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AIDS – New Zealand

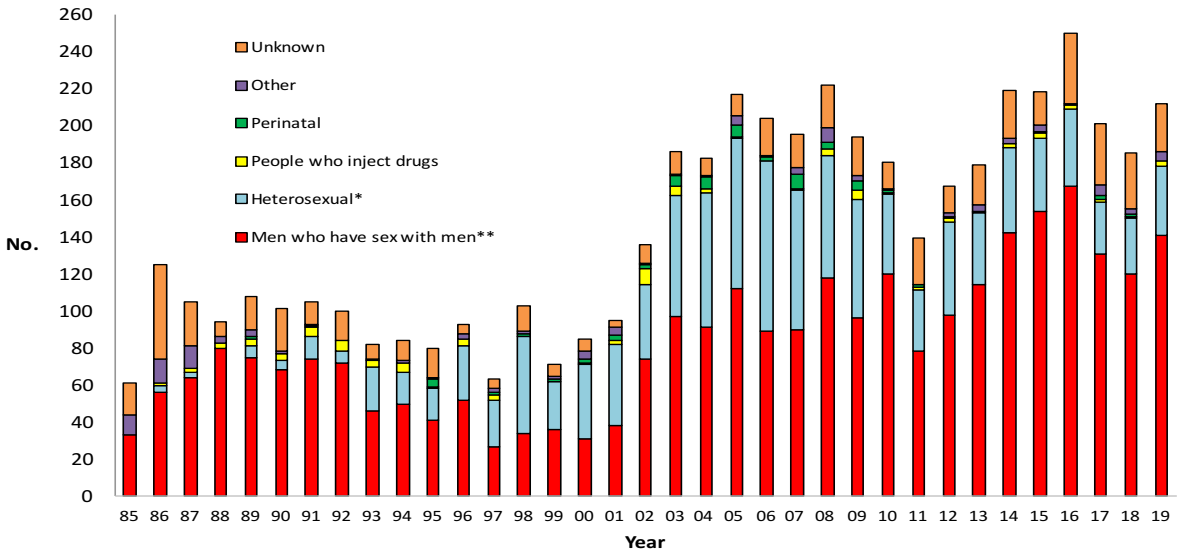

Figure 1. Number of people diagnosed with HIV in New Zealand through Western Blot antibody test and, since 2002, through viral load (VL) testing, by year of diagnosis and means of infection. It is important to appreciate that infection may have occurred a number of years prior to diagnosis. *Includes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

HIV diagnoses in 2019

In 2019, 212 people (186 men, 23 women, and three transgender) were first known to be infected with HIV in New Zealand, 63 through Western Blot antibody testing and 149 through viral load testing.

Of the 212, 141 were men who have sex with men (MSM), 37 people (18 men, 19 women) were infected through heterosexual contact, three people were infected through injecting drug use (IDU), and five people were infected through other means. For the remaining 26 (22 men, 4 women) people the means of infection was unknown or this information has not yet been received.

The total number reported in 2019 (n=212) was higher than in the previous two years (Figure 1). The increase in 2019, however, was largely driven by a higher number of people previously diagnosed overseas (76; 36%) compared to earlier years. The number diagnosed in New Zealand (n=128) was very similar to 2018 (n=126), and lower than the annual average of 171 in the preceding years 2013 to 2017.

Similarly, the increase in the number of MSM reported in 2019 (n=141) compared to the previous two years is a result of more MSM who were previously diagnosed overseas, rather than a first diagnosis in New Zealand. It is important to remember that 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.

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

In 2019, of the 141 MSM found to be infected, 86 were first diagnosed in New Zealand and 55 had previously been diagnosed overseas. The number diagnosed overseas is considerably more than in 2018 (n=32) and in 2017 (n=30).

The annual numbers diagnosed in New Zealand by place of infection since 1996 are shown in Figure 2. The number of MSM infected locally has continued to decline after the peak in 2016 (n=98) with a sharp decrease to 70 in 2017, then less of a decline to 62 in 2018, and 58 in 2019. The number of MSM diagnosed in New Zealand but reported to have been infected overseas has remained constant over the last several years.

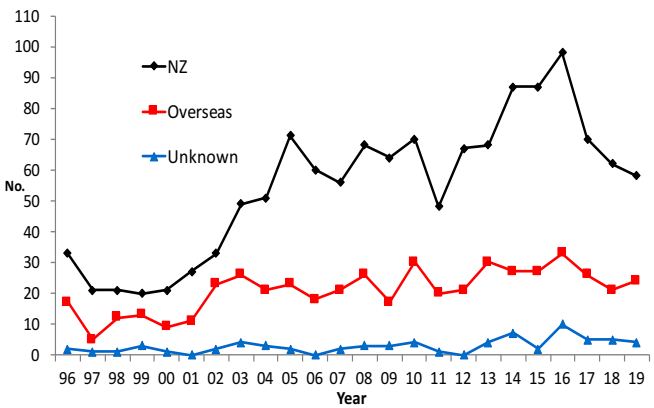

Figure 2. Place of infection of MSM first diagnosed in New Zealand by antibody test annually since 1996 and including those reported by viral load testing since 2002

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 those 58 MSM diagnosed and infected in New Zealand in 2019 as this group best indicates the underlying incidence. Twenty-two (38%) had a CD4 count more than 500 cells/mm^3 indicating that they were diagnosed within about 14 months following infection, 10 (17%) had a CD4 count between 350-499, 25 (43%) less than 350 indicating longer periods between infection and diagnosis, and for one (2%) person the initial CD4 count information was unavailable.

Along with the overall number of MSM diagnosed and infected in New Zealand being less in 2019, the number and proportion of those with a high CD4 count was also less (22; 38%) than the previous five years (annual average 36; 47%), consistent with a declining incidence.

Of all 141 MSM found to be infected in 2019 (which includes those previously diagnosed overseas):

- 56 (40%) were European, 39 (28%) Asian, 19 (13%) Latin American, 16 (11%) Māori, five (4%) Pacific People, four (3%) African, and two (1%) of other ethnicities.
- 46 (33%) were living in the Auckland region, 29 (20%) in the lower North Island region, 15 (11%) in other parts of the North Island, and 11 (8%) in the South Island. For eight (6%) men their region of residence was not stated, and for 32 (23%) men it was reported that they normally live overseas.
- The age range at diagnosis was 16-75 years; 47 (33%) were aged less than 30 years, 45 (32%) aged 30-39 years, 26 (18%) aged 40-49 years, and 23 (16%) 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 2019, there were 37 people found to be heterosexually infected with HIV. Of these 37, 27 were first diagnosed in New Zealand which is an increase from the number of heterosexually infected individuals diagnosed in New Zealand in 2018 (n=18) and in 2017 (n=19), but less than earlier years (2014-2016).

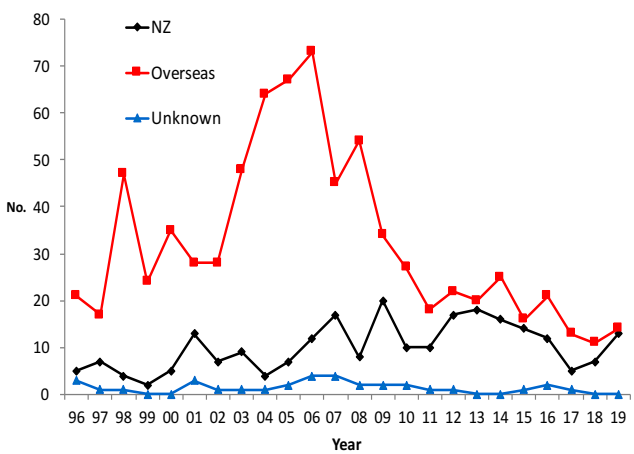

Figure 3. Place of infection of people first diagnosed in New Zealand with heterosexually-acquired HIV by antibody test annually since 1996 and including those reported by viral load testing since 2002

The annual numbers first diagnosed in New Zealand by place of infection are shown in Figure 3. The number infected in New Zealand (n=13) and overseas (n=14) both increased from 2018. These are, however, small numbers and are only slightly higher than the annual average over the previous five years of 11 and 18, respectively.

In 2019, of all 37 people heterosexually infected (which includes those previously diagnosed overseas):

- 18 (49%) were men and 19 (51%) women.
- 15 (41%) were European, 12 (32%) Asian, four (11%) Pacific People, three (8%) African, two (5%) Māori, and one (3%) was of other ethnicity.
- The age range at diagnosis was 17-66 years; 8 (22%) were aged less than 30 years, 13 (35%) aged 30-39 years, 10 (27%) aged 40-49 years, and 6 (16%) aged 50 or more. Infection may have occurred at a younger age than when it was diagnosed.

Of the 13 heterosexuals diagnosed and infected in New Zealand in 2019, six (46%) had a CD4 count at the time of diagnosis of >500, three (23%) between 350-499, three (23%) <350, and for one (8%) person an initial CD4 count was unavailable. Over the preceding five-year period 2014 to 2018, among the 51 heterosexuals diagnosed and infected in New Zealand with initial CD4 count data available, 17 (33%) had a CD4 count of >500, six (12%) between 350-499, and 28 (55%) had a CD4 count <350.

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. Three people were reported as being infected in this way in 2019; one in New Zealand and two overseas. There were no people who reported both homosexual contact and injecting drug use as a possible means of infection.

Children infected through mother-to-child transmission

In 2019, there were no children diagnosed with HIV infection through mother-to-child transmission. Since 2007, there have been no children with perinatally-acquired HIV born in New Zealand.

Between 1998-2019, there were 181 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 2019 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 2019, there were three women 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 2885 adults (2437 men, 434 women) and 14 children receiving subsidised antiretroviral therapy (ART) at the end of June 2019. This is 224 more adults (210 men and 18 women) and four fewer children compared with a year earlier.

AIDS Notifications - 2019

Overall 19 people, 14 men and five women were notified with AIDS in 2019. Of these 19, 10 (53%) were MSM, seven (37%) were infected heterosexually, and for two (10%) people the means of infection was not reported.

Nine (47%) were European, four (21%) Māori, three (16%) Asian, two (11%) Pacific people, and one (5%) African. Thirteen (68%) 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.

One death from AIDS was reported in 2019. It is possible, however, that this number could rise due to delayed reports.

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.

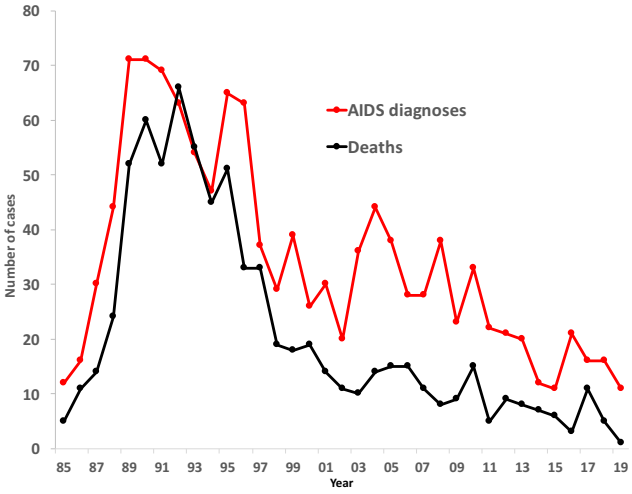

Figure 4. Annual number of diagnoses of AIDS and deaths among people notified with AIDS (The number of notifications and deaths for 2019 are expected to rise due to delayed reports)

Summary of trends of 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 76% of all locally acquired HIV diagnoses in 2019.

The number of MSM reported to have been infected in New Zealand has continued to decline since the peak in 2016. The number in 2019 (n=58) was similar to the numbers reported in earlier years (2006 and 2007).

The declining number of diagnoses with evidence of recent HIV infection is consistent with a decrease in incidence among MSM.

A much higher proportion of the MSM reported in 2019 had been previously diagnosed overseas (39%). This has mostly been an increase in the number of Asian and Latin American men. It is important to ensure all people, irrespective of where they are first diagnosed, are engaged with care and on treatment to prevent HIV transmission.

Heterosexual men and women

The total number of individuals diagnosed with heterosexually-acquired HIV has remained relatively stable with an average of 39 people per year over the past 10 years.

While it appears that the number of heterosexual men and women infected in New Zealand has increased in 2019, the number each year is very small and is therefore subject to year-by-year fluctuations.

Among the heterosexually infected individuals in New Zealand in 2019, half had a CD4 count at the time of diagnosis that was indicative of relatively recent infection.

People who inject drugs

After a greater number of men in 2018 who reported both injecting drug use and homosexual contact as being a possible means of infection, this has not been reported again in 2019. While there continues to be a small number of HIV diagnoses among people whose only likely means of infection is through injecting drug use, HIV prevention needs to continue to be maintained in this high-risk population.

Children and pregnant women

There were no children diagnosed with HIV infection through mother-to-child transmission in 2019. Three women newly diagnosed with HIV in 2019 during pregnancy were able to make treatment and care decisions to decrease the risk of mother-to-child transmission. This highlights the importance of the ante-natal HIV screening programme in reducing both vertical and secondary transmission.

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		2004-2018		2019		Total 1985-2019	
Sex	**Exposure category**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Male	Homosexual contact	1163	56.1	1681	56.9	141	66.5	2985	57.0
	Homosexual & IDU	26	1.3	39	1.3	0	0.0	65	1.2
	Heterosexual contact	208	10.0	410	13.9	18	8.5	636	12.1
	Injecting drug use	53	2.6	24	0.8	3	1.4	80	1.5
	Blood product recipient	34	1.6	0	0.0	0	0.0	34	0.6
	Transfusion recipient§	9	0.4	5	0.2	1	0.5	15	0.3
	Perinatal	13	0.6	26	0.9	0	0.0	39	0.7
	Other	4	0.2	10	0.3	1	0.5	15	0.3
	Unknown	236	11.4	257	8.7	22	10.4	515	9.8
Female	Heterosexual contact	238	11.5	390	13.2	19	9.0	647	12.4
	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	12	0.4	0	0.0	23	0.4
	Other	7	0.3	13	0.4	0	0.0	20	0.4
	Unknown	25	1.2	64	2.2	4	1.9	93	1.8
Transgender	Total	9	0.4	16	0.5	3	1.4	28	0.5
Unknown	Transfusion recipient	5	0.2	0	0.0	0	0.0	5	0.1
	Unknown	13	0.6	0	0.0	0	0.0	13	0.2
TOTAL		**2073**	**100.0**	**2952**	**100.0**	**212**	**100.0**	**5237**	**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 day by months or years.
§ All people in this category, diagnosed since 1996, infection was acquired overseas.

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		2004-2018		2019		Total 1996-2019	
Sex	**Ethnicity**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Male	European	517	50.3	1362	46.1	74	34.9	1953	46.6
	Maori†	60	5.8	206	7.0	17	8.0	283	6.8
	Pacific Islander	17	1.7	85	2.9	6	2.8	108	2.6
	African	91	8.9	188	6.4	5	2.4	284	6.8
	Asian	93	9.1	348	11.8	51	24.1	492	11.7
	Other	17	1.7	110	3.7	25	11.8	152	3.6
	Unknown	20	1.9	153	5.2	8	3.8	181	4.3
Female	European	52	5.1	98	3.3	5	2.4	155	3.7
	Maori†	7	0.7	25	0.8	2	0.9	34	0.8
	Pacific Islander	13	1.3	24	0.8	3	1.4	40	1.0
	African	90	8.8	197	6.7	4	1.9	291	6.9
	Asian	45	4.4	95	3.2	8	3.8	148	3.5
	Other	2	0.2	14	0.5	0	0.0	16	0.4
	Unknown	1	0.1	31	1.1	1	0.5	33	0.8
Transgender	Total	2	0.2	16	0.5	3	1.4	21	0.5
Unknown		0	0.0	0	0.0	0	0.0	0	0.0
TOTAL		1027	100.0	2952	100.0	212	100.0	4191	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 Māori and another ethnic group.

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