tests; and incorporates positive results for HIV tests done without a rapid test at Oxford St aTest site.

Note: aTest data was not reported by Newtown site since 2020 because it was not operating due to COVID-19

²⁹ Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.

Comments on Table 4 and Figure 38

In October to December 2022 at a[TEST] Oxford St and Surry Hills:

- Peer-led community based testing at [aTest Oxford Street](#) and Surry Hills remained high and well targeted in Q4 2022 with 558 rapid tests and 1,330 antibody tests conducted. Rapid tests decreased by 17% compared to last quarter.
- At Surry Hill, 17.3 % of clients tested more than 12 months ago and 23.9% of clients were classified as high risk, with more than 5 sexual partners in the last 3 months.
- At Oxford St, 15.4 % of clients tested more than 12 months ago and 26.9% of clients were classified as high risk, with more than 5 sexual partners in the last 3 months.

Of 1,399 unique clients:

- 61% were born overseas
- 45% were from SESLHD, 34% from Sydney LHD, 9% from Northern Sydney LHD, 5% from Western Sydney LHD and 3% from South Western Sydney LHD.
- NSW data suggests community-based testing sites are an effective testing model for engaging GBM with high risk behaviour and infrequent testing history.

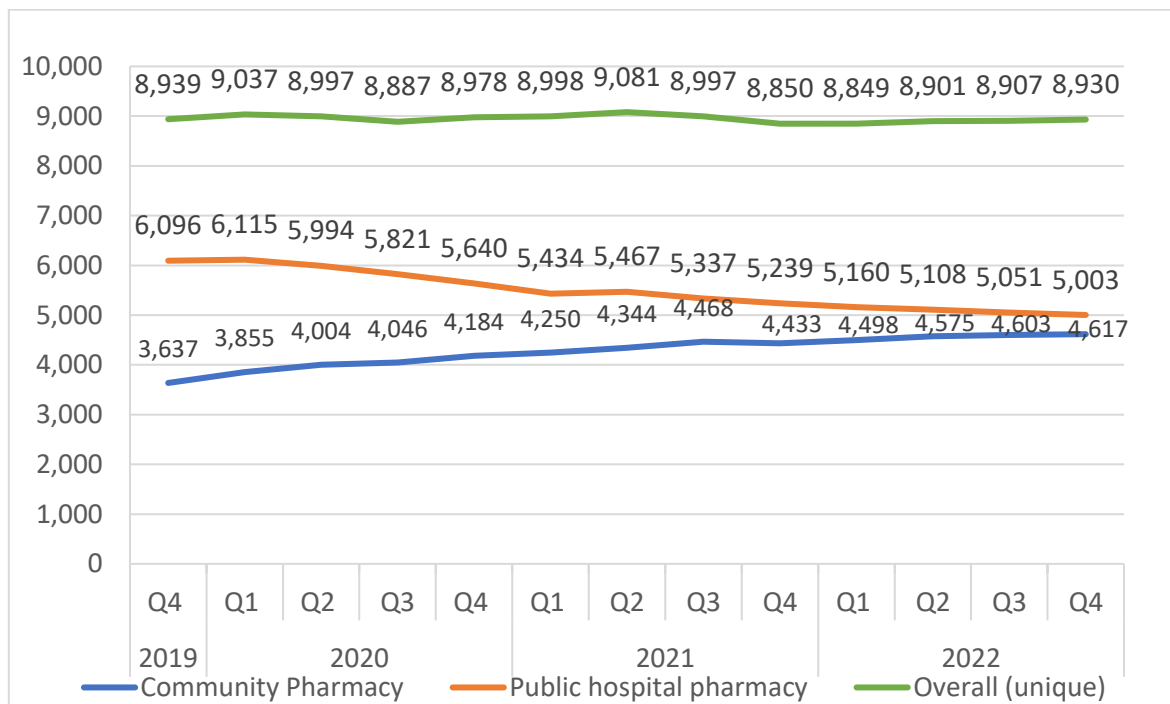
4. Increase HIV Treatment

4.1 How many people in NSW are on antiretroviral therapy?

Between January 2022 to December 2022:

- A total of 8,930 (unique number) NSW residents were on ART for HIV treatment at least once within the previous 12-month
- Among those clients who were on ART for HIV treatment in the past 12-month, 91% (8,118) were male. The majority (62%) were 50 years or older, 21% were aged 40 to 49 years, 14% aged 30 to 39 years and about 3% aged 20 to 29 years and younger.
- Among those who initiated HIV ART, 57% were prescribed by GP; 48% were dispensed by a community pharmacy.
- Among those residents on ART for HIV treatment, none of them was eligible and prescribed under the CTG program.

Figure 39: 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 October 2019 to 31 December 2022



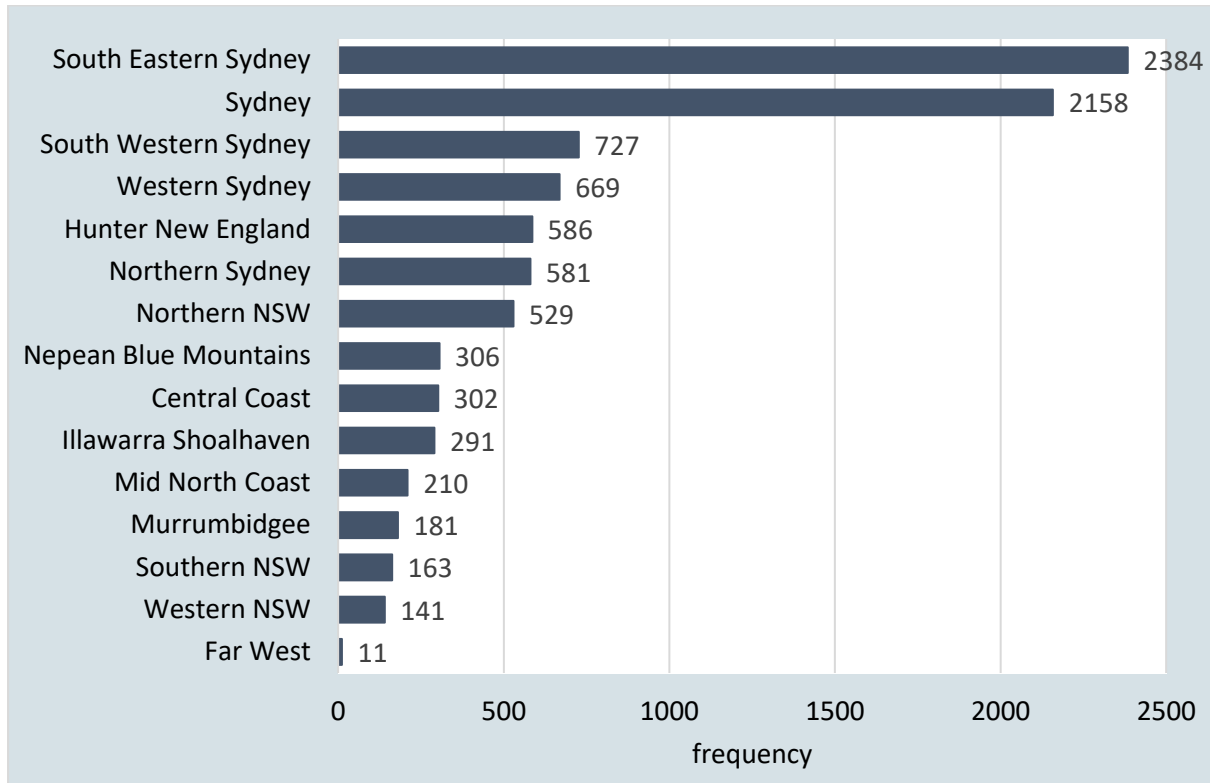
Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme (PBS)

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. Due to boundary changes or movements in and or out of NSW, the overall unique number of individuals presented in the above graph may differ slightly from previous reports.

Comments on Figure 39

- Between 1 January 2022 and 31 December 2022, a total of 8,930 (unique number) NSW residents were dispensed PBS-subsidised ART for HIV at least once within the previous 12 months. Of the 8,930 residents, 48% of ART treatment for HIV were prescribed by community pharmacies.

Figure 40: The number of NSW residents dispensed ART for HIV, by the LHD of patient residence, from 1 January 2022 to 31 December 2022³⁰



Data source: Pharmaceutical Benefits Schedule Highly Specialised Drugs Programme (PBS)

Comments on Figure 40

- About three-quarters (77%) of the PBS-subsidised ART dispensed in the 12 months ending December 2022 was to patients residing in the following six LHDs: South Eastern Sydney, Sydney, South Western Sydney, Western Sydney, Hunter New England and Northern Sydney LHDs.

³⁰ The sum of the numbers displayed in the graph is higher than the total of 8,930 patients as some patients resided in more than one LHD.

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

Data on the treatment status of clients who received HIV care in NSW public sexual health and HIV services between 1 October 2021 and 30 September 2022 is summarised at Table 5³¹.

Table 5: Clients who received HIV care in NSW public sexual health and HIV services from 1 January to 31 December 2022

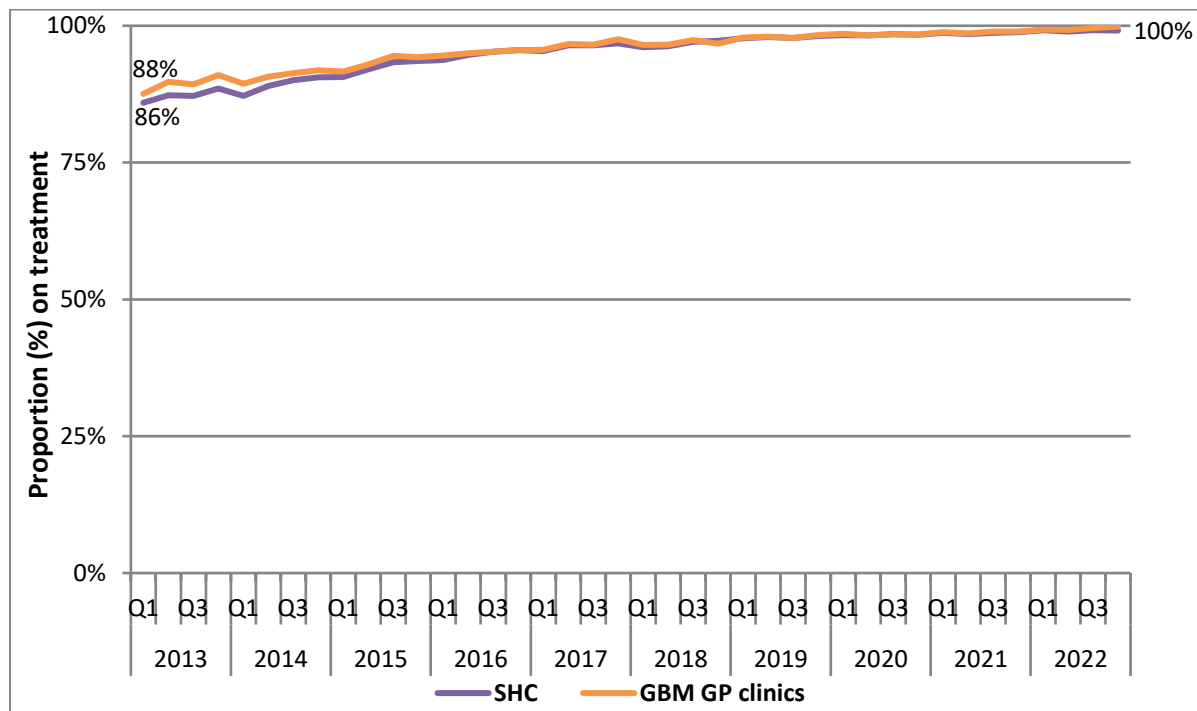
Number (%) of patients for whom treatment information was available	5,900
Number (%) on ART	5,776 (98%)

Data sources: NSW Health HIV Strategy Monitoring Database³²
Note: Data presents here does not include Central Coast LHD.

Comment on Table 5

- Between 1 January to 31 December 2022, treatment information was available for 5,900 clients with HIV who received care in public HIV and sexual health clinics in NSW. The available data indicates treatment coverage in NSW PFSHCs is high at 98%.

Figure 41: Proportion of PLHIV attending any clinic in the ACCESS network for HIV management³³ under active HIV care³⁴ who received antiretroviral treatment or were recorded as on treatment in the previous year by service type and quarter, 1 January 2013 to 31 December 2022



Data source: ACCESS Database, The Kirby Institute and the Burnet Institute; Hospital data were not included in analysis for this report

³¹ 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.

³² Public sexual health and HIV services data provided by Local Health Districts for the purpose of monitoring the implementation of the NSW HIV Strategy.

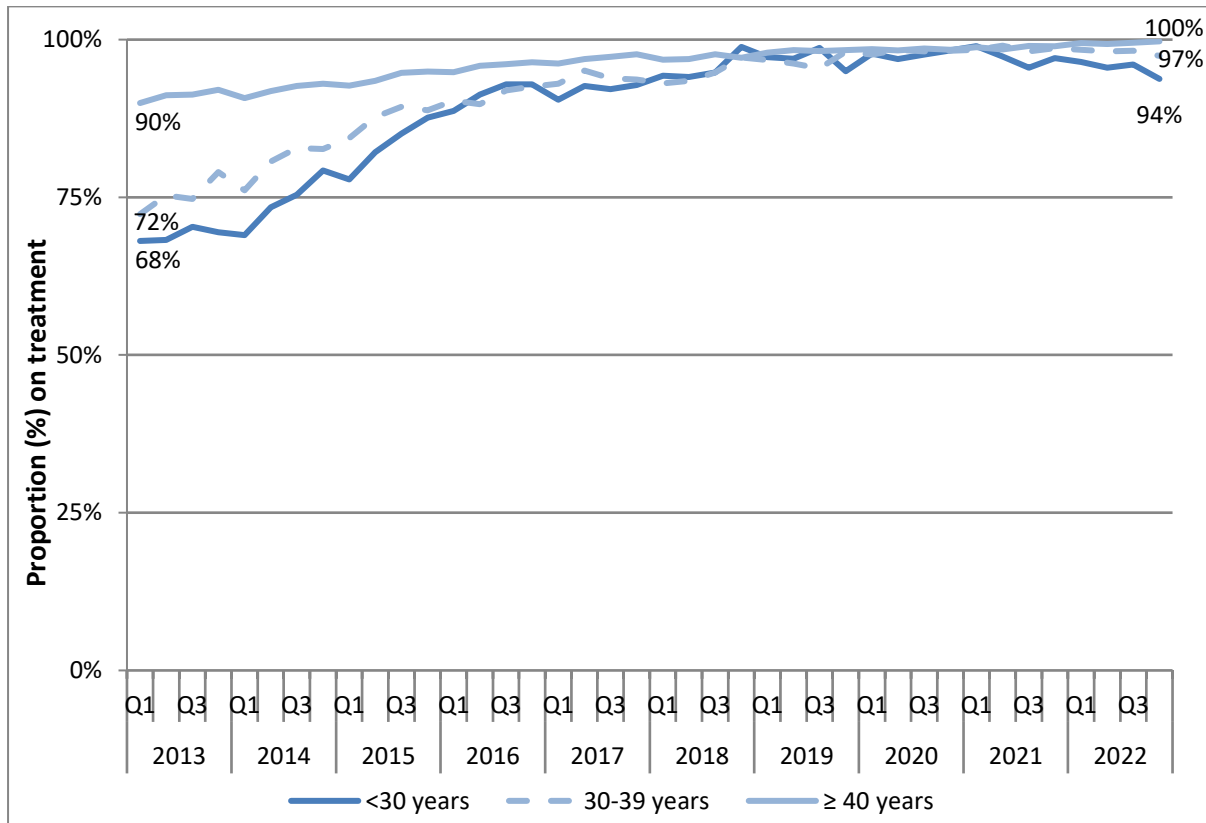
³³ Excludes patients for whom HIV care was recorded as managed elsewhere

³⁴ Active HIV care define by patients with a record of a viral load test in the last two years

Comments on Figure 41

- Over time, treatment uptake for people living with HIV increased across service types. Between Q1 2013 and Q4 2022, treatment uptake increased from 86% to 99% and 88% to 100% in PFSHCs and GBM GP clinics, respectively.

Figure 42: Proportion of PLHIV attending any clinic in the ACCESS network for HIV management ³⁵under active HIV care ³⁶who received antiretroviral 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 2013 to 31 December 2022



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

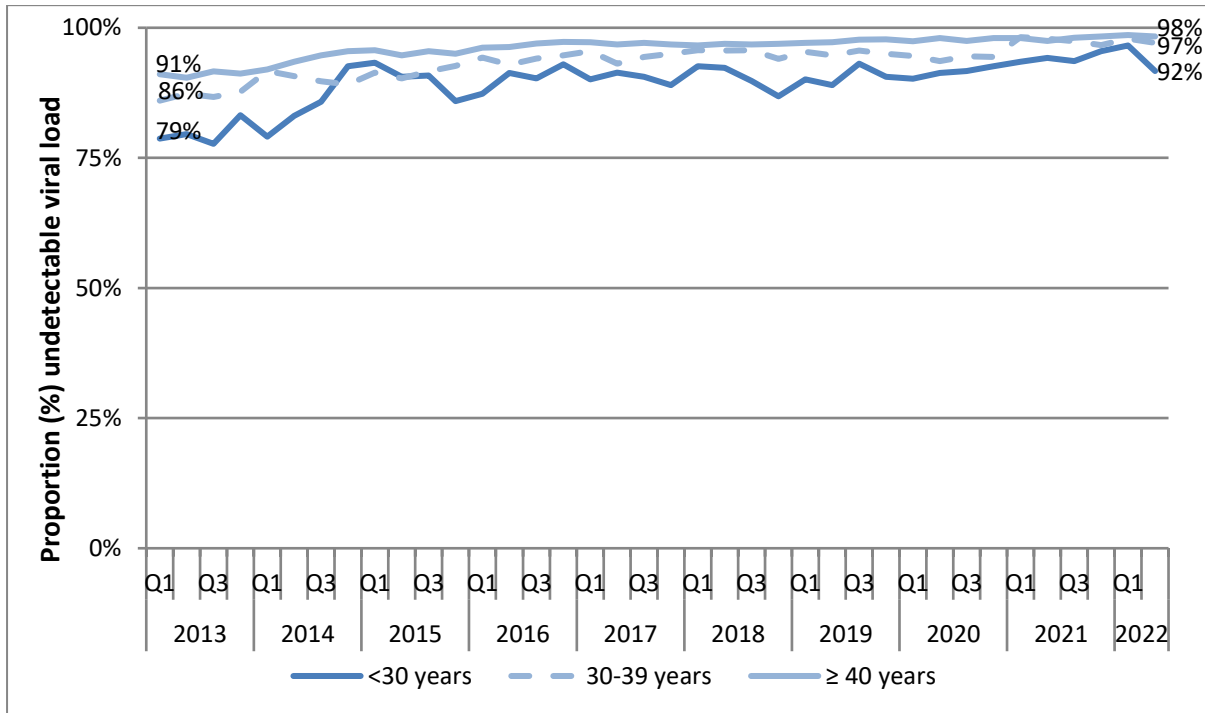
Comments on Figure 42

- Uptake of treatment for HIV was highest among patients aged 30 years and older and lowest among those 30 years and younger.
- Uptake increased amongst all age groups from Q1 2013-Q4 2022.

³⁵ Excludes patients for whom HIV care was recorded as managed elsewhere

³⁶ Active HIV care define by patients with a record of a viral load test in the last two years

Figure 43: Proportion of HIV positive patients under active HIV care³⁷ on treatment at any clinic in the ACCESS network³⁸ with an 'undetectable'³⁹ viral load at their most recent test in the previous 12-month period at any clinic in the ACCESS network⁴⁰, by age group and quarter, 1 January 2013 to 31 December 2022



Comments on Figure 43

- The proportion of HIV positive patients with an undetectable viral load was consistently highest among older patients: 98% of patients 40 years and older had undetectable viral loads in Q4 of 2022.
- Overall, the proportion of patients with an undetectable viral load increased from Q1 2013-Q4 2022.

³⁷ Active HIV care define by patients with a viral load test in the last two years

³⁸ GBM clinics defined as general practice clinics serving at least 50 GBM patients annually

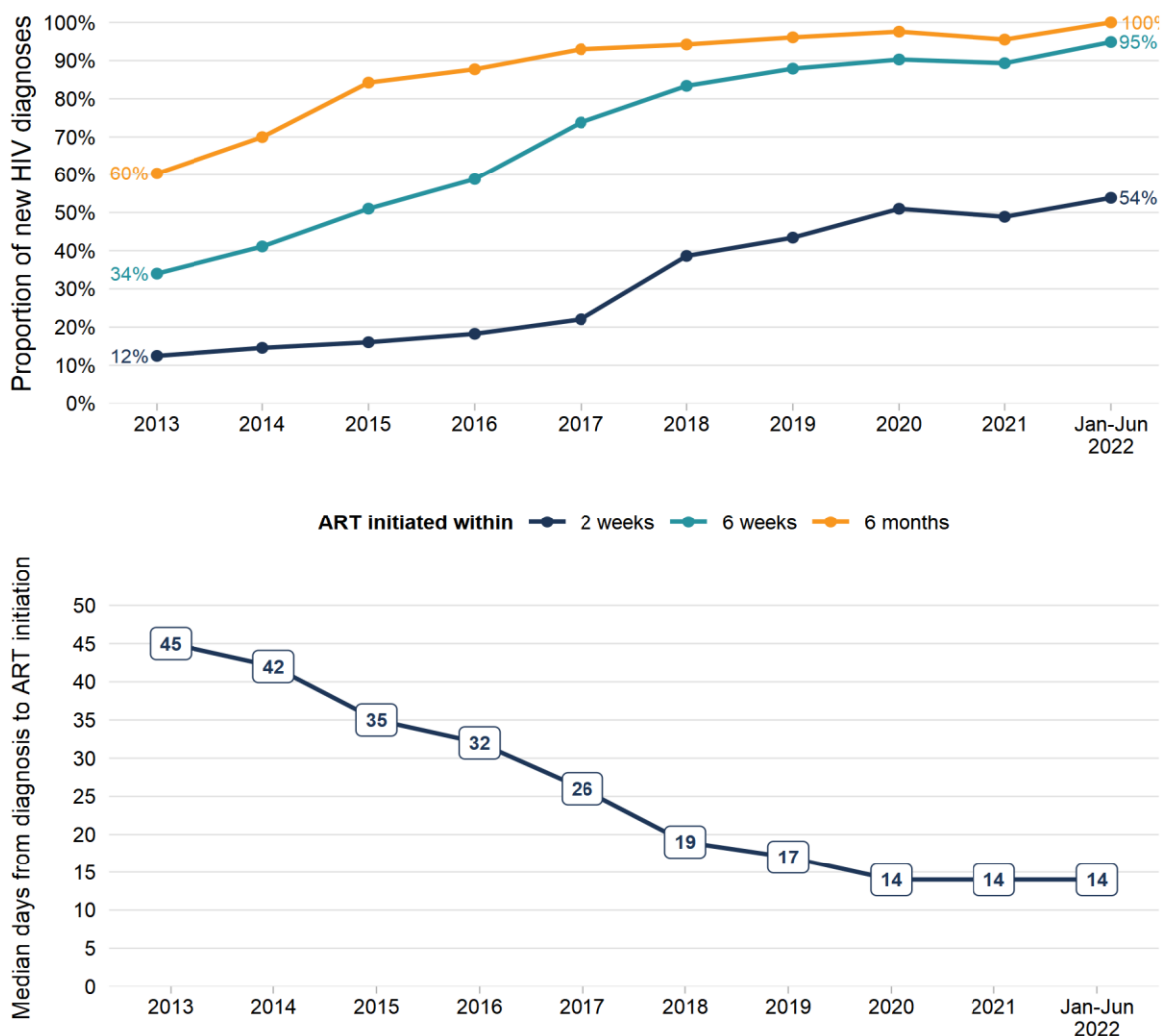
³⁹ 'Undetectable' defined as <200 RNA copies/mm³ of blood

⁴⁰ Excludes patients for whom viral load test information was not available
Hospital data were not included in analysis

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

The 2021-2025 HIV Strategy now aims to ensure that at least 90% of people newly diagnosed with HIV are on ART within 2 weeks of diagnosis. Data on ART initiation was drawn from the six-month follow up and initial HIV notification form. At the time of preparing this Q4 2022 report, the six-month post diagnosis follow-up had been done on NSW residents newly diagnosed from 1 January 2013 to 30 June 2022 (n=2,696). All new diagnoses were included irrespective of whether eligible for follow up and of care outcome.

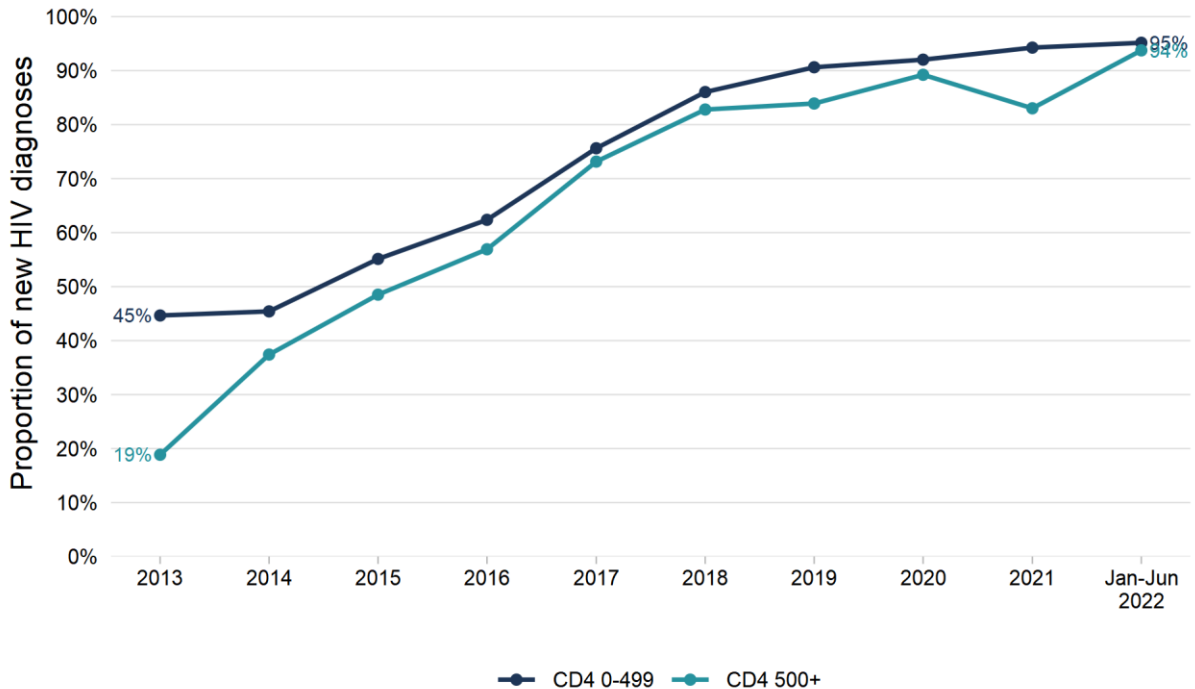
Figure 44: Time to ART for NSW residents newly diagnosed in January 2013 to June 2022



Comment on Figure 44

- Of the 78 people newly diagnosed during January to June 2022 and followed up six months post diagnosis, 54% initiated ART within two weeks, 95% within six weeks and 100% within six months of diagnosis. The median time to ART initiation was 14 days. Of the 78 on ART within six months of diagnosis, 61 (78%) were already virally suppressed (VL < 200 copies/mL) at six months follow up.

Figure 45: CD4 count at diagnosis of NSW residents notified with newly diagnosed HIV infection from January 2013 to June 2022 and % on ART within six weeks of diagnosis

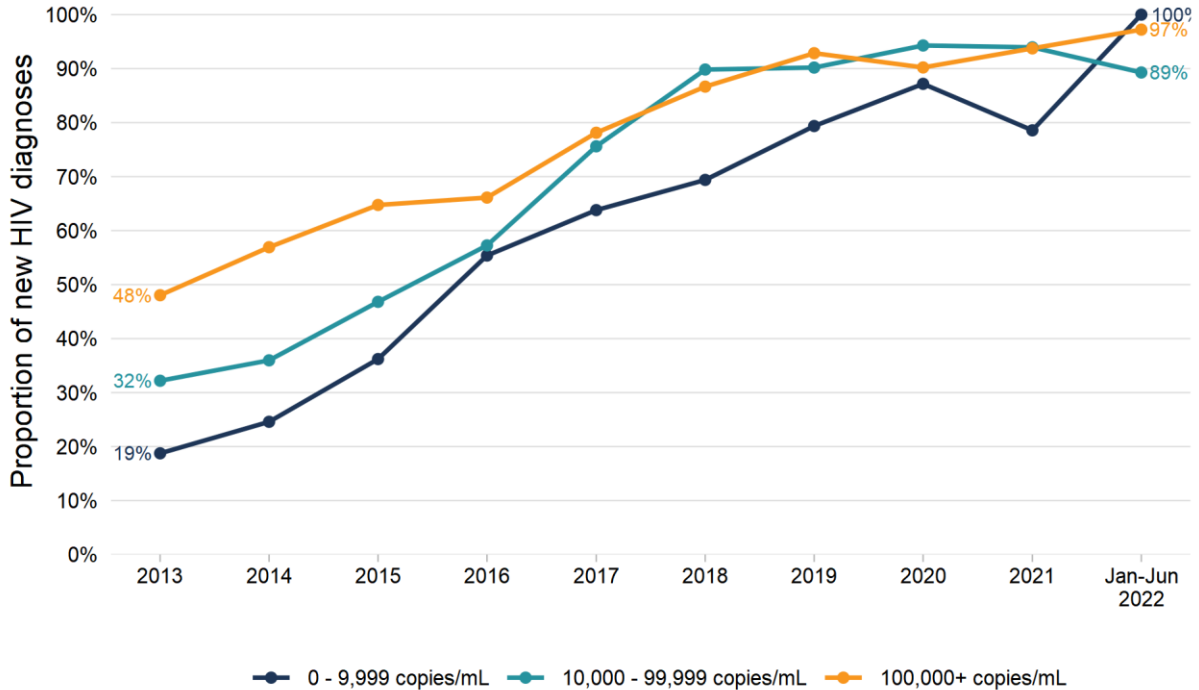


Note: excludes 60 new diagnoses with missing CD4 at diagnosis, some of whom had commenced ART within 6 months.

Comments on Figure 45

- The proportion of people newly diagnosed with a CD4 count of 0-499 cells/μL who commenced ART within six weeks of diagnosis was 45% of the 2013, 45% of the 2014, 55% of the 2015, 62% of the 2016, 76% of the 2017, 86% of the 2018, 91% of the 2019, 92% of the 2020, 94% of the 2021 and 95% of the January to June 2022 new diagnoses.
- The proportion of people newly diagnosed with a CD4 count of 500 or over who commenced ART within six weeks of diagnosis was 19% of the 2013, 37% of the 2014, 49% of the 2015, 57% of the 2016, 73% of the 2017, 83% of the 2018, 84% of the 2019, 89% of the 2020, 83% of the 2021 and 94% of the January to June 2022 new diagnoses.

Figure 46: HIV viral load at diagnosis of NSW residents notified with newly diagnosed HIV infection from January 2013 to June 2022 and % on ART within six weeks of diagnosis



Note: excludes 66 new diagnoses with missing HIV VL at diagnosis, some of whom had commenced ART within 6 months.

Comments on Figure 46

- Of people with a HIV VL of 0-9,999 copies/mL, 19% of the 2013, 25% of the 2014, 36% of the 2015, 55% of the 2016, 64% of the 2017, 69% of the 2018, 79% of the 2019, 87% of the 2020, 79% of the 2021 and 100% of the January to June 2022 new diagnoses had commenced ART within six weeks of diagnosis.
- Of people with a HIV VL of 10,000-99,999 copies/mL, 32% of the 2013, 36% of the 2014, 47% of the 2015, 57% of the 2016, 76% of the 2017, 90% of the 2018, 90% of the 2019, 94% of the 2020, 94% of the 2021 and 89% of the January to June 2022 new diagnoses had commenced ART within six weeks of diagnosis.
- Of people with a HIV VL of 100,000 or over, 48% of the 2013, 57% of the 2014, 65% of the 2015, 66% of the 2016, 78% of the 2017, 87% of the 2018, 93% of the 2019, 90% of the 2020, 94% of the 2021 and 97% of the January to June 2022 new diagnoses had commenced ART within six weeks of diagnosis.

4.4 How is transmitted drug resistance and HIV transmission monitored in NSW?

As part of the NSW HIV Prevention Revolution Partnership HIV sequences from routinely performed genotypic antiretroviral resistance testing are de-identified and linked to new HIV diagnoses. This enables the level of HIV drug resistance mutations from newly diagnosed people to be monitored over time, giving an estimate of the level of drug resistance that is being transmitted in the population. It is particularly important to monitor the level of transmitted resistance to each of the two antiretroviral drugs that are in PrEP (tenofovir (TDF) and emtricitabine (FTC)), as a virus with these drug mutations may result in PrEP failure.

Analysis of NSW HIV sequence data from 2004 to 2018 shows that transmitted drug resistance for all antiretroviral drugs has decreased during this time period from a peak of 19.7% in 2006 to 9.4% in 2018. Between 2015 – 2018 the most common were K103N (3.3%), T215S (2.0%), M41L (0.8%), and M184V (0.8%). For all sequences from newly diagnosed people in this time period (n=995), only one sequence was identified with high level resistance to TDF (K65R). In contrast eight sequences contained mutations conferring high level resistance to FTC (M184V/I), which represents an increase of 0.36% to 0.80% between 2012 to 2018.

Molecular epidemiological analysis of de-identified HIV sequences from newly diagnosed people is also undertaken to provide valuable information about HIV transmission in NSW to inform the public health response. When interpreting such analyses, it should be noted that detection of related infections is dependent on sequencing of virus soon after infection, as HIV is a virus that changes rapidly. Earlier diagnosis of HIV over time may increase the number of viruses found to be closely related. Data from 2013 to 2018 shows that almost two thirds of viruses from newly diagnosed people were part of a cluster. Such clusters of more than three sequences were not uncommon and have been increase in time and frequency (Di Giallonardo et al. J Int AIDS Soc 24:e25655; 2021).

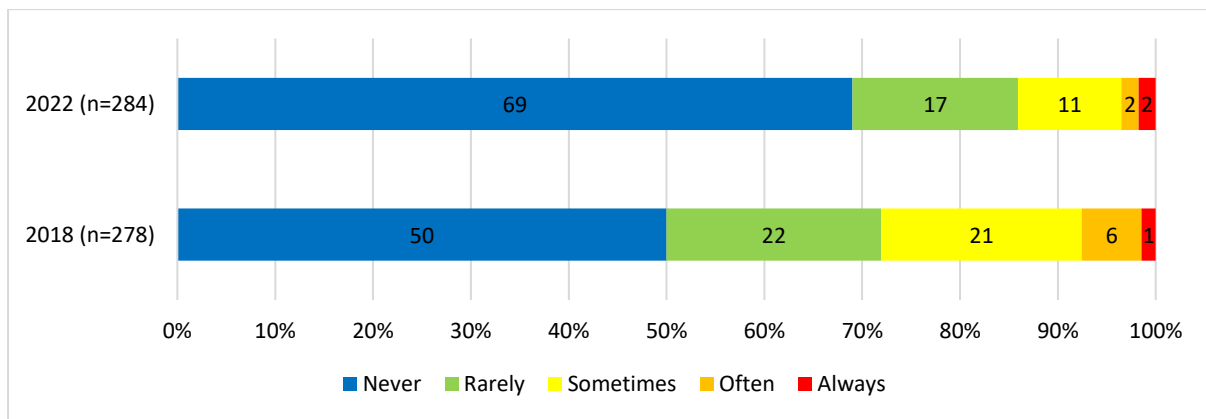
5. Reduce HIV stigma

5.1 Experience of stigma by people at risk and living with HIV in NSW healthcare settings

The Stigma Indicators Monitoring Project periodically collects data regarding stigma and discrimination experienced by PLHIV and other groups at risk (e.g., MSM, PWID, sex workers). The project also monitors the expression of stigma towards these groups by health care workers and the general public. Stigma indicator items are routinely included in surveys of people at risk and living with HIV, with varying data collection cycles. Data are collected in relation to any experiences of stigma or discrimination within the past 12 months, as well as stigmatising experiences specifically within health care settings.

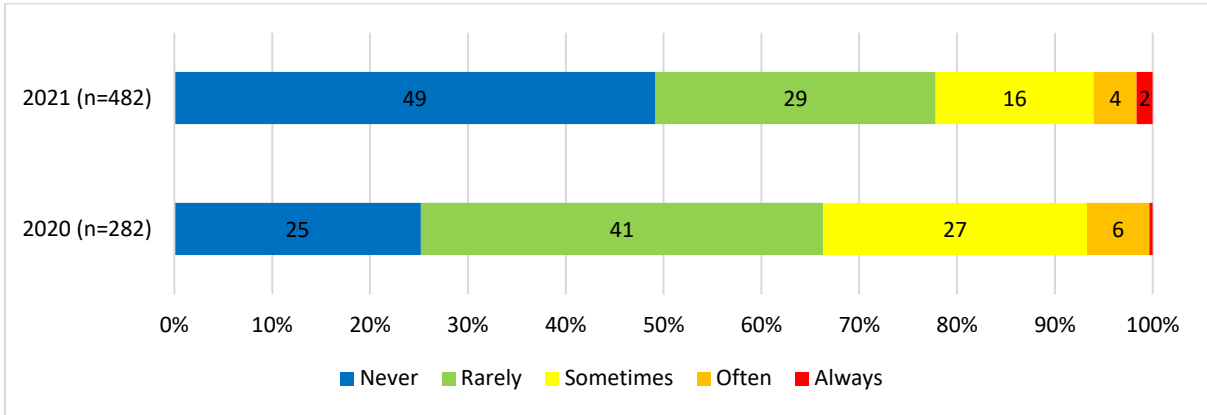
Baseline data have previously been presented, based on the most recent data available prior to the commencement of the NSW HIV Strategy 2021-2025.

Figure 47: Past year experience of stigma or discrimination reported by people living with HIV in NSW



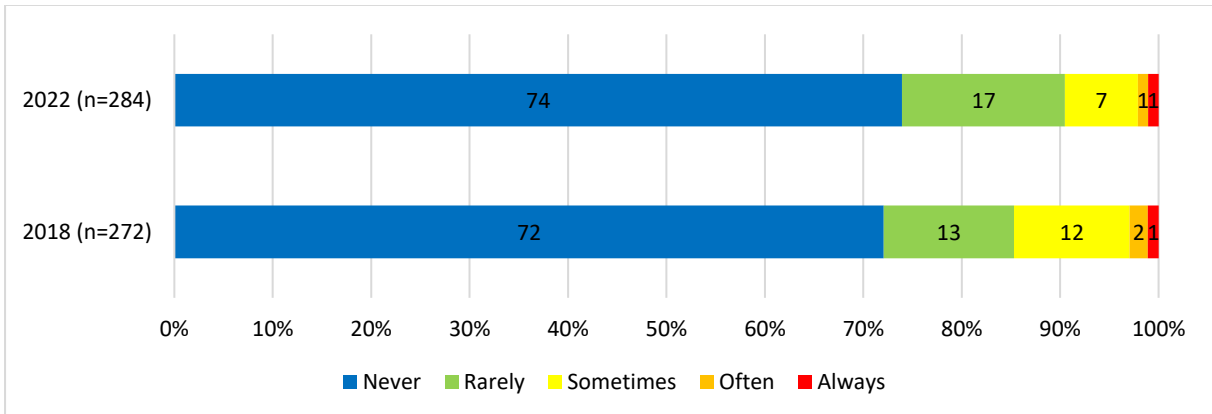
Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Figure 48: Past year experience of stigma or discrimination reported by men who have sex with men in NSW



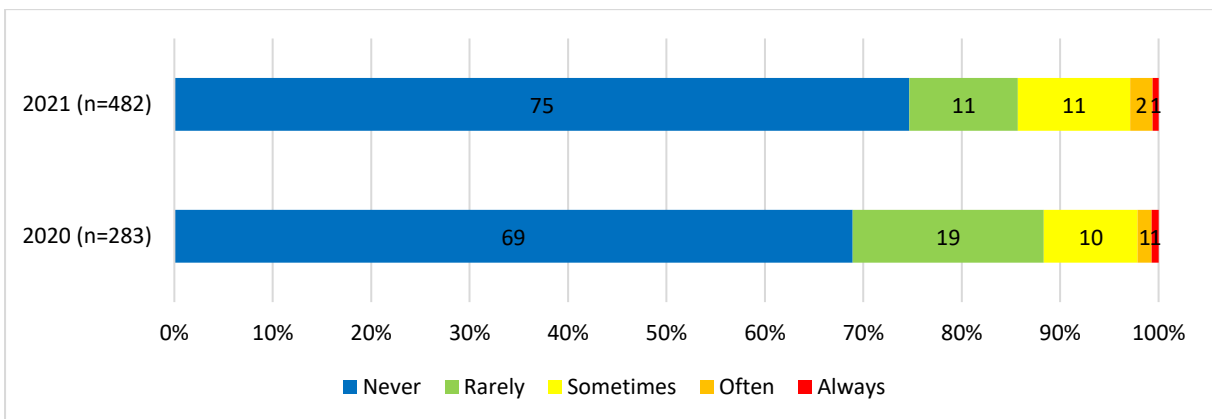
Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Figure 49: Past year experience of negative treatment by health workers reported by people living with HIV in NSW



Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Figure 50: Past year experience of negative treatment by health workers reported by men who have sex with men in NSW

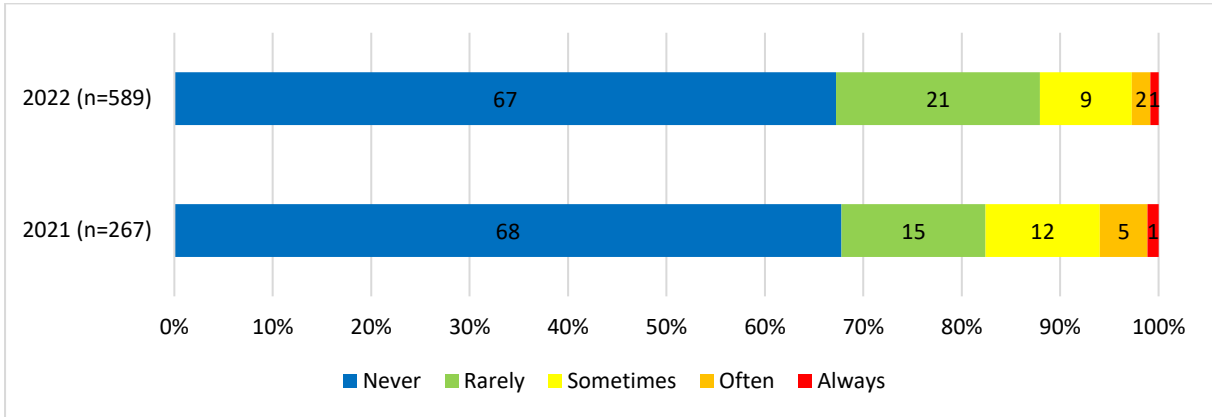


Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Comment on Figures 47-50:

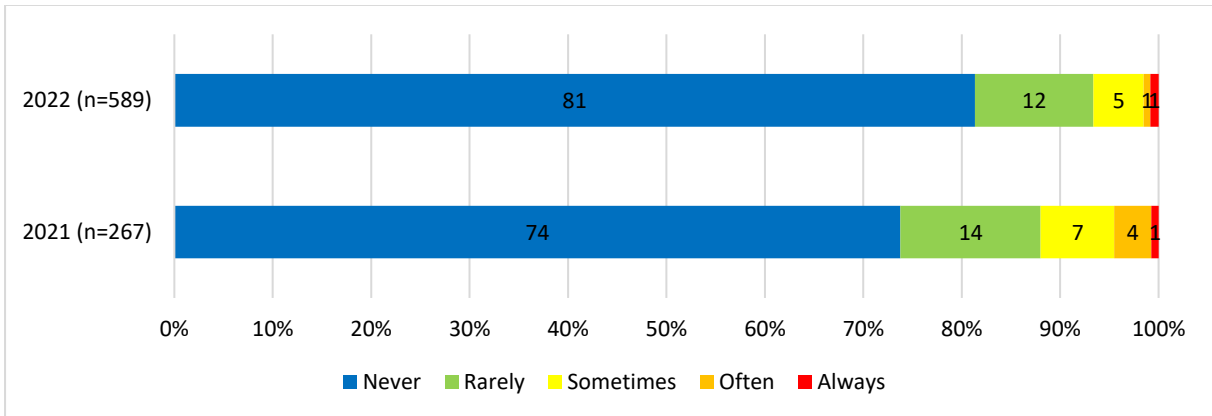
- In 2022, 31% of PLHIV reported any past year experience of stigma or discrimination in relation to their HIV. This represents a 38% reduction from the 50% of PLHIV who reported any past year stigma or discrimination in 2018.
- In 2022, 26% of PLHIV reported having been treated negatively or differently to other people by health care workers. This represents a 7% reduction from the 28% of PLHIV who reported being treated negatively by health workers in 2018.
- In 2021, 51% of MSM reported any past year experience of stigma or discrimination in relation to their sexual orientation. This represents a 32% reduction from the 75% of MSM who reported any past year stigma or discrimination in 2020.
- In 2021, 25% of MSM reported having been treated negatively or differently to other people by health care workers. This represents a 19% reduction from the 31% of MSM who reported being treated negatively by health workers in 2020.
- Although the sampling strategies for PLHIV and MSM were both consistent over time points, these data are from repeated, cross-sectional surveys. Some variation in responses should therefore be expected, due to different groups of participants completing the surveys at each time point.

Figure 51: Self-reported likelihood of behaving negatively towards people living with HIV among health care workers in NSW



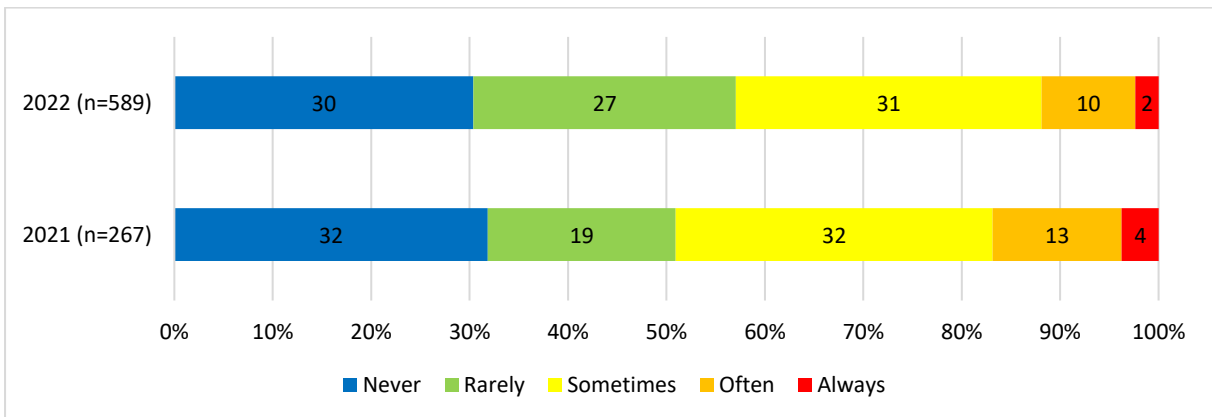
Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Figure 52: Self-reported likelihood of behaving negatively towards other people because of their sexual orientation among health care workers in NSW



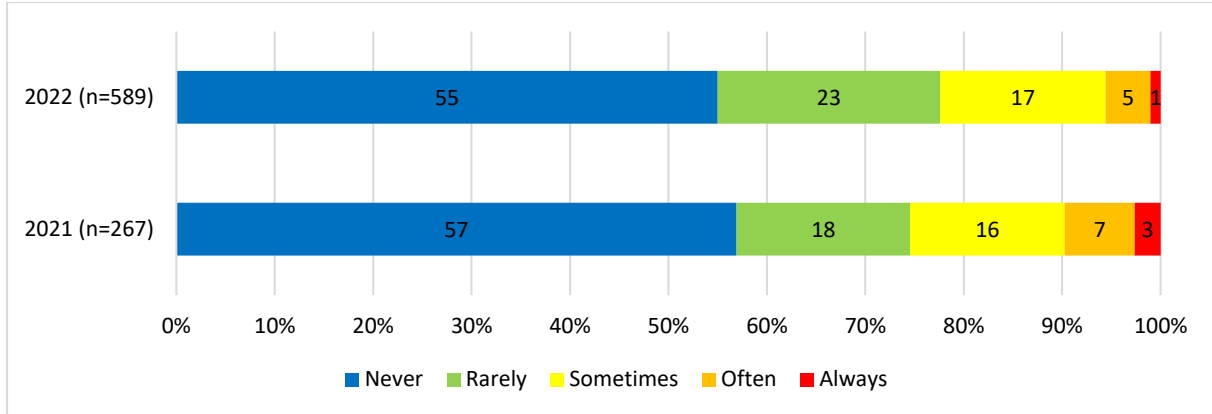
Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Figure 53: Self-reported likelihood of behaving negatively towards other people because of their injecting drug use among health care workers in NSW



Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Figure 54: Self-reported likelihood of behaving negatively towards sex workers among health care workers in NSW



Data source: Stigma Indicators Monitoring Project, Centre for Social Research in Health, UNSW

Comment on Figures 51-54:

- In 2022, 33% of health care workers reported that they would behave negatively towards other people because of their HIV. This represents a 3% increase from the 32% of health care workers who would behave negatively towards other people because of their HIV in 2021. It should be noted, however, that the proportion who reported that they would ‘sometimes’, ‘often’, or ‘always’ behave negatively towards other people because of their HIV decreased from 18% in 2021 to 12% in 2022.
- In 2022, 19% of health care workers reported that they would behave negatively towards other people because of their sexual orientation. This represents a 27% reduction from the 26% of health care workers who would behave negatively towards other people because of their sexual orientation in 2021. The proportion who reported that they would ‘sometimes’, ‘often’, or ‘always’ behave negatively towards other people because of their sexual orientation decreased from 12% in 2021 to 7% in 2022.
- In 2022, 70% of health care workers reported that they would behave negatively towards other people because of their injecting drug use. This represents a 3% increase from the 68% of health care workers who would behave negatively towards other people because of their injecting drug use in 2021. It should be noted, however, that the proportion who reported that they would ‘sometimes’, ‘often’, or ‘always’ behave negatively towards other people because of their injecting drug use decreased from 49% in 2021 to 43% in 2022.
- In 2022, 45% of health care workers reported that they would behave negatively towards other people because of their sex work. This represents a 5% increase from the 43% of health care workers who would behave negatively towards other people because of their sex work in 2021. It should be noted, however, that the proportion who reported that they would ‘sometimes’, ‘often’, or ‘always’ behave negatively towards other people because of their sex work decreased from 26% in 2021 to 23% in 2022.
- Although the sampling strategy for health care workers was consistent between 2021 and 2022, these data are from repeated, cross-sectional surveys. Some variation in responses should therefore be expected, due to different groups of participants completing the surveys at each time point.

6. Appendices

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 bisexual men recruited at a range of gay community sites in Sydney, with online recruitment across NSW. 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)
Flux Study	The Kirby Institute, UNSW Australia	Quarterly	Online prospective observational study of gay and bisexual men recruited via social media and community organisations. Data fields include age, state of residence, sexuality, sexual behaviours, HIV risk behaviours, use of pre-exposure prophylaxis (PrEP), and HIV and STI testing. Data is self-reported. Between May 2020 and May 2021, data was collected weekly. From April 2021, data are collected at the end of each quarter.

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	Repeated cross-sectional survey of gay and bisexual men recruited at a range of gay community sites in Sydney, with online recruitment across NSW. 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 Specialised Drugs Programme data	Centre for Population Health, NSW Health	Quarterly Note: 6-week lag in data being provided to NSW Health.	PBS dispensing data for HIV treatments for all NSW residents from July 2014. This data is prepared by the Commonwealth Government for 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	6-month	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.

<p>Notifiable Conditions Information Management System (NCIMS)</p>	<p>Health Protection NSW, NSW Health</p>	<p>Quarterly</p>	<p>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</p>
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Appendix B: Characteristics of NSW residents notified with newly diagnosed HIV infection 1981 to 2022 (continues over page); data extracted from NCIMS, HPNSW, 14 February 2022.

Case characteristics	2012 N (%)	2013 N (%)	2014 N (%)	2015 N (%)	2016 N (%)	2017 N (%)	2018 N (%)	2019 N (%)	2020 N (%)	2021 N (%)	2022 N (%)	1981-2022 N (%)
Total (ALL)	414	353	343	349	318	313	277	281	206	178	167	19394
Gender												
<i>Male</i>	377 (91.1%)	323 (91.5%)	317 (92.4%)	320 (91.7%)	292 (91.8%)	282 (90.1%)	254 (91.7%)	252 (89.7%)	181 (87.9%)	165 (92.7%)	143 (85.6%)	17804 (91.8%)
<i>Female</i>	36 (8.7%)	27 (7.6%)	25 (7.3%)	28 (8.0%)	22 (6.9%)	25 (8.0%)	20 (7.2%)	23 (8.2%)	21 (10.2%)	12 (6.7%)	22 (13.2%)	1277 (6.6%)
<i>Transgender</i>	1 (0.2%)	3 (0.8%)	1 (0.3%)	1 (0.3%)	4 (1.3%)	6 (1.9%)	3 (1.1%)	6 (2.1%)	4 (1.9%)	1 (0.6%)	2 (1.2%)	65 (0.3%)
<i>Unknown</i>	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%)	0 (0.0%)	248 (1.3%)
Aboriginal or Torres Strait Islander person status												
<i>Aboriginal person</i>	13 (3.1%)	8 (2.3%)	7 (2.0%)	7 (2.0%)	9 (2.8%)	8 (2.6%)	11 (4.0%)	6 (2.1%)	5 (2.4%)	1 (0.6%)	6 (3.6%)	228 (1.2%)
<i>Torres Strait Islander</i>	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.0%)
<i>Non-Aboriginal person</i>	395 (95.4%)	343 (97.2%)	331 (96.5%)	339 (97.1%)	308 (96.9%)	305 (97.4%)	266 (96.0%)	274 (97.5%)	200 (97.1%)	177 (99.4%)	161 (96.4%)	12289 (63.4%)
<i>Not stated</i>	6 (1.4%)	2 (0.6%)	5 (1.5%)	3 (0.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	6875 (35.4%)
Age in years at diagnosis												
<i>0-4</i>	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%)	0 (0.0%)	40 (0.2%)
<i>5-9</i>	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	25 (0.1%)
<i>10-14</i>	0 (0.0%)	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%)	36 (0.2%)
<i>15-19</i>	9 (2.2%)	8 (2.3%)	2 (0.6%)	6 (1.7%)	3 (0.9%)	5 (1.6%)	4 (1.4%)	4 (1.4%)	5 (2.4%)	0 (0.0%)	3 (1.8%)	335 (1.7%)
<i>20-24</i>	44 (10.6%)	37 (10.5%)	41 (12.0%)	45 (12.9%)	38 (11.9%)	29 (9.3%)	36 (13.0%)	29 (10.3%)	17 (8.3%)	10 (5.6%)	8 (4.8%)	2316 (11.9%)
<i>25-29</i>	78 (18.8%)	64 (18.1%)	51 (14.9%)	63 (18.1%)	62 (19.5%)	58 (18.5%)	60 (21.7%)	43 (15.3%)	46 (22.3%)	44 (24.7%)	31 (18.6%)	3825 (19.7%)
<i>30-34</i>	71 (17.1%)	48 (13.6%)	64 (18.7%)	62 (17.8%)	63 (19.8%)	57 (18.2%)	50 (18.1%)	67 (23.8%)	44 (21.4%)	35 (19.7%)	35 (21.0%)	3866 (19.9%)
<i>35-39</i>	64 (15.5%)	42 (11.9%)	45 (13.1%)	45 (12.9%)	48 (15.1%)	36 (11.5%)	29 (10.5%)	41 (14.6%)	22 (10.7%)	19 (10.7%)	25 (15.0%)	3155 (16.3%)
<i>40-44</i>	47 (11.4%)	45 (12.7%)	45 (13.1%)	32 (9.2%)	30 (9.4%)	38 (12.1%)	27 (9.7%)	30 (10.7%)	21 (10.2%)	18 (10.1%)	20 (12.0%)	2331 (12.0%)
<i>45-49</i>	38 (9.2%)	45 (12.7%)	30 (8.7%)	27 (7.7%)	32 (10.1%)	22 (7.0%)	23 (8.3%)	19 (6.8%)	16 (7.8%)	17 (9.6%)	17 (10.2%)	1414 (7.3%)
<i>50-54</i>	28 (6.8%)	24 (6.8%)	25 (7.3%)	28 (8.0%)	18 (5.7%)	19 (6.1%)	18 (6.5%)	19 (6.8%)	14 (6.8%)	8 (4.5%)	13 (7.8%)	884 (4.6%)
<i>55-59</i>	14 (3.4%)	22 (6.2%)	15 (4.4%)	13 (3.7%)	13 (4.1%)	16 (5.1%)	15 (5.4%)	13 (4.6%)	9 (4.4%)	13 (7.3%)	7 (4.2%)	523 (2.7%)
<i>60-64</i>	14 (3.4%)	6 (1.7%)	14 (4.1%)	15 (4.3%)	6 (1.9%)	17 (5.4%)	7 (2.5%)	4 (1.4%)	6 (2.9%)	6 (3.4%)	6 (3.6%)	289 (1.5%)
<i>65-69</i>	4 (1.0%)	9 (2.5%)	7 (2.0%)	7 (2.0%)	4 (1.3%)	5 (1.6%)	4 (1.4%)	7 (2.5%)	6 (2.9%)	5 (2.8%)	1 (0.6%)	163 (0.8%)
<i>70 or over</i>	3 (0.7%)	2 (0.6%)	3 (0.9%)	6 (1.7%)	0 (0.0%)	10 (3.2%)	4 (1.4%)	5 (1.8%)	0 (0.0%)	3 (1.7%)	1 (0.6%)	104 (0.5%)

<i>Unknown</i>	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%)	0 (0.0%)	88 (0.5%)
Case characteristics	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1981-2022
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Total (ALL)	414	353	343	349	318	313	277	281	206	178	167	19394
Reported HIV risk exposure												
<i>MSM</i>	322 (77.8%)	264 (74.8%)	254 (74.1%)	264 (75.6%)	237 (74.5%)	215 (68.7%)	194 (70.0%)	190 (67.6%)	135 (65.5%)	121 (68.0%)	104 (62.3%)	12321 (63.5%)
<i>MSM who injects drugs</i>	15 (3.6%)	16 (4.5%)	20 (5.8%)	21 (6.0%)	25 (7.9%)	17 (5.4%)	25 (9.0%)	26 (9.3%)	20 (9.7%)	15 (8.4%)	15 (9.0%)	671 (3.5%)
<i>HET</i>	59 (14.3%)	61 (17.3%)	50 (14.6%)	52 (14.9%)	48 (15.1%)	68 (21.7%)	51 (18.4%)	56 (19.9%)	40 (19.4%)	35 (19.7%)	38 (22.8%)	1936 (10.0%)
<i>PWID</i>	9 (2.2%)	7 (2.0%)	8 (2.3%)	4 (1.1%)	4 (1.3%)	6 (1.9%)	4 (1.4%)	5 (1.8%)	3 (1.5%)	4 (2.2%)	4 (2.4%)	594 (3.1%)
<i>Blood disorder, blood or tissue recipient</i>	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	278 (1.4%)
<i>Vertical transmission</i>	0 (0.0%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	1 (0.3%)	2 (0.6%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	55 (0.3%)
<i>Other</i>	2 (0.5%)	1 (0.3%)	4 (1.2%)	3 (0.9%)	1 (0.3%)	1 (0.3%)	1 (0.4%)	3 (1.1%)	2 (1.0%)	1 (0.6%)	3 (1.8%)	60 (0.3%)
<i>Unknown</i>	7 (1.7%)	3 (0.8%)	6 (1.7%)	4 (1.1%)	2 (0.6%)	4 (1.3%)	2 (0.7%)	1 (0.4%)	4 (1.9%)	2 (1.1%)	3 (1.8%)	3479 (17.9%)
LHD of residence												
<i>South Eastern Sydney</i>	150 (36.2%)	126 (35.7%)	112 (32.7%)	129 (37.0%)	84 (26.4%)	92 (29.4%)	85 (30.7%)	73 (26.0%)	50 (24.3%)	53 (29.8%)	41 (24.6%)	5992 (30.9%)
<i>Sydney</i>	113 (27.3%)	92 (26.1%)	84 (24.5%)	86 (24.6%)	95 (29.9%)	71 (22.7%)	63 (22.7%)	61 (21.7%)	36 (17.5%)	33 (18.5%)	27 (16.2%)	3362 (17.3%)
<i>Northern Sydney</i>	24 (5.8%)	25 (7.1%)	17 (5.0%)	24 (6.9%)	20 (6.3%)	30 (9.6%)	23 (8.3%)	23 (8.2%)	19 (9.2%)	13 (7.3%)	19 (11.4%)	1128 (5.8%)
<i>Western Sydney</i>	25 (6.0%)	26 (7.4%)	26 (7.6%)	20 (5.7%)	24 (7.5%)	27 (8.6%)	24 (8.7%)	30 (10.7%)	25 (12.1%)	22 (12.4%)	14 (8.4%)	888 (4.6%)
<i>South Western Sydney</i>	30 (7.2%)	28 (7.9%)	30 (8.7%)	31 (8.9%)	31 (9.7%)	25 (8.0%)	21 (7.6%)	34 (12.1%)	28 (13.6%)	21 (11.8%)	27 (16.2%)	843 (4.3%)
<i>Hunter New England</i>	14 (3.4%)	17 (4.8%)	27 (7.9%)	17 (4.9%)	15 (4.7%)	7 (2.2%)	17 (6.1%)	23 (8.2%)	19 (9.2%)	7 (3.9%)	4 (2.4%)	579 (3.0%)
<i>Nepean Blue Mountains</i>	5 (1.2%)	3 (0.8%)	6 (1.7%)	6 (1.7%)	2 (0.6%)	6 (1.9%)	5 (1.8%)	4 (1.4%)	5 (2.4%)	8 (4.5%)	7 (4.2%)	297 (1.5%)
<i>Illawarra Shoalhaven</i>	9 (2.2%)	7 (2.0%)	6 (1.7%)	7 (2.0%)	8 (2.5%)	10 (3.2%)	7 (2.5%)	6 (2.1%)	4 (1.9%)	3 (1.7%)	7 (4.2%)	270 (1.4%)
<i>Northern NSW</i>	5 (1.2%)	5 (1.4%)	7 (2.0%)	8 (2.3%)	5 (1.6%)	10 (3.2%)	9 (3.2%)	10 (3.6%)	2 (1.0%)	7 (3.9%)	5 (3.0%)	251 (1.3%)
<i>Central Coast</i>	10 (2.4%)	5 (1.4%)	8 (2.3%)	5 (1.4%)	11 (3.5%)	12 (3.8%)	5 (1.8%)	2 (0.7%)	5 (2.4%)	2 (1.1%)	2 (1.2%)	236 (1.2%)
<i>Mid North Coast</i>	3 (0.7%)	6 (1.7%)	7 (2.0%)	6 (1.7%)	2 (0.6%)	4 (1.3%)	3 (1.1%)	2 (0.7%)	3 (1.5%)	1 (0.6%)	3 (1.8%)	165 (0.9%)
<i>Western NSW</i>	7 (1.7%)	5 (1.4%)	2 (0.6%)	2 (0.6%)	5 (1.6%)	5 (1.6%)	3 (1.1%)	3 (1.1%)	4 (1.9%)	3 (1.7%)	3 (1.8%)	146 (0.8%)
<i>Murrumbidgee-Albury</i>	5 (1.2%)	3 (0.8%)	3 (0.9%)	4 (1.1%)	9 (2.8%)	6 (1.9%)	4 (1.4%)	2 (0.7%)	4 (1.9%)	0 (0.0%)	1 (0.6%)	118 (0.6%)
<i>Southern NSW</i>	8 (1.9%)	4 (1.1%)	4 (1.2%)	2 (0.6%)	6 (1.9%)	3 (1.0%)	3 (1.1%)	2 (0.7%)	1 (0.5%)	2 (1.1%)	4 (2.4%)	82 (0.4%)
<i>Far West</i>	2 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.4%)	2 (0.7%)	0 (0.0%)	1 (0.6%)	0 (0.0%)	12 (0.1%)
<i>Unknown or other</i>	4 (1.0%)	1 (0.3%)	4 (1.2%)	2 (0.6%)	1 (0.3%)	5 (1.6%)	4 (1.4%)	4 (1.4%)	1 (0.5%)	2 (1.1%)	3 (1.8%)	5025 (25.9%)

Appendix C: Ending HIV Seven Statements Evaluation, ACON 2013-2021

	Percentage of respondents who strongly agree or agree with the statements below.														
	Feb 2013	May 2013	Nov 2013	Apr 2014	Dec 2014	Apr 2015	Mar 2016	Sep 2016	Apr 2017	Mar 2018	Mar 2019	Dec 2019	Mar 2020	Mar 2021 ⁴	
Everything has changed, we can now dramatically reduce HIV transmission	48%	59%	59%	67%	61%	71%	77%	86%	77%	87%	85%	87%	89%	80%	
Now more than ever, gay men need to know their HIV status	81%	85%	86%	90%	89%	91%	92%	92%	91%	92%	92%	92%	92%	89%	
Sexually active gay men should take an HIV test four times a year ¹	88%	87%	92%	93%	89%	92%	93%	96%	94%	95%	94%	85%	88%	85%	
HIV treatments now offer increased health benefits and fewer side effects	65%	66%	67%	73%	69%	75%	77%	78%	71%	77%	74%	73%	72%	78%	
HIV treatments significantly reduce the risk of passing on HIV	33%	42%	50%	64%	59%	69%	73%	83%	78%	84%	83%	85%	87%	83%	
Early HIV treatment is better for your health and can help protect your sex partners ²	74%	80%	89%	91%	92%	93%	93%	95%	93%	95%	93%	-	-	-	
Condoms continue to be an effective way of preventing HIV transmission ³	95%	92%	92%	91%	91%	85%	94%	94%	94%	94%	90%	90%	93%	91%	
PrEP, if taken as prescribed, is an effective way of preventing HIV transmission	-	-	-	-	-	-	66%	78%	74%	83%	81%	78%	80%	85%	

* In March 2016 this statement was changed to reflect advances in bio-medical prevention. On all prior surveys the statement was 'condoms continue to be the most effective way of preventing HIV transmission'.

Survey methodology:

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

Recruitment methodology:

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

Survey objectives:

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

Appendix D: NSW HIV Data Advisory Group members

Meredith Claremont	Advisory Group Chair, Centre for Population Health, NSW Ministry of Health
Carolyn Murray	Centre for Population Health, NSW Ministry of Health
Cherie Power	Advisory Group Secretariat, Centre for Population Health, NSW Ministry of Health
Hongli Dang	Centre for Population Health, NSW Ministry of Health
Shawn Clackett	Centre for Population Health, NSW Ministry of Health
Jeremy McAnulty	Health Protection NSW, NSW Health
Christine Selvey	Health Protection NSW, NSW Health
Valerie Delpech	Health Protection NSW, NSW Health
Steven Nigro	Health Protection NSW, NSW Health
Nathan Ryder	STIPU, Centre for Population Health, NSW Ministry of Health
Andrew Grulich	The Kirby Institute, University of NSW
Rebecca Guy	The Kirby Institute, University of NSW
Phillip Keen	The Kirby Institute, University of NSW
Prital Patel	The Kirby Institute, University of NSW
Benjamin Bavinton	The Kirby Institute, University of NSW
Garrett Prestage	The Kirby Institute, University of NSW
Mohamed A. Hammoud	The Kirby Institute, University of NSW
Martin Holt	Centre for Social Research in Health, University of NSW
Tim Broady	Centre for Social Research in Health, University of NSW
Nicolas Parkhill	ACON
Matthew Vaughan	ACON
Barbara Luisi	Multicultural HIV and Hepatitis Service (MHAHS)
Jane Costello	Positive Life
Neil Fraser	Positive Life
Mary Harrod	The NSW Users and AIDS Association (NUAA)

Appendix E: NSW postcodes in each area by proportion of male population estimated to be gay

Estimated proportion of adult male population that is gay	Postcode	Suburb(s)
≥20%	2010	Darlinghurst, Surry Hills
	2043	Ersleville
	2015	Beaconsfield, Eveleigh, Alexandria
	2011	Rushcutters Bay, Woolloomooloo, Elizabeth Bay, Potts Point
	2016	Redfern
	2042	Newtown, Enmore
5-19%	2050	Missenden Road, Camperdown
	2017	Waterloo, Zetland
	2044	Tempe, St Peters, Sydenham
	2021	Paddington, Moore Park, Centennial Park
	2008	Chippendale, Darlington
	2048	Stanmore, Westgate
	2049	Petersham, Lewisham
	2009	Pymont
	2027	Darling Point, Edgecliff, Point Piper
	2205	Wolli Creek, Turrella, Arncliffe
	2037	Forest Lodge, Glebe
	2025	Woollahra
	2204	Marrickville, Marrickville South
	2203	Dulwich Hill
	2028	Double Bay
	2038	Annandale
	2020	Mascot
	2040	Leichhardt, Lilyfield
	2000	The Rocks, Sydney, Millers Point, Haymarket, Barangaroo
	2130	Summer Hill
2007	Ultimo, Broadway	
2039	Rozelle	
2022	Queens Park, Bondi Junction	
2060	Waverton, North Sydney, McMahons Point, Lavender Bay	
<5%	All others	All other postcodes