

AIDS – New Zealand



Late presentation of HIV in New Zealand: 2005-2010

The theme of this year’s World AIDS Day “Getting to Zero” echoes the UNAIDS vision of “Zero new HIV infections. Zero discrimination. Zero AIDS-related deaths”. One strategy to achieving no new infections or deaths from AIDS is through the early detection of HIV infection.

The earlier HIV is diagnosed the better it is for the individual and for control of HIV in the community. It means that the most effective treatment can be offered, and that infected people can be advised to behave in safe ways. Hence early diagnosis and treatment can reduce the risk of new infections. In addition, people taking antiretroviral therapy are less infectious.

New Zealand information just published¹ shows that, in the last six years, half of all people diagnosed with HIV infection presented late - that is, past the ideal stage for starting treatment. Very late presentation (Advanced HIV disease) was more common among heterosexuals, among Māori and Pacific men who had sex with men (MSM), and among people 40 years or older. More detail is now given.

An indication of the progression of HIV infection in an individual is given by the level of CD4 lymphocytes in the blood. A person without HIV infection has on average about 1000 of these cells per micro-litre (cells/ μ L). When they drop below 200 cells/ μ L, serious infections, often consistent with a diagnosis of AIDS, become likely. It is now recommended that all people with HIV with a CD4 count of 350 cells/ μ L or less are offered antiretroviral treatment.

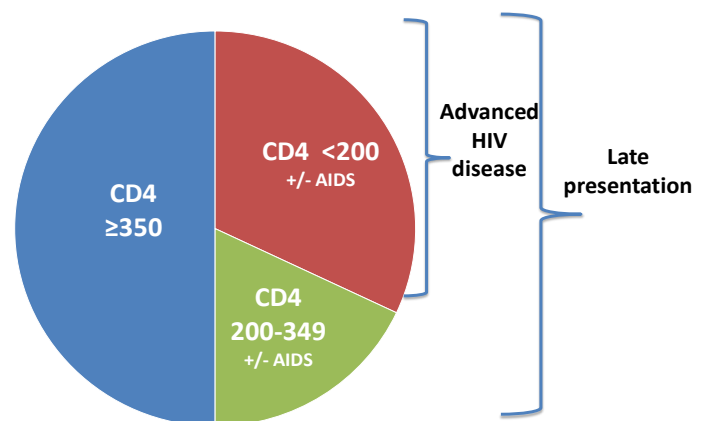


Table 1. Proportion of ‘Late presentations’ and ‘Advanced HIV disease’ among adults diagnosed through HIV antibody tests in New Zealand 2005-2010. (Excludes those tested for immigration purposes or previously diagnosed overseas)

Means of infection	HIV diagnoses with		
	CD4 count	‘Late presentation’	‘Advanced HIV disease’
Homosexual contact	374	41%	25%
Heterosexual contact	202	63%	42%
Other	10	80%	60%
Unknown	20	75%	50%
Total	606	50%	32%

An agreement has recently been reached among European countries on two definitions for national surveillance of delayed presentation:

- ‘Late presentation’ - an initial CD4 count <350 cells/μL (or an AIDS-defining event, regardless of the CD4 count).
- ‘Advanced HIV disease’ - a subset having an initial CD4 count <200 cells/μL (or an AIDS-defining event regardless of CD4 count).

The proportion presenting late in a group depends on (a) current and past testing, (b) timing of infection, and (c) HIV progression.

Since 2005, information on the initial CD4 count after diagnosis has been requested on all people diagnosed with HIV through antibody testing in New Zealand. Between 2005 and 2010 there were 755 such adults, who were not tested as part of an immigration medical, nor had been previously diagnosed overseas. Of these, an initial CD4 count was provided for 606 (80%).

Overall, half (50%) of these people were late presenters and just under a third (32%) had advanced HIV disease (Table 1). Men who had been infected through homosexual contact were less likely to present late than people infected in other ways.

Late presentation among men who have sex with men (MSM) (Table 2)

Among MSM, presenting late was significantly more common among older men. While late presentation did not vary by ethnicity, presenting with advanced HIV disease did. Once adjustment was made for

Māori and Pacific MSM being younger, they were more than twice as likely to have advanced HIV disease at diagnosis than those of European ethnicity. The differences are most likely due to different patterns of testing. Differences in HIV testing by ethnicity, particularly lower rates among Pacific MSM have been seen in the 2006 and 2008 Gay Auckland Periodic Sex Survey (GAPSS).^{2,3}

Not surprisingly, MSM tested because of “risk” or being “screened” were much less likely to present late.

Late presentation among heterosexually infected men and women (Table 3)

Late presentation and presenting with advanced disease were significantly more common among heterosexually infected men and women who were aged 40 or over at diagnosis.

Late presentation (but not presenting with advanced disease) was more common among Pacific people and those of ‘Other’ ethnicity. Both measures of delayed presentation were more common among those infected overseas.

Implications

More efforts should be made to diagnose HIV early. In 2008, the New Zealand Ministry of Health released guidelines for HIV testing in medical settings.⁴ This included recommendations that all persons with a history of unprotected sexual exposure that could result in HIV transmission, specifically MSM and those seeking assessment for sexually transmitted infections, should be offered testing. It is important that this guideline be promoted. Moreover, the possibility of HIV should be considered in a wide range of

Table 2. ‘Late presentation’ and ‘Advanced HIV disease’ among MSM: 2005-2010

		Total	‘Late presentation’ % Relative Risk (95% CI)	‘Advanced HIV disease’ % Relative Risk (95% CI)
Age at diagnosis	<30 years	84	23%	Reference
	30-39 years	111	36%	1.6 (1.0-2.5)
	>39 years	179	55%	2.3 (1.5-3.5)
			Adjusted for age	Adjusted for age
Ethnicity	European	261	42%	Reference
	Māori	49	41%	1.1 (0.8-1.6)
	Pacific Island	9	44%	1.1 (0.6-2.3)
	Other	52	35%	0.9 (0.6-1.4)
	Unknown	3	33%	0
Reason for testing	Symptoms	150	61%	Reference
	Risk	170	28%	0.4 (0.3-0.6)
	Screening	38	32%	0.5 (0.3-0.8)
	Other	6	17%	0.3 (0.04-1.6)
	Unknown	10	10%	0.2 (0.02-1.0)
	Total	374	41%	25%

clinical situations. Testing also needs to be encouraged among Pacific and Māori MSM, who need to be aware of the value of HIV testing and of accessible venues where this can be undertaken.

Our findings also show that age should not be a major arbiter of HIV testing and it must be considered for people of all ages if they are currently, or have been in the past, at risk.

Table 3. 'Late presentation' and 'Advanced HIV disease' among heterosexually infected men and women: 2005-2010

		Total	'Late presentation'		'Advanced HIV disease'	
			No. (%)	RR (95% CI)	No. (%)	RR (95% CI)
Age	<30 years	49	49%	Reference	25%	Reference
	30-39 years	74	61%	1.2 (0.9-1.7)	39%	1.6 (0.9-2.8)
	40 years or	79	73%	1.5 (1.1-2.0)	56%	2.3 (1.3-3.9)
				Adjusted for age		Adjusted for age
Sex	Male	99	67%	Reference	51%	Reference
	Female	103	59%	0.8 (0.6-1.2)	34%	1.0 (0.8-1.2)
				Adjusted for age and sex		Adjusted for age and sex
Ethnicity	European	53	51%	Reference	43%	Reference
	Māori	16	63%	1.3 (0.8-2.0)	50%	1.2 (0.7-2.0)
	Pacific Island	11	73%	1.8 (1.1-2.9)	45%	1.6 (0.8-3.4)
	Other	122	67%	1.4 (1.0-1.9)	40%	1.0 (0.7-1.5)
Place of infection	New Zealand	67	49%	Reference	31%	Reference
	Overseas	128	70%	1.4 (1.1-1.8)	47%	1.5 (1.0-2.2)
	Unknown	7	71%	1.4 (0.9-2.5)	57%	1.8 (0.9-3.8)
Total		202	63%		85	

References:

1. Dickson NP, McAllister S, Sharples K, Paul C. Late presentation of HIV infection among adults in New Zealand: 2005-2010. HIV Medicine. Published online: 3 Nov 2011, DOI: 10.1111/j.1468-1293.2011.00959.x
2. Saxton P, Dickson N, Hughes A. GAPSS 2006: Findings from the Gay Auckland Periodic Sex Survey. Auckland: New Zealand AIDS Foundation 2006.
3. Saxton P, Dickson N, Hughes A. GAPSS 2008: Findings from the Gay Auckland Periodic Sex Survey. Auckland: New Zealand AIDS Foundation 2010.
4. <http://www.moh.govt.nz/moh.nsf/indexmh/hiv aids-testingadultsinhealthcare> (accessed 2nd June 2011)

**HIV INFECTION AND AIDS DIAGNOSED IN NEW ZEALAND
JANUARY - JUNE 2011**

HIV INFECTION

- Fifty-eight people (49 males and 9 females) were diagnosed with HIV through antibody testing in New Zealand in the first half of 2011.
- Thirty-three were men infected through sex with other men, 13 (8 men and 5 women) through heterosexual contact, one man through injecting drug use in New Zealand, and one child through mother-to-child transmission overseas. For the remaining 10 people the means of infection was unknown or information is still awaited.
- Of the 33 men infected through sex with other men, 26 (78.8%) were infected in New Zealand, and 7 (21.2%) overseas.
- Of the 13 people reported to have been infected through heterosexual contact, 7 (53.8%) people were infected in New Zealand, and 6 (46.2%) overseas.
- A further 18 people (16 males and 2 females) had a first viral load test in this period. These were mostly people who had been previously diagnosed overseas and had not had an antibody test in New Zealand.

AIDS

- Ten people (all males) were notified with AIDS in the first half of 2011.
- Four were men infected through sex with other men, 5 men were infected through heterosexual contact, and 1 through injecting drug use.
- Five people were European, 1 Maori, 1 Pacific, 1 Asian, and 2 African.

Table 4. 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 (to end of second quarter)		Total	
Sex	Exposure category	N	%	N	%	N	%	N	%
Male	Homosexual contact	1163	56.1	698	50.0	39	51.3	1900	53.6
	Homosexual & IDU	26	1.3	16	1.1	0	0.0	42	1.2
	Heterosexual contact	212	10.2	249	17.8	9	11.8	470	13.3
	Injecting drug use	53	2.6	13	0.9	2	2.6	68	1.9
	Blood product recipient	34	1.6	0	0.0	0	0.0	34	1.0
	Transfusion recipient [§]	9	0.4	4	0.3	0	0.0	13	0.4
	Perinatal	13	0.6	23	1.6	1	1.3	37	1.0
	Other	4	0.2	5	0.4	0	0.0	9	0.3
	Unknown	238	11.5	97	6.9	14	18.4	349	9.8
Female	Heterosexual contact	234	11.3	244	17.5	5	6.6	483	13.6
	Injecting drug use	11	0.5	0	0.0	0	0.0	11	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	0.6
	Other	7	0.3	7	0.5	0	0.0	14	0.4
	Unknown	24	1.2	27	1.9	6	7.9	57	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	0.4
TOTAL		2073	100.0	1397	100.0	76	100.0	3546	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 5. 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		2004-2010		2011 (to end of second quarter)		Total	
Sex	Ethnicity	No	%	No	%	No	%	No	%
Male	European/Pakeha	513	50.0	600	42.9	35	46.1	1148	45.9
	Maori [†]	60	5.8	100	7.2	7	9.2	167	6.7
	Pacific Island	18	1.8	32	2.3	1	1.3	51	2.0
	African	96	9.3	145	10.4	3	3.9	244	9.8
	Asian	91	8.9	113	8.1	6	7.9	210	8.4
	Other	19	1.9	67	4.8	4	5.3	90	3.6
	Unknown	22	2.1	48	3.4	9	11.8	79	3.2
Female	European/Pakeha	53	5.2	41	2.9	2	2.6	96	3.8
	Maori [†]	7	0.7	12	0.9	0	0.0	19	0.8
	Pacific Island	13	1.3	13	0.9	0	0.0	26	1.0
	African	88	8.6	155	11.1	3	3.9	246	9.8
	Asian	44	4.3	41	2.9	3	3.9	88	3.5
	Other	1	0.1	15	1.1	1	1.3	17	0.7
	Unknown	1	0.1	12	0.9	2	2.6	15	0.6
Transgender	Total	1	0.1	3	0.2	0	0.0	4	0.2
TOTAL		1027	100.0	1397	100.0	76	100.0	2500	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

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