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# AIDS – New Zealand

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**WORLD AIDS DAY**  
**1st December 2008**



The publication of this issue of *AIDS-New Zealand* coincides with World AIDS Day. This year marks the 20th anniversary of World AIDS Day, the aim of which is to bring people's attention to the worldwide challenges and consequences of the epidemic.

## **UNLINKED ANONYMOUS HIV PREVALENCE STUDY AMONG NEW ZEALAND SEXUAL HEALTH CLINIC ATTENDERS: 2005/2006**

In this issue of *AIDS - New Zealand* we report the main findings of a study undertaken by the AIDS Epidemiology Group in 2005/2006 on the prevalence of HIV among sexual health clinic attenders in six cities throughout New Zealand. A paper reporting the results has just been published in the *International Journal of STD & AIDS* (a copy of this paper is posted, under the 'news' section, on the AIDS Epidemiology Group website [www.otago.ac.nz/aidsepigroup](http://www.otago.ac.nz/aidsepigroup)). This was a repeat of two previous similar studies undertaken in 1991/1992 and 1996/1997.

New clients presenting at the six clinics over a twelve month period and having blood taken for syphilis and/or hepatitis B serology were included in the study. Blood left over after all requested tests had been undertaken was anonymised then tested for HIV antibodies. The result was linked to a small amount of non-identifying information.

This method has been recommended by the World Health Organization as an appropriate means of public health surveillance of HIV infection. It gives an indication of changes in the pattern of spread in a group particularly at risk of sexually transmitted infections.

### **HIV prevalence**

Overall, 47 of the 9439 people tested (5.0 per 1000) were found to be infected with HIV. The prevalence was much higher among the men (7.4 per 1000), than the women (1.3 per 1000).

The prevalence among men who had sex with men

### **Main findings**

- Among sexual health clinic attenders HIV remains concentrated among men who have sex with men (MSM).
- In this sample, 44 per 1000 MSM and 1.3 per 1000 heterosexual men and women were infected with HIV.
- This study was carried out in a select group of the New Zealand population, and prevalence in the whole population will be lower.
- Among heterosexual people with HIV there were people of European, Maori, Pacific, Asian and African ethnicity.
- Most, but not all, of these people were known to be infected either before their clinic attendance or through clinical HIV testing at the time.
- There was a marked increase in the number of MSM with previously undiagnosed HIV in 2005/6 compared to the previous study, however as the actual number of MSM attending the clinic had also increased the proportion of MSM infected rose more modestly.

(MSM) was 44 per 1000, much higher than the prevalence of 1.2 per 1000 among the heterosexual men. Among MSM, the prevalence was highest among those aged 30-49 years, and those attending the Auckland clinics. The number of non-Europeans was too small to allow meaningful comparison by ethnicity.

Just under half of MSM with HIV were known to be infected before that clinic visit. The prevalence of previously undiagnosed HIV among the MSM was 20 per 1000.

**Table 1 Overall HIV prevalence by sex and sexual behaviour**

	No.	per 1000	95% Confidence interval
<b>Men</b>			
MSM*	36/817	44	31-61
Heterosexual	6/4795	1.2	0.5-2.7
<b>Women</b>			
Heterosexual	5/3639	1.4	0.5-3.2
WSW†	0/146	0.0	
<b>Transsexual</b>	0/26	0.0	
<b>Sex unknown</b>	0/16	0.0	
<b>Total</b>	47/9439	5.0	3.7-6.6

\* Men who had sex with men † Women who had sex with women

Among the 8434 men and women tested who reported only heterosexual activity, 11 were infected, a prevalence of 1.3 per 1000. These six men and five women were not limited to any specific ethnic group. They were of European, Maori, Pacific, Asian and African ethnicity. Of these 11 people, four were aged between 20-29 years, four between 30-39 years and three between 40-49 years. Ten of these 11 people (91%) reported having had sex overseas, compared to 34% of all heterosexual men and women.

Of these 11 HIV positive heterosexual men and women, only four had been previously undiagnosed; hence the overall prevalence of previously undiagnosed HIV in this group was 0.5 per 1000.

There was no HIV infection found among the 298 female, 32 male and 13 transsexual current sex workers however the total number tested was relatively small.

The prevalence of HIV among those who reported ever injecting drugs but who did not report any current or past homosexual activity was 3.2 per 1000.

### Clinical HIV testing

Overall, three-quarters of those enrolled in the study had a clinical test for HIV at that clinic visit. For MSM the proportion was 85%. For the heterosexual men and women it was 71% and 75% respectively.

For MSM, the number of non-Europeans was too small to allow meaningful comparison of testing by ethnicity. However, among heterosexual men and women, HIV testing was highest among those of 'other' ethnicity and lowest among Pacific people. There were no consistent patterns of testing by age.

Of the 16 previously undiagnosed HIV infected

MSM, 12 (75%) had a clinical HIV test at that visit. This was true for only one of the four previously undiagnosed heterosexual men and women.

Over the three studies undertaken in 1991/2, 1996/7 and 2005/6, there was a progressive increase in the proportion having clinical HIV tests among all sexual behaviour groups.

### Changes in HIV prevalence over time

With each subsequent unlinked anonymous study more centres were included. Table 2 shows the prevalence of previously undiagnosed HIV in the 1991/2, 1996/7 and the 2005/6 studies for the Christchurch and Auckland clinics, the only ones included in all three studies. Care must be taken in the interpretation of these data as participation rates varied in these studies.

In studies such as this, previously undiagnosed HIV is considered the best indicator of newly acquired infections.

No statistically significant differences were found for the proportion of people with previously undiagnosed HIV for any of the sexual behaviour groups over time. However, the small number of infected people means that there was relatively little statistical power to detect changes.

What was striking was the increase in number of MSM enrolled in the 2006/7 study compared to the previous one in 1996/7. In fact, the proportion of male clinic attenders studied who were MSM in Christchurch and Auckland rose from 3% in 1996/7 to nearly 10% in 2005/6. Hence the slight rise in the proportion of MSM previously undiagnosed hides a relatively large rise in the actual number of previously undiagnosed MSM from three to 13.

While the increase in MSM might be due to more disclosure of such behaviour this seems unlikely in the context of sexual health attendances. The most plausible explanations are that either there are more such men in the population, or the risk behaviour among MSM has increased resulting in more seeking health checks.

**Table 2 Prevalence (per 1000) of previously undiagnosed HIV in Auckland and Christchurch in the three studies undertaken in 1991/2, 1996/7 and 2005/6**





	1991/2	1996/7	2005/6
<b>MSM</b>			
	7/289=24.2	3/159=18.9	13/539=24.1
<b>Heterosexual men</b>			
	4/4484=0.89	1/2970=0.34	2/3100=0.64
<b>Heterosexual women</b>			
	3/3630=0.83	1/2137=0.47	2/1956=1.0

## Implications




- The increase in numbers of undiagnosed HIV among MSM is consistent with the increase in clinical diagnoses nationally and a real increase in HIV incidence in this group. This indicates a need for further HIV prevention that should focus on men aged in their 30s and 40s.
- While the rates of clinical testing have increased since the last study in 1996/7, not all HIV infected people attending sexual health clinics are being diagnosed. The Ministry of Health (<http://www.moh.govt.nz/aids>) has developed new recommendations for HIV testing which include testing for all persons seeking assessment for sexually transmitted infections and these are being implemented.
- The study showed a marked increase in the actual number of MSM attending sexual health clinics, and this as a proportion of all attenders. Whether this reflects an increase in MSM in the population or an increase in sexual risk behaviour, or both, is not certain and needs to be explored in further studies. Improved surveillance of other sexually transmitted infections in MSM would help to determine whether sexual risk behaviour is increasing.
- While the prevalence of HIV among heterosexual men and women in this study was low, with the increasing number of heterosexuals being diagnosed with HIV in recent years this situation could change. Repeating this unlinked anonymous survey will be necessary not only to assess the extent of spread within the heterosexual community but for the ongoing monitoring of overall HIV prevalence in New Zealand.

### SURVEILLANCE DATA HIV AND AIDS IN NEW ZEALAND January - June 2008

#### *HIV Infection*

-  87 people (69 males and 18 females) were newly diagnosed with HIV through antibody testing in the first half of 2008.
-  41 were men infected through sex with other men, including two men who were thought to be infected either through sex with other men or injecting drug use, 31 were people infected through heterosexual contact, 2 were children infected through mother-to-child transmission (1 in New Zealand and 1 overseas), 2 were infected through a blood transfusions overseas, and for 11 people the mode of infection was unknown.
-  A further 19 people (15 males and 4 females) had their first viral load test in New Zealand in this period. These were mostly people who had been previously diagnosed overseas and who had not had an antibody test in New Zealand.
-  Information on the means of infection and ethnicity of all those diagnosed in the six month period, and previously, is shown in Tables 3 and 4 (overleaf).

#### *AIDS*

-  23 people (18 males and 5 females) were notified with AIDS in the first half of 2008.
-  12 were men infected through sex with other men, 8 were people infected through heterosexual contact, 1 was infected through a blood transfusion, 1 was a child infected through mother-to-child transmission, and for 1 person the mode of infection was unknown.
-  10 people were Europeans, 3 Māori, 1 Pacific, 6 Africans and 3 Asians.

**Table 3. Exposure category by time of diagnosis for those found to be infected with HIV by antibody test and first viral load test. (A small number of transsexuals are included with the males).**

		HIV Infection*									
		1985-1999		2000-2004		2005-2007		2008 (to end of June)		Total	
Exposure category	Sex	No.	%	No.	%	No.	%	No.	%	No.	%
Homosexual contact	Male	907	59.4	346	47.5	286	46.3	50	47.2	1589	53.3
Homosexual & IDU	Male	20	1.3	12	1.6	7	1.1	2	1.9	41	1.4
Heterosexual contact	Male	120	7.9	130	17.8	121	19.6	17	16.0	388	13.0
	Female	128	8.4	141	19.3	126	20.4	16	15.1	411	13.8
Injecting drug use (IDU)	Male	36	2.4	19	2.6	2	0.3	0	0.0	57	1.9
	Female	10	0.6	1	0.1	0	0.0	0	0.0	11	0.4
Blood product recipient	Male	34	2.2	0	0.0	0	0.0	0	0.0	34	1.1
Transfusion recipient§	Male	6	0.4	3	0.4	2	0.3	1	0.9	12	0.4
	Female	6	0.4	3	0.4	0	0.0	1	0.9	10	0.3
	NS	5	0.3	0	0.0	0	0.0	0	0.0	5	0.2
Perinatal	Male	6	0.4	10	1.4	12	1.9	1	0.9	29	1.0
	Female	4	0.3	10	1.4	4	0.6	1	0.9	19	0.6
Other	Male	3	0.2	1	0.1	3	0.5	0	0.0	7	0.2
	Female	4	0.3	3	0.4	2	0.3	0	0.0	9	0.3
Awaiting information/undetermined	Male	205	13.4	44	6.0	37	6.0	13	12.3	299	10.0
	Female	19	1.2	6	0.8	15	2.4	4	3.8	44	1.5
	NS	13	0.8	0	0.0	0	0.0	0	0.0	13	0.4
<b>TOTAL</b>		<b>1526</b>	<b>100.0</b>	<b>729</b>	<b>100.0</b>	<b>617</b>	<b>100.0</b>	<b>106</b>	<b>100.0</b>	<b>2978</b>	<b>100.0</b>

\* 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, acquired overseas

**Table 4. 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. (A small number of transsexuals are included with the males).**

		HIV Infection*									
		1996-1999		2000-2004		2005-2007		2008 (to end of June)		Total	
Ethnicity	Sex	No.	%	No.	%	No.	%	No.	%	No.	%
European/Pakeha	Male	257	53.5	337	46.4	250	40.5	44	41.5	888	46.0
	Female	25	5.2	30	4.1	21	3.4	5	4.7	81	4.2
Maori†	Male	29	6.0	41	5.6	46	7.4	7	6.6	123	6.4
	Female	4	0.8	5	0.7	5	0.8	1	0.9	15	0.8
Pacific Island	Male	4	0.8	19	2.6	16	2.6	1	0.9	40	2.1
	Female	4	0.8	10	1.4	7	1.1	1	0.9	22	1.1
African	Male	55	11.4	70	9.6	77	12.5	11	10.4	213	11.0
	Female	33	6.9	85	11.6	81	13.1	10	9.4	209	10.8
Asian	Male	32	6.7	69	9.5	52	8.4	8	7.5	161	8.3
	Female	16	3.3	32	4.4	19	3.1	4	3.8	71	3.7
Other	Male	7	1.4	16	2.2	17	2.7	6	5.7	46	2.4
	Female	0	0.0	2	0.3	7	1.1	0	0.0	9	0.5
Awaiting information/undetermined	Male	13	2.7	13	1.8	12	1.9	7	6.6	45	2.3
	Female	1	0.2	0	0.0	7	1.1	1	0.9	9	0.5
<b>TOTAL</b>		<b>480</b>	<b>100.0</b>	<b>729</b>	<b>100.0</b>	<b>617</b>	<b>100.0</b>	<b>106</b>	<b>100.0</b>	<b>1932</b>	<b>100.0</b>

\* 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.

<sup>‡</sup> Information on ethnicity of people diagnosed with HIV only collected since 1996

† Includes people who belong to Maori and another ethnic group

For further information about the occurrence of HIV/AIDS in New Zealand, contact:  
 Sue McAllister, AIDS Epidemiology Group, Department of Preventive and Social Medicine, University of Otago Medical School, PO Box 913,  
 Dunedin, New Zealand. Website address: [www.otago.ac.nz/aidsepigroup](http://www.otago.ac.nz/aidsepigroup)  
 Phone: (03) 479 7220, Fax: (03) 479 7298, or Email [aidsepigroup@otago.ac.nz](mailto:aidsepigroup@otago.ac.nz)