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AIDS – New Zealand

RISING NUMBERS OF PEOPLE DIAGNOSED WITH HIV IN NEW ZEALAND

In 2003, there were 154 people diagnosed in New Zealand with HIV through antibody testing. This is more than in any previous single year. A further 34 people were also reported with HIV through viral load testing.[1] Figure 1 shows the total annual number, and reported means of infection, of people diagnosed through HIV antibody testing since it first became available in 1985. It is important to appreciate that the person might have been infected some time before the diagnosis was made.

The rise in 2003 is due to an increase among men who have sex with men (MSM), heterosexual men and women, and children infected through mother to child transmission.

Trend in HIV diagnoses among men who have sex with men

Overall 71 MSM were diagnosed with HIV by antibody testing in 2003. This was the largest number since 1991, and continues an upward trend seen since 2000. This increase is made up of men infected in New Zealand as well as overseas (Figure 2). In 2003, 46 (65%) of the 71 MSM, were reported to have been infected in New Zealand, and a further 6 in Australia. Some of those infected overseas might have been normally resident in New Zealand at the time.

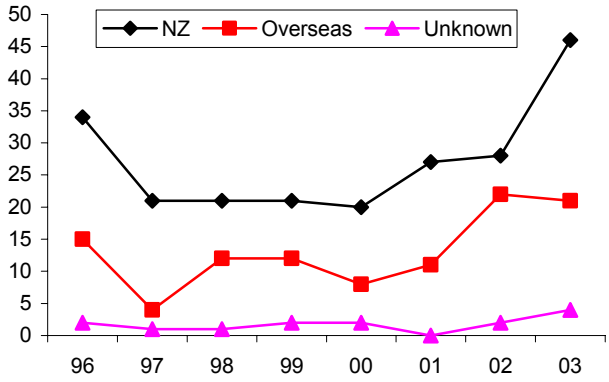

Figure 2 Place of infection of MSM diagnosed by antibody test by year of diagnosis

Of the 46 MSM diagnosed in 2003 and infected in New Zealand, 14 definitely became infected in the last 5 years and 7 of these in the 12 months before

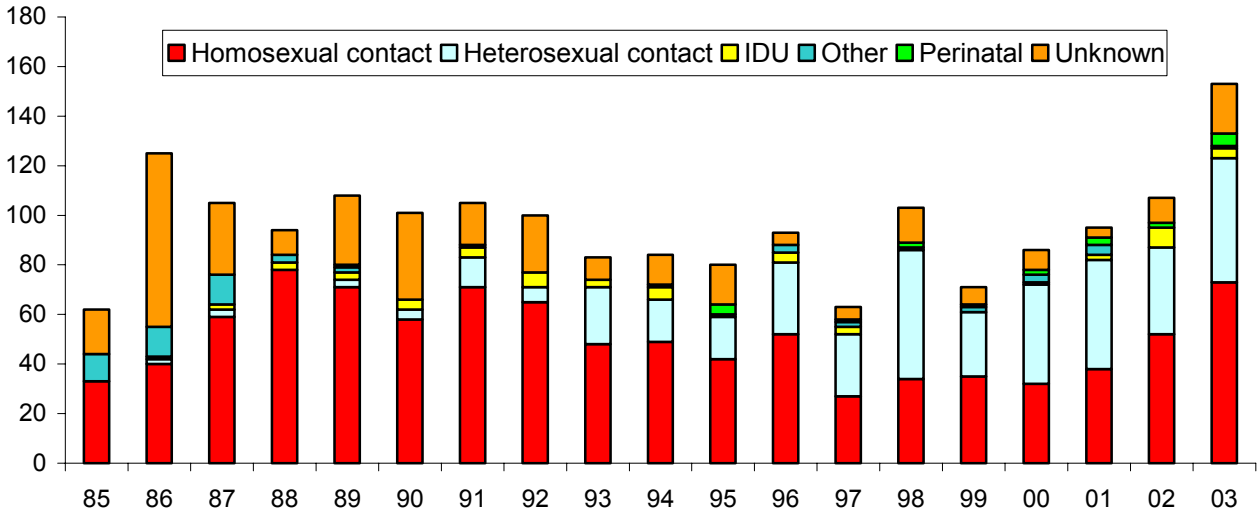

Figure 1 Number of people diagnosed with HIV in New Zealand through antibody testing by year of diagnosis and means of infection

[1] Viral load testing has been available in New Zealand since 1996. Most of those reported through viral load testing were people previously diagnosed overseas. Only the trends in those diagnosed through antibody testing have been analysed as this has been available for the whole period.

diagnosis (based on information on previous HIV tests).

The average age of these 46 men was 39 years; 52% were aged between 30 and 39 and 13% under 30, at the time of diagnosis. Most (70%) were of European ethnicity, with 17% and 11% of Maori and Pacific ethnicity respectively.

Thirty six of these 46 were living in the North Island, most (26) in the Auckland region, when diagnosed, and 10 in the South Island.

In many developed countries there has been an increase in the number of new diagnoses of HIV among MSM in recent years. Figure 3 shows the proportion diagnosed annually for 1999-2002 in the United States (limited to the States that collected these data), Australia, the United Kingdom and New Zealand, using the number in 1999 as a baseline. The data has been presented in this way to show recent increases internationally. While the proportionate rise has been greater in New Zealand, the actual rate of diagnosed HIV is still lower among men in New Zealand than in the other countries shown.

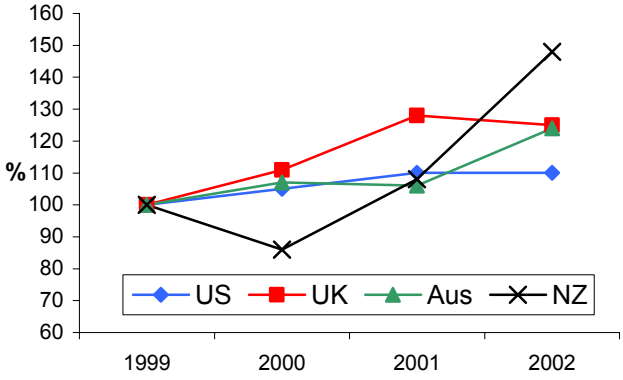

Figure 3 New diagnoses of HIV among MSM in US, Australia, UK and New Zealand as a percentage of the number diagnosed in 1999

HIV diagnoses among people heterosexually infected

Figure 1 (previous page) also shows that overall there has been a steady rise in the number of people diagnosed in New Zealand over the last 15 years infected through heterosexual contact. In 2003, there were 52 people (28 men and 24 women), the same as the previous highest annual number in 1998.

Comparing the place of infection for those heterosexually infected (Figure 4) with that of MSM (Figure 2), a much larger proportion of the latter was infected in New Zealand.

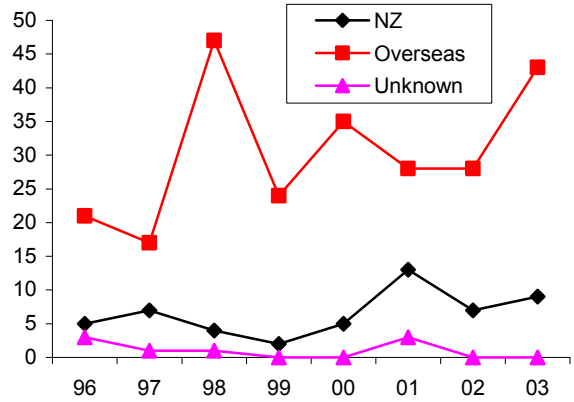

Figure 4 Place of infection of those infected through heterosexual contact, diagnosed by antibody test, by year of diagnosis

Although the numbers are too small to draw robust conclusions, there has been an increase in the number of men and women diagnosed with HIV heterosexually acquired in this country.

In the past 5 years over two-thirds of those diagnosed in New Zealand with heterosexually acquired HIV were of an ethnicity other than European, Maori or Pacific, compared to 12% of the MSM diagnosed in this period.

Over the past 5 years, of the 197 people diagnosed with heterosexually acquired HIV, 36 (13 men and 23 women) were reported to have been infected in New Zealand. Of these, 20 (56%) were infected by a partner who had been heterosexually infected overseas, most of whom were from countries where HIV is relatively common. Of the remainder, 5 were women infected by men who had either been infected through homosexual contact or through sharing equipment used for injecting drugs, and for 11 the means of infection of the partner was not reported.

Children infected through mother to child transmission

Overall, there have been 22 children diagnosed with HIV acquired from an infected mother at or around the time of birth. The largest number for any year was in 2003, when 5 were diagnosed. Of the 13 children diagnosed in the 5 year period from 1999-2003, 5 had been born in New Zealand to women whose HIV was not recognised when they were pregnant.

Most infections occurring in infants born to infected women are preventable providing the mother's infection is recognised prior to her giving birth.

People infected in other ways
While there is no evidence of extensive HIV infection among injecting drug users in New Zealand, over the past 5 years there have been 15 injecting drug users diagnosed. Hepatitis C however remains a much greater threat to this group. In the early years of the epidemic there were a significant number of people infected in New Zealand through the receipt of infected blood products. Over the past 5 years, all of the 6 people infected in this way had acquired the infection through receipt of blood or blood products overseas.

Possible reasons for the increase in numbers of people diagnosed with HIV

One possible explanation is that more people are being tested and hence infections diagnosed earlier, although the change in number of tests over time, shown in Figure 5, suggests this is unlikely to fully explain the rise.

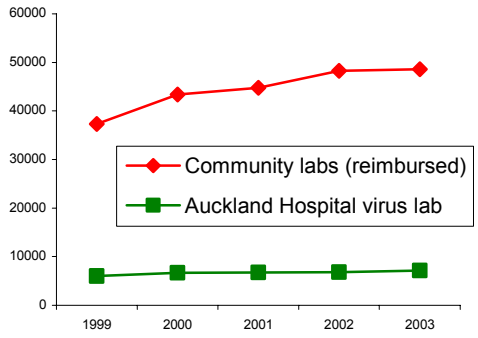

Figure 5 Number of HIV tests (2003 total for Community Laboratories calculated from number in first 10 months)

HIV testing is undertaken by private community laboratories, hospital-based laboratories and the Blood Transfusion Service. Since 1999, data on the number of HIV tests undertaken by private community laboratories that are reimbursed by the government (over 75% of all HIV tests at one private laboratory in 2002) have been available. Auckland Hospital Virus Laboratory, the largest hospital laboratory in the country, has also provided the annual number of HIV tests undertaken. (The number tested by the Blood Transfusion Service is not shown, as these people have declared themselves at low risk of HIV and are being tested to ensure a safe supply of blood.). Although these data do not give information on testing of people at particular risk of HIV, between 1999 and 2003 the number of reimbursed tested in community laboratories increased by 30%, and those at Auckland Virus Laboratory by 18%. These are both considerably smaller than the over 100% rise in the number diagnosed with HIV over this period. In addition the largest increase in testing occurred between 1999 and 2000, and that of HIV diagnoses between 2002 and 2003.

Men who have sex with Men
Among MSM it is likely that there has been a real increase in new HIV infections in New Zealand.

Combination antiretroviral therapies available in many developed countries in the mid-1990s led to a decrease in death and serious morbidity in people with HIV infection. While these treatments may make individuals with HIV less infectious, this effect may be offset by more unsafe sex because of the perception of less risk. In the late 1990s there were some reports from several countries that unprotected anal sex among MSM might be on the rise.[1] Recently among a cohort of gay men in the Netherlands studied between 1999 and 2002, while most were realistic about the impact of treatments, those who considered HIV/AIDS to be less of a threat were more likely to have changed their behaviour to have more unprotected anal sex.[2]

The Gay Auckland Periodic Sex Survey (GAPSS)[3] 2002 demonstrated that some unsafe sex is still occurring among gay men in New Zealand.

Even if there has been an increase in risky sex among MSM in New Zealand, it is not the only possible factor influencing the rise in HIV infections. Any increase in the prevalence of HIV, that will occur through treatment improving survival, could also increase the chance of infection occurring. In addition, as infectiousness is particularly high soon after infection, men recently infected, who are less likely to have been diagnosed, can further spread HIV more readily.

Considering all these factors, MSM appear to be at increasing risk if they engage in unprotected anal sex.

Heterosexuals
Most of the rise in heterosexually acquired HIV is among people infected overseas. However over the past decade a greater number of people have been infected in New Zealand. All New Zealanders should therefore remain vigilant to prevent a widening heterosexual epidemic here.

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[1] Grulich A. *HIV risk behaviour in gay men: on the rise?* BMJ 2000;320:1487-8
[2] Ineke IG *et al. Homosexual men change to risky sex when perceiving less threat of HIV/AIDS.* AIDS 2004;18(2) 23:303-309
[3] Saxton P, Dickson N. *et al. GAPSS 2002: Findings from the Gay Auckland Periodic Sex Survey. New Zealand AIDS Foundation: Auckland.*

Table 1. Exposure category by time of diagnosis for those found to be infected with HIV (A small number of transsexuals are included with the males).

		HIV Infection*							
		<1998		1998-2002		2003		Total	
Exposure category	**Sex**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Homosexual contact	Male	686	56.5	333	49.6	93	49.5	1112	53.6
Homosexual & IDU	Male	15	1.2	8	1.2	3	1.6	26	1.2
Heterosexual contact	Male	55	4.5	118	17.6	31	16.5	204	9.8
	Female	87	7.2	113	16.8	29	15.4	229	11.0
Injecting drug use (IDU)	Male	32	2.6	14	2.1	5	2.7	51	2.5
	Female	8	0.7	3	0.5	0	0.0	11	0.5
Blood product recipient	Male	30	2.5	4	0.6	0	0.0	34	1.6
Transfusion recipient	Male	3	0.2	6	0.9	0	0.0	9	0.4
	Female	5	0.4	2	0.3	1	0.5	8	0.4
	NS	5	0.4	0	0.0	0	0.0	5	0.2
Perinatal	Male	5	0.4	4	0.6	3	1.6	12	0.6
	Female	2	0.2	7	1.0	2	1.0	11	0.5
Awaiting information/ undetermined	Male	249	20.5	43	6.4	17	9.0	309	14.9
	Female	16	1.3	10	1.5	4	2.1	30	1.5
	NS	13	1.1	0	0.0	0	0.0	13	0.6
Other	Male	1	0.1	3	0.5	0	0.0	4	0.2
	Female	3	0.2	4	0.6	0	0.0	7	0.3
TOTAL		**1215**	**100.0**	**672**	**100.0**	**188**	**100.0**	**2075**	**100.0**

NS = Not stated

* 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. Also, the date of initial diagnosis may have preceded the viral load date by months or years.

Table 2. Ethnicity by time of diagnosis in New Zealand for those found to be infected with HIV (A small number of transsexuals are included with the males).

		HIV Infection*							
		1996-1997		1998-2002		2003		Total	
Ethnicity	**Sex**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
European/Pakeha	Male	88	52.4	338	50.3	86	45.7	512	49.8
	Female	9	5.4	41	6.1	3	1.6	53	5.1
Maori†	Male	13	7.7	35	5.2	12	6.4	60	5.8
	Female	2	1.2	4	0.6	0	0.0	6	0.6
Pacific Island	Male	3	1.8	6	0.9	9	4.8	18	1.7
	Female	3	1.8	8	1.2	2	1.0	13	1.3
Other	Male	25	14.9	139	20.7	39	20.7	203	19.7
	Female	18	10.7	86	12.8	28	14.9	132	12.8
Awaiting information/ undetermined	Male	6	3.6	15	2.2	6	3.2	27	2.6
	Female	1	0.6	0	0.0	3	1.6	4	0.4
	NS	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL		**168**	**100.0**	**672**	**100.0**	**188**	**100.0**	**1028**	**100.0**

† Includes people who belong to Maori and another ethnic group

* 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. Also, the date of initial diagnosis may have preceded the viral load date by months or years.

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