

AIDS - New Zealand

INTRODUCTION

This, the twenty-seventh 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 September 1995.

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.

The publication of this edition of *AIDS - New Zealand* coincides with World AIDS Day on 1 December 1995

AIDS IN NEW ZEALAND

Ten people were notified as having AIDS in the third quarter of 1995. Nine were male, and one female. The total number notified since monitoring began (to 30 September 1995) was 511. The cumulative incidence rate to that time was 14.9 per 100,000 total population.

Number of Notifications

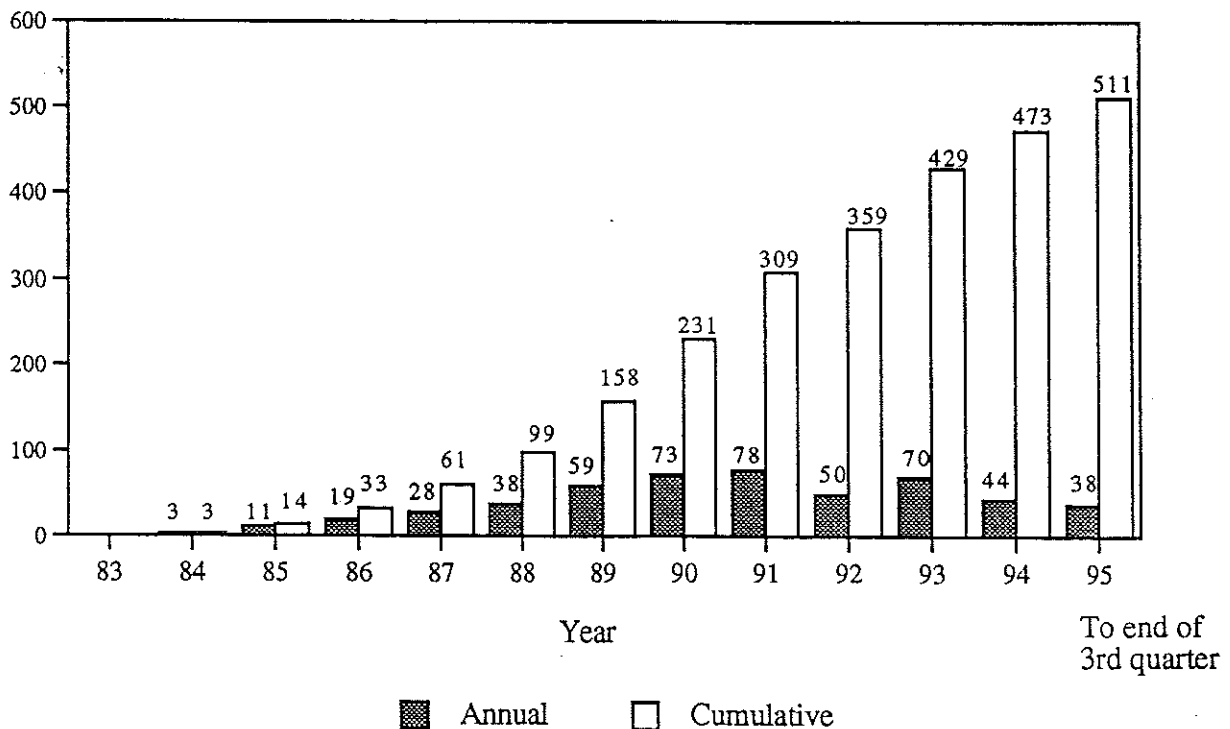


Figure 1 AIDS notifications in New Zealand

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NEW ZEALAND

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 diagnosis, due to delays in reporting.

Risk behaviour categories of people with AIDS

Of the 9 males notified with AIDS in the third quarter of 1995, 8 were reported to have had sex with other men, and information is awaited on the remaining man. The one female was reported to have been heterosexually infected.

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 September 1995, and in total to that date.

Tuberculosis as an AIDS-defining condition

As from the beginning of 1993 tuberculosis (Tb), affecting any site has been an AIDS-defining condition for people infected with HIV. Since then 7 people have been notified as having Tb at AIDS notification.

The possibility of HIV infection should be borne in mind with anyone found to have Tb. If such concurrent infections are found, both the Tb and AIDS notifications should be made to the local Medical Officer of Health.

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

	AIDS		Total to		HIV antibody positive*		Total to	
	12 months to 30.9.95		30.9.95		12 months to 30.9.95		30.9.95	
	No.	%	No.	%	No.	%	No.	%
Homosexual or bisexual +	39	78.0	426	83.4	40	48.2	598	56.8
Homosexual & IDU +	1	2.0	10	2.0	1	1.2	11	1.0
Injecting drug user (IDU)								
Male	0	0	8	1.6	2	2.4	25	2.4
Female	1	2.0	4	0.8	1	1.2	7	0.7
Blood product recipient+	4	8.0	10	2.0	0	0	28	2.7
Transfusion related								
Male	0	0	1	0.2	0	0	2	0.2
Female	0	0	1	0.2	0	0	5	0.5
Unknown	0	0	0	0	0	0	5	0.5
Heterosexual								
Male	2	4.0	17	3.3	11	13.3	30	2.9
Female	1	2.0	15	2.9	10	12.0	54	5.1
Perinatal								
Male	0	0	0	0	2	2.4	3	0.3
Female	0	0	1	0.2	1	1.2	2	0.2
Not stated or unknown								
Male	2	4.0	18	3.5	12	14.5	252	24.0
Female	0	0	0	0	0	0	15	1.4
Unknown	0	0	0	0	2	2.4	14	1.3
Other	0	0	0	0	1	1.2	1	0.1
TOTAL	50	100.0	511	100.0	83	100.0	1052	100.0

+ All male

* Includes people who have developed AIDS

PEOPLE FOUND TO BE INFECTED WITH HIV IN NEW ZEALAND

In the third quarter of 1995, 21 people were newly found to be infected with HIV. Of those 21, 14 were male, 5 female and the sex of the remaining 2 people was not stated.

As always 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 14 males found to be infected with HIV in the third quarter of 1995, 7 were reported to have been infected through sex with other men. Three men were from a part of the world where heterosexual transmission is common and were presumed heterosexually infected. One man was reported to have been heterosexually infected through sex with a commercial sex worker overseas. The remaining male about whom information is available, was an infant born to an HIV-infected women from a part of the world where heterosexual transmission is common.

Of the 5 females found to be infected, 2 were reported to be commercial sex workers from a part of the world where heterosexual transmission is common. Two women were reported to have been heterosexually infected, but no further details are available. The remaining female was an infant born to an HIV infected women.

Thus during the last quarter, 2 infants were reported to have been infected at or around the time of birth.

ETHNIC DISTRIBUTION OF PEOPLE WITH AIDS

Table 2 shows the ethnic groups of people with AIDS.

Table 2 Ethnic groups of people notified with AIDS to 30 September 1995

	No.	%
European/Pakeha	422	82.6
Maori	55	10.8
Pacific Islander	12	2.3
Other	15	2.9
Unknown	7	1.4
Total	511	100.0

REGIONAL DISTRIBUTION OF AIDS NOTIFICATIONS

Table 3 shows the numbers and cumulative rates of AIDS notifications according to the regional health authority (RHA) of notification. The cumulative rates for Auckland and Wellington regions are also shown. The highest rate of notification has been from the Northern region. However the similarity is seen between the rates of AIDS notified from Auckland and Wellington, which cannot be appreciated from the regional health authority figures.

Table 3 Cumulative rates of notification, region (per 100,000 total population)

	Number	Rate
Northern RHA	283	27.8
<i>Auckland</i>	273	29.2
Midland RHA	50	7.0
Central RHA	134	15.0
<i>Wellington</i>	105	26.0
Southern RHA	44	6.0
TOTAL	511	14.9

TYPES OF HUMAN IMMUNODEFICIENCY VIRUS

The pattern of the epidemic of HIV/AIDS differs in many parts of the world. It now appears that one of the reasons may be variation of the HIV virus.

HIV was discovered in 1983, and a feature of this virus is that it exists in many forms. Soon after its discovery it was recognised that there were two main types of virus. The commonest and most widespread type was called HIV-1, and the other, relatively localised to west Africa, HIV-2. It is now known that HIV-2 is less easily transmissible than HIV-1, and in particular very rarely is passed from an infected woman to her infant.

Further refinements in determining the molecular structure of HIV-1 have shown that there are substantial differences between isolates of HIV-1. Many of these are quite distinctive and are now sorted into 6 main subtypes which have been categorised as subtypes A to F.

All of the various subtypes have been identified in Africa, but it has been the subtype B which has been predominantly responsible for the epidemic to date among gay men and injecting drug users in Western countries.

In Asia it is now recognised that whereas subtype B was present in Thailand and India in the early 1980s, the explosive epidemic in these countries occurred after the later entry of other subtypes - subtype E in Thailand, and subtype C in India.

Studies carried out in Thailand have found that there is a greater risk of HIV

transmission from men to women when the man is infected with subtype E rather than subtype B.

Recent laboratory experiments at the Harvard School of Public Health have compared how vigorously these two subtypes of HIV-1 reproduce in cultures of different human cells. The subtype E virus replicated much more rapidly than subtype B virus in cultures from the female reproductive tract and from culture of cells from penile foreskin.

Thus evidence from three separate sources - observation of the epidemic pattern in South East Asia, studies on transmission in Thailand, and laboratory experiments, all suggest that there are different rates of heterosexual transmission for different subtypes of HIV-1.

These findings may have significant implications for the epidemic in New Zealand, where it is likely that most of the HIV-1 infections to date have been with subtype B. With the emergence of a major epidemic of HIV/AIDS in South East Asia and India caused by subtypes of the virus that is more easily spread heterosexually the possibility of a change in the pattern of our epidemic exists.

In New Zealand the epidemiological monitoring of the epidemic must be maintained with this possibility in mind.

Travellers to parts of the world where a heterosexual epidemic of HIV/AIDS exists must be made aware of the dangers of sex with people in those areas. The risks are particularly high when people have sex with commercial sex workers in these areas.

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