

Queensland Health

HIV in Queensland

2022



Queensland
Government

HIV in Queensland

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<https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/sex-health/reports-surveillance>

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Introduction

Infection with the human immunodeficiency virus (HIV) has been notifiable in Queensland, and Australia, since 1984. It is estimated that there were approximately 5,919 (within a range of 5,100 and 6,800) people living with HIV in Queensland at the beginning of 2022, based on a national HIV prevalence rate of 0.14 per cent (range 0.12% to 0.16%) among people aged 15 years or over.¹ Notification data were extracted from the Notifiable Conditions System (NoCS) of the Communicable Diseases Branch, Department of Health on 2 August 2023.

Data for 2020–2022 should be interpreted with caution due to the impact that the COVID-19 pandemic has had on disease transmission and testing. The effects of the pandemic and its control measures are not covered as they are beyond the scope of this report.

HIV notifications in Queensland

Table 1. Number and rate (per 100,000 population per year) of HIV notifications in Queensland, by place of first diagnosis, 1 January 2017 to 31 December 2022

Place of first diagnosis		2017	2018	2019	2020	2021	2017-2021 average	2022
First diagnosed in Queensland (new diagnoses)	N	185	179	158	107	124	150.6	100
	Rate	3.8	3.6	3.1	2.1	2.4	3.0	1.9
First diagnosed in other Australian states/territories	N	87	70	95	90	97	87.8	99
	Rate	1.8	1.4	1.9	1.7	1.9	1.7	1.9
First diagnosed overseas	N	83	86	109	105	60	88.6	104
	Rate	1.7	1.7	2.1	2.0	1.1	1.7	2.0

- There were 100 new diagnoses of HIV notified in Queensland in 2022, a 34% decrease compared with the previous five-year average (150.6 cases). The notification rate of new diagnoses of HIV in 2022 (1.9/100,000/year) was lower than the previous five-year average (3.0/100,000/year).
- The number of notifications of HIV in Queensland initially diagnosed in other Australian states/territories was higher in 2022 (99 cases) than the previous five-year average (87.8 cases).
- The number of notifications of HIV in Queensland initially diagnosed overseas was higher in 2022 (104 cases) than the previous five-year average (88.6 cases).

¹ Kirby Institute. https://www.kirby.unsw.edu.au/sites/default/files/documents/Annual-Surveillance-Report-2022_HIV.pdf

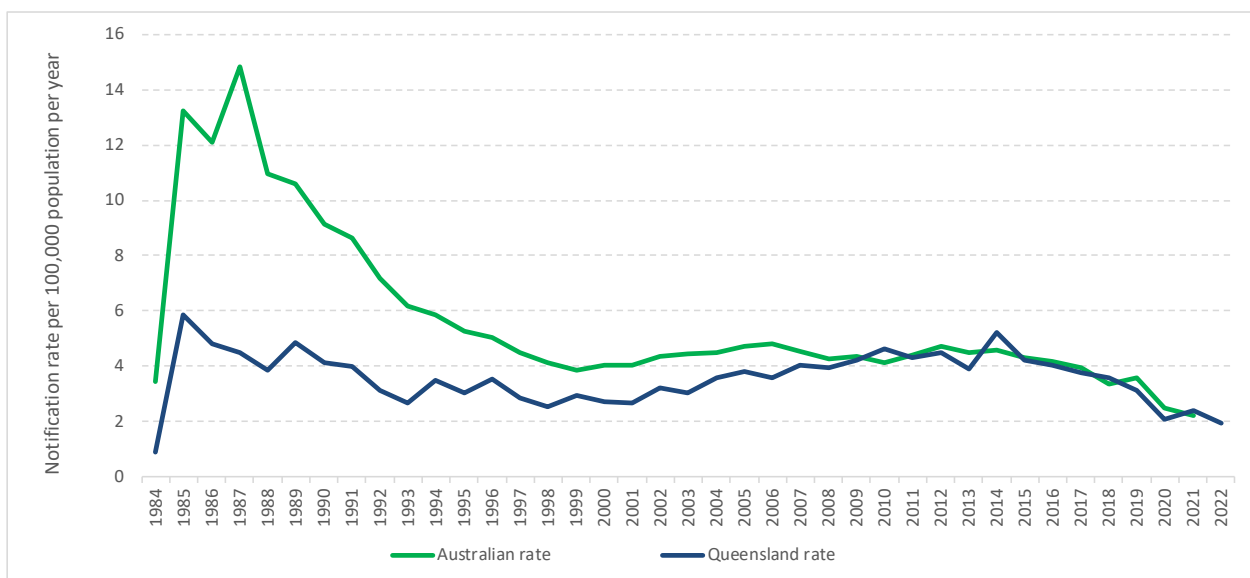


Figure 1. Annual notification rates (per 100,000 population per year) for new diagnoses of HIV in Queensland and Australia, 1 January 1984 to 31 December 2022²

² Kirby Institute. https://www.kirby.unsw.edu.au/sites/default/files/documents/Annual-Surveillance-Report-2022_HIV.pdf

New diagnoses of HIV in Queensland by sex, age group and First Nations status

Table 2. Number and percentage of new HIV diagnoses in Queensland by sex, age group and First Nations status, 1 January 2017 to 31 December 2022

Characteristic		2017	2018	2019	2020	2021	2017–2021 average	2022
Sex at birth								
Male	N	162	164	142	97	104	133.8	85
	%	87.6	91.6	89.9	90.7	83.9	88.8	85.0
Female	N	23	15	16	10	20	16.8	15
	%	12.4	8.4	10.1	9.3	16.1	11.2	15.0
Age group (years)								
0–9	N	0	1	0	1	0	0.4	0
	%	0.0	0.6	0.0	0.9	0.0	0.3	0.0
10–19	N	3	3	2	1	2	2.2	0
	%	1.6	1.7	1.3	0.9	1.6	1.5	0.0
20–29	N	58	64	52	34	31	47.8	19
	%	31.4	35.8	32.9	31.8	25.0	31.7	19.0
30–39	N	46	45	47	33	38	41.8	35
	%	24.9	25.1	29.7	30.8	30.6	27.8	35.0
40–49	N	35	30	30	19	26	28	21
	%	18.9	16.8	19.0	17.8	21.0	18.6	21.0
50–59	N	33	23	15	11	13	19	13
	%	17.8	12.8	9.5	10.3	10.5	12.6	13.0
60+	N	10	13	12	8	14	11.4	12
	%	5.4	7.3	7.6	7.5	11.3	7.6	12.0
First Nations status								
First Nations	N	11	13	9	8	6	9.4	5
	%	5.9	7.3	5.7	7.5	4.8	6.2	5.0
Other Queenslanders	N	174	166	149	99	118	141.2	95
	%	94.1	92.7	94.3	92.5	95.2	93.8	95.0
Total	N	185	179	158	107	124	150.6	100
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

- Of the 100 new HIV diagnoses in 2022, 85% (85) were men, and 75% were aged 20 to 49 years.
- In 2022 there were 5 new HIV cases in First Nations people (all in males), which is lower than the previous five-year average (9.4 cases).

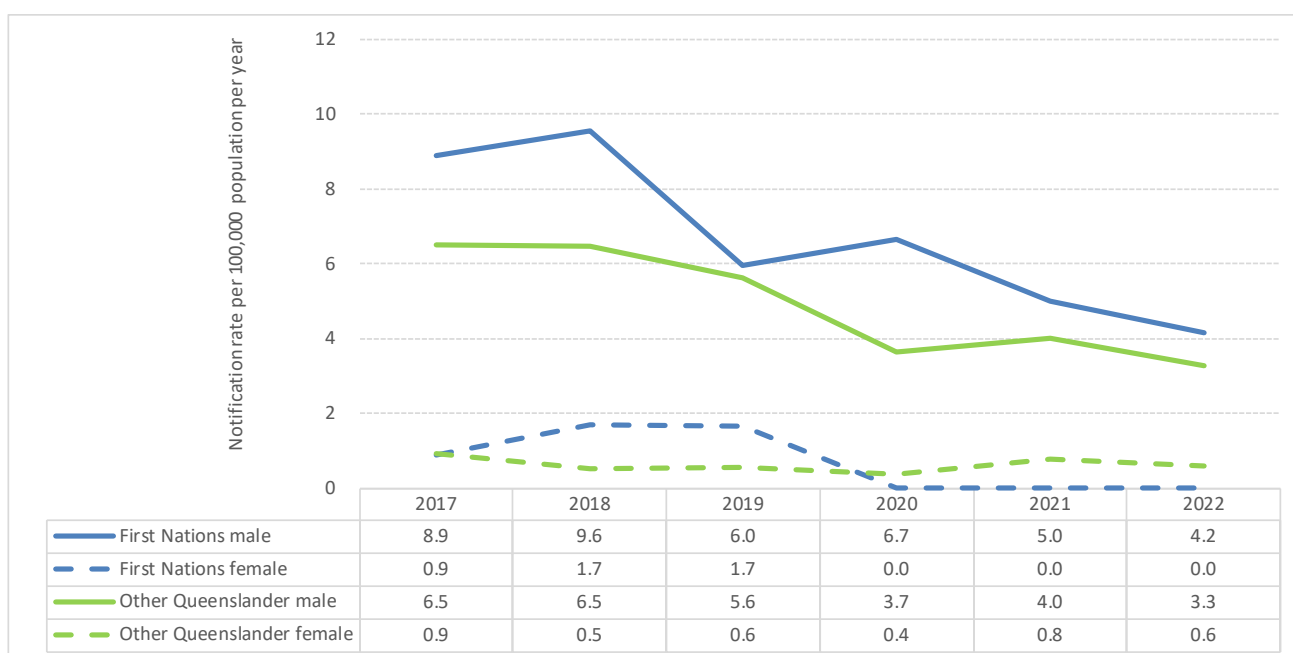


Figure 2. Annual notification rates (per 100,000 population per year) for new diagnoses of HIV in Queensland, by First Nations status and sex, 1 January 2017 to 31 December 2022

- In 2022, First Nations males had the highest notification rate of new HIV diagnoses (4.2/100,000/year), followed by other Queenslanders males (3.3/100,000/year), and other Queenslanders females (0.6/100,000/year). There were no new HIV cases notified in First Nations females in 2022.
- There was a decrease in notification rates of new HIV diagnoses among First Nations males from 2017 (8.9/100,000/year) to 2022 (4.2/100,000/year).
- An ongoing decrease in new HIV notification rates was observed in other Queenslanders males during the reporting period.
- New HIV notification rates remained relatively stable and low in both First Nations and other Queenslanders females during the period 2017–2022.

CD4+ cell count at diagnosis

Late HIV diagnosis is defined as newly diagnosed HIV with a CD4+ cell count less than 350 cells/ μ L, and advanced HIV is defined as newly diagnosed HIV with a CD4+ cell count less than 200 cells/ μ L, at the time of diagnosis, excluding recently acquired HIV infection.

Recently acquired HIV infection refers to a new HIV notification with either a negative/indeterminate HIV antibody test in the previous 12 months or a clinically diagnosed primary HIV infection (seroconversion illness).

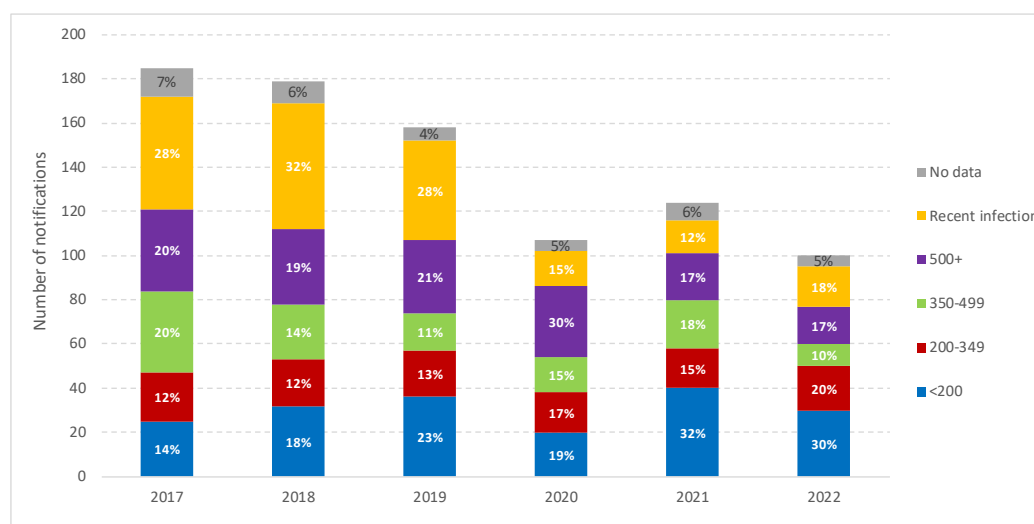


Figure 3. Number and percentage of new HIV notifications in Queensland by CD4+ cell count category at diagnosis, 1 January 2017 to 31 December 2022

- In 2022 late/advanced HIV diagnoses accounted for 50% of new diagnoses, higher than the previous five-year average (34%).

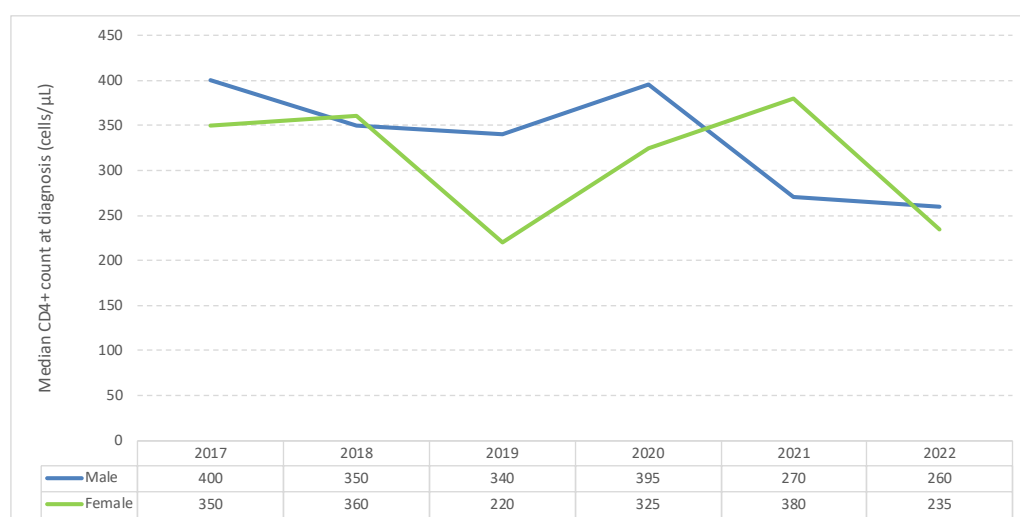


Figure 4. Median CD4+ cell count at diagnosis for new HIV diagnoses in Queensland by sex, 1 January 2017 to 31 December 2022

- The median CD4+ cell counts in males decreased from 400 cells/ μ L in 2017 to 260 cells/ μ L in 2022.
- The median CD4+ cell counts in females fluctuated in the reporting period, ranging from 220 to 380 cells/ μ L.

New diagnoses of HIV by sex and risk exposure

Table 3. Number and percentage of new HIV diagnoses in Queensland by sex and risk exposure, 1 January 2017 to 31 December 2022

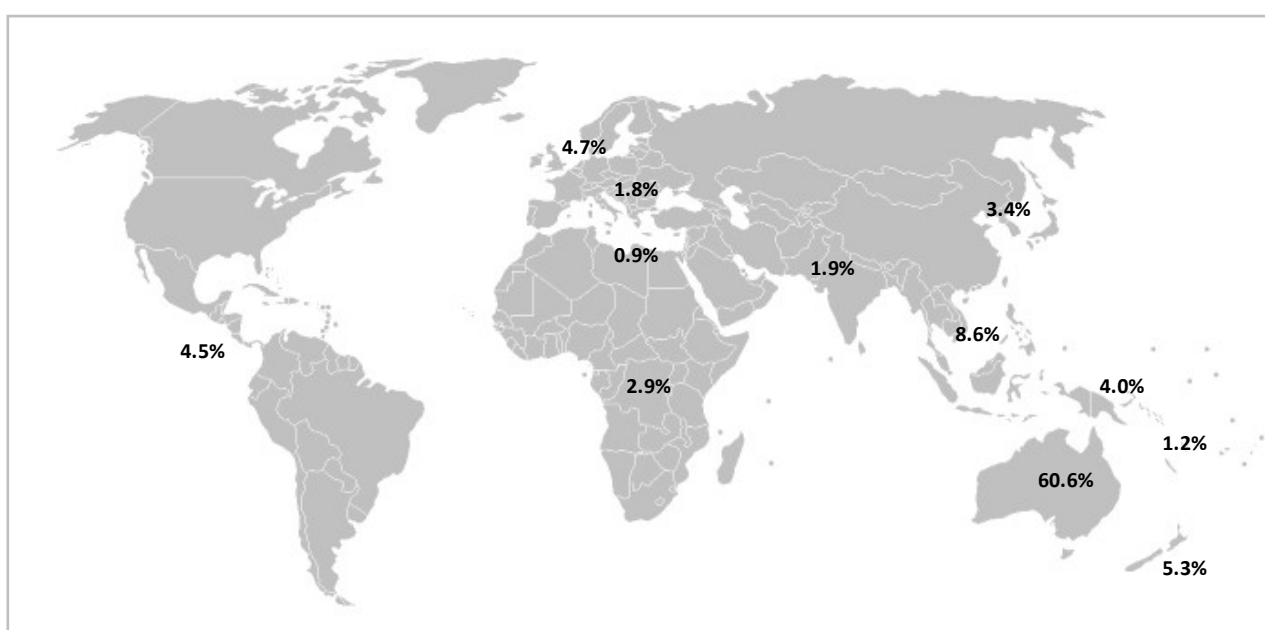
Risk exposure		2017	2018	2019	2020	2021	2017–2021 average	2022
Males	N	162	164	142	97	104	133.8	85
	%	87.6	91.6	89.9	90.7	83.9	88.8	85.0
Male-to-male sex	N	121	108	101	61	68	91.8	44
	%	65.4	60.3	63.9	57.0	54.8	61.0	44.0
Male-to-male sex and injecting drug use	N	11	19	12	12	11	13.0	12
	%	5.9	10.6	7.6	11.2	8.9	8.6	12.0
Heterosexual (subtotal)	N	19	21	16	12	19	17.4	28
	%	10.3	11.7	10.1	11.2	15.3	11.6	28.0
<i>Partner who is an injecting drug user</i>	N	1	1	0	1	1	0.8	1
	%	0.5	0.6	0.0	0.9	0.8	0.5	1.0
<i>Partner from a high prevalence country[#]</i>	N	15	11	7	3	9	9.0	15
	%	8.1	6.1	4.4	2.8	7.3	6.0	15.0
<i>Partner's risk not further specified</i>	N	3	9	9	8	9	7.6	12
	%	1.6	5.0	5.7	7.5	7.3	5.0	12.0
Injecting drug use [‡]	N	1	2	5	2	1	2.2	0
	%	0.5	1.1	3.2	1.9	0.8	1.5	0.0
Maternal transmission	N	0	0	0	0	0	0.0	0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other/undetermined exposure	N	10	14	8	10	5	9.4	2
	%	5.4	7.8	5.1	9.3	4.0	6.2	2.0
Females	N	23	15	16	10	20	16.8	15
	%	12.4	8.4	10.1	9.3	16.1	11.2	15.0
Heterosexual (subtotal)	N	15	13	8	7	16	11.8	15
	%	8.1	7.3	5.1	6.5	12.9	7.8	15.0
<i>Partner who is bisexual</i>	N	2	1	0	0	4	1.4	1
	%	1.1	0.6	0.0	0.0	3.2	0.9	1.0
<i>Partner who is an injecting drug user</i>	N	2	1	0	1	1	1.0	0
	%	1.1	0.6	0.0	0.9	0.8	0.7	0.0
<i>Partner from a high prevalence country[#]</i>	N	0	2	1	1	5	1.8	8
	%	0.0	1.1	0.6	0.9	4.0	1.2	8.0
<i>Partner's risk not further specified</i>	N	11	9	7	5	6	7.6	6
	%	5.9	5.0	4.4	4.7	4.8	5.0	6.0
Injecting drug use	N	0	0	1	0	0	0.2	0
	%	0.0	0.0	0.6	0.0	0.0	0.1	0.0
Maternal transmission	N	0	1	0	0	0	0.2	0
	%	0.0	0.6	0.0	0.0	0.0	0.1	0.0
Other/undetermined exposure	N	8	1	7	3	4	4.6	0
	%	4.3	0.6	4.4	2.8	3.2	3.1	0.0
Total	N	185	179	158	107	124	150.6	100
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[#] High prevalence countries defined as those with an estimated HIV prevalence of more than 1% of the population. UNAIDS website: <https://aidsinfo.unaids.org/>

[‡] Excludes male-to-male sex

- In 2022, 44% of new HIV diagnoses were reported among people who had male-to-male sex, 12% were attributed to male-to-male sex and injecting drug use, and 43% to heterosexual sex.
- During 2017–2022, male-to-male sex remained the predominant transmission route among notified HIV cases. However, there was an increase in the proportions of cases attributed to heterosexual sex, from 18% in 2017 to 43% in 2022.
- 52 new HIV cases notified in First Nations peoples (2017–2022) reported the following risk exposures: 32 (62%) had male-to-male sex, 7 (13%) male-to-male sex and injecting drug use, 10 (19%) heterosexual sex, 2 (4%) injecting drug use alone, one (2%) exposure undetermined.

Region of birth



(Map template from https://commons.wikimedia.org/wiki/Maps_of_the_world#/media/File:BlankMap-World-v2.png)

Figure 5. Percentage of new Queensland HIV diagnoses by region of birth, 1 January 2017 to 31 December 2022

- The majority of people newly diagnosed with HIV in Queensland during the period 2017–2022 were born in Australia (60.6%), with 8.6% born in South-East Asia (e.g., Philippines, Thailand), 5.3% born in New Zealand, 4.7% born in North-West Europe (e.g. United Kingdom), 4.5% born in the Americas, 4.0% born in Papua New Guinea, and 2.9% born in Sub-Saharan Africa.

Recently acquired infection

A recently acquired HIV infection is a new notification defined as having either a negative or indeterminate HIV antibody test in the previous 12 months or a clinically diagnosed primary HIV infection (seroconversion illness).

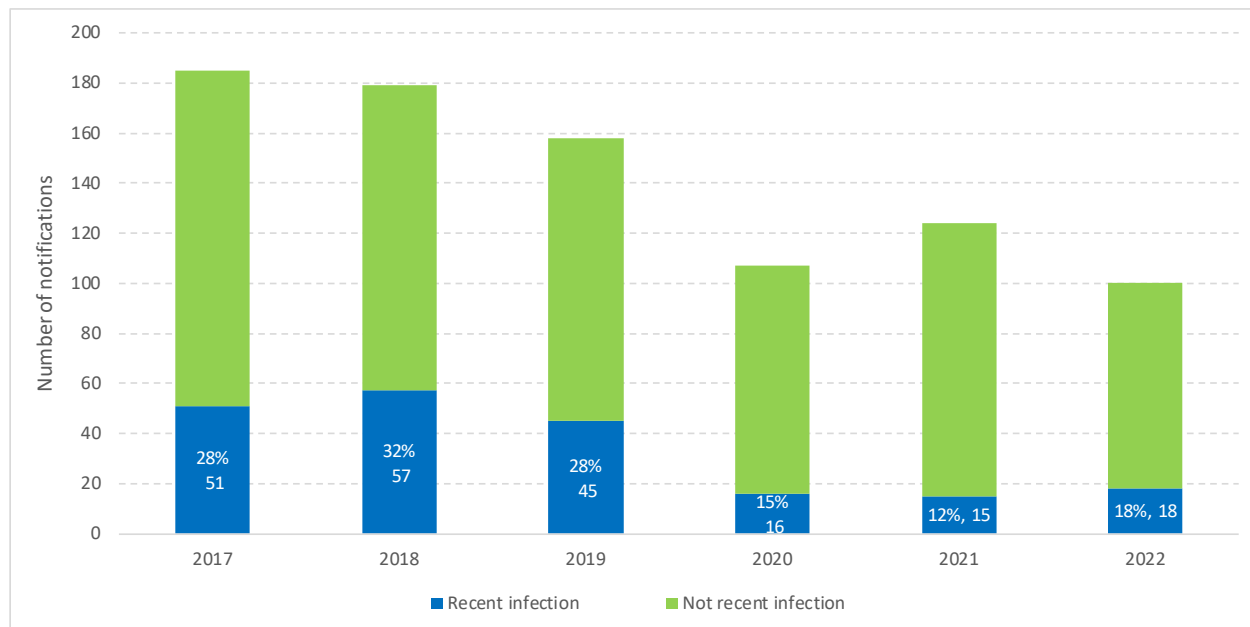


Figure 6. Number and percentage of new HIV notifications in Queensland by recently acquired infection status, 1 January 2017 to 31 December 2022

- In 2022, 18 (18%) of all new HIV diagnoses were recently acquired infections, lower than the five-year average (23%).
- Of these 18 recently acquired HIV cases, one was in First Nations people, 17 were in other Queenslanders, and 16 (89%) were aged 20 to 49 years.

Table 4. Number and percentage of recently acquired HIV infections in Queensland, by sex and risk exposure, 1 January 2017 to 31 December 2022

Risk exposure		2017	2018	2019	2020	2021	2017–2021 average	2022
Males	N	48	51	43	14	14	34.0	17
	%	94.1	89.5	95.6	87.5	93.3	92.4	94.4
Male-to-male sex	N	42	39	27	8	12	25.6	11
	%	82.4	68.4	60.0	50.0	80.0	69.6	61.1
Male-to-male sex and injecting drug use	N	3	4	6	5	1	3.8	1
	%	5.9	7.0	13.3	31.3	6.7	10.3	5.6
Heterosexual (subtotal)	N	3	6	6	0	0	3	4
	%	5.9	10.5	13.3	0.0	0.0	8.2	22.2
<i>Partner from a high prevalence country[#]</i>	N	3	4	4	0	0	2.2	3
	%	5.9	7.0	8.9	0.0	0.0	6.0	16.7
<i>Partner's risk not further specified</i>	N	0	2	2	0	0	0.8	1
	%	0.0	3.5	4.4	0.0	0.0	2.2	5.6
Injecting drug use [‡]	N	0	0	2	0	0	0.4	0
	%	0.0	0.0	4.4	0.0	0.0	1.1	0.0
Other/indetermined exposure	N	0	2	2	1	1	1.2	1
	%	0.0	3.5	4.4	6.3	6.7	3.3	5.6
Females	N	3	6	2	2	1	2.8	1
	%	5.9	10.5	4.4	12.5	6.7	7.6	5.6
Heterosexual (subtotal)	N	3	5	1	2	1	2.4	1
	%	5.9	8.8	2.2	12.5	6.7	6.5	5.6
<i>Partner who is bisexual</i>	N	0	1	0	0	0	0.2	0
	%	0.0	1.8	0.0	0.0	0.0	0.5	0.0
<i>Partner who is an injecting drug user</i>	N	0	0	0	0	1	0.0	0
	%	0.0	0.0	0.0	0.0	6.7	0.0	0.0
<i>Partner from a high prevalence country[#]</i>	N	0	1	1	0	0	0.4	1
	%	0.0	1.8	2.2	0.0	0.0	1.1	5.6
<i>Partner's risk not further specified</i>	N	3	3	0	2	0	1.6	0
	%	5.9	5.3	0.0	12.5	0.0	4.3	0.0
Injecting drug use	N	0	0	1	0	0	0.2	0
	%	0.0	0.0	2.2	0.0	0.0	0.5	0.0
Maternal transmission	N	0	1	0	0	0	0.2	0
	%	0.0	1.8	0.0	0.0	0.0	0.5	0.0
Total	N	51	57	45	16	15	36.8	18
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[#] High prevalence countries defined as those with an estimated HIV prevalence of more than 1 per cent. UNAIDS website: <https://aidsinfo.unaids.org/>

[‡] Excludes male-to-male sex

- For recently acquired cases in 2022, 61% reported transmission route as male-to-male sex, 6% as male-to-male sex and injecting drug use, and 28% as heterosexual sex.

Hospital and Health Service at time of diagnosis

Table 5. Number and rate (per 100,000 population per year) of new HIV diagnoses in Queensland by Hospital and Health Service (HHS) at diagnosis, 1 January 2017 to 31 December 2022

HHS of residence		2017	2018	2019	2020	2021	2017–2021 average	2022*
Torres and Cape	N	4	4	1	1	0	2.0	0
	Rate	14.9	14.6	3.6	3.5	0.0	7.3	0.0
North West	N	0	4	0	0	3	1.4	1
	Rate	0.0	14.4	0.0	0.0	10.4	5.0	3.5
Cairns and Hinterland	N	14	15	19	3	16	13.4	8
	Rate	5.5	5.8	7.3	1.1	6.1	5.2	3.0
Townsville	N	3	6	8	3	2	4.4	3
	Rate	1.2	2.5	3.3	1.2	0.8	1.8	1.2
Mackay	N	2	2	2	1	6	2.6	4
	Rate	1.2	1.2	1.2	0.6	3.3	1.5	2.2
Central West	N	0	1	0	0	0	0.2	0
	Rate	0.0	9.6	0.0	0.0	0.0	1.9	0.0
Central Queensland	N	2	3	5	4	1	3.0	1
	Rate	0.9	1.4	2.3	1.8	0.4	1.4	0.4
Wide Bay	N	2	4	3	0	4	2.6	5
	Rate	0.9	1.8	1.4	0.0	1.7	1.2	2.2
South West	N	1	0	0	0	0	0.2	0
	Rate	4.1	0.0	0.0	0.0	0.0	0.8	0.0
Darling Downs	N	5	7	3	1	3	3.8	5
	Rate	1.8	2.5	1.1	0.3	1.0	1.3	1.7
Sunshine Coast	N	7	6	3	10	8	6.8	4
	Rate	1.7	1.4	0.7	2.2	1.7	1.6	0.9
Metro North	N	54	41	36	31	36	39.6	25
	Rate	5.4	4.0	3.4	2.9	3.4	3.8	2.4
Metro South	N	49	50	39	30	23	38.2	19
	Rate	4.9	4.9	3.7	2.8	2.2	3.2	1.8
West Moreton	N	10	12	15	5	5	9.4	5
	Rate	3.5	4.1	4.9	1.6	1.6	3.1	1.6
Gold Coast	N	32	24	24	18	17	23.0	20
	Rate	5.3	3.9	3.8	2.8	2.6	3.6	3.1
Queensland	N	185	179	158	107	124	150.6	100
	Rate	3.8	3.6	3.1	2.1	2.4	3.0	1.9

* HHS specific notification rates in 2022 were not statistically significantly different from the overall Queensland rate in 2022.

- In 2022, the largest number of new diagnoses of HIV were from Metro North HHS (25 cases, 25% of the Queensland total), followed by Gold Coast HHS (20 cases, 20%), Metro South HHS (19 cases, 19%), and Cairns and Hinterland HHS (8 cases, 8%).
- The number of new diagnoses of HIV decreased in Metro North HHS, from 54 cases in 2017 to 25 cases in 2022.
- The number of new diagnoses of HIV in Metro South HHS decreased from 49 cases in 2017 to 19 cases in 2022.
- New diagnoses of HIV were sporadic in Central West HHS (one case in the six-year period) and South West HHS (1 case in the six-year period).

In 2022, HHS specific notification rates of new HIV diagnoses had no statistically significant Difference from the overall Queensland rate (1.9/100,000/year).