

# HIV/AIDS

## Key points

In 1998 105 new cases diagnosed with HIV were confirmed, the highest number since 1992. This is well above the target rate, suggesting that the target of 75 or fewer infections by 2000 is unlikely to be met.

Of the 105 people diagnosed with HIV, 43 were diagnosed as a result of the Refugee Health Assessment Programme.

The second waves of the survey of sentinel populations show no significant increase in HIV prevalence in high-risk populations studied over the period 1992–97.

Only 26 new cases of AIDS were diagnosed in 1998 out of 29 notified, the lowest number since 1986. While late notifications may increase the number of diagnoses in 1998, it is likely to reflect the slowing in progression of HIV infection to AIDS-defining events as a result of the recent use of highly active anti-retroviral therapy (HAART).

A wide range of health promotion, prevention education, counselling, testing, treatment, and health protection strategies are in place for HIV and other STDs, and for drug dependence.

Additional targets based on risk and protective behaviours may be useful to supplement the health outcome targets.

### Targets

To reduce the number of people found annually to be infected with the human immunodeficiency virus (HIV) to 75 or fewer by 2000.

To reduce the prevalence rate of HIV infection in the defined sentinel populations to 40 per 1000 or less in males who have sex with males, 5 per 1000 or less in users of injectable drugs,\* and 1 per 1000 or less in heterosexual males and females, by 2000.

\* As this rate is currently below 5 per 1000, this subtarget should be interpreted as preventing any increase in the rate to this level.

## Progress towards the targets

### People infected with HIV

Since 1982, when the HIV testing records became mandatory, the largest annual number of people infected with HIV was 125 in 1986. In 1998 105 new cases<sup>4</sup> were diagnosed HIV positive making a total of 1336 people infected in New Zealand for the period 1983–98 (AIDS Epidemiology Group 1999). The number of people diagnosed with HIV in 1998 was higher than in any year since 1992, when 106 new cases were diagnosed (AIDS Epidemiology Group 1999). This increase was due to a greater proportion of infected

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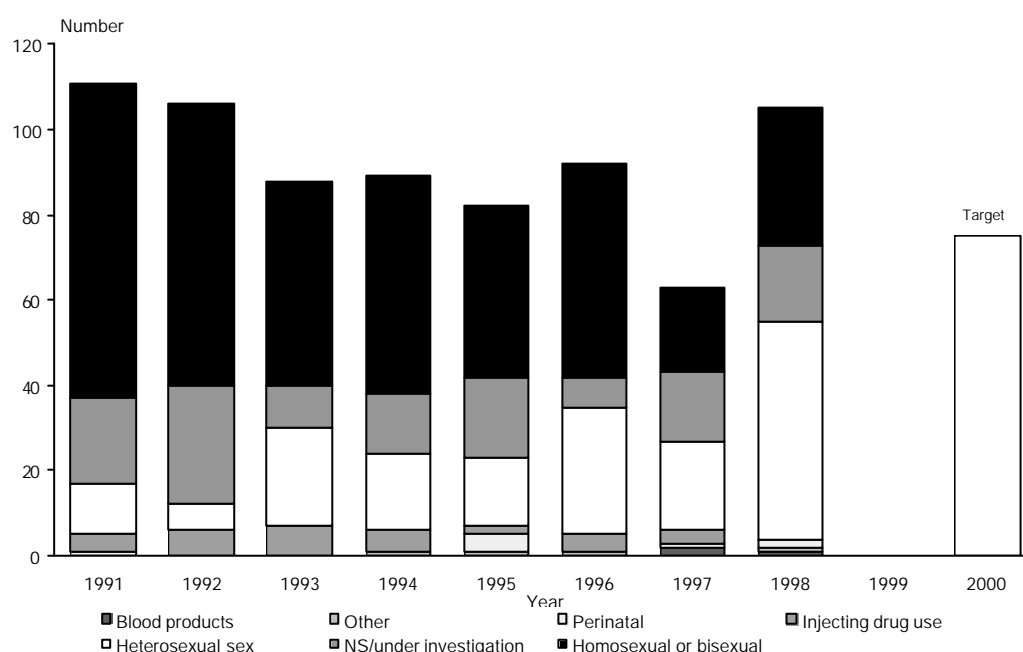
<sup>4</sup> These numbers should not be interpreted as the number of people infected annually, as testing may not be done at the time of infection and/or all the HIV infected people may not be tested in time.

people coming to New Zealand. For example, during 1994–98, 68 people were diagnosed with HIV through the Refugee Health Assessment Programme which started in 1994. Of the 68 people infected, 43 were identified in 1998. This reflects the fact that refugees and asylum seekers are from areas of the world where there is a high prevalence of HIV infection.

Of all the people infected with HIV notified in 1998, females accounted for 20 percent. Among those females, half (48 percent) were aged 20–29 years compared to about a quarter (21 percent) among males. Another 24 percent of females notified were in the age group 30–39 years compared to 46 percent of males in this age group.

The increase in HIV infection among females is predominantly through heterosexual sex, which accounted for 71 percent of all female cases diagnosed in 1998. The comparable figure among males was 43 percent. Apparently heterosexual transmission has become a major risk behaviour among both males and females, at least in 1998 (see Figure 1).

**Figure 1:** Positive HIV antibody tests, by risk category, 1991–98



Source: AIDS Epidemiology Group

The region where infection is likely to have occurred is shown for all infected people in Table 1.

**Table 1:** Region where infection is likely to have occurred in 1996–98

Region	Number	Percentage
New Zealand	94	36.2
Australia	19	7.3
Asia and other Pacific	32	12.3
Africa	68	26.2
South America	2	0.8
Europe	7	2.7
USA	7	2.7
Awaiting information/undetermined	31	11.9
<b>Total</b>	<b>260</b>	<b>100</b>

Source: AIDS Epidemiology Group

From 1983 to 1998 a total of nine children were identified as being infected with HIV through mother-to-child transmission. Overall, the total of 105 people diagnosed with HIV in 1998 stands much higher than the target set for 2000. It would require an annual decrease of 15 percent in the number of people found to be infected with HIV in 1999 and 2000 to reach the target set for 2000.

Enhanced HIV surveillance (the seeking of anonymised information from clinicians following the diagnosis of an HIV infection) was introduced in 1996. In the three-year period 1996–98, 260 people were found to be infected with HIV (205 males and 55 females). Most of the infection for males can be attributed to sexual intercourse between males (53 percent) while the prevalence of infection from heterosexual sex is more common among females (80 percent) compared to males (29 percent) (see Table 2).

**Table 2:** Risk categories associated with HIV infections diagnosed in 1996–98

Category	Male		Female		Total	
	No.	%	No.	%	No.	%
Sexual intercourse between males*	108	52.6			108	41.5
Sexual intercourse between males and females	60	29.3	44	80.0	104	40.0
Injection drug use	6	2.9	1	1.8	7	2.7
Mother to infant	1	0.5	2	3.6	3	1.2
Blood transfusion or factor treatment	3	1.0			3	1.2
Other	2	1.0	2**	3.6	4	1.5
Awaiting information or undetermined	25	12.2	6	11.0	31	11.9
<b>Total</b>	<b>205</b>	<b>100</b>	<b>55</b>	<b>100</b>	<b>260</b>	<b>100</b>

Source: AIDS Epidemiology Group

Note: \* Includes males also possibly exposed to HIV through injecting drug use (two in this period).

\*\* Possibly infected by medical procedure in sub-Saharan Africa.

No new HIV surveillance data are available to evaluate the prevalence rate of HIV infection in the defined sentinel populations at the time of updating this report. For the 1997 rates refer to Ministry of Health (1998).

## People with AIDS

AIDS was made notifiable in New Zealand in 1983. The largest number of people diagnosed with AIDS was in 1989. Since then the annual number of AIDS diagnosed or notified has been decreasing. In 1998 29 people were notified with AIDS, of which 26 were diagnosed with AIDS, the lowest number of new cases since 1986. Although the 1998 number shows some reduction in incidence of AIDS, it is also possible that the numbers of people diagnosed in 1998 may increase due to delayed notification. The total number of people notified with AIDS was 672 at the end of 1998 and the cumulative incidence rate was 18 per 100 000 population (Table 3). In any case this decline, at least partly, can be attributable to the increasing use of highly active antiretroviral therapy, which slows the progression of HIV infection to the end stage of AIDS.

In 1998 8 in 10 people notified with AIDS were aged between 20 and 49 years. There were 25 males and four females notified with AIDS. The annual number of AIDS cases by major category of risk behaviour is summarised in Table 3.

**Table 3:** Numbers of people with AIDS, by year and major category of risk behaviour, 1983–98

Year of diagnosis	MSM*	Heterosexual males	Heterosexual females	Injection drug use	Other	Unknown	Total
1983	5	0	0	0	0	0	5
1984	4	0	0	0	0	0	4
1985	12	0	0	0	0	0	12
1986	11	0	1	0	2	2	16
1987	27	0	0	0	2	1	30
1988	42	0	0	1	0	1	44
1989	59	3	2	1	3	3	71
1990	63	4	0	2	1	1	71
1991	58	3	2	2	0	4	69
1992	50	3	5	2	1	1	62
1993	44	1	3	1	1	3	53
1994	40	2	1	3	1	0	47
1995	45	3	2	0	3	7	60
1996	43	6	3	1	2	4	59
1997	22	4	1	1	3	0	31
1998**	14	4	2	2	1	3	26**
Unknown	11	0	0	1	0	0	12
Total	550	34	22	16	20	30	672

Source: AIDS Epidemiology Group

Notes:

\* Males having sex with males including males who also reported injecting drugs.

\*\* Number may increase due to delayed notifications.

Although the proportion of people infected with AIDS possibly through homosexual behaviour decreased to 54 percent in 1998 from 71 percent in 1997, the cumulative proportion of cases reported to have been infected through this risk behaviour remains as high as 82 percent. This suggests that the AIDS epidemic remains concentrated among homosexuals.

The cumulative proportion of cases reported to have been infected through the use of illicit injectable drugs is small (2 percent), while 8 percent is attributed to heterosexual intercourse (5 percent among males and 3 percent among females) at the end of 1998.

Table 4 shows the ethnic groups of people notified with AIDS. Among all the individuals notified with AIDS in 1998, 52 percent were European/Pākehā, 10 percent Māori, 7 percent Pacific peoples and 31 percent people belonging to the Other group ie, excluding European/Pākehā, Māori and Pacific.

**Table 4:** People notified with AIDS by time of notification, by ethnicity

Ethnic group	1998		Total to 31 December 1998	
	No	%	No	%
European/Pākehā	15	51.7	539	80.2
Māori*	3	10.3	73	10.9
Pacific Island peoples	2	6.9	18	2.7
Other	9	31.0	35	5.2
Not specified	0	0.0	7	1.0
Total	29	100.0	672	100.0

Source: AIDS Epidemiology Group

Note: \* Includes people classified as Māori and another ethnic group.

## Indicators

- ?? Number of people newly diagnosed with HIV per year.<sup>5</sup>
- ?? HIV prevalence rate in defined 'sentinel' populations.

## Data sources

Direct information on HIV incidence in New Zealand is limited. However, new positive HIV antibody tests are reported anonymously by the clinical laboratories to the AIDS Epidemiology Group (AEG), Otago University. The completeness of risk factor and demographic data accompanying HIV laboratory reports has improved since January 1996 when a modified data collection instrument was introduced backed up by a telephone interview with the referring clinician if required ('enhanced surveillance').

The final dataset contains both demographic and risk factors along with the accompanying HIV laboratory reports. However the limitations of these data are incomplete population

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<sup>5</sup> This depends on the incidence rate of HIV infection in New Zealand, entry of HIV-infected people to New Zealand, and access to and utilisation of HIV antibody testing. Although the HIV incidence rate would be a more useful indicator of epidemic spread, it cannot be measured.

coverage and lack of information on the time lag between timing of acquiring infection and being tested. Despite its limitation it is the only source of information on AIDS and HIV in New Zealand as new cases are reported regularly to the AEG. The latest data available are for 1998 (AIDS Epidemiology Group 1999).

HIV prevalence in sentinel populations is determined by periodic unlinked anonymous serosurveys carried out by the AEG. The first wave occurred in 1992 and the second wave in 1997. Data generated by the periodic surveys of the sentinel populations are of high quality.

Serial prevalence surveys in sentinel populations provide more valid indicators of trends in HIV incidence rates in high-risk groups. However consistency in sampling must be maintained across waves to obtain a valid time series. The expansion of STD clinic services and needle exchanges since 1992 may have affected comparability between the first and second waves (by bringing in a wider – and possibly lower-risk – population) although attempts were made to compensate for this bias in the data analysis.

## References

- AIDS Epidemiology Group. 1999. *AIDS-New Zealand*. February 1999. Dunedin: Otago University.
- Ministry of Health. 1998. *Progress on Health Outcome Targets. Te Haere Whakamua ki ngā Whāinga Hua mö te Hauora. The state of the public health in New Zealand 1998*. Wellington: Ministry of Health.