

# AIDS - New Zealand

## INTRODUCTION

This, the thirtieth issue of AIDS - New Zealand, provides information about the occurrence of acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) infection in New Zealand to 30 June 1996.

These reports are produced quarterly by the AIDS Epidemiology Group, which is funded by the Ministry of Health. We aim to give timely and relevant details about the problem of HIV/AIDS in New Zealand and elsewhere.

## AIDS IN NEW ZEALAND

Fifteen people were notified as having AIDS in the second quarter of 1996. All were male.

The total number notified since monitoring began (to 30 June 1996) was 557. The cumulative incidence rate to that time was 16.2 per 100,000 total population.

Figure 1 shows the annual and cumulative numbers of notifications since 1984. The year relates to that of notification, which does not always correspond to the year of

Number of notifications

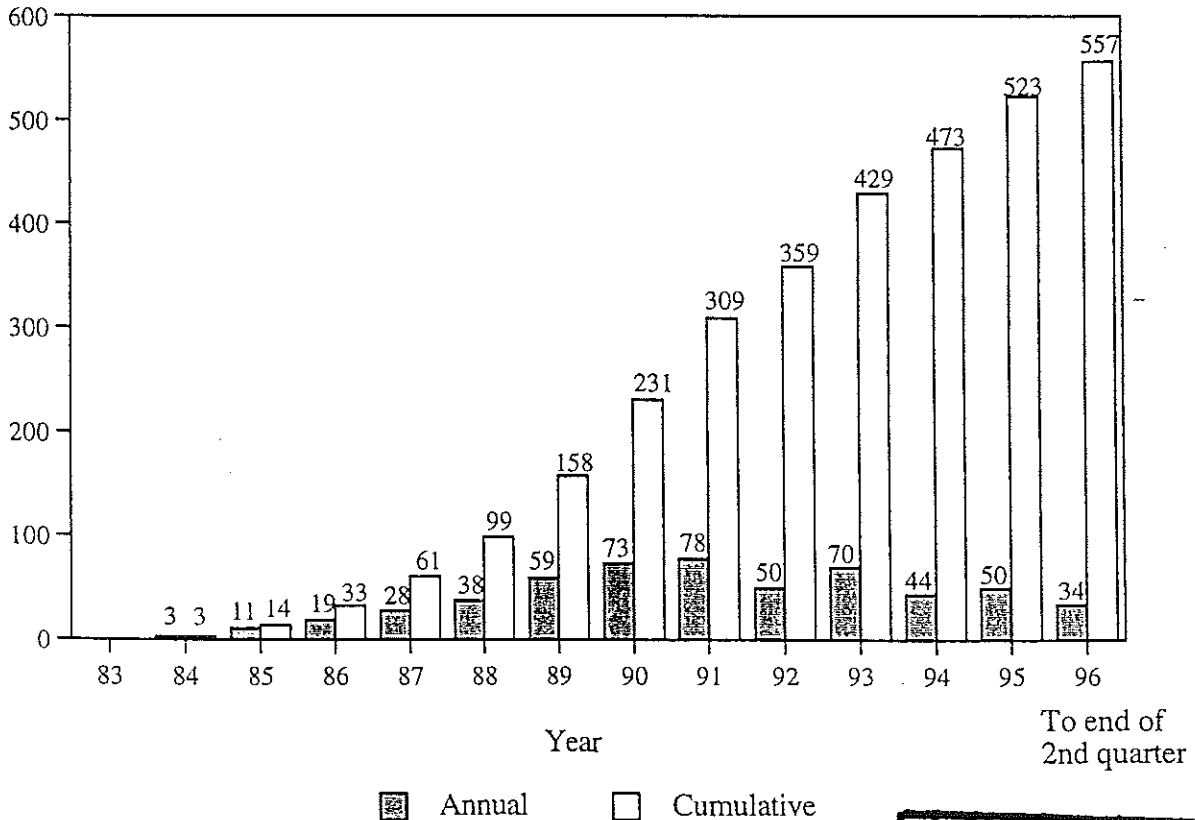
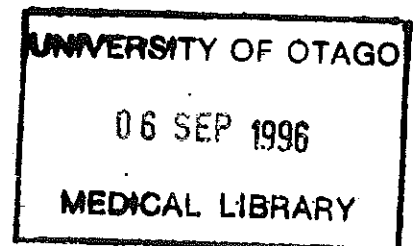


Figure 1 AIDS notifications in New Zealand



diagnosis, due to delays in reporting.

### Risk behaviour categories of people with AIDS

Of the 15 people notified with AIDS in the second quarter of 1996, all were male, and all were reported to have had sex with other men.

Table 1 shows the likely risk behaviour categories of the people notified with AIDS (and those diagnosed as being infected with HIV) for the twelve months to the end of June 1996, and in total to that date.

### PEOPLE FOUND TO BE INFECTED WITH HIV IN NEW ZEALAND

In the second quarter of 1996, 27 people were newly found to be infected with HIV. Of those 27, 22 were male, and 5 female.

Care must be taken in interpreting the HIV antibody data. Not all people at risk will have been tested, and testing may not be requested until many years after infection has occurred.

### Risk behaviour categories of people found to be infected with HIV

Of the 22 males found to be infected with HIV, 13 were reported to have been infected through sex with other men, 5 to have been heterosexually infected, one was an injecting drug user, and one man was believed to have been infected while undergoing hospital treatment in Africa in the early 1980s. No further information is available on the other 2 men.

Of the men reported heterosexually infected, 3 were from parts of the world where heterosexual transmission is common, and another was considered infected elsewhere

**Table 1** Category of risk behaviour by date of notification of people with AIDS, and those found to be HIV antibody positive

	AIDS 12 months to 30.6.96		Total to 30.6.96		HIV antibody positive* 12 months to 30.6.96		Total to 30.6.96	
	No.	%	No.	%	No.	%	No.	%
Homosexual or bisexual +	44	78.6	462	82.9	48	48.0	640	56.6
Homosexual & IDU +	0	0	10	1.8	0	0	11	1.0
Injecting drug user (IDU)								
Male	0	0	8	1.4	2	2.0	27	2.4
Female	0	0	4	0.7	0	0	7	0.6
Blood product recipient+	2	3.6	12	2.2	0	0	28	2.5
Transfusion related								
Male	0	0	1	0.2	0	0	2	0.2
Female	0	0	1	0.2	0	0	5	0.4
Unknown	0	0	0	0	0	0	5	0.4
Heterosexual								
Male	1	1.8	18	3.2	9	9.0	38	3.4
Female	2	3.6	16	2.9	17	17.0	67	5.9
Perinatal								
Male	0	0	0	0	2	2.0	4	0.4
Female	0	0	1	0.2	1	1.0	2	0.2
Not stated or unknown								
Male	6	10.7	23	4.1	14	14.0	259	22.9
Female	1	1.8	1	0.2	3	3.0	18	1.6
Unknown	0	0	0	0	2	2.0	14	1.2
Other								
Male	0	0	0	0	1	1.0	1	0.1
Female	0	0	0	0	1	1.0	2	0.2
<b>TOTAL</b>	<b>56</b>	<b>100.0</b>	<b>557</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>1130</b>	<b>100.0</b>

+ All male

\*Includes people who have developed AIDS

overseas. The remaining man was found to be infected through testing contacts of a woman infected by a bisexual man in New Zealand.

Of the 5 females found to be infected in the last quarter, 3 were reported to be heterosexually infected. Two of these 3 women were infected through sex with bisexual men. Information is awaited on the remaining 2 women.

Information received during the last quarter showed that some of the previous reports of HIV infections were duplicates. Table 1 has been adjusted to take this new information into account.

In the 12 months to the end of June 1996, 26 people (9 men and 17 women) were believed to have been infected heterosexually. Of the 9 heterosexually infected men, 7 were from parts of the world where heterosexual infection is common, one of the remaining 2 men was heterosexually infected overseas and the other in New Zealand. Of the 17 heterosexually infected women, 8 were from parts of the world where heterosexual infection is common, and 3 were considered infected by bisexual men in New Zealand. Further information is not available on the risks for the remaining women.

#### OUTCOME OF PEOPLE WITH AIDS

The reported outcomes of people with AIDS by year of diagnosis is shown in Table 2. Excluded from this table are 3 people diagnosed early in the epidemic whose outcome has not been determined, and 19 who are known to have gone overseas.

The higher proportion of people diagnosed in recent years who are alive is likely to be largely a reflection of the shorter length of time since diagnosis.

**Table 2 Outcome of people notified with AIDS to 30 June 1996 by year of diagnosis**

Year of diagnosis	Alive	Known to have died	Proportion surviving (%)
Unknown	2	7	22.2
1983	0	5	0
1984	0	4	0
1985	0	11	0
1986	0	13	0
1987	0	30	0
1988	0	43	0
1989	2	68	2.9
1990	6	63	8.7
1991	2	62	3.1
1992	12	48	20.0
1993	7	43	14.0
1994	11	29	27.5
1995	29	22	56.9
1996	14	2	87.5
TOTAL	85	450	15.9

#### ETHNIC DISTRIBUTION OF PEOPLE WITH AIDS

Table 3 shows the ethnic groups of people with AIDS.

**Table 3 Ethnic groups of people notified with AIDS to 30 June 1996**

	No.	%
European/Pakeha	460	82.6
Maori	59	10.6
Pacific Islander	14	2.5
Other	17	3.1
Unknown	7	1.3
TOTAL	557	100.0

## PROBABILITIES OF SEXUAL TRANSMISSION OF HIV

A review of research on sexual transmission of HIV has recently been published AIDS 1996 - A Year in Review. (Mastro T &, de Vincenzi I. Probabilities of sexual HIV-1 transmission. AIDS 1996, 10 (suppl A):S75-S82). Knowing the risks of sexual transmission of HIV, and what affects these, helps in the development of strategies to reduce the spread of the virus.

A consistent finding is that the stage of HIV infection greatly influences the chance of an infected person transmitting the virus. People are much more infectious soon after they have acquired HIV, when there is a high concentration of virus in the bloodstream. The risk of transmission drops during the prolonged asymptomatic stage, but rises again with advanced HIV disease when high levels of circulating virus are again found.

HIV is also likely to be passed through penile-anal sex, than penile-vaginal sex, but this difference is only about two fold. During vaginal intercourse the virus is more readily passed from an infected male to a susceptible female, than *vice versa*. It is possible that unprotected penile-oral sex carries some risk of transmission, but this is substantially less than unprotected penile-anal or penile-vaginal sex.

The presence of other sexually transmitted diseases (STDs) have been found to increase the risk of HIV transmission. The consistent use of condoms has been found to reduce substantially the risk of HIV transmission .

There is some suggestion that certain subtypes of HIV are more easily transmitted

vaginally than others, but further studies are needed to confirm this.

In view of the many factors known to influence the risk of sexual transmission of HIV, figures of the overall transmission risk should be considered cautiously. Risks of infection have been calculated more accurately taking these into account.

It has been estimated that the risk of acquiring HIV from a person recently infected may be as high as 10% to 30% per act of anal intercourse. The risk of such anal intercourse with a person who is in the asymptomatic phase may be between 0.01% and 0.1% per act. This rises to between 0.1% and 1% per act in the latter stages of HIV infection.

Studies among heterosexual couples in North America have yielded overall estimates of the risks of transmission of approximately 0.1% per act of vaginal intercourse, but such studies have tended to exclude people in the early, more infectious stage of the infection. Studies of risk of transmission per partnership rather than per sex act have found that among heterosexual couples in North America and Europe between 10% and 30% of females have been infected by an HIV-infected male. A lower rate has been found where it was the female partner who was initially infected.

Current intervention strategies aimed at preventing sexual transmission rely largely on behavioural change (including reducing the number of sexual partners and increasing the use of condoms), and the management of other STDs. The observation that the risk of infection is very high from an infected person soon after they acquired HIV reinforces the importance of these general measures.

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