

AIDS – New Zealand

Monitoring trends in HIV diagnoses

The trends in HIV diagnoses reported to date by the AIDS Epidemiology Group have been based on people diagnosed in New Zealand through a Western blot (WB) antibody test. Since 2002, we have also collected the number of people having a viral load (VL) test (used to monitor HIV infection) to determine the number receiving care who do not appear to have had a positive WB in New Zealand.

The commonest reasons for having a VL test but no record of a WB are being originally diagnosed either overseas or soon after infection before the WB is definitively positive.

These two sources of data are combined to report the total number diagnosed in the tables on the final page of *AIDS – New Zealand*.

In this issue, for the first time, we have included these data in the Figures. In Figure 1, the total number of people reported through a VL test each year since 2002 has been added as a separate section of the bar. In Figures 2 and 3, those reported through VL test have been added if diagnosed in New Zealand. The addition of those reported through VL testing has not made any significant change to the observed trends.

HIV DIAGNOSES IN 2012

In 2012, 124 people were diagnosed with HIV in New Zealand through WB antibody tests, and another 46 had a VL test, 19 of whom were first diagnosed in that year in New Zealand. Figure 1 shows that while the total number of diagnoses in 2012 was slightly higher than in 2011 it was lower than in every year in the period 2003-2010.

The main difference in 2012 compared to 2003-2010 is the smaller number of people who were heterosexually infected. This is explored later in this issue where we show that this drop is due to fewer people in this group infected outside New Zealand.

There is no evidence of great change in the annual number of diagnoses among men who have sex with men (MSM) over the past decade, although the number in 2012 was slightly higher than in 2011 (which was the lowest for ten years).

It is important to appreciate that these numbers are of the annual number being diagnosed, not infected, so will be dependent on the pattern of testing.

The overall pattern over the past decade is not different now that we have included those reported through viral load testing (as discussed in the Box above).

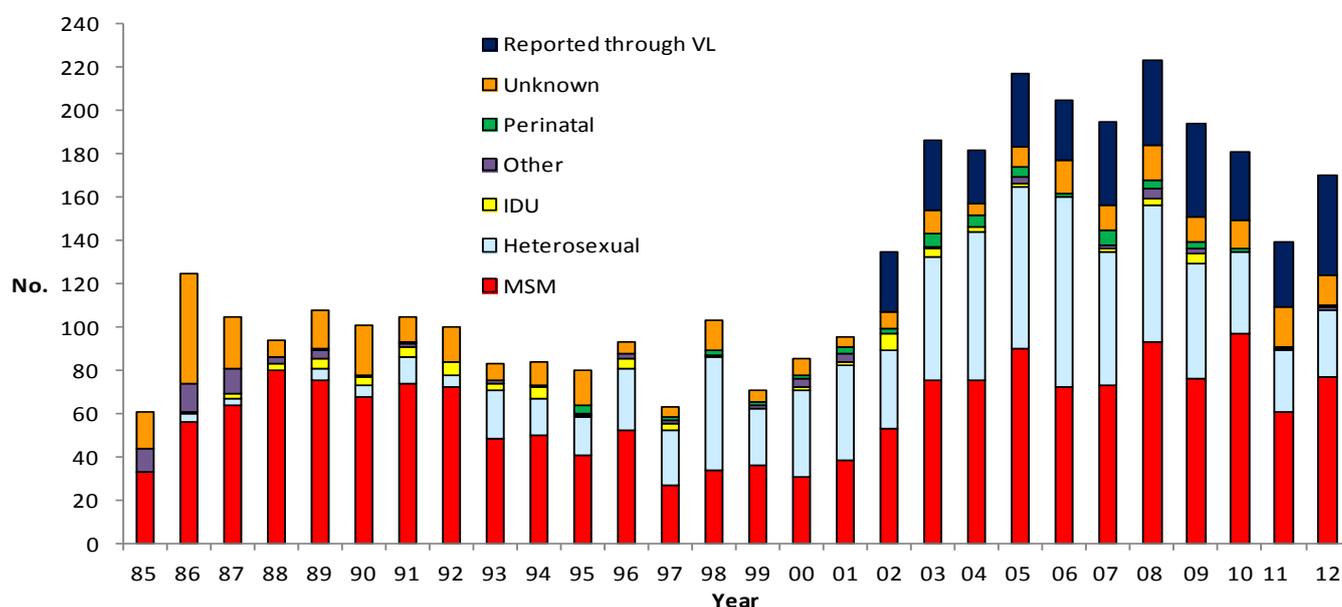


Figure 1: Number of people diagnosed with HIV in New Zealand through Western blot (WB) antibody test by year of diagnosis and means of infection, and since 2002 the number reported through viral load (VL) test. (*It is important to appreciate that infection might have occurred some time before diagnosis)

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

Overall 87 MSM were diagnosed with HIV through WB testing in 2012 (n=77) or reported through VL testing and first diagnosed in New Zealand in that year (n=10). This included two MSM who were possibly infected through injecting drug use. The number of MSM might increase when further information is received on the 19 men diagnosed or reported in 2012 for whom information on means of infection is currently unknown.

For 66 (76%) of these 87 MSM, the infection was reported to have occurred in New Zealand. Place of infection among MSM diagnosed since 1996 is shown in Figure 2. This now includes MSM known through VL testing since 2002 whose place of diagnosis was New Zealand. While the numbers have therefore changed a little from the similar figure published previously, the overall trend has not.

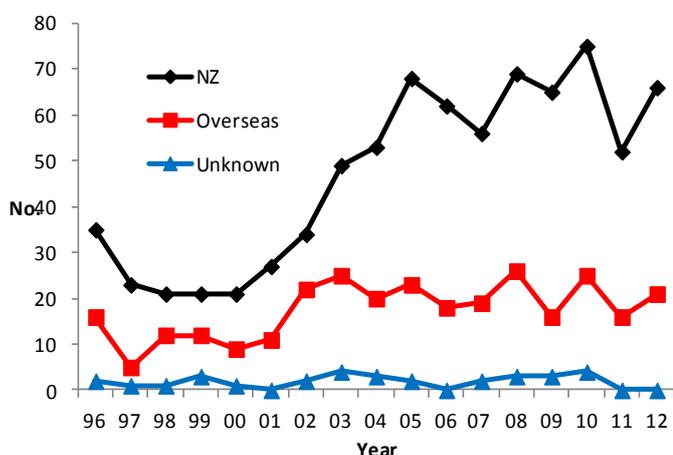


Figure 2 Place of infection of MSM diagnosed by antibody test and reported by viral load since 2002 whose place of diagnosis was New Zealand

Of the 87 MSM, 54 (62%) were European, 4 (5%) Maori, 19 (22%) Asian, and 10 (11%) of other ethnicities. Fifty three (61%) were living in Auckland, 12 (14%) in Wellington, 10 (11%) in other parts of the North Island, 7 (8%) in the South Island, and for 5 (6%), although diagnosed in NZ, their usual place of residence was overseas.

The age range of MSM at the time of diagnosis was from 19 to 74 years. Twenty-six (30%) were aged <30 years, 25 (29%) aged 30-39 years, 21 (24%) aged 40-49 years, and 15 (17%) aged 50 or more. It is important to note that infection may have occurred at a younger age than when it was diagnosed.

Of the 66 men infected in New Zealand, 47 (71%) were reported to have had a previous negative test, 33 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 the 73 MSM for whom this CD4 count was reported, 25 (34%) had a CD4 count of 350 cells/ μ L or less. Hence, a third were

not diagnosed with HIV until it had progressed past the stage where antiretroviral therapy is generally recommended.

HIV diagnoses among people heterosexually infected

Overall 38 people were diagnosed with heterosexually acquired infection through WB testing in 2012 (n=31) or reported through VL testing and first diagnosed in New Zealand in that year (n=7).

Of these 38 (23 men and 15 women), 10 (26%) were European, 8 (21%) African, 13 (34%) Asian, 3 (8%) Maori, 3 (8%) Pacific and 1 (3%) of 'other' ethnicity. Their ages ranged from 22 to 65 years.

Seventeen (45%) people were reported to have been infected through heterosexual contact in New Zealand, 20 (53%) overseas, and for one (2%) person this information was not available.

Figure 3, which now includes heterosexuals known through VL testing since 2002 whose place of diagnosis was New Zealand, shows there has been a marked drop in the number of people diagnosed with heterosexually acquired HIV overseas since the peak in 2006.

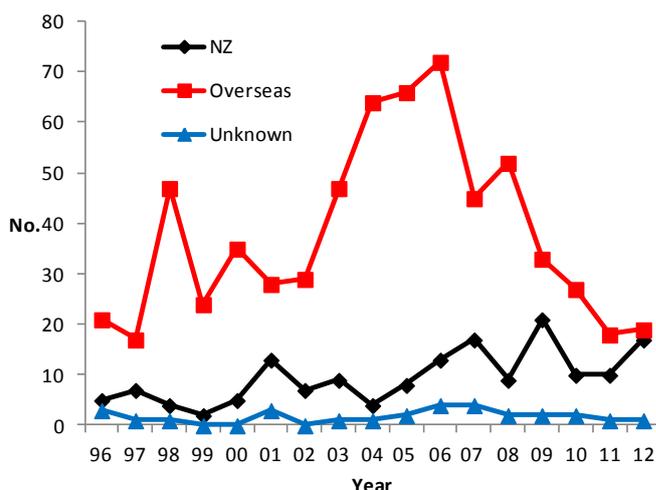


Figure 3 Place of infection of those heterosexually infected diagnosed by antibody test and those reported by viral load test since 2002 whose place of diagnosis was New Zealand

Children infected through mother-to-child transmission — 2012

In 2012, one child, born in New Zealand in 2002, 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. That the child diagnosed last year was aged 10 at the time of diagnosis suggests that there are likely to be other undiagnosed children in New Zealand.

Since 1995, there have been 115 births to women with diagnosed HIV at the time of delivery — none of these children have become infected.

AIDS NOTIFICATIONS — 2012

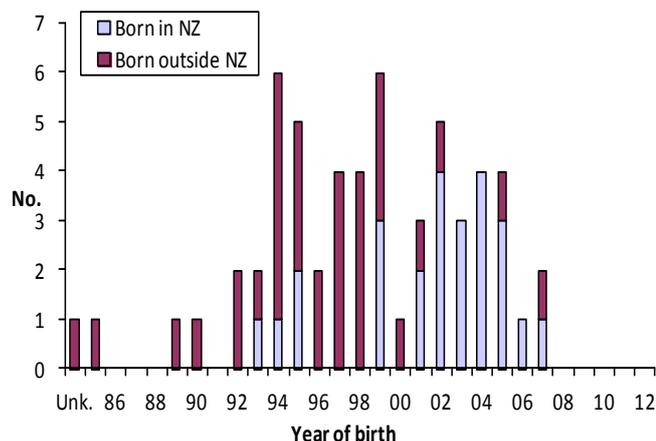


Figure 4 Number of children diagnosed with mother-to-child transmission in New Zealand, by place and year of birth

HIV diagnoses among injecting drug users

The number of people diagnosed in New Zealand and reported to have been infected solely through injecting drug use has remained low over the last 15 years (Figure 5).

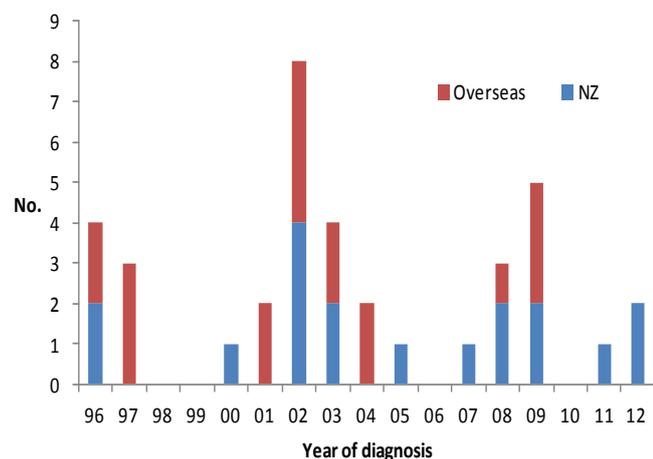


Figure 5 Place of infection of injecting drug users diagnosed by antibody test, and reported by viral load test according to year of diagnosis in NZ

A total of 20 people were notified with AIDS in 2012. Ten were MSM, 5 (2 men and 3 women) were infected through heterosexual contact, and for five people the means of transmission was unknown. Of these 20, 11 (55%) were European, 4 (20%) Maori, 3 (15%) Asian, and 2 (10%) African. To date, three deaths of people with AIDS were reported in 2012 although this number is expected to rise due to delayed notification.

Thirteen (65%) 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 earlier for HIV testing.

Figure 6 shows the annual number of notification of AIDS by year of diagnosis and the number of deaths of people with AIDS notified.

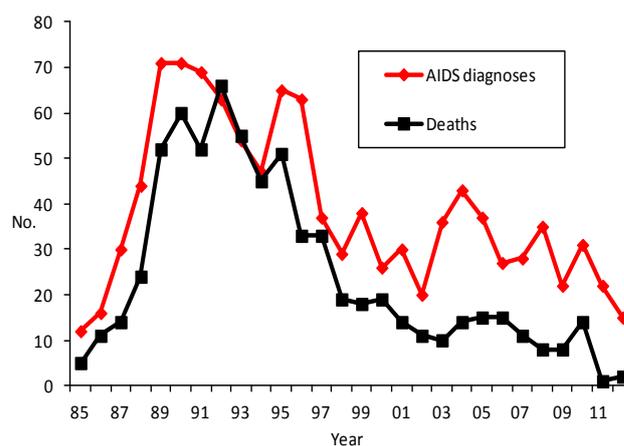


Figure 6 Annual number of diagnoses of AIDS and deaths among people notified with AIDS (The number of notifications and deaths for 2012 are expected to rise due to delayed reports)

SUMMARY OF HIV INFECTION AND AIDS DIAGNOSED IN NEW ZEALAND IN 2012

HIV INFECTION

-  124 people were diagnosed with HIV through WB antibody testing in New Zealand in 2012.
-  Of the 124, 77 were men infected through sex with other men, including two men who were possibly infected through injecting drug use. Thirty-one (20 men and 11 women) were infected through heterosexual contact, one child through mother-to-child transmission. For the remaining 15 people (12 men and 3 women) the means of infection was unknown or information is still to be received.
-  A further 46 people with HIV infection who had not had an WB antibody test in New Zealand, had a first viral load test in 2012, of whom 19 were reported to have been diagnosed in that year in New Zealand. Of the 19 diagnosed in 2012, 10 were men infected through sex with other men, 7 were infected through heterosexual contact, and 2 were injecting drug users.

AIDS

-  20 people were notified with AIDS in 2012. Ten were men infected through sex with other men, five (2 men and 3 women) through heterosexual contact, and for five people the means of infection was unknown.

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		2004-2011		2012		Total	
Sex	Exposure category	N	%	N	%	N	%	N	%
Male	Homosexual contact	1163	56.1	776	50.5	93	54.7	2032	53.8
	Homosexual & IDU	26	1.3	17	1.1	2	1.2	45	1.2
	Heterosexual contact	212	10.2	269	17.5	25	14.7	506	13.4
	Injecting drug use	53	2.6	15	1.0	1	0.6	69	1.8
	Blood product recipient	34	1.6	0	0.0	0	0.0	34	0.9
	Transfusion recipient [§]	9	0.4	4	0.3	0	0.0	13	0.3
	Perinatal	13	0.6	24	1.6	1	0.6	38	1.0
	Other	4	0.2	5	0.3	0	0.0	9	0.2
	Unknown	237	11.4	115	7.5	20	11.8	372	9.8
Female	Heterosexual contact	234	11.3	257	16.7	21	12.4	512	13.6
	Injecting drug use	11	0.5	0	0.0	1	0.6	12	0.3
	Transfusion recipient [§]	8	0.4	2	0.1	0	0.0	10	0.3
	Perinatal	11	0.5	9	0.6	0	0.0	20	0.5
	Other	7	0.3	7	0.5	1	0.6	15	0.4
	Unknown	24	1.2	33	2.1	5	2.9	62	1.6
Transgender	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	0.3
TOTAL		2072	100.0	1536	100.0	170	100.0	3778	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[†] 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		2004-2011		2012		Total	
Sex	Ethnicity	N	%	N	%	N	%	N	%
Male	European/Pakeha	513	50.0	667	43.4	69	40.6	1249	45.7
	Maori [†]	60	5.8	110	7.2	5	2.9	175	6.4
	Pacific Island	19	1.9	36	2.3	5	2.9	60	2.2
	African	96	9.4	151	9.8	4	2.4	251	9.2
	Asian	91	8.9	124	8.1	33	19.4	248	9.1
	Other	19	1.9	78	5.1	13	7.6	110	4.0
	Unknown	20	1.9	59	3.8	13	7.6	92	3.4
Female	European/Pakeha	53	5.2	44	2.9	5	2.9	102	3.7
	Maori [†]	7	0.7	13	0.8	3	1.8	23	0.8
	Pacific Island	13	1.3	13	0.8	2	1.2	28	1.0
	African	88	8.6	164	10.7	9	5.3	261	9.6
	Asian	44	4.3	45	2.9	5	2.9	94	3.4
	Other	1	0.1	16	1.0	1	0.6	18	0.7
	Unknown	1	0.1	13	0.8	3	1.8	17	0.6
Transgender	Total	1	0.1	3	0.2	0	0.0	4	0.1
TOTAL		1026	100.0	1536	100.0	170	100.0	2732	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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