

HIV, viral hepatitis and sexually transmissible infections in Australia Annual surveillance report 2024



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Annual surveillance report 2024

Kirby Institute, UNSW Sydney

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in collaboration with networks in surveillance for HIV, viral hepatitis and sexually transmissible infections

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We recognise communities and individuals impacted by and at risk of HIV, hepatitis B and C, and sexually transmissible infections. These people and communities are crucial stakeholders in the work we do, with invaluable contributions and lived experiences. We acknowledge and affirm their crucial role in the development of this report, and public health surveillance more broadly. This report aims to ensure that ongoing and emerging public health threats and inequities are apparent, and that high quality data are available to inform appropriate public health responses to address these issues. We also acknowledge the ongoing negative impacts stigma and societal discrimination play in perpetuating inequity, and support principles of empowerment, community ownership, and partnership.

The years for comparison in this report are for the 10-year period from 2014 to 2023. Many indicators in the report were affected by the COVID-19-related impacts on travel and access to health care, particularly testing and treatment. These impacts are acknowledged in figures and text throughout the report.

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Abbreviations

ABS	Australian Bureau of Statistics
ACCESS	Australian Collaboration for Coordinated Enhanced Sentinel Surveillance
AIDS	acquired immunodeficiency syndrome
ANSPS	Australian Needle Syringe Program Survey
ART	Antiretroviral therapy
CI	confidence interval
DNA	deoxyribonucleic acid
HIV	human immunodeficiency virus
PBS	Pharmaceutical Benefits Scheme
PEP	post-exposure prophylaxis
PrEP	pre-exposure prophylaxis
RNA	ribonucleic acid
STI	sexually transmissible infection
U=U	undetectable equals untransmittable
UNAIDS	Joint United Nations Programme on HIV/AIDS

1 Summary data

HIV notifications

- There were 722 HIV notifications with a first ever diagnosis in Australia in 2023 a 33% decline in notifications since 2014 (1079 notifications). A decline in notifications between 2019 and 2022 was likely a result of COVID-19-related public health measures placed on travel and movement, social activity, and healthcare access, including testing.
- Male-to-male sex continues to be the major HIV risk exposure in Australia, accounting for 456 (63%) HIV notifications in 2023 (including those reporting male-to-male sex and injection drug use), with heterosexual sex reported for 205 (28%) notifications, and injection drug use for 17 (2%) notifications.
- In 2023, the HIV notification rate among Australian-born people was 1.9 per 100 000. By comparison the HIV notification rate was 10.0 per 100 000 among people born in Latin America and the Caribbean, 8.9 per 100 000 among people born in Sub-Saharan Africa.
- The number of HIV notifications among Australian-born men attributed to male-to-male sex or male-to-male sex and injection drug use decreased, from 532 in 2014 to 189 in 2023, a decline of 64%. In the same period and among men with the same HIV exposure classification, there was a 32% decline in the number of HIV notifications among men born in other countries outside Asia (from 150 in 2014 to 102 in 2023). By comparison, there was a 35% increase among Asian-born men (from 122 in 2014 to 165 in 2023).
- Between 2014 and 2023, the HIV notification rate among Aboriginal and Torres Strait Islander peoples declined by 45% from 5.3 to 2.9 per 100 000. For comparison, in 2023, the HIV notification rate among non-Indigenous people declined by 41% from 4.6 to 2.7 per 100 000. Trends in HIV notification rates among Aboriginal and Torres Strait Islander peoples are based on small numbers and may reflect localised occurrences rather than national patterns.
- Between 1994 and 2023, 952 cases of perinatal HIV exposure among children born in Australia were reported.
 For the period 2019 2023, the HIV vertical transmission rate was 1.3%, compared with 21.8% in the period 1994 1998. There were two reported cases of vertical HIV transmission from 2019 to 2023, one in 2019 and one in 2022.
- Based on the test for immune function (CD4+ T-cell count), 37.0% of HIV notifications in 2023 were classified as late diagnoses (having a CD4+ cell count of less than 350 cells/µL). These diagnoses are likely to have been in people who acquired HIV at least four years prior to diagnosis.
- Over the past five years (2019-2023) the proportions of late HIV diagnoses were higher among people born in Oceania (outside Australia) (58%), Southeast Asia (54%), Sub-Saharan Africa (53%).

HIV testing

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- Among participants in the GBQ+ Community Periodic Surveys, the proportion of non-HIV-positive gay and bisexual men who reported having had a HIV test in the 12 months prior to the survey fluctuated between 58% and 71% and was 66% in 2023. Declines between 2019 and 2021 are likely related to the impacts of the COVID-19 pandemic.
- Among gay and bisexual men attending general practice clinics participating in ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance), the proportion who were tested for HIV at least once in the previous 12 months increased from 58% in 2014 to 69% in 2023. The number of people attending general practice clinics declined following the start of the COVID-19 pandemic and trends in testing should be interpreted with caution.

HIV incidence and prevalence

- HIV incidence (the rate at which HIV negative people are newly diagnosed with HIV) among gay and bisexual men attending sexual health clinics in ACCESS, reduced between 2014 and 2023 (from 0.43 to 0.08 new infections per 100 person-years). Among female sex workers, HIV incidence remained low between 2014 and 2023 and was 0.0 per 100 person-years in 2023.
- In 2023, HIV prevalence (the proportion of all people in Australia who are living with HIV), was estimated to be 0.14%, which is low compared with other high-income and Asia-Pacific countries.
- The self-reported HIV prevalence among gay and bisexual men participating in the GBQ+ Community Periodic Surveys was 7.1% in 2023.
- HIV prevalence among people who inject drugs attending needle and syringe programs was estimated to be 1.8% in 2023, and 0.6% if gay and bisexual men were excluded.

HIV testing and care cascade

- There were an estimated 30 010 people living with HIV in Australia at the end of 2023. Of those, an estimated 92% (27 650) had received an HIV diagnosis. Of those diagnosed, 97% (26 740) were retained in care and 97% (26 700) were receiving antiretroviral therapy (ART). Of those receiving ART, 98% (26 040) had a suppressed viral load (less than 200 HIV-1 RNA copies/mL). Of all people living with HIV in Australia, an estimated 87% had a suppressed viral load.
- There were an estimated 2360 (8%) people living with HIV in Australia in 2022 who were unaware of their HIV status (undiagnosed). The estimated proportion of undiagnosed HIV was highest among people born in Southeast Asia (23%) and Latin America the Caribbean (19%). The estimated proportion with undiagnosed HIV was also higher in people with reported risk exposures of heterosexual sex (13%) and lower among Australian-born men with male-to-male sex as their HIV risk exposure (2%).

Prevention

- In 2023, according to the GBQ+ Community Periodic Surveys, the majority (80%) of HIV-negative gay and bisexual men who reported having had casual partners were regularly using at least one strategy to protect themselves against acquiring HIV (avoiding anal sex, using condoms, or biomedical prevention), up from 69% in 2014. Conversely, this means 20% were not consistently using any of these strategies in 2023.
- On 1 April 2018, pre-exposure prophylaxis (PrEP) became available to eligible individuals through listing on the Pharmaceutical Benefits Scheme (PBS). From this date to the end of December 2023, 74 597 people had ever taken PrEP. At the end of December 2023, 27 412 had taken PrEP in the last three months and 45 244 people had taken PrEP in the last 12 months.
- Among participants in the GBQ+ Community Periodic Surveys, 42% were eligible for PrEP in 2023, slightly up from 37% in 2018. Of those eligible for PrEP in 2023, 95% were aware of PrEP up from 87% in 2018 and 69% reported using prescribed PrEP in the previous six months, up from 40% in 2018.

2 Interpretation

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A 33% decline in HIV notifications in Australia between 2014 and 2023 was driven by a decrease in notifications among Australian-born men whose exposure risk was reported as male-to-male sex. In this period, among gay, bisexual and other men who have sex with men, there was an increasing proportion of men living with HIV and with a suppressed viral load as well as an increasing uptake of PrEP among HIV-negative men. However, the decline in HIV notifications has not been equal across all populations. Testing and PrEP uptake needs to increase further, across all jurisdictions to have the greatest benefit, particularly in the context of data showing a decline in the number of people attending ACCESS clinics since the start of the COVID-19 pandemic.

At the end of 2023, an estimated 30 010 people were living with HIV in Australia. Australia has yet to meet the first UNAIDS 2025 target of 95% of people living with HIV being diagnosed (in 2023 92 % or 27 650 people in Australia had been diagnosed). Australia has again met the second target of 95% of those diagnosed being on antiviral treatment (97% or 26 700 people in 2023) and has again met the third target of 95% of those on antiviral treatment having a suppressed viral load (98% or 26 040 people in 2023).

Having an undetectable viral load reduces the risk of onward transmission to zero. With 87% of all people living with HIV having achieved viral suppression, Australia has also surpassed the UNAIDS 2025 target of 86%. To further improve against this benchmark, Australia must sustain and enhance efforts in responding to changes in the HIV epidemic. Australia must also address legal frameworks that create barriers to health care access and undermine the investment in HIV-focused public health measures. These legal barriers reinforce stigma directed at both populations at risk of acquiring HIV, and those people living with HIV.

New diagnoses in populations other than Australian-born men, including people who acquired HIV from heterosexual sex and people who were born overseas haven't shown the same declines. More than half (54%) of notifications attributed to heterosexual sex were diagnosed late, indicating the importance of initiatives to raise awareness about HIV testing among the community more broadly. The overall proportion of those who were categorised as late HIV diagnoses remain high following the record levels recorded over the peak of the COVID-19 pandemic, reinforcing the need for improved access to testing among at-risk populations to reduce the time between HIV acquisition and diagnosis.

In 2023, the HIV notification rate among Aboriginal and Torres Strait Islander peoples (2.9 per 100000) was similar to the rate among non-Indigenous people (2.7 per 100000). Trends in HIV notifications among Aboriginal and Torres Strait Islander peoples are on small numbers (24 notifications in 2023), so should be interpreted with caution.

Among people who inject drugs, high uptake and broad coverage of harm reduction strategies to minimise blood-borne virus transmission continue to be highly effective in sustaining low HIV prevalence in this population.

Low rates of vertical transmission of HIV were observed in Australia, reflecting a high uptake of effective interventions during periods of pregnancy, labour, delivery and breastfeeding.

The incidence of HIV among women involved in sex work was extremely low—among the lowest in the world—due to highly successful HIV prevention efforts for this priority population.

PrEP use continued to increase in 2023 following slight declines during the peak of the COVID-19 pandemic. However, to reach the 2025 UNAIDS targets, PrEP promotion, use, and monitoring must be expanded, as well as other forms of prevention to people who would benefit from these strategies, including overseas-born people and Aboriginal and Torres Strait Islander peoples.

3 HIV notifications

HIV notifications with a previous diagnosis overseas

In 2023, there were 580 HIV cases previously diagnosed overseas with subsequent diagnostic testing conducted in Australia; 32% were in Victoria, 25% were in Queensland, and 20% were in New South Wales (Table 1). Among HIV notifications previously diagnosed overseas, 467 (81%) were male, 433 (75%) were aged 30 years or over, and 332 (57%) were attributed to male-to-male sex or male-to-male sex and injection drug use (Table 2).

These notifications are included in the HIV cascades of treatment and care estimates but excluded from further analyses in this report.

Table 1 Number of HIV notifications in Australia by state/territory and region of diagnosis (Australia or overseas), 2023

		Place of first ever HIV diagnosis				
	Australia	Overseas	Total cases			
State/Territory						
Australian Capital Territory	5	6	11			
New South Wales	230	116	346			
Northern Territory	3	8	11			
Queensland	157	144	301			
South Australia	33	43	76			
Tasmania	6	2	8			
Victoria	220	185	405			
Western Australia	68	76	144			
Australia	722	580	1302			

Source: State and territory health authorities; see Methodology for detail.

Table 2 Characteristics of HIV notifications previously diagnosed overseas, 2014 – 2023

						Year first Australian HIV diagnosis								
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023				
Characteristic														
Total cases ^a	259	224	260	291	292	345	322	193	343	580				
Gender ^b														
Male	177	164	186	229	223	269	240	135	269	466				
Female Trans and gender diverse	81 1	60 0	73 0	60 2	69 0	76 0	81 1	54 4	71 3	110 3				
Median age (years)														
Male	38.0	34.0	35.0	34.0	32.0	35.0	36.0	39.0	35.0	33.0				
Female	37.0	38.0	34.0	38.0	39.0	36.0	43.0	45.0	38.0	43.0				
Age group (years)⁰														
0-14 15-19	1 4	0 2	10 2	1	0 7	3 3	0 2	1 1	3 2	1 2				
20-29	53	59	60	81	78	80	68	19	82	144				
30-39	95	87	99	105	110	139	110	74	128	250				
40-49 50+	74 32	51 25	52 37	63 40	59 38	68 52	70 72	49 49	71 57	99 84				
State/Territory														
Australian Capital Territory	2	6	10	6	2	3	4	8	5	6				
New South Wales	77	67	85	105	100	99	92	56	89	116				
Northern Territory Oueensland	2 63	1 50	1 63	2 67	3 64	4 99	3 78	0 38	3 85	8 144				
South Australia	16	15	11	18	9	20	9	16	23	43				
Tasmania	1	0	0	4	7	1	0	2	2	2				
Victoria Western Australia	69 29	66 19	74 16	58 31	82 25	88 31	102 34	50 23	112 24	185 76				
HIV exposure risk category														
Male-to-male sex ^d	115	112	116	144	139	165	161	84	181	328				
Male-to-male sex and injection drug use	1	6	4	1	5	8	6	1	7	4				
Heterosexual sex Injection drug use	108 4	86 5	105 5	94 0	89 1	109 2	80 4	51 2	81 2	119 4				
Vertical transmission	4	2	7	3	2	2	4	2	2 5	45				
Receipt of blood/tissue ^e	1	4	1	1	0	5	2	5	2	2				
Other/undetermined	26	9	22	48	56	47	68	47	65	118				

a) Includes notifications missing gender and age.

b) Not including notifications missing gender.

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c) Not including notifications missing age at diagnosis.

d) Includes men who had sex with both men and women.

e) Includes receipt of blood/tissue overseas, so does not indicate transmission through blood products in Australia.

Source: State and territory health authorities; see Methodology for detail.

HIV notifications with a first ever diagnosis in Australia

The following section focuses on people diagnosed with HIV for the first time in Australia. In 2023, there were 722 HIV notifications in Australia: 619 (86%) among males, 546 (76%) among people aged 30 years and above, and 24 (3%) among Aboriginal and Torres Strait Islander peoples. Around a third of all notifications (210) were classified as newly acquired (evidence of HIV acquisition in the 12 months prior to diagnosis), while 37% of notifications with a recorded CD4+ T-cell count were classified as late diagnoses (Table 3).

A total of 42 371 notifications of HIV with first ever diagnosis in Australia have been reported since 1984, of which 38 457 (91%) were among males, 3516 (8%) among females and 150 (<1%) among trans and gender diverse people. Between 2014 and 2023 the number of notifications decreased by 33% from 1079 to 722. This decline was likely due to targeted prevention measures including the rollout of pre-exposure prophylaxis (PrEP) and the promotion of U=U ('Undetectable equals Untransmittable'; Table 3). A similar pattern was seen among males, with a 36% decline from 974 notifications in 2014 to 619 notifications in 2023. Notifications among females remained relatively stable over the same period with 96 HIV notifications in 2023. Between 2014 and 2023 there were 60 notifications reported among trans and gender diverse people, although it is likely that this figure is an underrepresentation due to potential under reporting of gender diversity in HIV notifications data (Table 3).

By age group, the largest number of notifications in 2023 was among people aged 30 to 39 years (254), followed by people aged 20 to 29 (173), and those 50 years or older (157). The number of notifications remains low among younger age groups in 2023, with three notifications among those aged under 20 years (Table 3).

Table 3 Characteristics of HIV notifications with a first ever diagnosis in Australia, 2014 – 2023

						Year of first ever HIV diagnosis								
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023				
Characteristic														
Total cases ^a	1,079	1,029	1,006	962	840	895	626	541	553	722				
Gender														
Male	974	919	913	846	755	791	540	475	460	619				
Female Trans and gender diverse ^b	102 3	108 2	88 5	107 9	81 4	94 10	78 8	61 5	85 8	96 7				
		Ζ	5	9	4	10	0		0	/				
Aboriginal and Torres Strait Islander Status														
Aboriginal and/or Torres Strait Islander	34	40	47 955	31 919	33 799	25 857	16	17 524	25 521	24				
Non-Indigenous Not reported	1030 15	969 20	955 4	12	/99	13	603 7	524 0	521	693 5				
Median age (years)														
Male	35.0	35.0	34.0	35.0	35.0	35.0	35.0	37.0	37.0	36.0				
Female	35.0	36.0	34.0	34.0	35.0	37.0	35.5	35.0	38.0	36.0				
Transgender	37.0	35.0	29.0	40.0	30.0	38.0	38.0	34.0	30.0	35.0				
Age group (years)														
0-14	3	3	5	2	3	1	1	0	3	0				
15-19 20-29	14 315	20 296	11 310	12 253	8 262	7 244	10 162	2 139	3 114	3 173				
30-39	345	304	308	313	237	244	198	172	198	254				
40-49	217	209	194	170	159	159	127	111	115	135				
50+	185	197	178	212	171	197	128	117	120	157				
Language spoken at home														
English	833	736	729	539	529	576	490	416	416	502				
Other language Not reported	103 143	131 162	134 143	135 288	149 162	158 161	101 35	103 22	102 35	167 53				
Newly acquired ^c	443	418	384	309	278	283	153	113	143	210				
(% of new diagnoses)	40.6%	40.7%	38.1%	32.2%	33.1%	32.1%	24.6%	20.9%	26.2%	29.3%				
Diagnosed late	277	263	260	285	269	276	225	225	215	247				
Late HIV diagnosis, % ^d	27.3%	27.7%	29.4%	32.5%	35.8%	35.8%	41.5%	47.5%	43.7%	37.0%				
Advanced HIV diagnosis, %	16.3%	15.3%	17.5%	20.3%	18.9%	22.5%	28.3%	33.3%	28.9%	23.1%				
Median CD4+ cell count, cells/µL	440.0	441.0	420.0	390.0	390.0	378.0	330.0	320.0	317.0	361.0				
State/Territory														
Australian Capital Territory	18	14	13	13	6	12	8	14	3	5				
New South Wales Northern Territory	344 8	349 9	318 23	310 11	281 13	282 7	208 3	178 2	169 3	230 3				
Queensland	245	203	195	186	180	158	107	124	100	157				
South Australia	39	43	42	43	31	30	29	21	22	33				
Tasmania	16	17	19	12	11	17	6	7	8	6				
Victoria Western Australia	302 107	285 109	304 92	308 79	260 58	290 99	194 71	140 55	186 62	220 68				
HIV exposure risk category														
Male-to-male sex ^e	756	700	708	604	518	527	351	322	272	400				
Male-to-male sex and injection drug use	48	49	50	49	57	62	61	42	44	56				
Heterosexual sex	200	203	204	237	189	209	157	147	166	205				
Injection drug use Vertical transmission	31 0	32 8	14 1	32 0	28 0	23 2	20 2	9 2	18 2	17 3				
Receipt of blood/tissue ^f	41	33	24	37	46	71	34	19	49	41				
Other/undetermined	41	41	25	37	46	73	36	21	51	44				

a) Includes gender of 'Other' and 'Not reported'.

b) Does not include transgender people recorded as either male or female.

c) Newly acquired HIV was defined as newly diagnosed infection with a negative or indeterminate HIV antibody test result or a diagnosis of primary HIV within one year before HIV diagnosis. In Victoria from April 2016 there was a change in the laboratory reporting of HIV confirmatory results such that there are expected to be fewer indeterminate results requiring follow-up. This will therefore reduce the number of results which were previously used to provide evidence for newly acquired HIV infections.

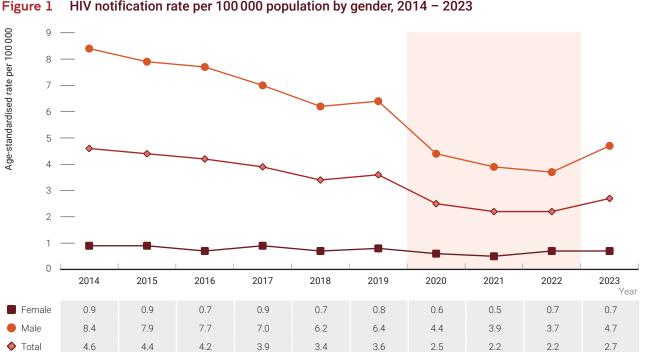
d) Late HIV diagnosis was defined as newly diagnosed HIV with a CD4+ cell count of less than 350 cells/µL, and advanced HIV as newly diagnosed infection with a CD4+ cell count of less than 200 cells/µL. Newly acquired HIV were categorised neither late or advanced diagnosis, irrespective of CD4+ cell count. HIV diagnoses classified as advanced include those classified as late.

e) Includes men who had sex with both men and women.

f) Includes receipt of blood/tissue overseas, so does not indicate transmission through blood products in Australia.

Source: State and territory health authorities; see Methodology for detail.

Between 2014 and 2023, the national HIV notification rate declined by 41% from 4.6 to 2.7 per 100 000 population (Figure 1). Reflecting that the HIV epidemic in Australia remains concentrated among gay, bisexual and other men who have sex with men, HIV notification rates among females were lower than males for every year in the reporting period. In 2023, notification rates were 4.7 per 100 000 males and 0.7 per 100 000 females.



HIV notification rate per 100 000 population by gender, 2014 - 2023

The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 - 2022. Note: Source: State and territory health authorities; see Methodology for detail.

What does this mean?

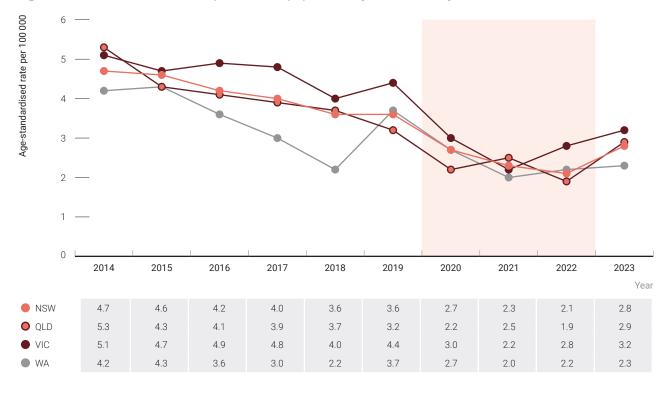
HIV diagnosis rates have fallen considerably since 2014.

In 2023, HIV notification rates were highest among those aged 30 to 39 years (6.4 per 100 000), 20 to 29 years (4.6 per 100 000) and 40 to 49 years (3.9 per 100 000). Between 2014 and 2023 there was a 50% decline in the notification rate for those aged 20 to 29 years, a 42% decline for those aged 40 to 49 years, and a 39% decline for those aged 30 to 39.

HIV notification rates among females in 2023 were highest for those aged 30 to 39 years (1.3 per 100 000), followed by those aged 40 to 49 years (1.0 per 100 000). Small numbers of notifications among females when stratified by age group mean that caution should be applied when interpreting these rates. Breakdowns of HIV notification rates by age and gender can be found on the Kirby Institute data site.

By state and territory, between 2014 and 2023, the HIV notification rate declined by 40% in New South Wales from 4.7 to 2.8 per 100 000, 45% in Queensland from 5.3 to 2.9 per 100 000, 45% Western Australia from 4.2 to 2.3 per 100 000, and 38% in Victoria (5.1 to 3.2 per 100 000). In 2023, the HIV notification rate was highest in Victoria at 3.2 per 100 000, followed by Queensland at 2.9 per 100 000, New South Wales at 2.8 per 100 000 and Western Australia at 2.3 per 100 000 (Figure 2).

In the Australian Capital Territory, the Northern Territory, South Australia, and Tasmania, numbers of notifications each year are low, therefore, trends need to be interpreted with caution. Between 2014 and 2023, HIV notification rates declined in all four states and territories. In 2023, the HIV notification rate was 1.8 per 100 000 in South Australia, 1.1 per 100 000 in Tasmania, and 1.0 per 100 000 in both the Northern Territory and the Australian Capital Territory (Figure 2).







Note:The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 - 2022.Source:State and territory health authorities; see Methodology for detail.

HIV risk exposure

Transmission of HIV in Australia continues to occur primarily through male-to-male sexual contact (Table 3, Figure 3). Of the 722 new HIV notifications in 2023, 63% (456) were attributed to male-to-male sex or male-to-male sex and injection drug use, a decline from 76% (804) since 2014. Heterosexual sex accounted for 28% (204) of notifications, an increase from 19% (200) since 2014. In 2023, injection drug use accounted for 2% (17) of notifications (Table 3, Figure 3).

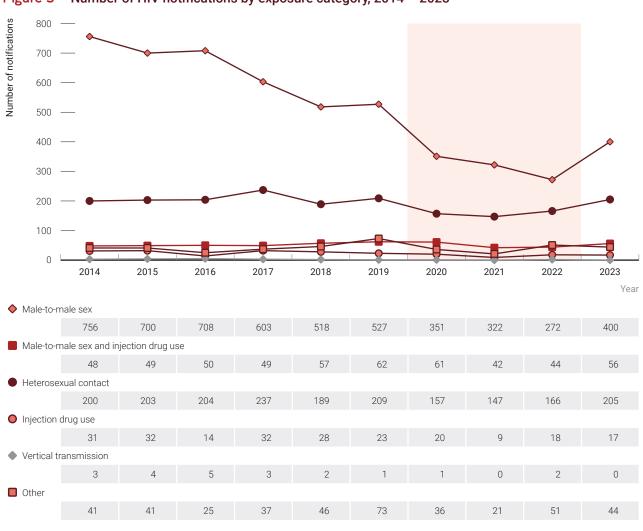


Figure 3 Number of HIV notifications by exposure category, 2014 – 2023

Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. The 'male-to-male sex' category includes men who had sex with both men and women. One diagnosis was attributed to an overseas occupational exposure in healthcare or other settings in the 10 year period 2013 – 2022, and was grouped in the 'Other' category.

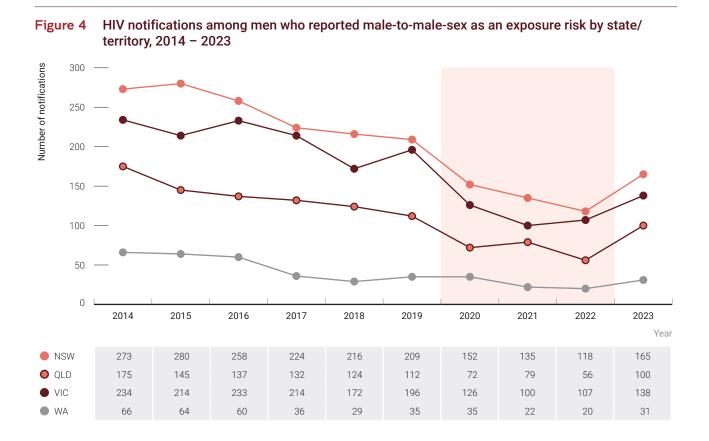
Source: State and territory health authorities; see Methodology for detail.

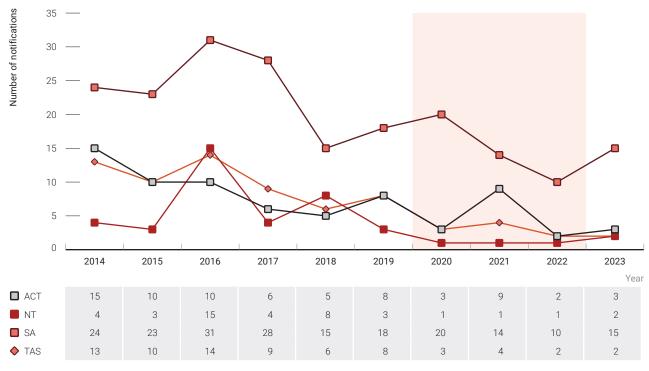
Subpopulations

Gay and bisexual men: Men who have sex with men may identify as gay, bisexual, queer, heterosexual, transgender, or other identities. However, notifications only record data on the most likely HIV risk exposure, which is behavioural, so 'male-to-male sex' is used when describing HIV notifications. This section relates to notifications with a reported exposure classification of male-to-male sex and male-to-male sex and injection drug use.

Between 2014 and 2023, there was a 43% decline in HIV notifications attributed to male-to-male sex. In this period, despite an increase in notifications between 2022 and 2023. All jurisdictions saw a reduction in the number of notifications attributed to male-to-male sex (Figure 4). In 2023, New South Wales recorded the highest number of notifications with a reported exposure of male-to-male sex (165 notifications), followed by Victoria (138 notifications), Queensland (100 notifications) and Western Australia (31 notifications).

The median age at HIV diagnosis for men reporting male-to-male sex as an HIV risk exposure was 34 years in 2014 and 35 years in 2023 (data not shown). Of the 456 cases of HIV newly diagnosed in 2023 for whom exposure to HIV included male-to-male sex, 81 (18%) also reported sex with women, up from 9% (68 out of 804 notifications) in 2014 (data not shown). There were 56 men for whom HIV risk exposure also included injection drug use in 2023.





Notes:
 The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Includes notifications where the exposure classification was reported as male-to-male sexual contact and injection drug use.

 Source:
 State and territory health authorities; see Methodology for detail.

Heterosexuals: Over the 10-year period 2014 to 2023, the number of HIV notifications reporting heterosexual sex fluctuated in most Australian states and territories. In 2023, Victoria recorded the highest number of notifications with a reported exposure of heterosexual sex (57 notifications), followed by New South Wales (51 notifications), Queensland (46 notifications) and Western Australia (32 notifications). In the Australian Capital Territory, the Northern Territory, South Australia and Tasmania, the number of HIV notifications in this category remained low. Caution should be applied when interpreting these figures due to small numbers of notifications reported by some jurisdictions. Breakdowns of HIV notifications by exposure and jurisdiction can be found on the Kirby Institute data site.

Trans and gender diverse people: Between 2014 and 2023, there were 61 HIV notifications among people whose gender was reported as trans or gender diverse (Table 3). Of these, 93% identified as non-Indigenous, 32% were Australian-born, and the median age at diagnosis was 36 years. Of those with recorded CD4+ T-cell counts taken within three months of diagnosis, 24% were diagnosed with late-stage HIV (indicated by a CD4+ cell count of less than 350 cells/µL at diagnosis) (data not shown).

It is likely that these 61 notifications are an underrepresentation of the true number of trans and gender diverse people newly diagnosed with HIV, as until 2019, the National HIV Registry only had one variable related to gender which captured if the person identified as male, female, or transgender. This single variable was inadequate as trans and gender diverse people may position 'being trans' as a history or experience, rather than an identity, and consider their gender identity as simply female, male, or non-binary. Some trans people connect strongly with their trans experience, whereas others do not. The processes of transition may or may not be part of a trans or gender diverse person's life ⁽¹⁾.

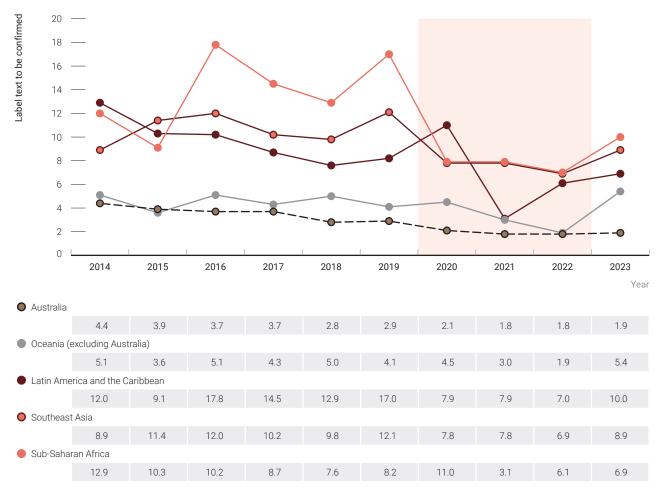
Thus, many people who identify as a different gender to what sex they were registered as at birth do not identify as transgender ⁽²⁾. This means there is potential for underreporting in the number of transgender people diagnosed with HIV.

HIV notifications by region of birth: Between 2014 and 2023, among Australian-born people, the HIV notification rate declined by 57% from 4.4 to 1.9 per 100 000. Among people born overseas, HIV notification rates declined or fluctuated for all regions of birth between 2014 and 2023 (Table 4). The highest HIV notification rates in 2023 were among people born in Latin America and the Caribbean (10.0 per 100 000), Southeast Asia (8.9 per 100 000), and Sub-Saharan Africa (6.9 per 100 000) (Table 4, Figure 5). Due to the impact of COVID-19-related travel restrictions, trends in HIV notification rates by region of birth should be interpreted with caution.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Region of birth										
Australia	4.4	3.9	3.7	3.7	2.8	2.9	2.1	1.8	1.8	1.9
North Africa and the Middle East	4.0	5.4	1.9	2.7	2.1	1.2	1.8	2.0	2.5	1.7
Northeast Asia	4.1	4.7	3.7	2.2	3.3	2.9	0.9	1.8	1.8	3.0
North-West Europe, USA & Canada	3.8	4.4	3.6	2.1	2.6	3.3	1.2	1.4	1.0	1.8
Oceania	5.1	3.6	5.1	4.3	5.0	4.1	4.5	3.0	1.9	5.4
Latin America and the Caribbean	12.0	9.1	17.8	14.5	12.9	17.0	7.9	7.9	7.0	10.0
Southeast Asia	8.9	11.4	12.0	10.2	9.8	12.1	7.8	7.8	6.9	8.9
Southern and Central Asia	2.1	1.8	2.4	1.9	2.2	1.6	1.6	1.1	1.9	2.3
Southern and Eastern Europe	4.5	4.7	2.1	4.5	2.6	2.6	1.1	1.0	2.3	3.0
Sub-Saharan Africa	12.9	10.3	10.2	8.7	7.6	8.2	11.0	3.1	6.1	6.9

Table 4 HIV notification rates per 100 000 population by region of birth, 2014 – 2023

Source: State and territory health authorities; see Methodology for details.



HIV notification rates per 100 000 population by selected region of birth, 2014 - 2023 Figure 5

The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Note: Source: State and territory health authorities; see Methodology for details.

Between 2014 and 2023, the number of HIV notifications among Australian-born men attributed to male-to-male sex decreased 64% from 532 to 189 (41% of all notifications attributed to male-to-male sex in 2023). The declines seen among Australian-born men are likely due to the availability of PrEP (see section on Prevention for further detail) and the promotion of U=U. Between 2014 and 2023, the number of HIV notifications among men born in Asia (Southeast Asia, Northeast Asia, and Southern and Central Asia) fluctuated between 97 (in 2020) and 183 (in 2016), with 165 notifications in 2023 (36% of all notifications attributed to male-to-male sex). The number of HIV notifications among men born in countries other than Asia declined by 32% from 150 notifications in 2014 to 102 notifications in 2023 (22% of all notifications attributed to male-to-male sex) (Figure 6). International travel was strongly affected by COVID-19 related border closures between 2020 and 2022, which also likely impacted HIV notifications among people born overseas.





The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 - 2022. Note:

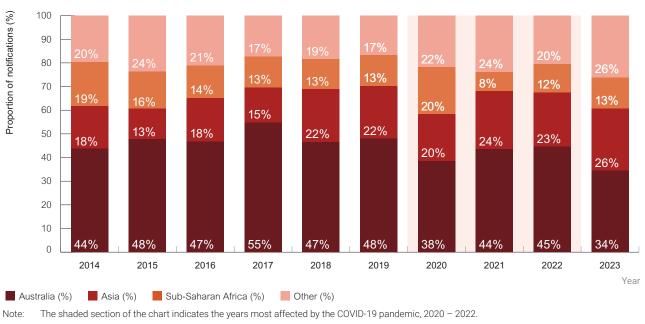
Source: State and territory health authorities; see Methodology for details.



What does this mean?

HIV diagnoses among Australian-born gay and bisexual men have been declining steadily since 2014. Among overseas-born gay and bisexual men, this decline has been less evident, especially among men born in Asia and men born in Latin America and the Caribbean.

For HIV notifications attributed to heterosexual sex, the proportion born in Australia declined from 44% in 2014 to 35% in 2023 (56% among men and 30% among women). In the same period, among HIV notifications attributed to heterosexual sex, the proportion of those born in Asia increased from 18% to 26%, while the proportion born in Sub-Saharan Africa and other countries fluctuated (Figure 7).





Source: State and territory health authorities; see Methodology for details.

Aboriginal and Torres Strait Islander peoples: In 2023 there were 24 HIV notifications among Aboriginal and Torres Strait Islander peoples, representing 3% of the total 722 notifications. The majority (63%) of Aboriginal and/or Torres Strait Islander notifications were male and the median age at diagnosis was 40.5 years (Table 6).

Table 5Characteristics of cases of HIV notifications in Aboriginal and Torres Strait Islander peoples,
2014 – 2023

								Year	r of HIV di	agnosis
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Characteristic										
Total cases ^a	34	40	47	31	33	25	16	17	25	24
Gender										
Male Female Transgender⁵	25 8 1	36 4 0	41 5 1	23 7 1	30 3 0	20 5 0	14 1 1	17 0 0	22 3 0	15 9 0
Median age in years	33.5	35.5	31.0	33.0	28.0	31.0	34.5	38.0	34.0	40.5
Newly acquired HIV ^c	8	13	14	10	9	10	7	3	9	8
(% of new diagnoses)	23.5%	32.5%	29.8%	32.3%	27.3%	40.0%	43.8%	17.6%	36.0%	33.3%
Late and advanced HIV infection sta	atus at HIV	/ diagnosi	s (%) ^d							
Late HIV diagnosis Advanced HIV diagnosis	32.3% 19.4%	29.7% 16.2%	25.0% 13.6%	25.0% 7.1%	25.0% 21.4%	22.7% 9.1%	6.7% 0.0%	46.7% 20.0%	27.3% 13.6%	30.4% 17.4%
State/Territory										
Australian Capital Territory New South Wales Northern Territory Queensland South Australia Tasmania Victoria Western Australia	1 7 14 0 2 6 3	0 7 13 2 2 8 7	0 10 5 20 2 0 6 4	0 8 11 5 1 2 3	1 11 13 1 0 4 2	0 7 0 9 2 1 4 2	0 4 0 7 2 0 1 2	0 1 6 0 1 3 5	0 6 0 5 0 0 5 9	0 11 0 8 1 0 1 3
HIV exposure category										
Male-to-male sex ^e Male-to-male sex and injection drug use ^f Heterosexual sex Injection drug use Mother with/at risk of HIV infection Other/undetermined exposure	35.3% 8.8% 17.6% 26.5% 0.0% 11.8%	55.0% 10.0% 17.5% 15.0% 0.0% 2.5%	57.4% 12.8% 21.3% 4.3% 0.0% 4.3%	38.7% 6.5% 25.8% 22.6% 0.0% 6.5%	54.5% 12.1% 24.2% 3.0% 0.0% 6.1%	48.0% 20.0% 16.0% 16.0% 0.0% 0.0%	50.0% 31.3% 12.5% 0.0% 0.0% 6.3%	52.9% 11.8% 17.6% 17.6% 0.0% 0.0%	40.0% 16.0% 20.0% 20.0% 4.0% 0.0%	25.0% 16.7% 50.0% 8.3% 0.0% 0.0%

a) Includes notification missing gender.

b) Does not include transgender people recorded as either male or female.

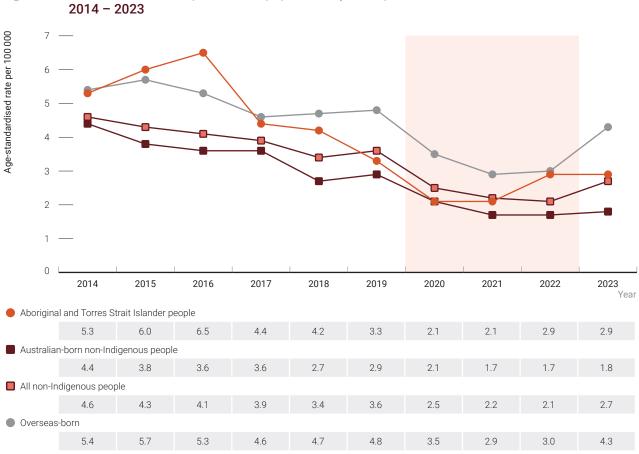
c) Newly acquired HIV was defined as a new HIV diagnosis with a negative or indeterminate HIV antibody test result or a diagnosis of primary HIV within one year before HIV diagnosis.

d) Late HIV diagnosis was defined as newly diagnosed HIV with a CD4+ cell count of less than 350 cells/µL, and advanced HIV as newly diagnosed infection with a CD4+ cell count of less than 200 cells/µL. Newly acquired HIV was categorised as not late or advanced diagnosis irrespective of CD4+ cell count.

e) Includes men who had sex with both men and women.

Source: State and territory health authorities.

Trends in HIV notification rates among Aboriginal and Torres Strait Islander peoples are based on small numbers and may reflect localised occurrences rather than national patterns. The 2021 Census data from the Australian Bureau of Statistics recorded a larger than expected increase in the number of people self-identifying as Aboriginal and/or Torres Strait Islander. This increase was unlikely due to demographic changes (such as from births, death or migration). Because of this change, trend in HIV notification rates between 2019 and 2023 should be interpreted with caution. Further details can be found on the ABS website. Between 2014 and 2023, the HIV notification rate among Aboriginal and Torres Strait Islander peoples declined from 5.3 to 2.9 per 100 000. By comparison, in 2023, the HIV notification rate was 1.8 per 100 000 among Australian-born non-Indigenous people and 2.7 per 100 000 among all non-Indigenous people.





Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022.

Source: State and territory health authorities; see Methodology for detail.

For the years 2021 – 2023, by exposure classification, a higher proportion of notifications were attributed to injection drug use among Aboriginal and Torres Strait Islander peoples than among non-Indigenous people (15% and 1%, respectively; Figure 9).

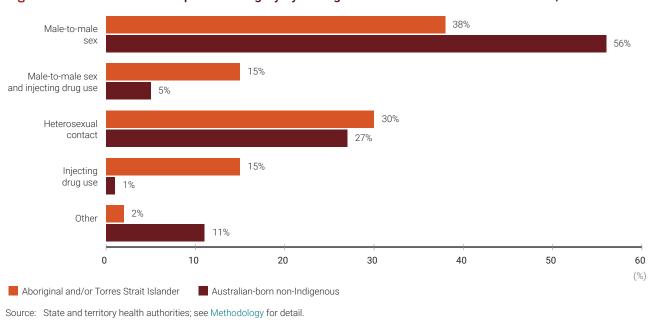
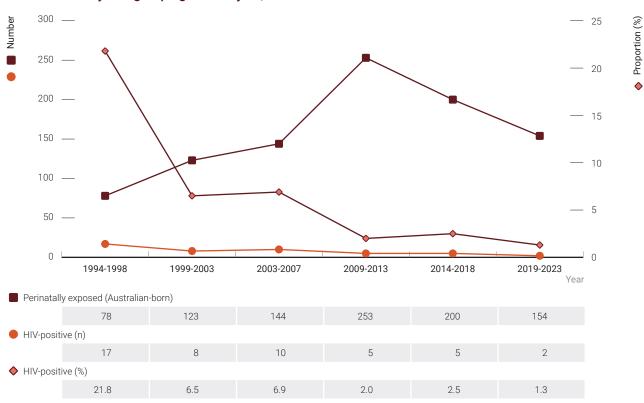


Figure 9 HIV notification exposure category by Aboriginal and Torres Strait Islander status, 2021 – 2023

Pregnant people: Between 1994 and 2023, 952 cases of perinatal HIV exposure among children born in Australia were reported. For the period 2019 – 2023, the HIV vertical transmission rate was 1.3%, compared with 21.8% in the period 1994 – 1998 (Figure 10). There were two reported cases of vertical HIV transmission from 2019 to 2023, one in 2022 and one in 2023.





Source: Australian Paediatric Surveillance Unit; see Methodology for detail.

Clinical and immunological markers indicating timing and place of HIV acquisition

HIV notifications classified as newly acquired

Trends in the proportion of HIV notifications classified as newly acquired need to be interpreted with caution as rises could reflect increases in regular testing (allowing determination of recent infection) rather than an actual increase in the number of newly acquired infections. When considering these data, it is important to also note that fewer indeterminate results were recorded after 2016 due to changes in testing practices across several jurisdictions. These changes have reduced the number of results which were previously used to provide evidence for newly acquired HIV infections. In general, HIV testing rates are higher among gay and bisexual men and other men who have sex with men meaning that HIV notifications are more likely to be classified as newly acquired among these populations.

For some HIV notifications, it is possible to determine whether HIV was acquired in the 12 months prior to diagnosis, on the basis of a recent prior negative or indeterminate HIV test and clinical markers (see Methodology for further details). The proportion of all new notifications that were reported to be newly acquired decreased from 40.6% in 2014 to 29.3% in 2023 (Table 3, Figure 11).

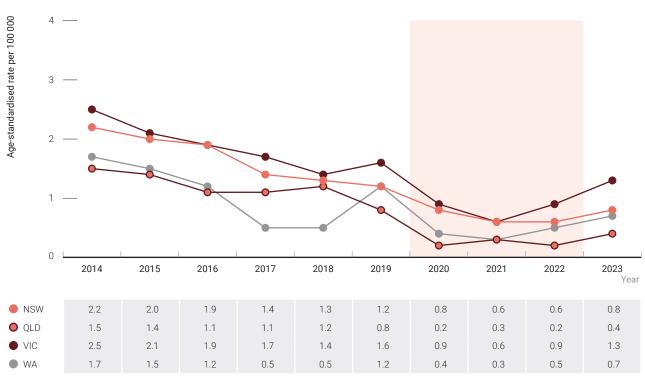
The rates of newly acquired HIV notifications in 2023 varied by jurisdiction, with the highest rate in Victoria (1.3 per 100 000) (Figure 12). In the Australian Capital Territory, Tasmania, and the Northern Territory the numbers of notifications reported annually are smaller, so trends by jurisdiction need to be interpreted with caution.

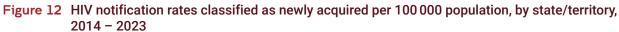


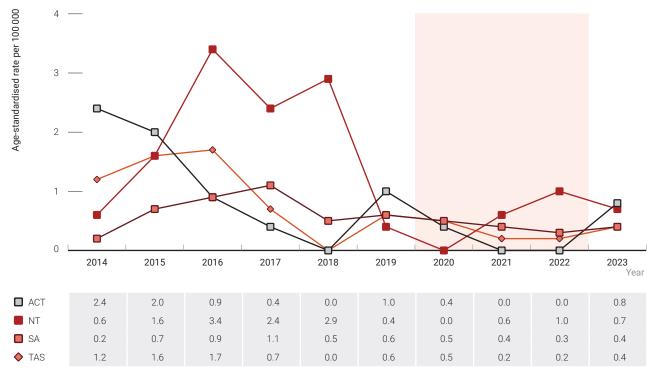
Figure 11 The proportion of HIV notifications classified as newly acquired, 2014 – 2023

Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Newly acquired HIV was defined as newly diagnosed infection with a negative or indeterminate HIV antibody test result or a diagnosis of primary HIV within one year before HIV diagnosis.

Source: State and territory health authorities; see Methodology for detail.







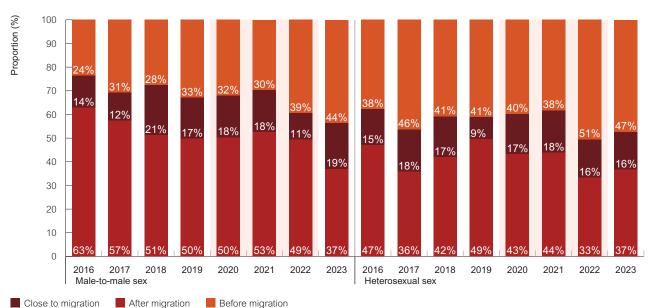
Note:The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 - 2022.Source:State and territory health authorities; see Methodology for detail.

Likely place of HIV acquisition

Monitoring the likely place of HIV acquisition and HIV subtype can provide information to enhance understanding of the potential influence of travel and migration on HIV diagnosis trends and to assist with monitoring Australia's pathway to the virtual elimination of HIV transmission. Using HIV notification data of migrants to Australia, timing of HIV acquisition relative to date of migration to Australia can be estimated. South Australia began reporting year of arrival in 2023 and estimates were only included for South Australia from this year ⁽³⁾.

Of HIV notifications among migrants to Australia attributed to male-to-male sex, the proportion who likely acquired HIV after migration declined from 63% in 2016 to 37% in 2023. Conversely, among this population, the proportion who likely acquired HIV before migration increased from 24% in 2016 to 44% in 2023 (Figure 13). The increase in the proportion of men who likely acquired HIV before migration to Australia should be seen in the context of an overall decline in the number of HIV diagnoses attributed to male-to-male sex (see Table 3, Figure 13).

Of HIV notifications among migrants to Australia attributed to heterosexual sex, the proportion who likely acquired HIV before or after migration fluctuated between 2016 and 2023. In 2023, an estimated 37% of this population acquired HIV after migration while 47% acquired HIV before migration to Australia (Figure 13). These trends over time were likely affected by the COVID-19 pandemic. Also, small numbers of notifications among migrants diagnosed with HIV attributed to heterosexual sex mean that trends should be interpreted with caution.





Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Close to migration = Within six months of migration date.

Source: State and territory health authorities; see Methodology for detail.



What does this mean?

Among people born overseas and diagnosed with HIV, an increasing proportion likely acquired HIV before migrating to Australia. This trend likely reflects the impact of Australian HIV prevention strategies.

HIV subtype

20 10 0

2019

Australian-born

2020

HIV subtype is included in this report as changes in the distribution of subtypes at a population level can inform prevention programs. There are at least nine subtypes of HIV-1 virus globally, A, B, C, D, F, G, H, J and K. Additionally, different subtypes can combine, creating what is known as a 'circulating recombinant form'. The dominant HIV subtype in the Americas, Western Europe and Australasia is subtype B ^(4,5). Subtype C is more common in India and high-prevalence countries of Sub-Saharan Africa ⁽⁶⁾.

In this report we have included HIV subtype based on HIV notifications with a reported subtype in New South Wales, Queensland, South Australia, and Victoria from 2016 to 2022. These data may not be representative of all notifications Australia-wide, therefore these figures should be interpreted with caution. Future reports will aim to include data from all jurisdictions (see Methodology for further details).

Between 2019 and 2023, among HIV notifications attributed to male-to-male sex and with a reported birthplace of Australia, most were subtype B (between 78% and 85%) compared with non-B subtypes. By comparison, among HIV notifications attributed to male-to-male sex and with a reported birthplace of overseas, subtypes were more evenly spread between subtype B (between 31% and 53%) and subtype CRF01 AE (between 28% and 37%) (Figure 14).

Between 2016 and 2023, among HIV notifications attributed to heterosexual sex and with a reported birthplace of Australia, a greater proportion were subtype B (between 41% and 61%) compared with each non-B subtype. By comparison, among HIV notifications attributed to heterosexual sex and with a reported place of birth of overseas, a greater proportion were CRF01 AE (between 31% and 36%) or subtype C (between 22% and 40%) compared with subtype B (between 14% and 20%) (Figure 15).

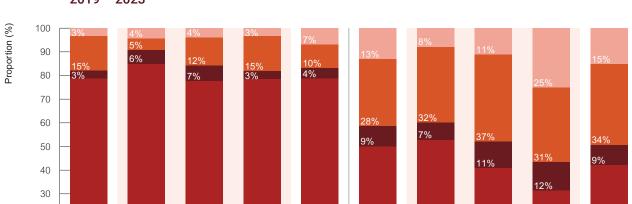


Figure 14 HIV subtype distribution in HIV notifications attributed to male-to-male sex by place of birth, 2019 – 2023

■ B Subtype ■ C Subtype ■ CRF01 AE Subtype ■ Other subtypes Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Includes notifications from New South Wales, South Australia, Queensland, and Victoria. Excludes notifications where HIV subtype was not reported.

2023

2019

Overseas-born

2020

2021

2022

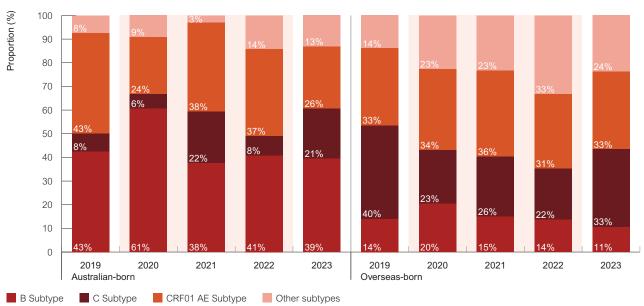
2023

Source: State/territory health authorities, NSW Linkage Database; see Methodology for detail.

2021

2022





Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Includes notifications from New South Wales, South Australia, Queensland, and Victoria. Excludes notifications where HIV subtype was not reported.

Source: State/territory health authorities, NSW Linkage Database; see Methodology for detail.

Late and advanced HIV diagnoses

CD4+ cell count at the time of HIV diagnosis can indicate how long a person has had HIV before being diagnosed. CD4+ cell count is above 500 cells/ μ L in most people without HIV and declines on average by 50 to 100 cells/ μ L per year in people with HIV ⁽⁷⁾. Late HIV diagnosis is defined as CD4+ cell count less than 350 cells/ μ L at diagnosis without evidence of a newly acquired HIV infection. Advanced HIV is defined as newly diagnosed infection with a CD4+ cell count of less than 200 cells/ μ L without evidence of a newly acquired HIV infection (see Methodology for further details).

The proportion of newly diagnosed HIV cases with a late diagnosis increased from 27.3% in 2014 to 37.0% in 2022 (see Table 3). For the years 2021 to 2023, the proportion of HIV notifications with late diagnosis was highest in people born in Oceania (58%), Southeast Asia (54%), and Sub-Saharan Africa (53%) (data not shown).

Late HIV diagnoses by key characteristics and exposure category

By exposure category, condensed into two-year groups to account for small numbers of notifications, late diagnoses attributed to heterosexual sex, male-to-male sex and injection drug use have fluctuated. For the years 2022/2023 and for diagnoses attributed to heterosexual sex and injection drug use, the proportions diagnosed late remain high at 53% and 42%, respectively (Figure 16).

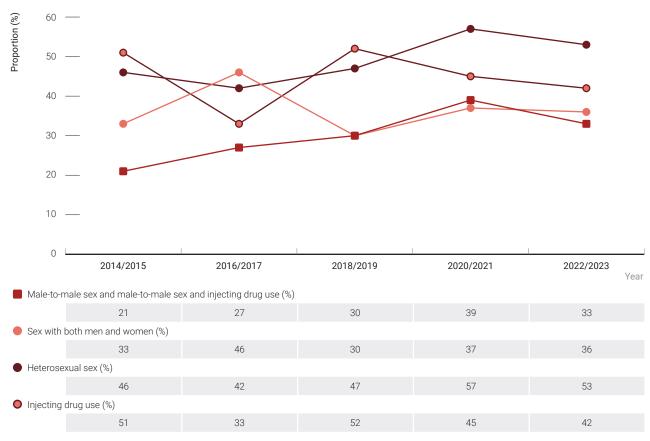


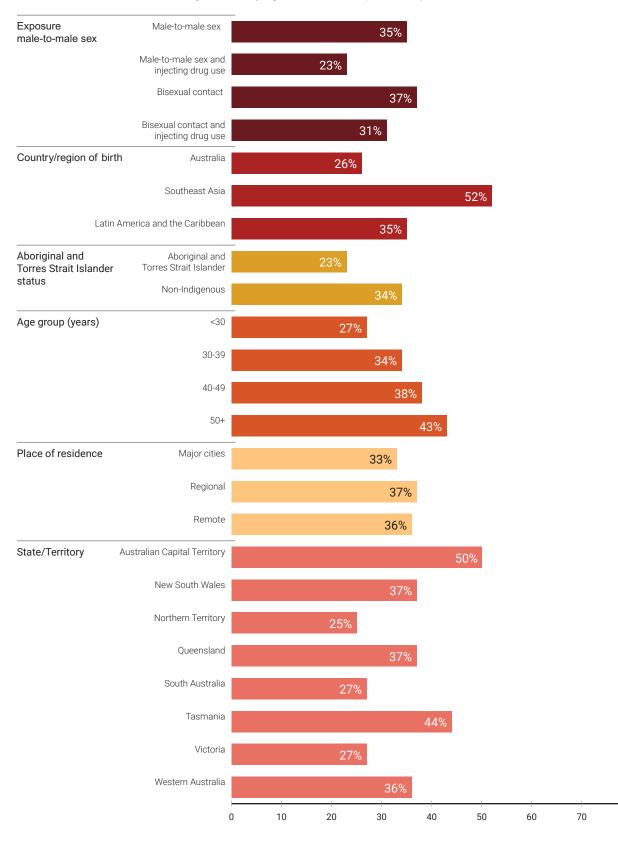
Figure 16 Proportion of late HIV diagnoses by selected exposure category, 2014 – 2023

Notes: Late HIV diagnosis was defined as new HIV diagnoses with a CD4+ cell count of less than 350 cells/µL. Newly acquired HIV was not categorised as late or advanced diagnoses irrespective of CD4+ cell count. Notifications without a CD4+ cell count available were excluded.

Source: State and territory health authorities.

Among HIV notifications attributed to male-to-male sex for the years 2019 to 2023, late diagnosis was more common among men who reported sex with both men and women (37%), men aged 50 years and older (43%), men born in Southeast Asia (52%), and men living in regional areas (37%) (Figure 17).

Figure 17 Proportion of late HIV diagnoses among men reporting an exposure category that included male-to-male sex by subcategory, 2019 – 2023 (n = 1918)

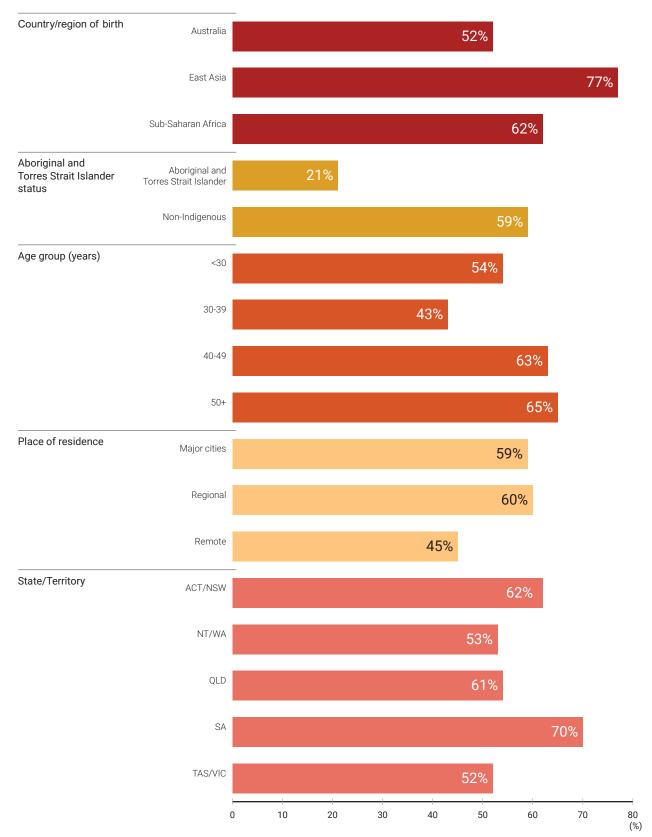


Notes: Late HIV diagnosis was defined as an HIV notification with a CD4+ cell count of less than 350 cells/µL. Newly acquired HIV was categorised as neither late nor advanced diagnoses, irrespective of CD4+ cell count. Notifications without a CD4+ cell count recorded within three months of diagnosis were excluded.

Source: State and territory health authorities.

80 (%) A high proportion of late diagnoses were reported among people with heterosexual sex as an exposure risk (54% overall, 57% among men and 47% among women), with variation by key demographic characteristics and HIV risk exposure (Figure 18, Figure 19).

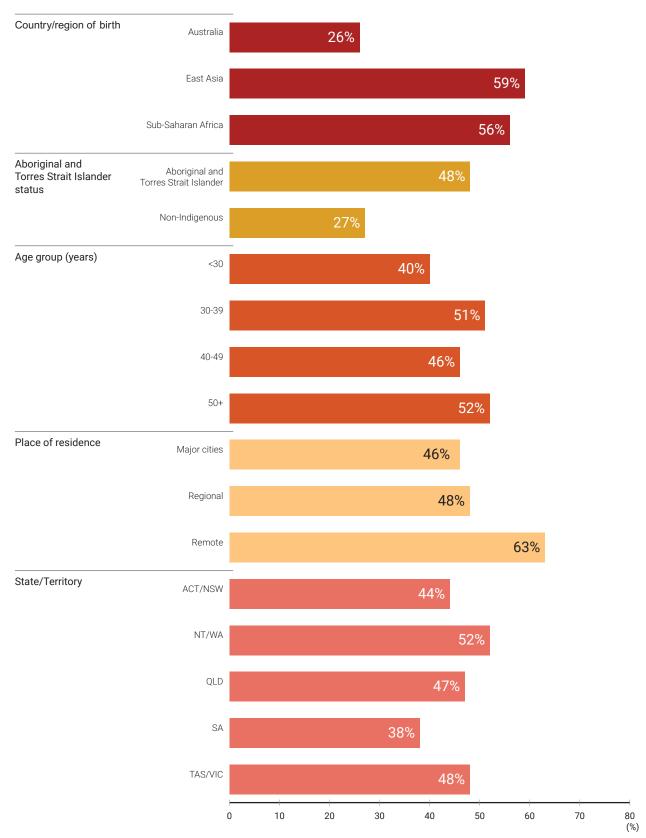
Figure 18 The proportion of late HIV diagnoses among men who reported heterosexual sex as an exposure risk by subcategory, 2019 – 2023 (n = 466)



Notes: Late HIV diagnosis was defined as an HIV notification with a CD4+ cell count of less than 350 cells/µL. Newly acquired HIV was not categorised as late or advanced diagnoses irrespective of CD4+ cell count. Notifications without a CD4+ cell count recorded within three months of diagnosis were excluded.

Source: State and territory health authorities.

Figure 19 The proportion of late HIV diagnoses among women who reported heterosexual sex as an exposure risk by subcategory, 2019 – 2023 (n = 313)



Notes: Late HIV diagnosis was defined as an HIV notification with a CD4+ cell count of less than 350 cells/µL. Newly acquired HIV was not categorised as late or advanced diagnoses irrespective of CD4+ cell count. Notifications without a CD4+ cell count recorded within three months of diagnosis were excluded. Caution should be applied when interpreting these data due to low numbers.

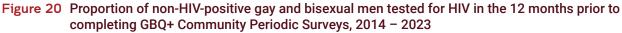
Source: State and territory health authorities.

4 HIV testing

National testing guidelines recommend HIV testing in multiple contexts, such as, according to exposure risk, during antenatal care and for particular priority populations ⁽⁸⁾. Guidelines recommend three-monthly testing for all sexually active men who have had sex with another man in the previous three months ⁽⁸⁾.

Behavioural surveys measure the proportion of people tested in a year and provide further information about HIV testing patterns in Australia among selected priority populations. In the GBQ+ Community Periodic Surveys ⁽⁹⁾, the proportion of non-HIV-positive gay and bisexual men who reported having had an HIV test in the 12 months fluctuated between 2014 and 2023 and was 66% in 2023. Between 2019 and 2022 this proportion dropped to 57%, likely due to the impacts of the ongoing COVID-19 pandemic (Figure 20).





Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Source: GBQ+ Community Periodic Surveys. Based on data from the Australian Needle Syringe Program Survey (ANSPS), in 2023, 42% of people who inject drugs attending needle and syringe programs self-reported having had an HIV test in the 12 months prior to the survey, with similar proportions among men and women (Figure 21). The number of participants of the ANSPS after 2020 were lower than in previous years due to the impacts of the COVID-19 pandemic, and trends over time should be interpreted with caution.



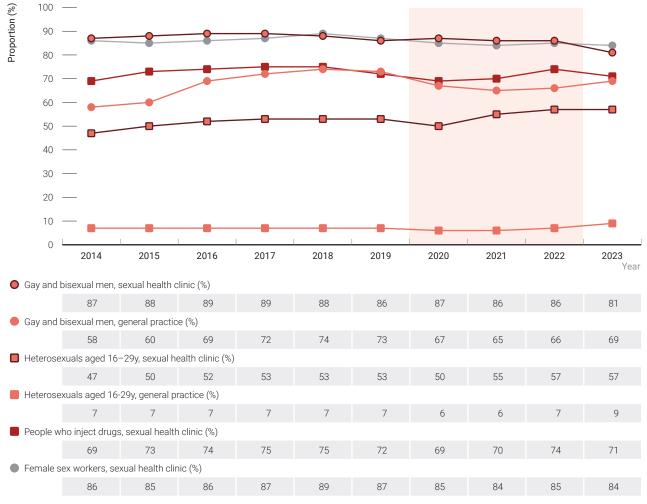


Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Source: ANSPS; see Methodology for detail.

According to respondents of the GBQ+ Community Periodic Surveys, the most common locations for their latest HIV testing in the previous 12 months among non-HIV-positive gay and bisexual men in 2023 were general practices (46%) and sexual health clinics (39%).

At sentinel sexual health clinics across Australia participating in ACCESS (see Methodology for further detail), the proportion of gay and bisexual men who were tested for HIV at least once in the previous 12 months fluctuated between 86% and 89% between 2014 and 2022 then declined to 81% in 2023 (Figure 22). Among gay and bisexual men attending high-caseload general practice clinics, the proportion who were tested for HIV at least once in a year fluctuated between 58% and 74% with declines over the peak of the pandemic (69% in 2023). Declines in the numbers of gay and bisexual men attending sexual health clinics and general practice clinics between 2020 and 2022 mean that trends in testing should be interpreted with caution.

Among other priority populations attending sexual health clinics participating in ACCESS, the proportion of female sex workers who were tested for HIV at least once in a year remained greater than 80% for each year from 2014 to 2023 and was 84% in 2023. In 2023, among people attending sexual health clinics who were recorded as having recently injected drugs, 71% received an HIV test in the previous 12 months, similar to the preceding nine years. Among young heterosexuals (aged 16-29 years) attending sexual health clinics, 57% received an HIV test in the previous 12 months in 2023. By contrast, among young heterosexuals attending general practice clinics in 2023, only 9% received an HIV test in the previous 12 months (Figure 22).





Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. High-caseload general practice clinics include primary healthcare general practice clinics with a high caseload of gay and bisexual men.

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); see Methodology for detail.

Among gay and bisexual men attending sexual health clinics, the proportion who had a repeat HIV test within 13 months of a previous HIV test increased from 47% in 2014 to 56% in 2023. In this period, the proportion retested within seven months of a previous HIV test increased from 37% in 2014 to 46% in 2023 (Figure 23).





Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022.

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); see Methodology for detail.

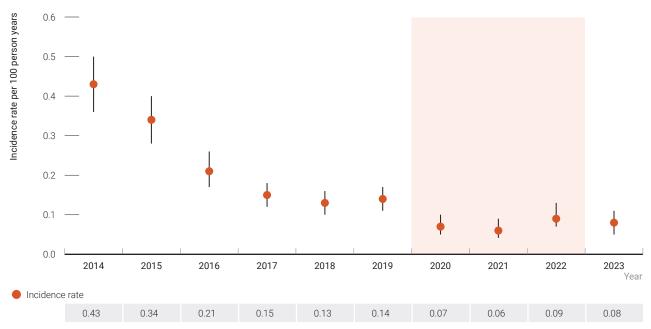
5 HIV incidence

HIV incidence is the best indicator of changes in transmission in a population. HIV incidence is calculated by dividing the number of seroconversions among people undergoing repeat HIV testing at sexual health services by total time at risk for those undergoing testing (determined by the time between repeat HIV tests). Further details about the methods used can be found in the Methodology.

For the years 2014 - 2023, among gay and bisexual men attending sexual health services and general practice clinics participating in ACCESS who had at least one repeat HIV test (n = 145173), there were 890 seroconversions during 490463 person-years at risk. The HIV incidence rate in 2023 was 0.08 new infections per 100 person-years down from 0.42 per 100 person-years in 2014 (Figure 24).

In the same period, among female sex workers attending sexual health services and general practice clinics who had at least one repeat HIV test (n=23211), there were seven seroconversions during 52120 person-years at risk (Figure 25). Between 2014 and 2023, the HIV incidence rate among female sex workers remained low, between 0.00 and 0.03 per 100 person-years and was 0.00 per 100 person-years in 2023.





Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. These incidence estimates represent populations attending sexual health clinics and may not be generalised to broader priority populations.

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); see Methodology for detail.

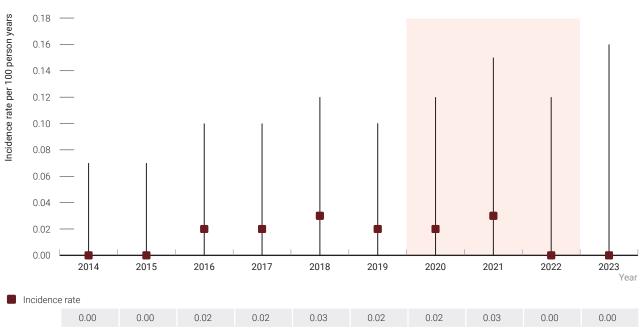


Figure 25 HIV incidence rate per 100 person-years among female sex workers attending sexual health clinics, 2014 – 2023

Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. These incidence estimates represent populations attending sexual health clinics and may not be generalised to broader priority populations.

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); see Methodology for detail.

6 Number of people living with HIV and prevalence

Number of people living with HIV

At the end of 2023, among the 30 010 people estimated to be living with HIV in Australia, 21 300 people were estimated to have acquired HIV through male-to-male sex, 7390 through heterosexual sex, and 590 through injection drug use (Table 6).

There were an estimated 620 Aboriginal and/or Torres Strait people living with HIV in Australia at the end of 2022. After adjusting for missing country of birth data, there were an estimated 3400 people living with HIV born in Southeast Asia, 1750 born in Sub-Saharan Africa, and 1210 people born in Latin America or the Caribbean (Table 6).

HIV prevalence

The estimated HIV prevalence in Australia (the proportion of people who are living with HIV) in 2023 was 0.14% among adults aged older than 15 years (Table 6). The prevalence in Australia is low compared with that reported to UNAIDS by other high-income countries including the United States (0.4% in 2022). In the wider Asia-Pacific region including Australia, HIV prevalence was an estimated 0.2% in 2023⁽¹⁰⁾. HIV prevalence among Aboriginal and Torres Strait Islander peoples was estimated to be 0.09% in 2023 (Table 6).

Undiagnosed HIV infection

At the end of 2023, an estimated 2360 people (8% of all people living with HIV) were living with HIV who were unaware of their HIV status (undiagnosed). The proportion undiagnosed was 8% among both men, 6% among women, 5% among Australian-born people, and 6% among Aboriginal and Torres Strait Islander peoples. People living with HIV born in Southeast Asia had the highest proportion of people who were undiagnosed (23%), followed by people living with HIV born in Latin America or the Caribbean (13%) and Sub-Saharan Africa (7%) (Table 6, Figure 26).

The proportion with undiagnosed HIV was lower among Australian-born men with male-to-male sex as an exposure risk (2%) than in overseas-born men with male-to-male sex as an exposure risk (11%), and in people with heterosexual risk exposure (13%). Detailed estimates for the proportion of undiagnosed HIV by subpopulation are available on the Kirby Institute data site.

	People living with HIV(range)	Number diagnosed (range)	Number undiagnosed (range)	Proportion undiagnosed	HIV prevalence (range)	Population size ² (>15 years of age)
Demographics	(- 3-)	(- 3-7	(* 3*)			
Total ¹	30 010 (26 700 to 35 220)	27 650 (26 700 to 32 390)	2 360 (0 to 2 830)	8%	0.14% (0.12% to 0.16%)	22 172 598
Exposure risk categ	ory					
Men who have sex with men	21 300 (17 040 to 26 060)	20 030 (16 120 to 24 360)	1 270 (920 to 1 700)	6%		
Heterosexuals	7 390 (6 040 to 8 870)	6 420 (5 400 to 7 530)	970 (640 to 1 340)	13%		
People who inject drugs	590 (440 to 830)	570 (430 to 790)	20 (10 to 40)	3%		
Sub-population						
Men	25650 (23080 to 30950)	23 490 (23 080 to 28 240)	2 160 (0 to 2 710)	8%	0.23% (0.21% to 0.28%)	10925010
Women	4080 (3750 to 4360)	3850 (3630 to 4020)	230 (120 to 340)	6%	0.04% (0.03% to 0.04%)	11 247 588
Aboriginal and/ or Torres Strait Islander people	620 (540 to 680)	580 (500 to 640)	40 (40 to 40)	6%	0.09% (0.08% to 0.10%)	692274
Australian born non-Indigenous	16 580 (14 000 to 19 230)	15960 (13570 to 18300)	620 (430 to 930)	4%	0.12% (0.10% to 0.14%)	13700784
Overall non- Indigenous	29 470 (24 540 to 34 690)	27 070 (22 710 to 31 730)	2 400 (1 830 to 2 960)	8%	0.14% (0.11% to 0.16%)	21 480 324
Born in Latin America or the Caribbean	1 210 (1 040 to 1 390)	980 (860 to 1 130)	230 (180 to 260)	19%	0.47% (0.40% to 0.54%)	258760
Born in Sub-Saharan Africa	1 750 (1 390 to 2 190)	1 630 (1 320 to 1 990)	120 (70 to 200)	7%	0.43% (0.34% to 0.53%)	411 690
Born in Southeast Asia	3 400 (2 770 to 4 130)	2610 (2180 to 3130)	790 (590 to 1 000)	23%	0.29% (0.23% to 0.35%)	1 186 330
Australian-born men who have sex with men	13 990 (11 710 to 16 390)	13670 (11490 to 15820)	320 (220 to 570)	2%		
Overseas-born men who have sex with men	7330 (5270 to 10410)	6 550 (4 690 to 9 350)	780 (580 to 1 060)	11%		

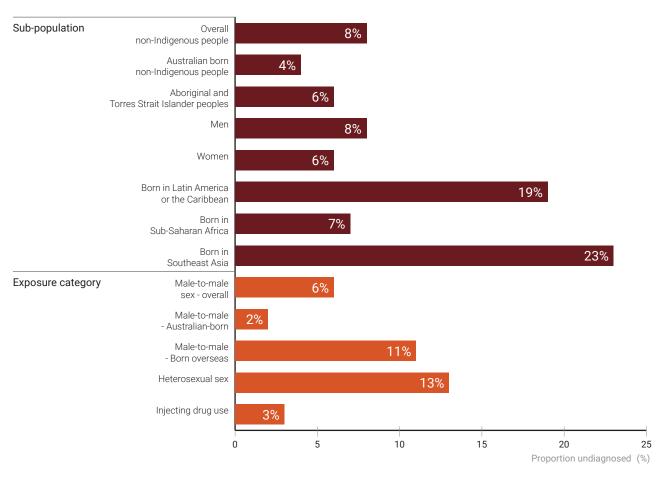
Table 6Estimated number of people living with HIV and HIV prevalence by selected exposure
classification and subpopulation, 2023

1 Sum of subpopulations will not add to the total estimated people living with HIV due to different death rate assumptions for Aboriginal and Torres Strait Islander peoples.

2 Population estimates not available for men who have sex with men, heterosexuals or people who inject drugs.

Source: See Methodology for details of mathematical modelling used to generate estimates.

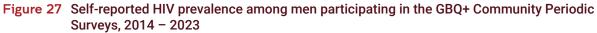
Figure 26 Estimated proportion of people living with HIV who are undiagnosed by demographic group and exposure, 2023



Source: See Methodology for details of mathematical modelling used to generate estimates.

According to the GBQ+ Community Periodic Surveys, between 2014 and 2023, self-reported HIV prevalence among men in the surveys fluctuated between 6.6% (in 2022) and 9.7% (in 2014), and was 7.1% in 2023 (Figure 27). These data reflect community-attached gay and bisexual men and are based on self-reported HIV status and therefore need to be interpreted with caution.

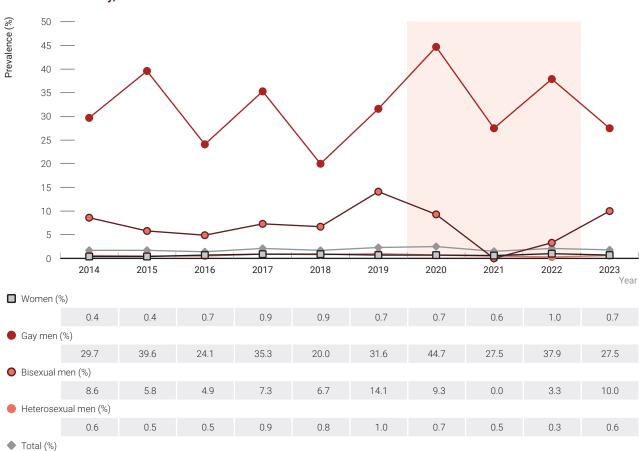




The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Note:

Source: GBQ+ Community Periodic Surveys.

HIV prevalence remains low among people who inject drugs, ranging between 1.4% and 2.5% among people attending needle and syringe programs in the past 10 years and was 1.8% in 2023 (0.6% if gay and bisexual men are excluded from the sample) (Figure 28). The number of participating needle and syringe programs and the number of ANSPS respondents from 2020 were lower than in previous years due to the impact of the COVID-19 pandemic and public health measures designed to reduce community transmission during the ANSPS data collection period.



1.7

2.3

2.5

1.5

2.1

1.8

Figure 28 HIV prevalence among people who attend needle and syringe programs by gender and sexual identity, 2014 – 2023

Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Source: ANSPS, see Methodology for detail.

2.1

1.4

1.7

1.7

7 The HIV diagnosis and care cascade

This report includes the 'HIV diagnosis and care cascade', which estimates the number of people living with HIV in Australia, the number and proportion who are diagnosed, receiving antiretroviral treatment, retained in care (having had a viral load or CD4+ cell count in the past year) and who have a suppressed viral load (<200 HIV-1 RNA copies/mL).

These estimates are used to support the improvement of the delivery of services to people with HIV across the entire continuum of care. Using available data and accounting for uncertainties, the number of people in each stage of the cascade in Australia was estimated (Figure 27, Table 7). Methods and the associated uncertainties are described in detail in the Methodology. The approach and presentation have been refined from previous years based on recommendations from a national stakeholder reference group (see Acknowledgements), and therefore estimates reported this year cannot be directly compared with estimates reported in previous years.

UNAIDS has set targets for HIV diagnosis and treatment by the year 2025: 95% of all people living with HIV to be diagnosed, 95% of all people with diagnosed HIV to be on antiretroviral therapy, and 95% of all people receiving antiretroviral therapy to have a suppressed viral load. This corresponds to 86% of all people living with HIV having a suppressed viral load.

At the end of 2023, there were an estimated 30 010 people living with HIV in Australia. Of these an estimated 92% (27 650) had been diagnosed, increasing from 91% in 2019 (25 300), meaning that Australia has yet to meet the UNAIDS 2025 target. Of those diagnosed at the end of 2023, an estimated 97% (26 740) were retained in care, similar to 96% (24 340) in 2019. Also, of those diagnosed 97% (26 700) were receiving antiretroviral therapy, an increase from 92% (23 390) in 2019 and 98% (26 040) of those on antiretroviral therapy had a suppressed viral load, a slight increase from 97% (22 660) since 2019. (Table 7, Figure 29). This corresponds to 87% of all people living with HIV (diagnosed and undiagnosed) having a suppressed viral load in 2023, meeting the 2025 UNAIDS target of 86%.

The cascade also shows the gaps at the end of 2023, with an estimated 3970 (13%) of all people living with HIV not having a suppressed viral load. Of these, an estimated 59% were undiagnosed, 23% were diagnosed but not in care, 1% were in care but not on antiretroviral therapy, and 17% were on antiretroviral therapy but had not achieved viral suppression (Figure 30). More detailed cascade estimates, including by gender, can be found on the Kirby Institute data site.

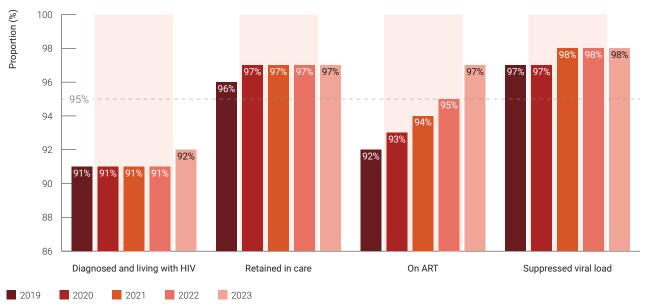
	Living with HIV (range)	Living with HIV and diagnosed (range)	Retained in care (range)	Receiving antiretroviral therapy (range)	Suppressed viral load (range)
Year					
2019	27 920	25300	24 340	23 390	22 660
	(24 150 to 31 980)	(23260 to 29210)	(23 260 to 28 920)	(23 260 to 23 800)	(22 340 to 23 260)
2020	28 640	26 000	25 140	24240	23 400
	(24 690 to 32 890)	(24 180 to 30 040)	(24 180 to 29 050)	(24180 to 24640)	(23 100 to 24 030)
2021	29 060	26 350	25 480	24700	24 130
	(24 870 to 33 550)	(24 470 to 30 560)	(24 470 to 29 560)	(24470 to 24890)	(23 690 to 24 540)
2022	29 480	26 820	25 940	25400	25000
	(25 350 to 34 310)	(25 350 to 31 290)	(25 350 to 30 260)	(25350 to 25780)	(24760 to 25560)
2023	30 010	27 650	26 740	26700	26 040
	(26 700 to 35 220)	(26 700 to 32 390)	(26 700 to 31 320)	(26700 to 27070)	(25 780 to 26 650)

Table 7The HIV diagnosis and care cascade estimates, 2019 - 2023

Source: See Methodology for details of mathematical modelling used to generate estimates.

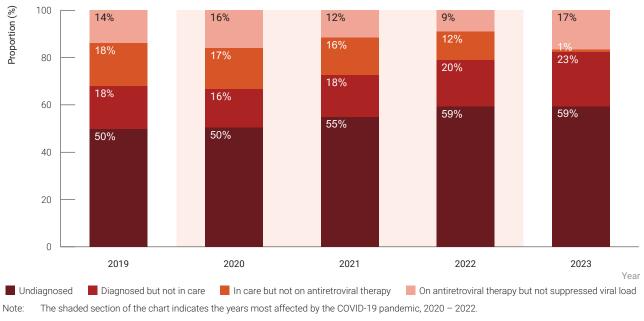
HIV





Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Source: See Methodology for details of mathematical modelling used to generate estimates.

Figure 30 People living with HIV who have not achieved suppressed viral load by cascade stage, 2019 – 2023



Source: See Methodology for details of mathematical modelling used to generate estimates.

HIV treatment 8

There has been a large increase over the past 10 years in the number of people living with HIV, the proportion taking effective treatments, and the proportion achieving suppressed viral load. HIV treatments do not cure the infection but prevent it from causing illness. HIV treatment that maintains an undetectable viral load also reduces the risk of onward transmission through sexual contact to zero and is referred to as U=U⁽¹¹⁾.

The estimated treatment coverage among people diagnosed with HIV in Australia is presented in the diagnosis and care cascades: 97% of people with diagnosed HIV were receiving antiretroviral therapy in 2023, (98% of males and 94% of females; refer to Kirby Institute data site).

Suppressed viral load

HIV viral load represents the amount of HIV in a person's blood, with higher levels increasing the chances of HIV transmission during risk exposures. Studies have shown that regularly taking combination antiretroviral treatment sustains a suppressed viral load and reduces the likelihood of HIV transmission to zero⁽¹²⁾. As treatment coverage has increased in Australia, there has been a corresponding increase in the proportion of people with suppressed viral load (<200 copies/mL).

This increase has been observed consistently in two difference data sources: from 94% in 2014 to 98% in 2023 in the Australian HIV Observational Database, and from 90% in 2014 to 96% in 2022 at sexual health clinics participating in ACCESS (Figure 31). The number accessing care through ACCESS clinics declined from 2020, likely related to the impacts of the COVID-19 pandemic (data not shown). See Methodology for further detail.

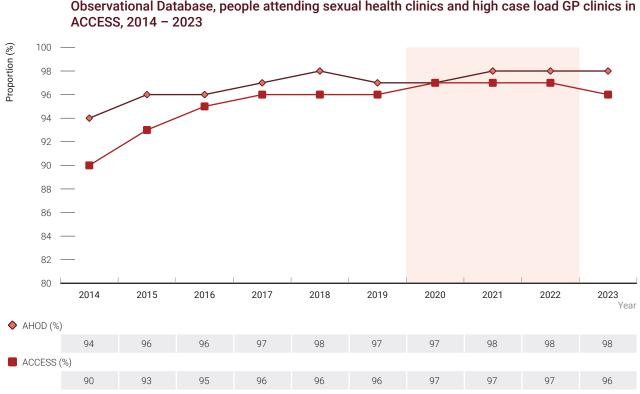


Figure 31 Proportion of patients with suppressed viral load from patients in the Australian HIV Observational Database, people attending sexual health clinics and high case load GP clinics in

The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 - 2022. Notes Suppressed viral load equals 200 copies/mL or less

Source: Australian HIV Observational Database, ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); see Methodology for detail.

HIV

Antiretroviral treatment guidelines are updated annually in Australia as over time, new drugs and formulations become available. This results in changes to recommended drug combinations. Antiretroviral drugs have differing potency and side-effect profiles, and it is important to monitor their use. Between 2014 and 2023, the number of people receiving integrase inhibitors increased more than three-fold from 5873 to 21 439. Conversely the number of people receiving non-nucleoside reverse transcriptase inhibitors decreased by nearly two-thirds from 10 199 in 2014 to 3953 in 2023. In the same period, the number of people receiving any PBS-subsidised antiretroviral therapy increased from 18 110 to 24 436 (Figure 32).

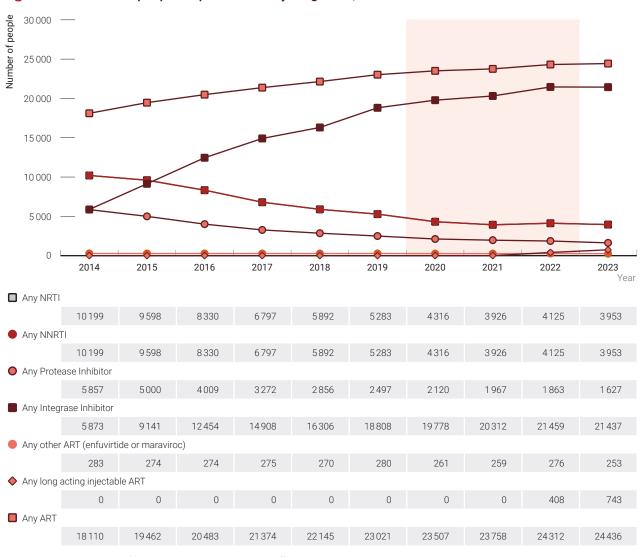


Figure 32 Number of people dispensed ART by drug class, 2014 – 2023

Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Excludes temporary residents who are ineligible for Medicare; due to PrEP dispensed as part of PrEP implementation programs, the NRTI dispensing numbers for the years 2014 to 2016 may be slightly over or underestimated; NRTI: nucleoside reverse transcriptase inhibitor; NNRTI: non-nucleoside reverse transcriptase inhibitor; ART: antiretroviral therapy.

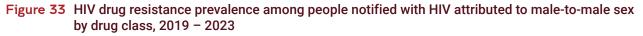
Source: Pharmaceutical Benefits Scheme.

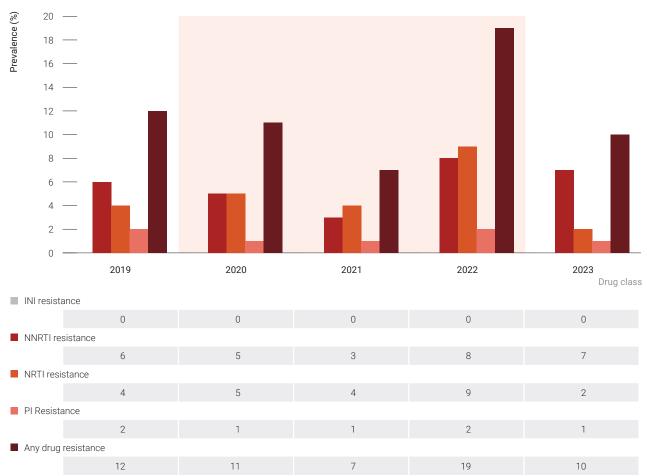
HIV transmitted drug resistance

Due to the scale-up of HIV treatments and pre-exposure prophylaxis (PrEP) in Australia it is important to monitor the prevalence of transmitted HIV drug resistance. HIV resistance testing is recommended for all new HIV diagnoses in Australia. In this report we focus on drug resistance mutations (DRMs) in HIV notifications, identified using the Stanford HIV Drug Resistance genotypic resistance interpretation system, using data from New South Wales and Queensland from 2019 to 2023 (see Methodology for further details). Only drug resistance tests taken within three months of HIV diagnosis were included to better capture transmitted drug resistance. These data account for between 33% and 40% of national notifications for the years reported and may not be nationally representative but provide information about resistance patterns in these states.

Between 2019 and 2023, DRM prevalence among people notified with HIV and with an HIV exposure of male-to-male sex fluctuated between 7% (in 2021, n=161) and 19% (in 2022, n=118), and was 10% in 2023 (n=180, Figure 33). By drug class, higher prevalence was observed for non-nucleoside reverse transcriptase inhibitor (NNRTI) and nucleoside reverse transcriptase inhibitor (NRTI) DRMs. No DRMs conferring resistance to integrase inhibitors (INIs) were observed over the reporting period.

Over the same period, DRM prevalence among people notified with HIV and with an HIV exposure of heterosexual sex also fluctuated, between 3% (in 2021, n=58; and 2023, n=64) and 12% (in 2022, n=66) (Figure 34). By drug class, only DRMs conferring resistance to NRTI and NNRTI were observed, while no DRMs conferring resistance to INIs or protease inhibitors were observed between 2019 and 2023.





Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Abbreviations: NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor; ART = antiretroviral therapy. Source: Queensland Health and the New South Wales Drug Resistance Database; see Methodology for detail.

HIV

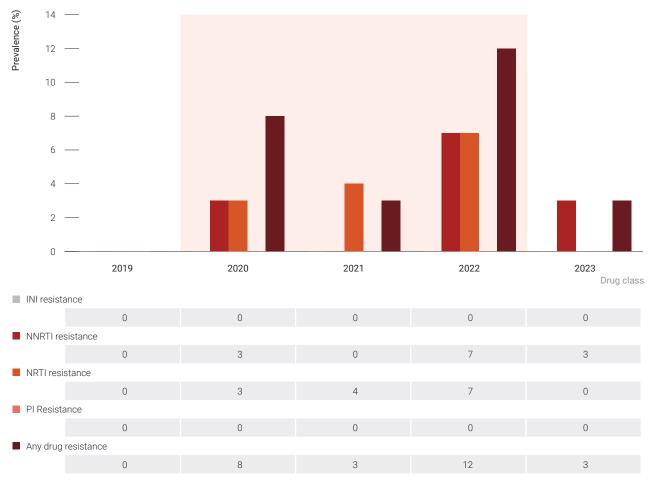


Figure 34 HIV drug resistance prevalence among people newly diagnosed with HIV attributed to heterosexual sex by drug class, 2019 – 2023

Note: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. Abbreviations: NRTI = nucleoside reverse transcriptase inhibitor; NNRTI = non-nucleoside reverse transcriptase inhibitor; ART = antiretroviral therapy. Source: Queensland Health and the New South Wales Drug Resistance Database; see Methodology for detail.

9 HV prevention

Primary prevention strategies aim to protect people from acquiring HIV. They include: condom use; harm reduction strategies such as needle and syringe programs, opioid substitution therapy and peer-based interventions to reduce injecting risk behaviour ^(13–15); and biomedical prevention strategies such as post-exposure prophylaxis (PEP) and PrEP. Testing and treatment are secondary prevention strategies, as they prevent transmission to others due to behavioural changes after diagnosis or starting treatment and achieving undetectable (suppressed) viral load, which reduces the risk of onward transmission to zero.

According to the GBQ+ Community Periodic Surveys, the majority (80%) of HIV-negative/unknown-HIV-status gay and bisexual men who had casual partners were regularly using strategies in 2023 to protect themselves against acquiring HIV, including avoiding anal sex, using condoms, or biomedical prevention. Inversely, 20% of HIV-negative gay and bisexual men engaging in anal intercourse (insertive or receptive) with casual partners in the past six months reported not consistently using these prevention strategies with casual partners of unknown HIV or PrEP status, down from 31% in 2014 (Figure 35).

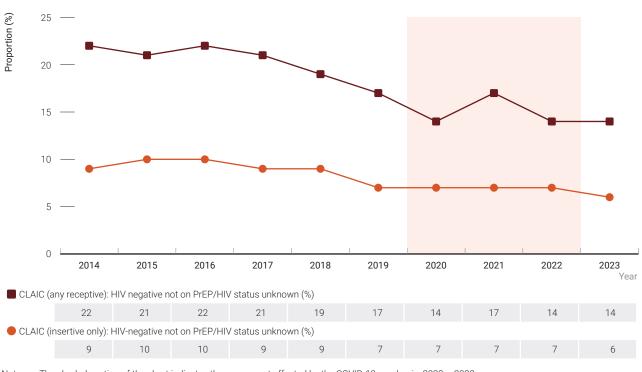


Figure 35 HIV risk behaviour in men with casual partners, 2014 – 2023

Notes: The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. CLAIC = condomless anal intercourse.

Source: GBQ+ Community Periodic Surveys.

Use of sterile needles and syringes

The reuse of needles and syringes that have been used by others (receptive syringe sharing) is the major risk factor for the transmission of HIV, hepatitis B, and hepatitis C among people who inject drugs. Harm reduction strategies such as needle and syringe programs, opioid substitution therapy and peer interventions can reduce injecting risk behaviour ^(13–15). Opioid substitution therapy has been shown to reduce the incidence of HIV and hepatitis C among people who inject drugs ^(15–17). Health promotion is important to enhance the effectiveness of these harm reduction strategies and to support people to inject safely. Each year over the 10-year period 2014 to 2023, between 16% and 19% of people who inject drugs attending needle and syringe programs reported receptive syringe sharing in the last month and was 19% in 2023 (See Hepatitis C chapter).

Blood screening

Since 1985, all blood donors have been screened for HIV to prevent onward transmission to recipients of blood products. There has been no known case of HIV acquisition through blood transfusion in Australia since the late 1990s. For further information, see Transfusion-transmissible infections in Australia: 2024 Surveillance Report, prepared by the Kirby Institute, UNSW Sydney and Australian Red Cross Lifeblood ⁽¹⁸⁾.

Pre-exposure prophylaxis (PrEP)

PrEP is the use of antiretroviral treatment by HIV-negative people to reduce their risk of acquiring HIV. PrEP is highly effective in people who use it according to guidelines. PrEP became available to eligible individuals on 1 April 2018 through listing on the PBS. The most recent clinical guidelines describing who may be suitable for PrEP use can be found on the ASHM website.

Between the start of April 2018 to the end of December 2023, 74 597 people have taken PrEP. In the same period, the number of people who had taken PrEP in the previous three months has increased from 6432 to 27 412. Also, the number of people who have taken PrEP in the previous 12 months increased from 6432 to 45 244 (Figure 36).

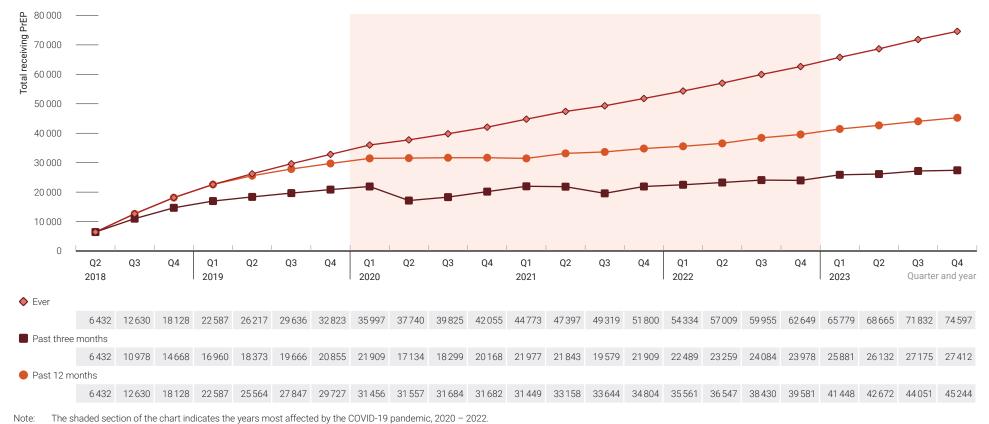


Figure 36 Number of people taking PrEP by recency and quarter, 2018 – 2023

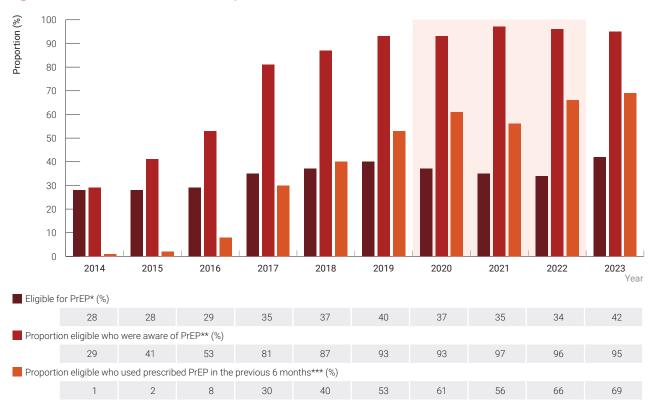
Source: Monitoring HIV pre-exposure prophylaxis (PrEP) uptake in Australia, Kirby Institute, UNSW Sydney.

What does this mean?

Despite a decline over the peak of the COVID-19 pandemic, increasing numbers of people are recorded as taking PrEP recently (within the last three months).

2

Among participants of the GBQ+ Community Periodic Surveys, 42% were eligible for PrEP in 2023, up from 32% in 2018 when subsidised PrEP became available through the PBS. Of those eligible for PrEP, 95% were aware of PrEP, up from 87% in 2018, and 69% reported using prescribed PrEP in the previous six months, up from 40% in 2018 (Figure 33).





Notes:

The shaded section of the chart indicates the years most affected by the COVID-19 pandemic, 2020 – 2022. The eligibility criteria were operationalised as follows:

- Any receptive condomless anal intercourse (CLAI) with casual male partners in the previous six months
- · Any CLAI with a HIV-positive regular male partner who did not have an undetectable viral load in the previous six months
- Tested and diagnosed with any sexually transmissible infection (STI) other than HIV in the previous 12 months
- Any use of crystal methamphetamine in the previous six months
- Later guidelines have expanded the eligibility criteria for PrEP.

** Awareness of PrEP was assessed with the question, "What do you know about pre-exposure prophylaxis (PrEP)?". Participants who answered "It's available now" were classified as aware of PrEP.

*** PrEP use was assessed with the question, "In the last 6 months, did you take anti-HIV medication regularly to protect yourself from HIV (PrEP)?". Participants who answered "Yes, I was prescribed anti-HIV medication to take every day" were classified as using PrEP. In 2019, updated answers included "Yes, I took it daily / most days" (i.e., regular users) and "Yes, I took it around the time of sex (but not daily)" (i.e., on-demand users).

Source: Annual Report on Trends in Behaviour, Centre for Social Research in Health, UNSW Sydney.

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