

2 COUNTRY STATUS AND TRENDS

AUSTRALIA

Summary



Australia was among the first countries in the world to report AIDS cases. Retrospective analyses of epidemiological data indicate that HIV incidence peaked in 1984, followed by a rapid decline. This trend has continued in the 1990s, with a decrease in AIDS cases from 954 in 1994 to 273 in 1998. This decline in incidence is projected to continue. Annual reported diagnoses of HIV infection have also declined steadily, from more than 2300 in 1987 to about 720 in 1998. An estimated 10 800 people were living with HIV infection in Australia at the end of 1998.

The number of people living with HIV/AIDS may increase slightly due to the introduction of antiretroviral therapy and associated longer survival. It is estimated that there have been 530 fewer AIDS diagnoses since 1995 than would have been the case in the absence of potent combination therapies that have reduced the rate of progression from asymptomatic HIV infection to AIDS. The proportion of women among reported cases has been gradually increasing, from 0% until 1983 to 13% in 1999. HIV infection in children remains rare.

Overall rates for other STI have declined since the mid-1980s, with particular reduction among high-risk groups such as male homosexuals and FSWs. However, rates of STI among indigenous populations continue to be substantially higher (by a factor of 10 to 100 times) than in the non-indigenous population.

Surveillance Structure

- Newly diagnosed HIV infections and AIDS cases are notifiable in all State/Territory health jurisdictions.
- AIDS Surveillance Definitions by Centers for Disease Control and Prevention (CDC 1987) were used before 1993. Since then, the modified case definition described in ANCA Bulletin 18: Definition of HIV Infection and AIDS-defining Illnesses (Australian National Council on AIDS 1994) has been used. Three AIDS defining illnesses were added to the CDC 1993 revision of the AIDS case definition as part of the current Australian AIDS case definition. However, individuals with an HIV seropositive test result and a CD4+

cell count of less than 200 are not defined as having AIDS unless they have an AIDS defining illness.

- Beginning in 1991, national surveillance for cases of newly diagnosed HIV infection was extended to include data on probable or estimated date of infection.
- Newly acquired HIV infections are identified by the diagnosis of an HIV seroconversion illness or a negative or indeterminate HIV antibody test result during the 12 months prior to HIV diagnosis.
- HIV seroprevalence surveys have been conducted regularly. The population surveyed in 1998 included blood donors, STI clinic clients, needle exchange clients and prison entrants.
- Diagnoses of gonorrhoea and syphilis are notifiable in all States/Territory health authorities, while chlamydia is notifiable in all health jurisdictions except New South Wales. STI may be reported by doctors, laboratories, or both, depending on the jurisdiction. Donovanosis is notifiable in the Northern Territory, Queensland, and Western Australia. Chancroid is notifiable in all State/Territory health jurisdictions, except for South Australia and New South Wales.

HIV/AIDS

Reported cases as of June 1999

"Reported HIV cases" refers both to AIDS cases and HIV antibody positive asymptomatic patients. At the end of June 1999, a total of 19 738 cases of HIV had been reported including 8140 AIDS cases (Table 1).

The annual number of cases of newly diagnosed HIV infection has declined steadily since 1987. AIDS incidence peaked at 954 cases in 1994, then gradually declined to 273 diagnosed cases in 1998. It is recognized that some reports may duplicate previously reported cases. As a consequence, estimates have been made of the extent of duplication, resulting in revised figures.

Table 1: Reported cases of HIV/AIDS by year of diagnosis in Australia as of June 1999

| | <1985 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | Total |
|-----------------|-------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|---------------|
| AIDS | 54 | 128 | 234 | 385 | 533 | 614 | 675 | 803 | 787 | 844 | 954 | 801 | 654 | 357 | 273 | 44 | 8 140 |
| HIV/AIDS | 467 | 1922 | 1815 | 2305 | 1691 | 1633 | 1423 | 1415 | 1239 | 1098 | 1030 | 946 | 927 | 794 | 720 | 313 | 19 738 |

The vast majority of reported cases of HIV infection and AIDS have been diagnosed in males. Sexual contact between men was the predominant route of HIV transmission.

While the absolute number of women diagnosed with HIV has been stable over time, the relative proportion of women represented has increased steadily (0% in 1983 to 13% in 1999). Exposure to HIV among women occurs predominantly through heterosexual contact.

HIV prevalence rates are low in most population groups surveyed, as illustrated by the following breakdowns:

Table 2: Distribution of cumulative Reported HIV/AIDS cases by sex and mode of transmission in Australia as of June 1999

| | HIV (%) | AIDS (%) |
|-----------------------------|---------|----------|
| Sex | | |
| Male | 94 | 96 |
| Female | 6 | 4 |
| Mode of transmission | | |
| Homo-/bisexual | 66 | 85 |
| IDU | 4 | 3 |
| Heterosexual | 7 | 5 |
| Blood products | 3 | 3 |
| Mother to infant | <1 | <1 |
| Other/unknown | 20 | 3 |

**Active
HIV/AIDS
surveillance**

- Pregnant women (0.005% in 1995-1996)
- Homosexual men < 23 years old living in metropolitan areas (declined from 3% in 1992 to 1.4% in 1997)
- Military entrants (less than 0.1% for 1988-1996)
- Female sex workers (steady at about 0.1% since 1992)
- Prison entrants (0.1% in 1997)
- Individuals attending selected sexual health clinics (0.5% among males, 0.05% among females in 1997).

HIV prevalence was higher among IDU participants in needle exchange programmes (2.1% in 1995 and 1.5% in 1998). The rate was substantially higher among homosexual IDUs (31% in 1997).

These results show that circulation of HIV is limited in the general population. Higher prevalence continues to exist among homosexual, IDUs, sex workers and their clients.

Estimates and projections for the number of people living with HIV are based on analysis of epidemiological data from surveillance of diagnosed HIV cases and from sentinel surveillance in populations known to be at high risk for HIV infection. Projection for future HIV prevalence was obtained using back-projection methods.

The annual number of AIDS diagnoses, after adjusting for reporting delay, reached a peak in 1994 (954 cases), and declined to 273 cases in 1998. AIDS incidence is projected to continue to decline slowly over the next few years. It was estimated that there were 10 800 people living with HIV infection in Australia by the end of 1998, representing a prevalence rate of 0.1% in the adult population aged 15-49 (Table 3 and 4). Estimated HIV prevalence is projected to increase to 11 420 by the year 2000 (Table 3). This can be attributed to the recent introduction of highly active antiretroviral therapy and the prolonged transition period from asymptomatic HIV carrier status to AIDS patient.

Table 3: Estimates and projections for HIV/AIDS in Australia, 1998 and 2000

| | | 1998 | 2000* |
|--------------------|-----------------------------------|-----------|-----------|
| Population (15-49) | | 9 600 000 | 9 700 000 |
| AIDS | Incidence | 500 | |
| | Incidence rate in adults (15-49) | 0.0065% | |
| HIV | Prevalence | 10 800 | 11 420 |
| | Prevalence rate in adults (15-49) | 0.1% | 0.1% |

* Projections for AIDS incidence were not made given the need to adjust for the impact of antiretroviral treatment.

Table 4: HIV/AIDS epidemiological features in Australia (1998 estimates)

| | | |
|--|-----------------------------------|--------|
| HIV | Prevalence | 10 800 |
| | Prevalence rate in adults (15-49) | 0.1% |
| Women among HIV infected population | | 5% |
| HIV Infection by mode of transmission | Sexual contact | 91% |
| | Injecting drug use | 5% |
| | Others | 4% |
| Estimated reporting rate for HIV | | >95% |
| Estimated reporting rate for AIDS | | >95% |

STI other than HIV

- Reported cases** Diagnoses of STI reported to the National Notifiable Diseases Surveillance System show generally moderate incidence rates: gonorrhoea (29/10 000); syphilis (6/10 000); chlamydia (62/10 000) in 1998. There has been a steady decline in the reported rates of STI in some states since the early 1980s. Reported incidence rates among indigenous people are 10-100 times higher than in non-indigenous people.
- Active STI surveillance** A survey of women attending a sexual health clinic in 1992 documented a gonorrhoea prevalence rate of 1.0% and a chlamydia prevalence rate of 6.4%. Surveys of STI have shown substantially higher incidence rates in many indigenous communities than in the non-indigenous population.

Estimates for STI Information is not available.

Gonococcal antimicrobial resistance Data from GASP indicates an increase in gonococcal resistance. Resistance to penicillin increased from 17% to 28% between 1982 and 1998; resistance to quinolones increased from <0.1 % to 3% in the same period.

STI and HIV Risk Behaviour Surveillance

Behavioural surveys among homosexual men suggest that there has recently been an increase in the proportion of respondents reporting unprotected anal sex with casual sex partners (up to 25%). The proportion of IDUs reporting shared use of equipment in the previous month declined from 29% in 1995 to less than 20% in 1997.

Surveys among first year university students in Sydney since 1988 show that the proportion of respondents with previous sexual experience has remained constant (6%), and that a higher proportion of students report using condoms with casual sexual partners (80%).