





# AIDS – New Zealand

## HIV INFECTION AND AIDS DIAGNOSED IN NEW ZEALAND IN 2011

### HIV INFECTION

-  109 people were diagnosed with HIV through antibody testing in New Zealand in 2011.
-  59 were men infected through sex with other men, 28 (16 men and 12 women) through heterosexual contact, one through injecting drug use, and one child through mother-to-child transmission. For the remaining 20 people (15 men and 5 women) the means of infection was unknown or information is still to be received.
-  A further 30 people with HIV infection who had not had an antibody test in New Zealand, had a first viral load test in 2011. Thirteen (43%) of these people had been previously diagnosed overseas, 8 (27%) in New Zealand, and for the remaining 9 (30%) information is yet to be received.

### AIDS

-  24 people were notified with AIDS in 2011. Thirteen were men infected through sex with other men, 9 (6 men and 3 women) through heterosexual contact, one through injecting drug use, and for one person the means of infection was unknown.

### HIV DIAGNOSES IN 2011

In 2011, 109 people were diagnosed with HIV in New Zealand through antibody tests, the lowest annual number of diagnoses since 2002 (Figure 1).

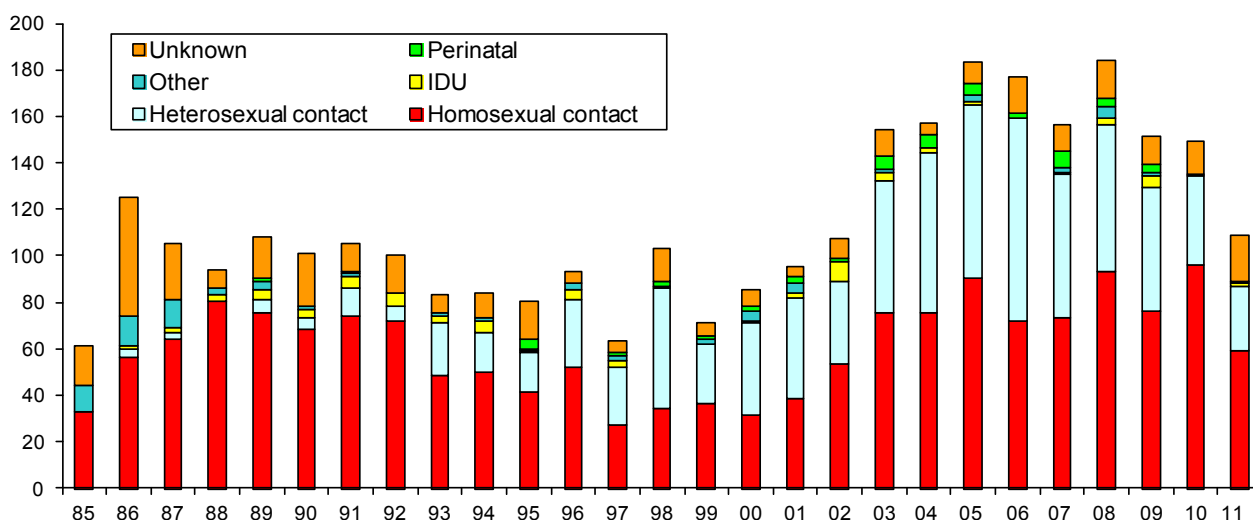
After the steep rise in annual diagnoses from 1999 to 2003, and subsequent relatively stable period at a higher level, it is very encouraging that the number diagnosed in 2011 is down again close to the 2002 level.

Nevertheless, the number diagnosed is dependant on HIV testing, so we cannot say there has been a decrease in new infections until the drop in diagnoses is sustained. The fall in diagnoses is among both men who have sex with men (MSM) and heterosexuals.

Importantly, this drop does not mean there is now less risk for MSM having unprotected sex. This will be dependent on the number with HIV, particularly those who do not know they are infected. A recent Auckland study found that about 20% of a sample of gay and bisexual men with HIV were unaware of their HIV status.

It is therefore necessary that condom use continues to be encouraged amongst those at risk, and HIV testing be encouraged.

The trend in number of diagnoses, particularly regarding place of infection, differ between the two main groups affected, MSM, and people heterosexually infected.

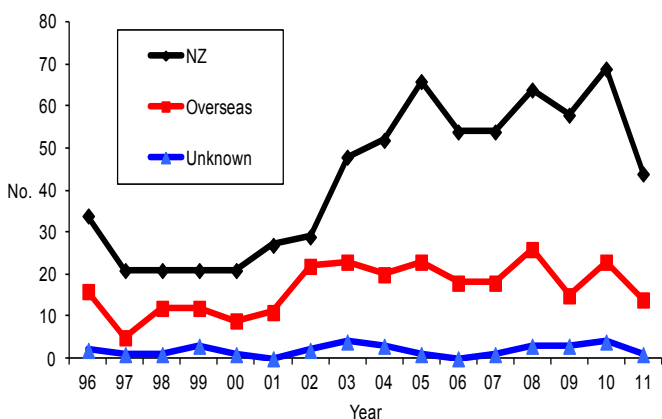


**Figure 1** Number of people diagnosed with HIV in New Zealand through antibody testing by year of diagnosis\* and means of infection (\*Infection might have occurred some time before diagnosis.)

### HIV diagnoses among men who had sex with men (MSM)

Overall, 59 MSM were diagnosed with HIV through antibody testing in 2011, the lowest number since 2002. This number will likely increase when information is received on the 15 men diagnosed in 2011 for whom information on means of infection is currently unknown. A further 16 MSM were reported with HIV through viral load testing, 9 of whom were first diagnosed overseas.

For 44 (75%) of the 59 MSM diagnosed through antibody testing, the infection was reported to have occurred in New Zealand (Figure 2). While this number might rise when complete data for 2011 is obtained, it is still likely to be lower than for the previous few years.



**Figure 2** Place of infection of MSM diagnosed by antibody test, by year of diagnosis

Of the 59 MSM, 40 (68%) were European, 5 (8%) Māori, 6 (10%) Asian, 2 (3%) Pacific, and 6 (10%) 'other' or unknown ethnicity. Almost half (47%) were living in Auckland, 14% in Wellington, 7% in other parts of the North Island, 29% in the South Island, and 3% overseas at the time of diagnosis.

MSM across the whole age spectrum were affected. Two (3%) were aged 15-19 years, 12 (20%) aged 20-29 years, 16 (27%) aged 30-39 years, 19 (32%) aged 40-49 years, and 10 (17%) aged 50 or more. Of course, infection may have occurred at a younger age than when it was diagnosed.

Of the 44 men infected in New Zealand, 31 were reported to have had a previous negative test, 17 within the past 2 years, showing that new infections are continuing to occur among MSM in New Zealand.

The initial CD4 lymphocyte count gives an indication of the stage of HIV infection at diagnosis. Of those MSM for whom this CD4 count was reported, 17 (34%) had a CD4 count of 350 cells/ $\mu$ L or less. Hence, about a third were not diagnosed with HIV until it had progressed past the stage where antiretroviral therapy is generally recommended to provide optimal benefit.

These findings are consistent with the recently published results from a Auckland survey in which 6.5% MSM of all ages and ethnicities were found to be infected with HIV, and around 20% were unaware of their infection. In that survey, being undiagnosed was more common among those not of European ethnicity.

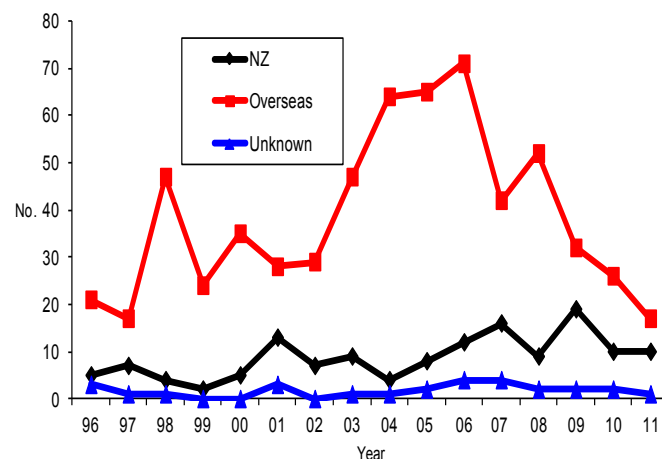
These data reinforce the need to continue HIV control among MSM in New Zealand, which is based on encouraging condom use to reduce the risk of HIV transmission, and HIV testing to detect HIV infection early if it does occur.

### HIV diagnoses among people heterosexually infected

Overall 28 people (16 men and 12 women) were diagnosed with heterosexually acquired infection through antibody testing in 2011, the lowest number since 1999. This might increase when more information is received. Of these 28, 10 (36%) were European, 8 (29%) African, 5 (18%) Asian, 2 (7%) Māori, 1 (4%) Pacific, and 2 (7%) of 'other' ethnicity. A further four people infected through heterosexual contact were reported with HIV through viral load testing, three of whom were initially diagnosed overseas.

Ten (36%) people were reported to have been infected through heterosexual contact in New Zealand, 17 (60%) overseas, and for one (4%) person this information was not available.

Figure 3 shows there has been a marked drop in the number of people diagnosed with heterosexually acquired HIV overseas since the peak in 2006. Over the past decade there has been a rise then a fall in the number infected overseas, and a slight increase in those infected in New Zealand. The major factors influencing the pattern for overseas acquired infections has been the increase in immigration of people from high prevalence areas in the early 2000s, and a requirement since October 2005 for compulsory HIV testing of those seeking a visa for more than a year's stay in New Zealand.



**Figure 3** Place of infection of those heterosexually infected diagnosed by antibody test, by year of diagnosis

In recent years there has not only been less immigration from high prevalence countries but also HIV testing for immigration has been undertaken on many prospective migrants, and not reflected in our data.

Of the 10 people reported to be heterosexually infected in New Zealand and diagnosed through antibody testing, 6 (60%) were European, 2 (20%) Māori, and 2 (20%) of another ethnicity.

As shown in Figure 3, there has been no clear trend in heterosexually infected people in New Zealand over the past decade.

**Children infected through mother-to-child transmission - 2011**

In 2011, one child, born overseas in 2005, was diagnosed with HIV infection through mother-to-child transmission.

Figure 4 shows the number of children diagnosed with HIV infection through mother-to-child transmission by year and place of birth. Of the 24 children born in New Zealand, five were not diagnosed until over the age of 4 years. So there may be other children living in New Zealand with undiagnosed HIV.

These data suggest that the introduction of antenatal HIV screening is reducing the number of infected children.

Since 1995, there have been 106 births to women with diagnosed HIV at the time of delivery - none of these children have become infected. If the mother's HIV had not been diagnosed prior to giving birth, it is anticipated that around 30 children may have become infected.

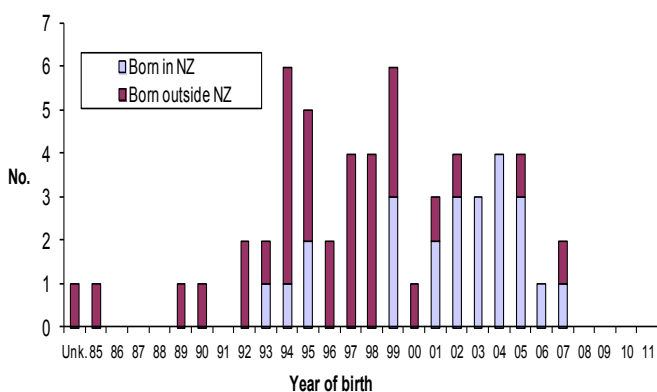


Figure 4 Number of children diagnosed with mother-to-child transmission in New Zealand, by place and year of birth

**NUMBER OF PEOPLE UNDER SPECIALIST CARE FOR HIV**

Table 1 overleaf shows that 3608 people have been diagnosed with HIV in New Zealand, and 689 who developed AIDS are known to have died. Of the remaining 2914, most will be alive but some will have gone overseas, others may have died without meeting criteria for

AIDS (or not been notified), and others may have opted out of ongoing care.

Data received from PHARMAC shows that the number of people receiving subsidised antiretroviral treatment (ART) for HIV rose from 1348 at the end of June 2010, to 1518 at the end of June 2011. Of these, 80% were males, 20% females; 2% were children under the age of 15 years. Assuming there was a similar increase in numbers on treatment as seen in the previous 12 months it was estimated that at the end of 2011 there would have been 1603 people on ART. In December 2010 we surveyed all specialists approved to prescribe ART and they reported just under 80% of their patients were on ART.

These data suggest that there are around 2000 people with diagnosed HIV who are currently under specialist HIV care in New Zealand.

**AIDS NOTIFICATIONS - 2011**

A total of 24 people were notified with AIDS in 2011. Thirteen were MSM, 9 (6 men and 3 women) were infected through heterosexual contact, 1 through injecting drug use, and for 1 person the means of transmission was unknown. Of these 24, 11 (46%) were European, 5 (21%) Māori, 2 (8%) Pacific, 2 (8%) African, 3 (12%) Asian, and 1 (4%) of another ethnicity. To date no deaths of people with AIDS have been reported in 2011.

Seventeen (71%) had their AIDS diagnosis within three months of being diagnosed with HIV and therefore probably would not have had the opportunity for antiretroviral treatment to control progression of their HIV infection. This suggests that there would be even fewer people progressing to AIDS if more people were presenting for HIV testing.

Figure 5 shows the annual number of notifications of AIDS by year of diagnosis and the number of deaths of people with AIDS notified.

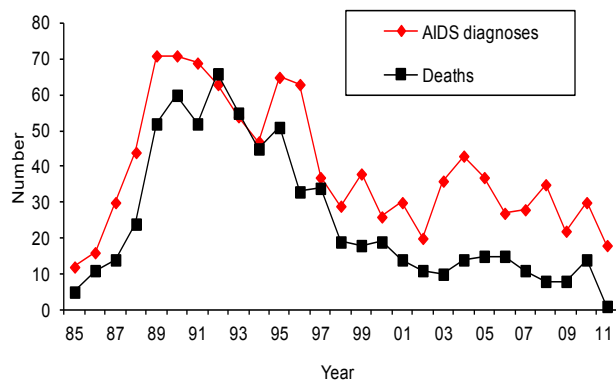


Figure 5 Annual number diagnoses of AIDS and deaths among people notified with AIDS (The number of notifications and deaths for 2011 are expected to rise due to delayed reports)

**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		2004-2010		2011		Total	
Sex	Exposure category	N	%	N	%	N	%	N	%
Male	Homosexual contact	1163	56.1	699	50.0	74	53.2	1936	53.7
	Homosexual & IDU	26	1.3	16	1.1	1	0.7	43	1.2
	Heterosexual contact	212	10.2	249	17.8	19	13.7	480	13.3
	Injecting drug use	53	2.6	13	0.9	2	1.4	68	1.9
	Blood product recipient	34	1.6	0	0.0	0	0.0	34	0.9
	Transfusion recipient <sup>§</sup>	9	0.4	4	0.3	0	0.0	13	0.4
	Perinatal	13	0.6	23	1.6	1	0.7	37	1.0
	Other	4	0.2	5	0.4	0	0.0	9	0.2
	Unknown	237	11.4	96	6.9	23	16.5	356	9.9
Female	Heterosexual contact	234	11.3	244	17.5	12	8.6	490	13.6
	Injecting drug use	11	0.5	0	0.0	0	0.0	11	0.3
	Transfusion recipient <sup>§</sup>	8	0.4	2	0.1	0	0.0	10	0.3
	Perinatal	11	0.5	9	0.6	0	0.0	20	0.6
	Other	7	0.3	7	0.5	0	0.0	14	0.4
Transgender	Unknown	24	1.2	27	1.9	7	5.0	58	1.6
	Total	8	0.4	3	0.2	0	0.0	11	0.3
NS	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	0.4
<b>TOTAL</b>		2072	100.0	1397	100.0	139	100.0	3608	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.

NS = Not stated      § All people in this category, diagnosed since 1996, infection was acquired overseas

**Table 2. Ethnicity<sup>‡</sup> 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		2004-2010		2011		Total	
Sex	Ethnicity	N	%	N	%	N	%	N	%
Male	European/Pakeha	513	50.0	601	43.0	63	45.3	1177	45.9
	Maori <sup>†</sup>	60	5.8	100	7.2	10	7.2	170	6.6
	Pacific Island	19	1.9	32	2.3	4	2.9	55	2.1
	African	96	9.4	145	10.4	6	4.3	247	9.6
	Asian	91	8.9	113	8.1	10	7.2	214	8.4
	Other	19	1.9	67	4.8	11	7.9	97	3.8
	Unknown	20	1.9	47	3.4	16	11.5	83	3.2
Female	European/Pakeha	53	5.2	41	2.9	3	2.2	97	3.8
	Maori <sup>†</sup>	7	0.7	12	0.9	1	0.7	20	0.8
	Pacific Island	13	1.3	13	0.9	0	0.0	26	1.0
	African	88	8.6	155	11.1	8	5.8	251	9.8
	Asian	44	4.3	41	2.9	4	2.9	89	3.5
	Other	1	0.1	15	1.1	1	0.7	17	0.7
Transgender	Unknown	1	0.1	12	0.9	2	1.4	15	0.6
	Total	1	0.1	3	0.2	0	0.0	4	0.2
<b>TOTAL</b>		1026	100.0	1397	100.0	139	100.0	2562	100.0

<sup>‡</sup> 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.

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