

AIDS – New Zealand

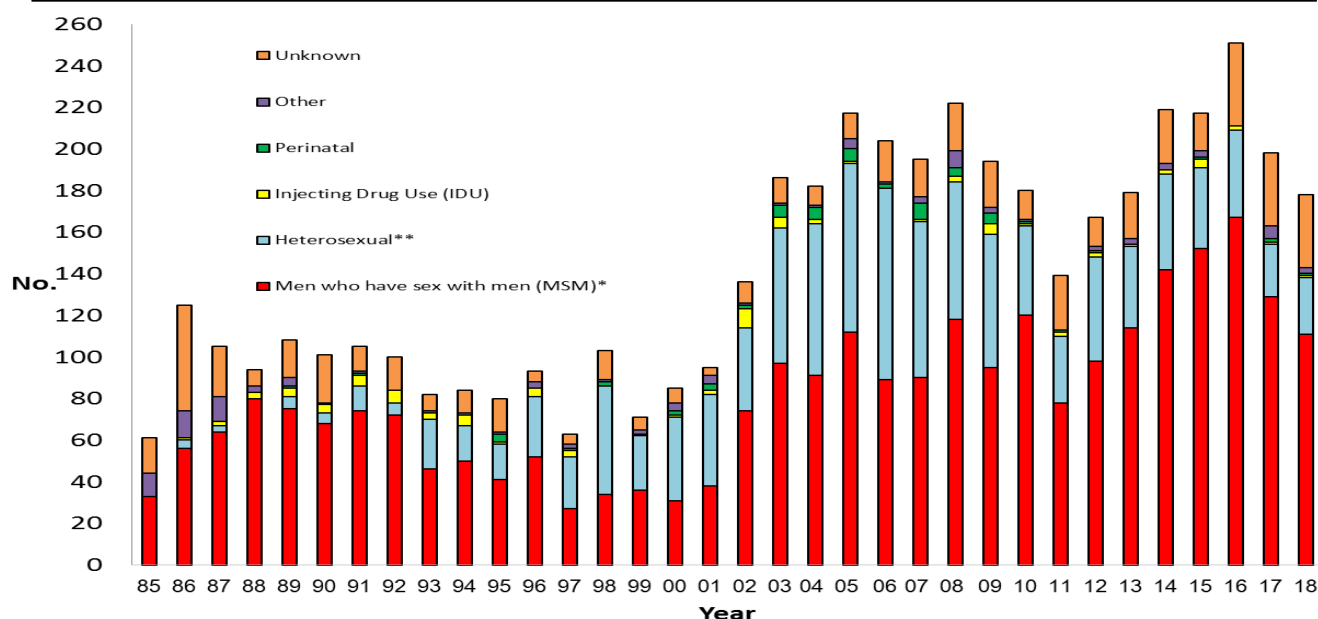


Figure 1: Number of people diagnosed with HIV in New Zealand through Western Blot antibody test and since 2002 through viral load (VL) testing, by year of diagnosis and means of infection. It is important to appreciate that infection may have occurred a number of years prior to diagnosis. *Includes MSM & IDU. **Includes Heterosexual & IDU.

HIV diagnoses in 2018

In 2018, 178 people (156 men, 19 women, and three transgender) were first known to be infected with HIV in New Zealand, 65 through Western Blot antibody testing and 113 through viral load testing. Of these 178, 41 had been previously diagnosed overseas.

Of the 178, 111 were men who have sex with men (MSM), 27 people (18 men, 9 women) were infected through heterosexual contact, one person was infected through injecting drug use (IDU), one child was infected perinatally overseas, and three people were infected through other means. For the remaining 35 people the means of infection was unknown or this information has not yet been received.

The total number reported in 2018 (178) was the lowest number since 2012 (167) (Figure 1); among MSM in 2018 the 111 reported cases were also the lowest since 2012 (98). However, the number reported each year will not be the same as the number infected, as people may be infected for many years before being diagnosed.

A lower proportion of people found to be infected were reported though Western Blot testing than in previous years, due to more laboratories confirming HIV infection by serological testing as has been recommended by US CDC.¹

¹Centers for Disease Control and Prevention and Association of Public Health Laboratories. Laboratory Testing for the Diagnosis of HIV Infection: Updated Recommendations. Available at <http://stacks.cdc.gov/view/cdc/23447>. Published June 27, 2014

HIV diagnoses among gay, bisexual and other men who have sex with men (MSM)

In 2018, of the 111 MSM found to be infected, 85 were first diagnosed in New Zealand, 26 had previously been diagnosed overseas. The number diagnosed overseas (26) is very similar to the number diagnosed overseas (29) in 2017. The annual numbers diagnosed in New Zealand by place of infection since 1996 are shown in Figure 2. The number of MSM infected locally rose sharply between 2001 and 2005, and was relatively stable until 2010. After three years of the highest number of infections locally (2014-16), the numbers have decreased in 2017 (69) and again in 2018 (60) - the lowest number since 2011.

The initial CD4 lymphocyte count gives an indication of the stage of HIV infection at diagnosis. Here we have limited the reporting of the initial CD4 count to

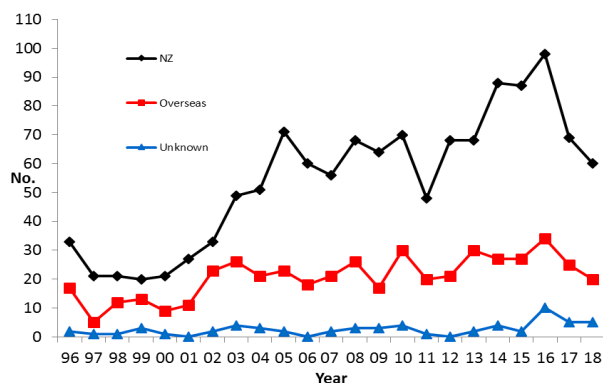


Figure 2 Place of infection of MSM first diagnosed in New Zealand by antibody test annually since 1996 and including those reported by viral load testing since 2002

those 60 MSM diagnosed and infected in New Zealand in 2018 as this group best indicates the underlying incidence. Among the 53 for whom an initial CD4 was available, 22 (42%) had a CD4 count ≥ 500 indicating that they were diagnosed within about 14 months following infection, 14 (26%) had a CD4 count between 350-499, and 17 (32%) < 350 , indicating longer periods between infection and diagnosis.

Of the 295 MSM diagnosed and infected in New Zealand between 2015 and 2018 who had available CD4 count data, 135 (46%) MSM had an initial CD4 count ≥ 500 . This proportion was similar to MSM diagnosed between 2011 and 2014 with an initial CD4 count ≥ 500 (45%) and slightly more than MSM diagnosed between 2007 and 2010 (38%), suggesting a possible trend towards earlier diagnosis.

Of all 111 MSM found to be infected in 2018 (which includes those previously diagnosed overseas):

- 52 (47%) were European, 21 (19%) Asian, 18 (16%) Māori, 12 (11%) Latin American, 6 (5%) Pacific People, and 2 (2%) of other ethnicities. This represents fewer European and more Māori, Asian and Latin American men compared to previous years.
- 40 (36%) were living in the Auckland region, 21 (19%) in the lower North Island region, 7 (6%) in other parts of the North Island, and 10 (9%) in the South Island. For 17 (15%) their region of residence was not stated, and 16 (14%) normally lived overseas.
- The age range at diagnosis was 20-74 years; 40 (36%) were aged < 30 years, 33 (30%) aged 30-39 years, 21 (18%) aged 40-49 years, and 17 (15%) aged 50 or more. Infection may have occurred at a younger age than when it was diagnosed.

HIV diagnoses among people heterosexually infected

Overall, the number of people heterosexually infected continued to be very much smaller than the number of MSM diagnosed. In 2018, there were 27 people found to be infected with HIV who had been heterosexually infected. Of these 27, 17 were first diagnosed in New Zealand; very similar to the number of heterosexually infected individuals diagnosed in New Zealand in 2017 (19).

The annual numbers first diagnosed in New Zealand by place of infection are shown in Figure 3. The number remained relatively stable from 2010 to 2016 (annual average of 36) with slightly more being infected overseas compared to New Zealand. In 2018, the number infected in New Zealand (n=6)

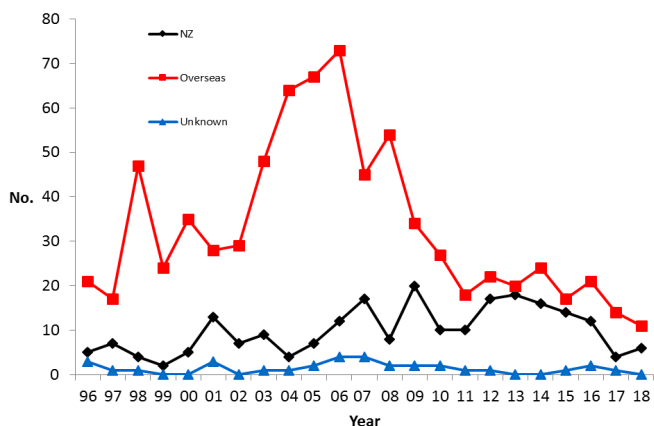


Figure 3 Place of infection of people first diagnosed in New Zealand with heterosexually-acquired HIV by antibody test annually since 1996 and including those reported by viral load testing since 2002

and overseas (n=11) both declined relative to 2010-2016 and were similar to the 2017 numbers.

In 2018, of all 27 people heterosexually infected (which includes those previously diagnosed overseas):

- 18 (67%) were men and 9 (33%) women
- 17 (63%) were European, 8 (30%) Asian, 1 (4%) African, and 1 (4%) Latin American
- The age range at diagnosis was 21-62 years; 5 (19%) were aged < 30 years, 10 (37%) aged 30-39 years, 5 (19%) aged 40-49 years, and 7 (26%) aged 50 or more. Infection may have occurred at a younger age than when it was diagnosed.

Of the 6 heterosexuals diagnosed and infected in New Zealand in 2018, 3 (50%) had a CD4 count at the time of diagnosis of ≥ 500 , 1 (17%) between 350-499, and 2 (33%) < 350 . Over the period 2015 to 2018, among the 36 heterosexuals diagnosed and infected in New Zealand with initial CD4 count data available, 10 (28%) had a CD4 count of ≥ 500 , 6 (17%) between 350-499, and 20 (55%) had a CD4 count < 350 , showing that compared to MSM, a greater proportion of heterosexually infected individuals were diagnosed late.

People who inject drugs (PWID)

The number of people diagnosed with HIV whose only likely means of infection reported was injecting drug use has remained low. Only one person was reported as being infected in this way in 2018. However, 6 MSM also reported injecting drug use which is the highest number ever in one year. All of these individuals were reported to have been infected in New Zealand.

Children infected through mother-to-child transmission

In 2018, one child who had been born overseas was diagnosed in New Zealand with HIV infection through mother-to-child transmission. Since 2007, there have been no children with perinatally-acquired HIV born in New Zealand. However, as diagnosis might be delayed for many years, there may be children living with unrecognised infection born since then or even earlier.

Between 1998-2018, there were 165 births to women known to be HIV infected prior to delivery in New Zealand. None of these children have been infected with HIV. However, for children born more recently in 2018 it is too soon to be sure about this as acquired HIV cannot be definitively ruled out until a child is over one year old. In 2018, there was one woman diagnosed with HIV through antenatal testing.

The number of people living with HIV in New Zealand

The number of individuals living with diagnosed HIV in New Zealand will be less than the total ever found to be infected because of deaths from AIDS and non-AIDS related causes and the unknown number who have gone overseas.

Data from Pharmac, New Zealand's pharmaceutical management agency, show that there were 2643 adults (2227 men, 416 women) and 18 children receiving subsidised antiretroviral therapy (ART) at the end of June 2018. This is 173 more adults (150 men and 23 women) and three fewer children compared with a year earlier.

AIDS Notifications - 2018

Overall 15 people, 13 men, one woman, and one transgender person were notified with AIDS in 2018. Of these 15, 7 (47%) were MSM, 7 (47%) were infected heterosexually, and one (7%) was infected by other means.

Eight (53%) were European, four (27%) Māori, two (13%) Asian, and one (7%) Pacific person. Nine (60%) had their AIDS diagnosis within three months of being diagnosed with HIV and would not have had the opportunity for antiretroviral treatment to control progression of their HIV infection.

Figure 4 shows the annual number of diagnoses of AIDS by year of diagnosis and the number of deaths of people who had been notified with AIDS.

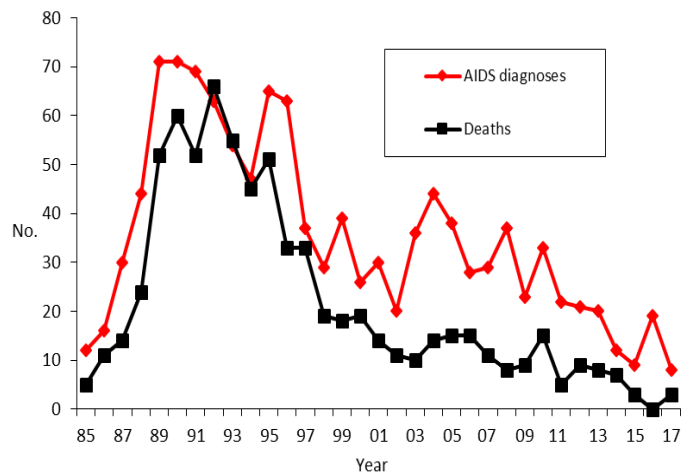


Figure 4 Annual number of diagnoses of AIDS and deaths among people notified with AIDS (The number of notifications and deaths for 2018 are expected to rise due to delayed reports)

Summary of trends in HIV diagnoses in New Zealand

Gay, bisexual and other men who have sex with men (MSM)

Gay, bisexual and other men who have sex with men continue to be the most affected by HIV infection in New Zealand, accounting for 79% of all locally acquired HIV diagnoses in 2018.

Following three years of increasing numbers of diagnoses among MSM in New Zealand, the numbers diagnosed in 2017 and 2018 have declined to numbers similar to those reported between 2003 and 2010. This decline was seen particularly in MSM reported to have been infected in New Zealand, whereas the number reported to have been infected overseas has remained relatively stable.

CD4 count information in 2018 suggests that just under a half of MSM infected in New Zealand are relatively recent infections. However, about a third of MSM in 2018, and in the preceding years were diagnosed late.

The number of MSM diagnoses has declined over the last 2 years. Changes within the last few years, including treating all HIV positive individuals, availability of pre-exposure prophylaxis for individuals at high risk for HIV, and ongoing campaigns emphasizing the use of condoms and the importance of regular HIV testing are likely to reduce the number of MSM being infected in New Zealand.

Heterosexual men and women

The number of individuals diagnosed with heterosexually-acquired HIV peaked in the mid-2000s, declined around 2009 and has remained relatively stable at low numbers since then. However, the number of infections has continued to decline even further in 2017 and 2018. The number diagnosed annually now are similar to those reported in the late 1990s. The decline has been in both those reported to be infected in New Zealand and overseas.

Although the number of heterosexually infected individuals in New Zealand is much smaller, the proportion whose initial CD4 count at the time of diagnosis was <350 in the years 2015-2018 was higher (55%) than for MSM (32%) which is an indication of prolonged undiagnosed infection. It is therefore important to continue to emphasise early HIV testing among at-risk heterosexual men and women and to consider HIV as a possibility in people with compatible clinical features.

People who inject drugs (PWID)

The on-going small number of HIV diagnoses among people whose only likely means of infection is through injecting drug use can be attributed to the well-functioning Needle Exchange Programme in New Zealand. HIV prevention, however, needs to continue to be maintained in this high-risk population, particularly as there was an increased number of men in 2018 who reported both injecting drug use and homosexual contact as being a possible means of infection.

Children

One child was diagnosed with HIV in New Zealand in 2018, infected overseas, thereby indicating the continued importance of HIV testing in children from high prevalence countries. There have been no children diagnosed with perinatally acquired HIV born in New Zealand since 2007.

Table 1. Exposure category by time of diagnosis for those found to be infected with HIV by antibody test and first viral load test

		HIV Infection*							
		1985-2003		2004-2017		2018		Total 1985-2018	
Sex	Exposure category	N	%	N	%	N	%	N	%
Male	Homosexual contact	1164	56.2	1564	56.5	105	59.0	2833	56.5
	Homosexual & IDU	26	1.3	31	1.1	6	3.4	63	1.2
	Heterosexual contact	213	10.3	400	14.5	18	10.1	631	12.6
	Injecting drug use	53	2.6	23	0.8	1	0.6	77	1.5
	Blood product recipient	34	1.6	0	0.0	0	0.0	34	0.7
	Transfusion recipient [§]	9	0.4	5	0.2	0	0.0	14	0.3
	Perinatal	13	0.6	26	0.9	0	0.0	39	0.8
	Other	4	0.2	10	0.4	0	0.0	14	0.3
	Unknown	236	11.4	240	8.7	26	14.6	502	10.0
Female	Heterosexual contact	234	11.3	369	13.3	9	5.0	612	12.2
	Injecting drug use	11	0.5	3	0.1	0	0.0	14	0.3
	Transfusion recipient [§]	8	0.4	2	0.1	0	0.0	10	0.2
	Perinatal	11	0.5	11	0.4	1	0.6	23	0.5
	Other	7	0.3	12	0.4	0	0.0	19	0.4
	Unknown	22	1.1	59	2.1	9	5.0	90	1.8
Transgender	Total	8	0.4	10	0.4	3 [§]	1.7	21	0.4
Not Stated	Transfusion recipient	5	0.2	0	0.0	0	0.0	5	0.1
	Unknown	13	0.6	1	0.1	0	0.0	14	0.3
TOTAL		2071	100.0	2766	100.0	178	100.0	5015	100.0

*Includes people who have developed AIDS. HIV numbers are recorded by time of diagnosis for those reported through antibody testing and by time of first viral load for those reported through viral load testing. The latter include many who have initially been diagnosed overseas and not had an antibody test here. The date of initial diagnosis may have preceded the viral load date by months or years.

§ All people in this category, diagnosed since 1996, infection was acquired overseas. [§] male-to-female

Table 2. Ethnicity[‡] by time of diagnosis in New Zealand for those found to be infected with HIV by antibody test and first viral load test.

		HIV Infection*							
		1996-2003		2004-2017		2018		Total 1996-2018	
Sex	Ethnicity	N	%	N	%	N	%	N	%
Male	European	514	50.0	1262	45.6	73	41.0	1849	46.6
	Maori [†]	60	5.8	187	6.8	18	10.1	265	6.7
	Pacific Islander	19	1.9	82	3.0	7	3.9	108	2.7
	African	97	9.4	177	6.4	2	1.1	276	7.0
	Asian	91	8.9	312	11.3	27	15.2	430	10.8
	Other	18	1.8	133	4.8	13	7.3	152	3.8
	Unknown	20	1.9	146	5.3	16	9.0	182	4.6
Female	European	53	5.2	84	3.0	5	2.8	142	3.6
	Maori [†]	7	0.7	25	0.9	0	0.0	32	0.8
	Pacific Islander	13	1.3	26	0.9	0	0.0	39	1.0
	African	89	8.7	189	6.8	3	1.7	281	7.1
	Asian	43	4.2	85	3.1	5	2.8	133	3.3
	Other	1	0.1	16	0.6	1	0.6	18	0.5
	Unknown	1	0.1	31	1.1	5	2.8	37	1.0
Transgender	Total	1	0.1	10	0.4	3	1.7	14	0.4
Unknown		0	0.0	1	0.1	0	0.0	1	0.1
TOTAL		1027	100.0	2766	100.0	178	100.0	3971	100.0

[‡] Information on ethnicity of people diagnosed with HIV only collected since 1996

* Includes people who have developed AIDS. HIV numbers are recorded by time of diagnosis for those reported through antibody testing and by time of first viral load for those reported through viral load testing. The latter include many who have initially been diagnosed overseas and not had an antibody test here. The date of initial diagnosis may have preceded the viral load date by months or years.

[†] Includes people who belong to Maori and another ethnic group

For further information about the occurrence of HIV/AIDS in New Zealand, contact:
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