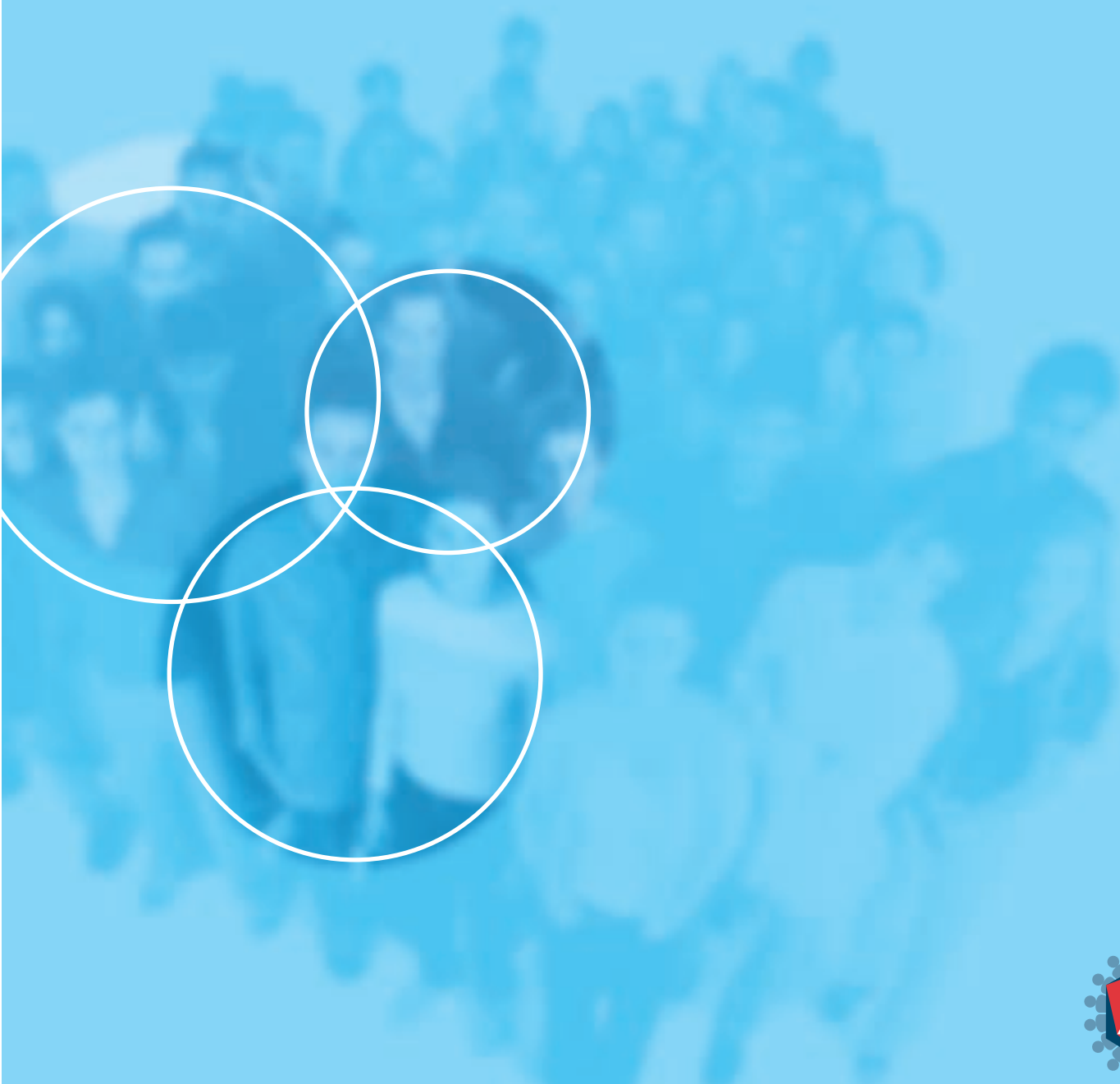


2000

Annual Surveillance Report

HIV/AIDS, Hepatitis C &
Sexually Transmissible Infections
in Australia



Edited by National Centre in HIV Epidemiology and Clinical Research

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Annual Surveillance Report
HIV/AIDS, Hepatitis C &
Sexually Transmissible Infections in Australia

edited by

National Centre in HIV Epidemiology and Clinical Research

in collaboration with

Australian Gonococcal Surveillance Programme

Communicable Diseases Network Australia New Zealand

National Centre in HIV Social Research

National Serology Reference Laboratory, Australia

and collaborating networks in surveillance for HIV/AIDS and related diseases

The National Centre in HIV Epidemiology and Clinical Research is funded by the Commonwealth Department of Health and Aged Care and is affiliated with the Faculty of Medicine, The University of New South Wales. Its work is overseen by the Australian National Council on AIDS, hepatitis C and related diseases (ANCAHRD).

Annual Surveillance Report

HIV/AIDS, Hepatitis C & Sexually Transmissible Infections in Australia

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Preface

This report is the fourth annual review of available surveillance data pertaining to the occurrence of HIV/AIDS, hepatitis C and sexually transmissible infections in Australia. It is intended to be a reference document for organisations and individuals interested in the occurrence of these infectious diseases in Australia, drawing together relevant data from many sources into a single comprehensive report. The report is also available at Internet address <http://www.med.unsw.edu.au/nchecr>

The main findings of the report are presented as text, supported by figures. The underlying data are presented as tables and follow the main report. The tables are provided with no commentary, except for brief explanatory footnotes. A methodological summary follows the tables, along with references to other documents and reports which provide further information.

Some of the information regarding behavioural monitoring which appears in this report is also published, along with further behavioural data, in the report *HIV/AIDS, Hepatitis C and related diseases in Australia Annual Report of Behaviour 2000*, edited by the National Centre in HIV Social Research. Specifically, data reported in Tables 5.1.1, 5.4.1, 6.1.1 and 6.2.1 of *HIV/AIDS, Hepatitis C and Sexually Transmissible Infections in Australia Annual Surveillance Report 2000* also appears in the report on behavioural data.

Unless specifically stated otherwise, all data provided in the report are to the end of 1999, as reported by 31 March 2000.

This report could not have been prepared without the collaboration of a large number of organisations involved in health services throughout Australia. The ongoing contribution of all collaborating organisations, listed in the following section, to national surveillance for HIV/AIDS, hepatitis C and sexually transmissible infections is gratefully acknowledged.

Annual Surveillance Report

HIV/AIDS, Hepatitis C & Sexually Transmissible Infections in Australia

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National organisations

- Ansell International
- Australian Research Centre in Sex, Health and Society, LaTrobe University, Melbourne, VIC
- Australian Defence Force, Department of Defence, Canberra, ACT
- Australian Paediatric Surveillance Unit and its contributors; Sydney Children's Hospital, Randwick, NSW
- Becton Dickinson Pty Ltd
- Communicable Diseases Network Australia New Zealand, Canberra, ACT
- Commonwealth Department of Health and Aged Care, Canberra, ACT
- National Centre in HIV Social Research, The University of New South Wales, NSW
- National Centre for Research into the Prevention of Drug Abuse, Perth, WA
- National Drug and Alcohol Research Centre, The University of New South Wales, Sydney, NSW
- National Serology Reference Laboratory, Australia, Fitzroy, VIC

State/Territory health departments

- Communicable Disease Control Program, ACT Department of Health and Community Care, Canberra, ACT
- Area Public Health Units, NSW Health Department, North Sydney, NSW
- AIDS/STD Unit, Communicable Diseases Centre, Darwin, NT
- Queensland Health, Brisbane, QLD
- STD Control Branch, Adelaide, SA
- Department of Community and Health Services, Hobart, TAS
- STD/Blood-Borne Virus Program, Infectious Diseases Unit, Department of Human Services, Melbourne, VIC; Macfarlane Burnet Centre for Medical Research, Fairfield, VIC
- Communicable Diseases Control Unit, Health Department of WA, Perth, WA

Australian Gonococcal Surveillance Programme

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- Department of Microbiology, Prince of Wales Hospital, Randwick, NSW
- Microbiology Department, Royal Darwin Hospital, Casuarina, NT
- Queensland Health Scientific Services, Coopers Plains, Brisbane, QLD
- Infectious Diseases Laboratories, Institute of Medical and Veterinary Science, Adelaide, SA
- Department of Microbiology and Infectious Diseases, Royal Hobart Hospital, Hobart, TAS
- The Microbiological Diagnostic Unit, University of Melbourne, Melbourne, VIC
- Microbiology Department, Royal Perth Hospital, Perth, WA

Collaborative group on sentinel HIV surveillance in sexual health clinics

- Sydney Sexual Health Centre, Sydney Hospital, Sydney, NSW
- Livingstone Road Sexual Health Centre, Marrickville, NSW
- Parramatta Sexual Health Clinic, Parramatta, NSW
- Clinic 34, Darwin, NT
- Brisbane Sexual Health Clinic, Brisbane, QLD
- Gold Coast Sexual Health Clinic, Miami, QLD
- Clinic 275, Adelaide, SA
- Melbourne Sexual Health Centre, Melbourne, VIC

State/Territory Departments of Corrections

- ACT Corrective Services, Woden, ACT
- Corrections Health Service, Matraville, NSW
- Department of Correctional Services, Darwin, NT
- Queensland Corrective Services Commission, Brisbane, QLD
- South Australian Forensic Health Services, Adelaide, SA
- Corrective Services Division, Department of Justice, Hobart, TAS
- Department of Human Services, Melbourne, VIC;
- Strategic and Specialist Services, Ministry of Justice of Western Australia, Perth, WA

Australian Red Cross Blood Services

- Australian Red Cross Blood Service, Fitzroy, VIC
- ACT Red Cross Transfusion Service, ACT
- NSW Red Cross Blood Transfusion Service, NSW
- NT Red Cross Blood Transfusion Service, NT
- Queensland Red Cross Blood Transfusion Service, QLD
- Australian Red Cross Blood Service South Australia, SA
- Red Cross Blood Transfusion Service, TAS
- Red Cross Blood Bank Victoria, VIC
- Australian Red Cross Blood Transfusion Service Western Australia, WA

Australian HIV Observational Database

- The Medical and Vein Centre, Coffs Harbour; 407 Bourke Street, Surry Hills; Holdsworth House General Practice, Darlinghurst; SHAIDS, Lismore; Livingstone Road Sexual Health Centre, Marrickville; Sexual Health Clinic, Gosford, NSW
- Gold Coast Sexual Health Clinic, Miami; Sexual Health Program, Cairns Base Hospital, Cairns, QLD
- The Alfred Hospital, Prahran, Prahran Market Clinic, South Yarra, The Centre Clinic, St Kilda, The Carlton Clinic, Carlton, VIC
- Department of Clinical Immunology, Royal Perth Hospital, Perth

Collaboration of Australian Needle and Syringe Programs

- ACT IV League; Drug Referral Information Centre, ACT
- Drug Intervention Services & Street Youth Program, Cabramatta; Kirketon Road Centre & K2, Kings Cross; St George NSP, Kogarah; Northern Rivers Health Service; Resource & Education Program for IDU, Redfern & Canterbury; Wentworth HIV and Sexual Health Service; Western Sydney AIDS Prevention Service, Blacktown and Parramatta; NSW
- AIDS Council of Central Australia, Alice Springs; Northern Territory AIDS Council, Darwin, NT
- Bodyline, Brisbane; Community Alcohol and Drug Services, BIALA; Cairns Base Hospital; GAIN; Gold Coast Hospital; Kobi House, Toowoomba; QulVva; QLD
- Christies Beach National Pharmacy; Clovelly Park NSP; Midnight Pharmacy, Adelaide; Morphettville Medical Centre Pharmacy, Glenelg East; Noarlunga Community Health Service; Northern Metropolitan Community Health Service – Shopfront; Parks Community Health Service; South Australian Drug and Alcohol Services Council; The AIDS Council of South Australia - SAVIVE; Salisbury NSP; Warrinilla; William Jelfs Pharmacy, Woodville, SA
- Tasmanian AIDS & Related Diseases Council, Hobart; Tasmanian User's Health Support League; TAS
- Ballarat Community Health Services, Ballarat; Geelong Community Health Services, Geelong; Melbourne Inner Needle Exchange, Collingwood; St Kilda NSP; SHARPS, Frankston; Western Region AIDS and Hepatitis Prevention; VIC
- AIDS Council of Western Australia, Perth; Western Australia User's Association, Perth; WA
- St Vincent's Hospital, Sydney NSW: Alcohol and Drug Service; Centre for Immunology

Periodic surveys of gay and other homosexually active men

- AIDS Council of New South Wales, Sydney, NSW
- Queensland AIDS Council, Brisbane, QLD
- AIDS Council of South Australia, Adelaide, SA
- Victorian AIDS Council/Gay Men's Health Centre, Melbourne, VIC
- Western Australian AIDS Council, Perth WA
- PLWHA (NSW)
- PLWHA (VIC)
- Queensland Positive People (QPP), Brisbane
- National Centre in HIV Social Research, The University of New South Wales, Sydney

Positive Health

- Australian Research Centre in Sex, Health and Society, LaTrobe University, Melbourne, VIC
- Australian Federation of AIDS Organisations, Sydney, NSW
- National Association of People living with HIV/AIDS, Sydney, NSW
- National Centre in HIV Social Research, The University of New South Wales, Sydney

Summary

HIV/AIDS

It is estimated that there were 12,000 people living with HIV infection in Australia by the end of 1999.

The decline in annual AIDS incidence observed since 1994, due to the fall in HIV transmission rates a decade earlier, has been substantially accelerated over the past three years by improvements in therapy.

Transmission of HIV in Australia continues to occur primarily through sexual contact between men. There is no evidence of recent change in rates of transmission via this route, or any increase in the very low rates of transmission through injecting drug use, or heterosexual contact. Close to half the cases attributed to heterosexual contact are now in people from countries with high HIV prevalence or their sexual partners.

Among people with HIV infection, approximately a third were not receiving antiretroviral therapy in 1999. This group was made up of people who had stopped therapy, those who had never begun, and a further group who had not yet been diagnosed with HIV infection. Over 45% of AIDS cases in 1999, up from 20% in 1994 and 40% in 1998, occurred in people who had been diagnosed with HIV infection within the preceding three months, and had therefore been unable to benefit from antiretroviral therapy or prophylaxis for opportunistic infection.

Hepatitis C infection

The high number of diagnoses of hepatitis C infection recorded in 1999 continued to make this infection the most frequently reported notifiable infection in Australia. There was a substantial increase, from 482 in 1995 to 1,350 in 1999, in the number of diagnoses among people aged 15 to 19 years, and a continuing increase in the reported number of newly acquired infections, to 368 in 1999. Transmission of hepatitis C continued at high levels among people who inject drugs. There has been a gradual increase in prevalence among those who have been injecting for less than three years.

Sexually transmissible infections

Over the past five years, the population rate of diagnosis of gonorrhoea has increased substantially whereas the rate of diagnosis of syphilis has remained relatively stable. The rate of diagnosis of chlamydia has more than doubled over the past five years whereas the number of diagnoses of donovanosis has dropped from 82 in 1995 to 15 in 1999.

Indigenous people continue to be diagnosed with these infections at much higher rates than non-Indigenous people.

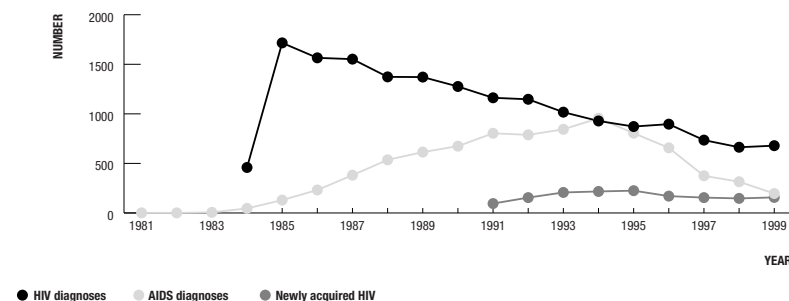
Main Findings

General patterns

HIV/AIDS

The annual number of AIDS diagnoses in Australia, after adjustment for reporting delay, peaked in Australia in 1994 with 955 AIDS diagnoses, and is estimated to have declined to 196 cases in 1999 (Figure 1). Back-projection analyses, based on AIDS cases reported prior to 1996, indicated that annual HIV incidence in Australia peaked around 1984, followed by a rapid decline (Figure 2). The decline in AIDS diagnoses since 1996 has been much more rapid than originally predicted in the mid 1990s. It is now clear that the additional decrease in the number of AIDS diagnoses is due to the use, since around 1996, of effective combination antiretroviral therapy, including protease inhibitors, for the treatment of HIV infection. There have been similar findings in Canada, the United States and in a number of European countries.

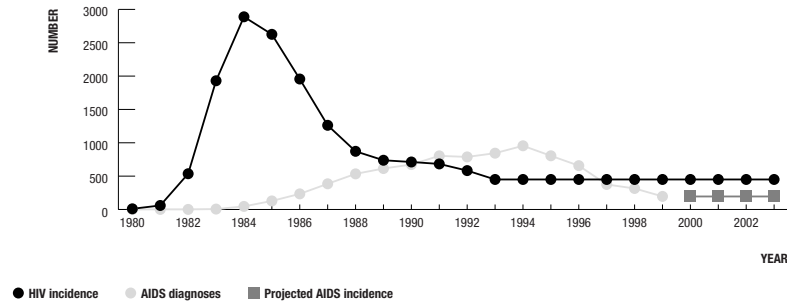
Figure 1 Number of diagnoses of HIV infection¹ and AIDS in Australia



¹ HIV diagnoses adjusted for multiple reporting. AIDS diagnoses adjusted for reporting delays.

At the end of 1999, the cumulative number of HIV infections that had occurred in Australia was estimated to have been 18,000, with an estimated 12,000 people living with HIV infection. Assuming that the overall benefit of antiretroviral treatment in slowing progression to AIDS remains at the 1999 level, AIDS incidence is predicted to remain steady at around 190 cases per year until 2003 (Figure 2). It is currently estimated that around 50% of all people living with HIV infection are receiving antiretroviral treatment. If this proportion were to increase substantially, then AIDS incidence would be expected to decline. However, the effect long-term of antiretroviral treatment is unknown, and if treatments fail for a substantial proportion of people, then AIDS incidence could increase again.

Figure 2 Estimated HIV incidence, observed AIDS diagnoses and projected AIDS incidence¹

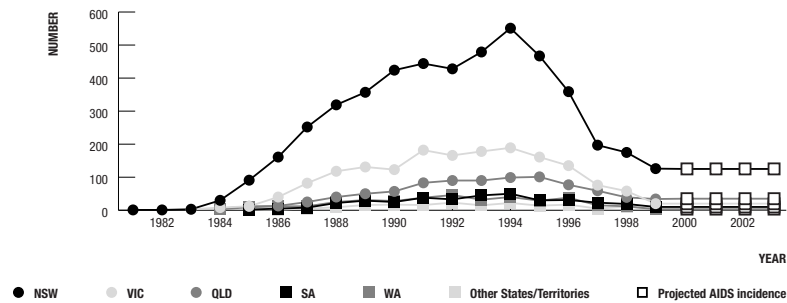


¹ Observed AIDS diagnoses adjusted for reporting delays. HIV and projected AIDS incidence estimated by back-projection

The annual number of HIV diagnoses in Australia has continued to decline substantially over time, but the decline appears to have slowed in recent years to around 680 in 1999 (Figure 1). New HIV infections continue to occur in Australia. Within the total number of HIV diagnoses, around 150 – 200 each year since 1993 have been in people who had acquired HIV infection within the past year (Figure 1). These reported cases give a lower limit to the number of cases of HIV transmission that have actually occurred in Australia over this time.

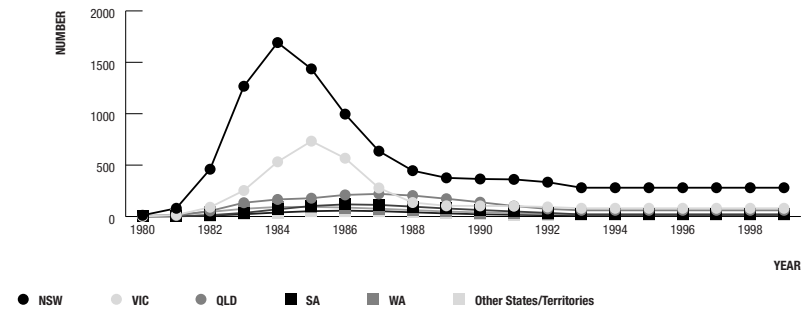
Despite the apparently similar trends over time in AIDS incidence across the Australian States and Territories (Figure 3), there have been some differences between them in the estimated time trends in HIV incidence (Figure 4). Peak HIV incidence is believed to have occurred first in New South Wales, and somewhat later and less distinctly in other States/Territories. The total estimated *per capita* number of HIV infections was highest in New South Wales at 168 infections per 100,000 resident population, followed by Victoria (78), Queensland (62), South Australia (62) and Western Australia (48). The combined rate for the Australian Capital Territory, the Northern Territory and Tasmania was 44.

Figure 3 Observed AIDS diagnoses¹, and projected AIDS incidence, by State/Territory



¹ Observed AIDS diagnoses adjusted for reporting delays. AIDS incidence estimated by back-projection

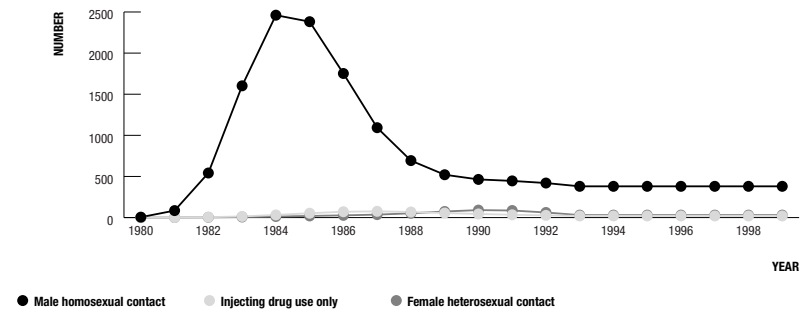
Figure 4 Estimated HIV incidence¹ by State/Territory



¹ HIV incidence estimated by back-projection

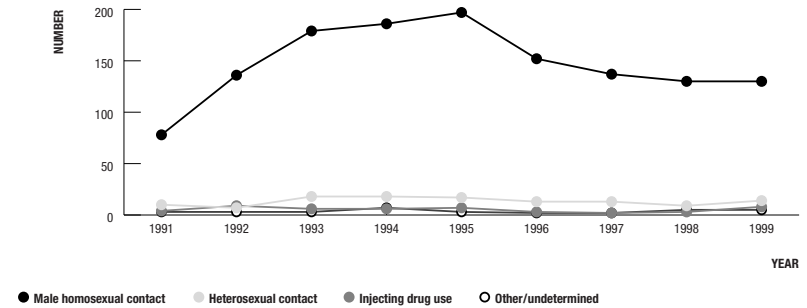
Transmission of HIV in Australia continues to be overwhelmingly through sexual contact between men (Figure 5). Approximately 85% of all HIV transmissions in Australia were estimated to have been via this route. Similarly, most reported diagnoses of newly acquired HIV infection were in men who were exposed through homosexual contact (Figure 6).

Figure 5 Estimated HIV incidence¹ by exposure category



¹ HIV incidence estimated by back-projection

Figure 6 Number of diagnoses of newly acquired HIV infection by HIV exposure category



In the Asia-Pacific region, HIV prevalence in Cambodia, Thailand and Myanmar was substantially higher than that in Australia in 1999, reflecting high levels of HIV transmission in those countries in recent years (Figure 7). HIV prevalence in India, Malaysia and Vietnam was also substantially higher than that in Australia in 1999 whereas HIV prevalence in the Philippines and New Zealand was lower than that in Australia.

Comparing with other industrialised countries, AIDS incidence in the United Kingdom (1.3 per 100,000 population) is now higher than that in Australia (1.1 per 100,000 population).

Substantially higher AIDS rates are reported for Canada (2.3 per 100,000 population), Spain (8.7 per 100,000 population) and the United States (16.7 per 100,000 population) (Figure 8).

Figure 7 HIV prevalence in 1999 in selected countries in the Asia-Pacific region

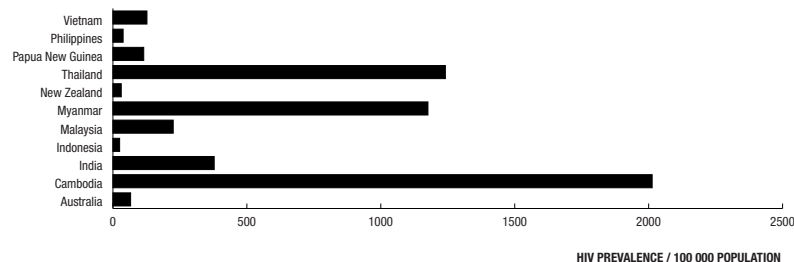
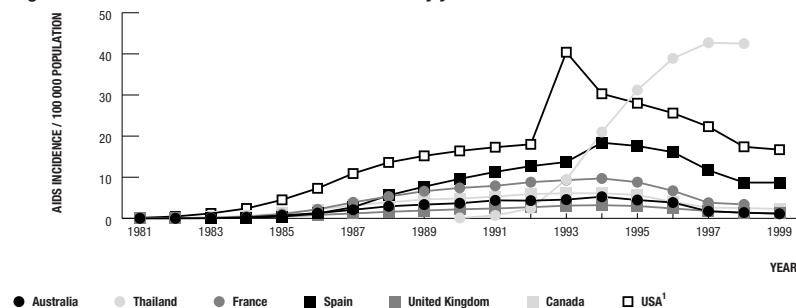


Figure 8 AIDS incidence in selected countries by year



¹ US AIDS case definition changed in 1993 to include people with a CD4+ count of <200

Hepatitis C infection

Hepatitis C continues to be the most frequently reported notifiable infection in Australia.

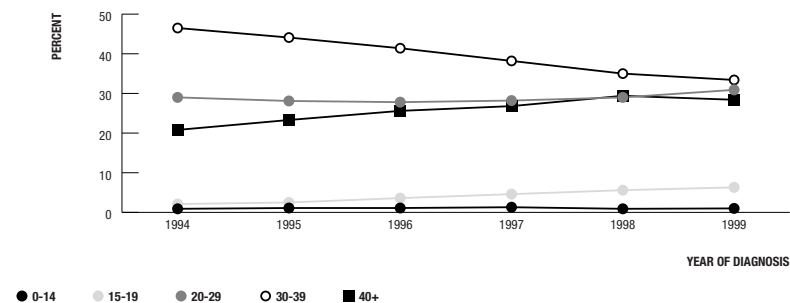
During 1999, 21,409 cases were reported, bringing the total number of notified cases of hepatitis C in Australia to more than 140,000 since antibody testing became available in 1990. The number of notifications over the period 1995 – 1999 has remained relatively stable in the range 18,000 – 22,000 per year. The total number of notified hepatitis C cases represents 60 – 70% of an estimated 210,000 people who had been exposed to hepatitis C at the end of 1999, although the true proportion of diagnosed cases may differ from the estimate, depending on the extent of multiple notification, or underreporting. It is likely, however, that many people with hepatitis C infection remain undiagnosed. The vast majority of notifications have been of hepatitis C infection of unknown duration.

Prior to 1997, less than 100 notifications of newly acquired hepatitis C infection were made per year. State/Territory health authorities have recently increased their efforts to monitor newly acquired hepatitis C infection. In 1998 and 1999, the number of reported cases was more than 350, which is still only a small fraction of the estimated 10,000 – 11,000 cases of newly acquired hepatitis C infections that currently occur in Australia each year.

Most hepatitis C notifications in the period 1995 – 1999 were in the 20 – 29 and 30 – 39 year age groups, although an increasing percentage of cases were aged 15 – 19 years and 40 years or older (Figure 9). The increasing percentage of hepatitis C notifications in the 15 – 19 year age group is consistent with the increasing trend in hepatitis C prevalence observed among injecting drug users with a history of injecting of less than three years, seen at needle and syringe programs. The rise in the percentage of hepatitis C notifications in the older age groups may be partly due to increasing numbers of people presenting with symptomatic liver disease.

Overall, the male to female ratio of hepatitis C notifications remained stable at 1.7:1. In the 15 – 19 year age group, however, approximately equal numbers of male and female cases were reported.

Figure 9 Hepatitis C notifications in Australia by age group



Blood donors and entrants into the Australian Defence Force are considered at low risk for hepatitis C antibody. People who report risk behaviours for hepatitis C antibody are excluded from donating blood and entrants into the Australian Defence Force are advised that a positive test result will result in exclusion. Hepatitis C prevalence in 1999 was substantially lower among blood donors (0.02%) and entrants into the Australian Defence Force (0.2%) than among people with a history of injecting drug use seen at needle and syringe programs (50%).

Sexually transmissible infections other than HIV

In 1995 – 1999, the rate of notification of diagnoses of gonorrhoea increased by 67%, from 17.8 per 100,000 population in 1995 to 29.7 per 100,000 in 1999. The rate of notification of gonorrhoea in the Northern Territory was substantially higher (10 – 100 fold) than that in other State/Territory health jurisdictions (Figure 10). The rate of notification of chlamydia more than doubled over the past five years, from 35 per 100,000 population in 1995 to 74.5 per 100,000 population in 1999. Part of the increase in diagnoses of gonorrhoea and chlamydia may be attributable to use of diagnostic tests with increased sensitivity in both asymptomatic and symptomatic populations and to changing methods of specimen collection.

The rate of syphilis diagnoses per 100,000 population was also substantially higher in the Northern Territory compared to other State/Territory health jurisdictions (Figure 11). In Australia as a whole, the rate of diagnosis of syphilis did not change substantially over time.

The male:female ratio of notifications was 2:1 for gonorrhoea, 1.2:1 for syphilis and 0.6:1 for chlamydia. The number of diagnoses of donovanosis declined over time, from 82 cases in 1995 to 15 cases in 1999. Given the extensive effort at case finding in recent years, due to the availability of effective treatment, this decline is almost certainly a real one.

Figure 10 Gonorrhoea diagnoses by year and State/Territory

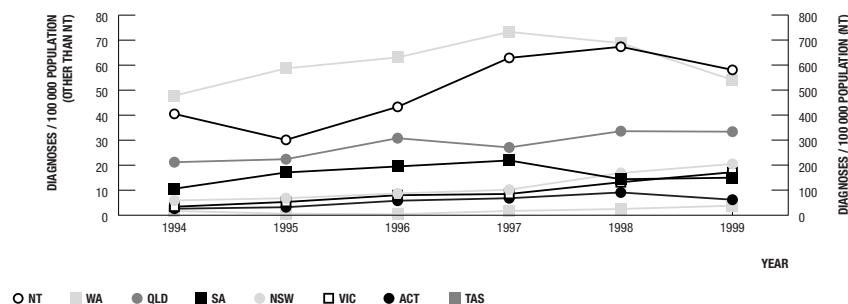
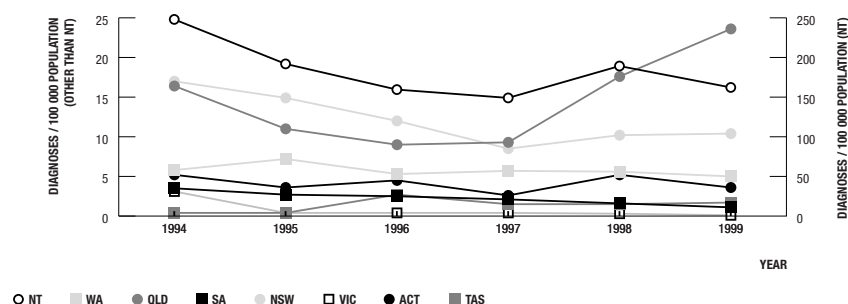


Figure 11 Syphilis diagnoses by year and State/Territory



Gay and other homosexually active men

Men with a history of homosexual contact continue to make up the great majority of people diagnosed with AIDS and HIV infection in Australia. Sexual transmission of HIV between men peaked in the mid 1980s, and then dropped later that decade (Figure 5).

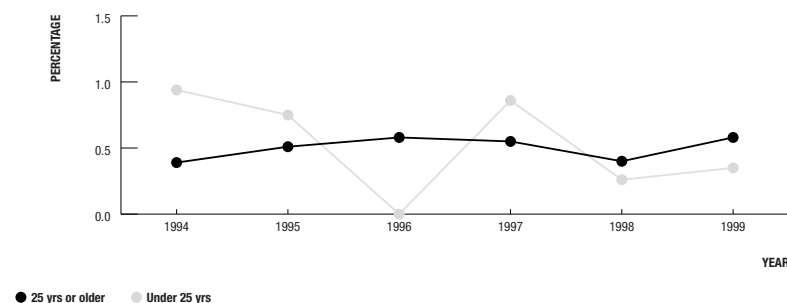
Available information for more recent years suggests a continuing stable incidence of HIV infection among gay men.

The number of reported diagnoses of newly acquired HIV infection among homosexually active men has remained stable at around 130 – 180 cases per year since 1993 (Figure 6).

Sexual transmission between men accounted for a higher proportion of diagnoses of newly acquired HIV infection (85%) than total HIV diagnoses (70%) in 1999. This difference may be due to greater use of HIV antibody testing among gay and other homosexually active men.

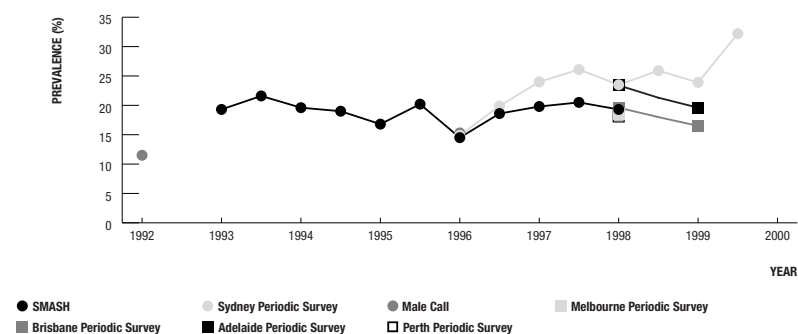
Over the past six years, no increase in HIV incidence has been observed among gay and other homosexually active men seen at metropolitan sexual health clinics (Figure 12).

Figure 12 HIV incidence among gay and other homosexually active men seen at metropolitan sexual health clinics



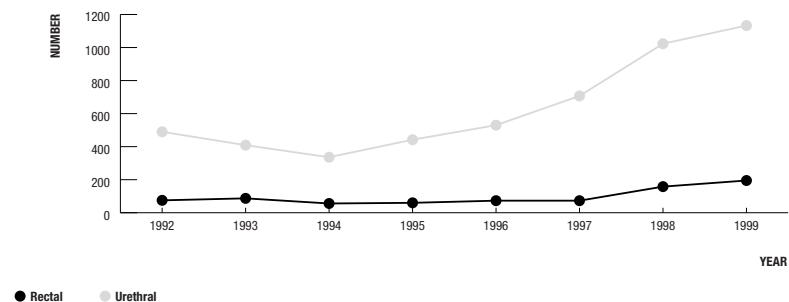
The Sydney Gay Community Periodic Survey, a 6-monthly cross sectional survey of gay and other homosexually active men, has recently detected an increase in the proportion of respondents reporting unprotected anal sex with casual partners. The proportion increased from 14% of respondents with casual partners in February 1996 to 28% in August 1997, and 32% in 1999 (Figure 13). Similar surveys carried out among gay and other homosexually active men in Adelaide and Brisbane in 1998 and 1999 did not show increases in unsafe sexual behaviour with casual partners.

Figure 13 Prevalence of unprotected anal intercourse with casual partners reported by gay and other homosexually active men by year and survey



Gonorrhoea surveillance data have provided another indication of a possible increase in sexual risk behaviour among gay and other homosexually active men in Australia. The number of rectal gonococcal isolates in men in NSW has increased steadily, from 72 in 1997 to 195 in 1999 (Figure 14). In other State and Territories, there has not been a similar indication of increasing gonorrhoea incidence.

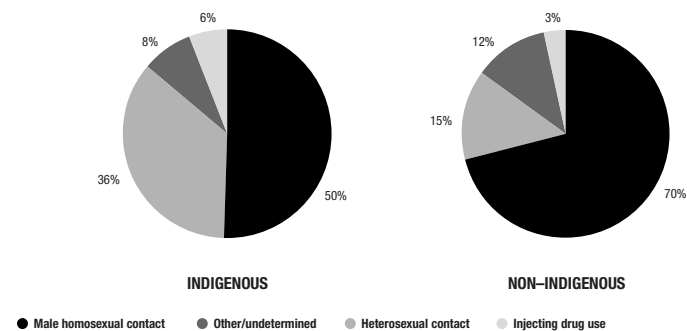
Figure 14 Gonococcal isolates among men in New South Wales



Indigenous Australians

Overall rates of HIV and AIDS diagnoses *per capita* have differed little between Indigenous and non-Indigenous people, and exposure to HIV in the majority of cases of HIV infection in both population groups was through male homosexual contact. However, a higher proportion of heterosexually acquired cases of HIV infection has been reported among Indigenous people (Figure 15). Diagnosed HIV infections among Indigenous people also differ from the pattern in non-Indigenous people in that a higher proportion has occurred in women (27.5%, vs 7.8% for the non-Indigenous cases).

Figure 15 HIV diagnoses, 1992–1999, by HIV exposure category and Indigenous status



High rates of sexually transmissible infections other than HIV infection were recorded among Indigenous people in the Northern Territory, South Australia and Western Australia which reported information on Indigenous status for at least 50% of diagnoses. In other States and Territories, interpretation of surveillance data on sexually transmissible infections in Indigenous people was limited by incomplete information on Indigenous status.

People who have injected drugs

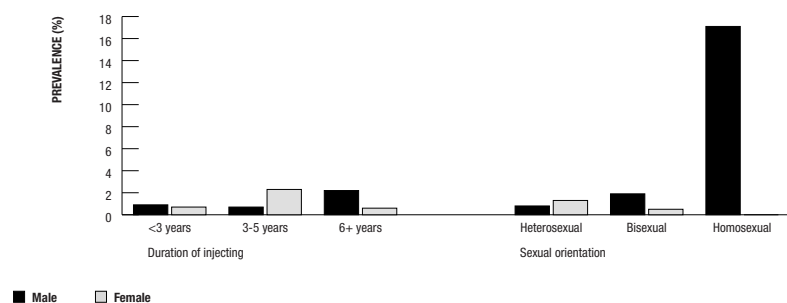
Approximately 8% of HIV diagnoses in Australia have been in people with a history of injecting drug use, of whom about half were men who also reported a history of homosexual contact.

HIV prevalence has been very low (less than 0.5%) in both men and women seen at metropolitan sexual health centres from 1994 to 1999 who identified themselves as injecting drug users (Figure 16). HIV prevalence among people attending needle and syringe programs has also remained low (less than 2%) except among men who identified themselves as homosexual (Figure 17).

Figure 16 HIV prevalence in people other than homosexually active men seen at metropolitan sexual health clinics by year, sex and HIV exposure category



Figure 17 HIV prevalence in people seen at needle and syringe programs, 1999, by duration of injecting drugs and sexual orientation



In contrast to the low HIV prevalence, hepatitis C prevalence among people attending needle and syringe programs remained high in 1999 (Figure 18), and was higher in females than in males. Hepatitis C prevalence was strongly related to duration of injecting in both men and women (Figure 19). Among people who had injected drugs for less than three years, hepatitis C prevalence increased from 13% in 1996 – 1997 to 20% in 1999. In 1999, hepatitis C prevalence among female injecting drug users with a history of injecting of less than three years (28%) was almost double that among males with the same injecting history (16%).

The percentage of injecting drug users seen at needle and syringe programs who reported use of a syringe after someone else in the last month increased from 14% in 1997 to 23% in 1999.

Figure 18 HIV and HCV prevalence in needle and syringe programs by year and sex

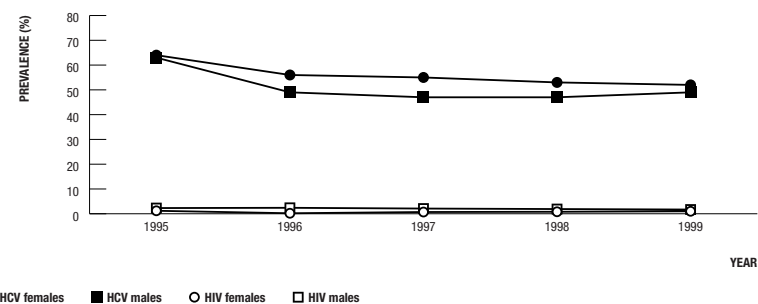
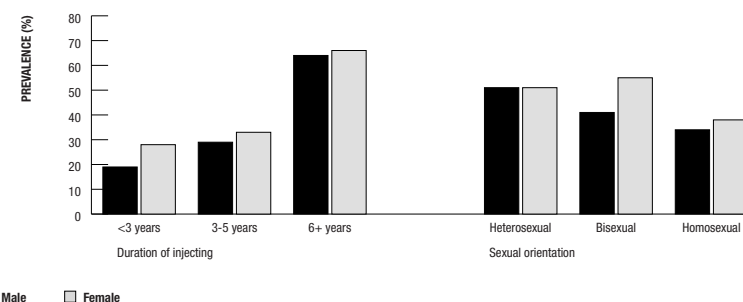


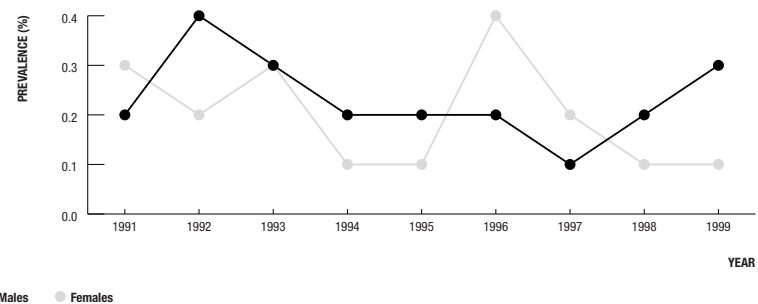
Figure 19 HCV prevalence in people seen at needle and syringe programs, 1999, by duration of injecting drugs and sexual orientation



People entering Australian prisons

HIV prevalence among people entering Australian prisons in 1991 to 1999 has been steady, at levels of less than 0.5% (Figure 20). Prevalence differed little between male and female entrants but was higher in New South Wales than in other States and Territories.

Figure 20 HIV prevalence in prison entrants



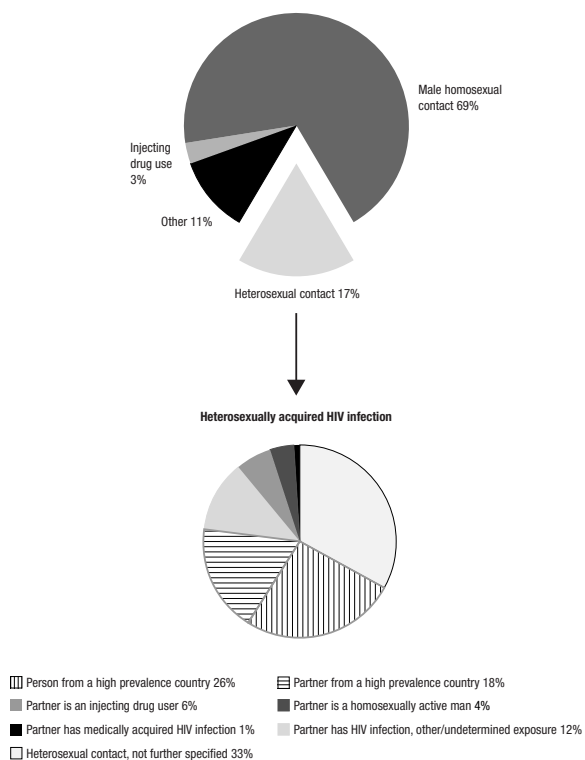
Female sex workers

Since 1992, information provided through a network of metropolitan sexual health clinics has indicated that among women identifying as sex workers, HIV prevalence remained low, at around 0.1%, with no evidence of an increase in HIV prevalence over this time (Figure 16).

Heterosexual transmission of HIV infection

In 1994 – 1999, exposure to HIV was attributed to heterosexual contact in 17% of new diagnoses. Among cases attributed to heterosexual contact, almost 50% were in people who were either from a high prevalence country in which HIV is transmitted primarily through heterosexual contact, or who had a history of heterosexual contact with a person from such a country (Figure 21). The sexual partner's history of exposure to HIV was not available in 33% of cases attributed to heterosexual contact.

Figure 21 HIV diagnoses in adults/adolescents, 1994-1999, by HIV exposure category



HIV incidence in women having heterosexual contact was estimated by back-projection to have increased during the late 1980s to a peak of around 80 new infections in 1990 followed by a decline (Figure 5). Similar trends were estimated for men who report heterosexual contact, but possible underreporting of homosexual contact in this group may reduce the validity of these trends. The annual number of HIV diagnoses attributed to heterosexual contact also increased in women in the late 1980s, and plateaued at around 70 diagnoses per year (Figure 22). The number of HIV diagnoses for which the source of exposure to HIV was attributed to receipt of blood or tissue declined over time, both among women with diagnosed HIV infection (Figure 22) and in the subgroup of women who had perinatally exposed children (Figure 23).

Figure 22 HIV diagnoses in women by year and exposure category¹

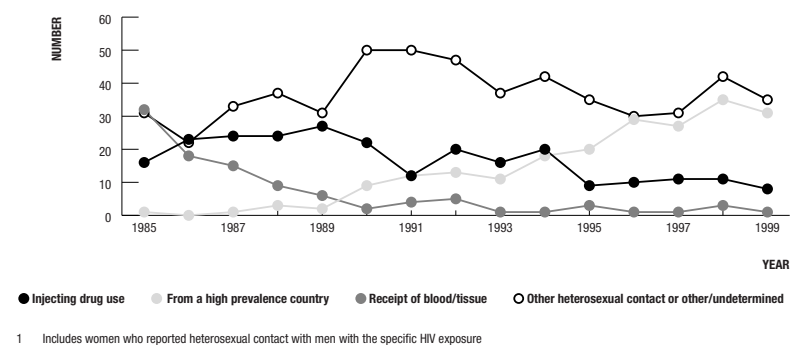
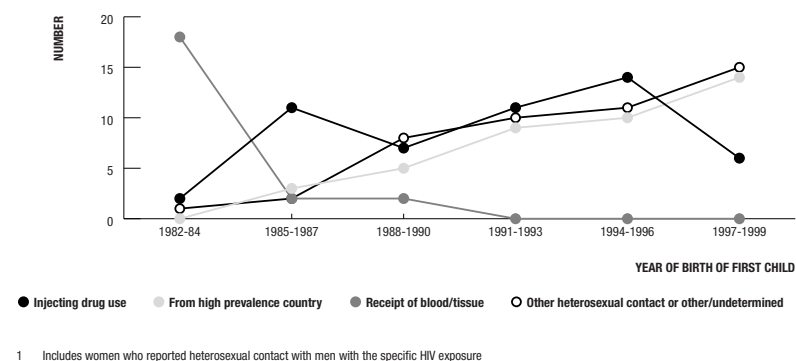
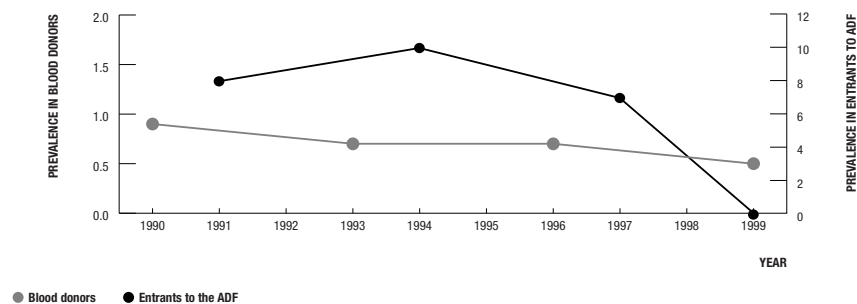


Figure 23 Women with HIV infection who had children by year and HIV exposure category¹



While HIV prevalence is not directly monitored at the national level among people whose only potential exposure to HIV is through heterosexual contact, two groups which provide some information on HIV prevalence in this population are blood donors and entrants to the Australian Defence Force (Figure 24). In blood donors, who undergo a screening interview to exclude people at higher risk of HIV infection, HIV prevalence has been below 1 per 100,000 donations since 1985, with some evidence of a decline during this period, possibly reflecting increasingly effective screening interview procedures. Entrants to the Australian Defence Force are informed that they will undergo HIV testing, and be excluded if found positive. Prevalence in entrants has been very low, with four HIV infected applicants identified between 1988 and 1999 among almost 57,000 people tested.

Figure 24 HIV prevalence¹ in blood donors and entrants to the Australian Defence Force by year²



¹ HIV prevalence per 100 000 donations in blood donors, per 100 000 entrants to the ADF
² Prevalence estimates are based on three year intervals for the ADF and two year intervals in 1990-1999 for blood donors

Among people who attend sexual health clinics, HIV prevalence was below 0.2% between 1993 and 1999 in both men and women whose only reported sexual contact was with the opposite sex, and who gave no history of injecting drug use (Figure 16). Annual surveys of first year university students enrolling at Macquarie University in Sydney show that the proportion with any previous sexual experience has remained constant at around 60% throughout this time period. There has been little change in the percentage of students reporting condom use with casual partners (Figure 25). At a national level, annual surveys of condom use indicate that, in 1994 – 1999, approximately 25% of sexually active people reported using condoms in the three months prior to the survey (Figure 26).

Figure 25 Sexual activity and condom use by 17 – 19 year old first year university students

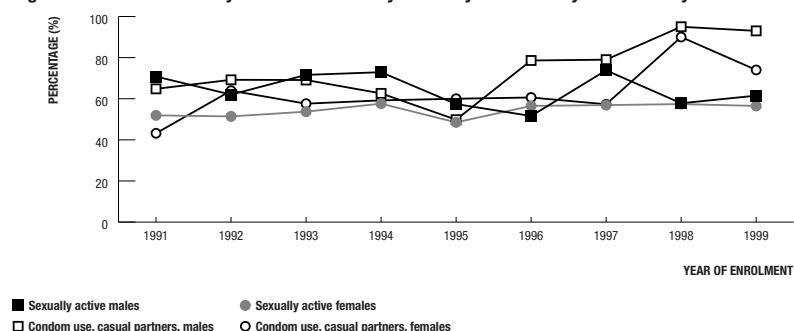
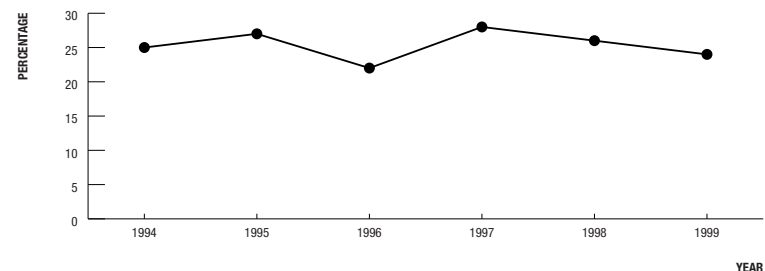


Figure 26 Condom use in the past 3 months reported by Ansell survey respondents

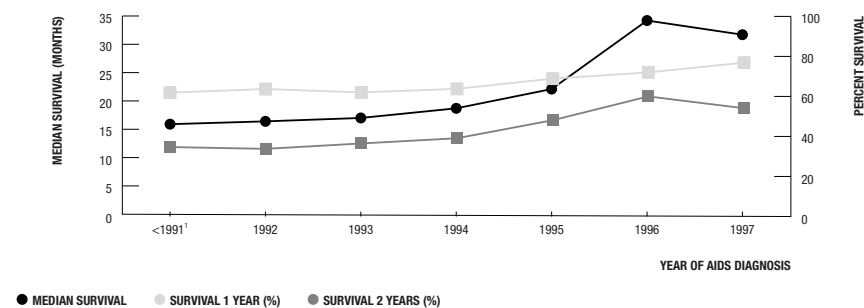


Illness and mortality in people with HIV infection

The effectiveness of combination antiretroviral therapy, demonstrated in controlled clinical trials in the mid 1990s, has now been translated in population settings in several countries, through large reductions in progression to AIDS and AIDS-related mortality.

In Australia, further evidence of the benefits of improved therapy has come from the substantial improvement in survival following the diagnosis of AIDS in 1996 and 1997 (Figure 27). Median survival for people diagnosed with AIDS was over 32 months in 1996 – 1997, an increase of 13 months compared to people diagnosed with AIDS in 1994.

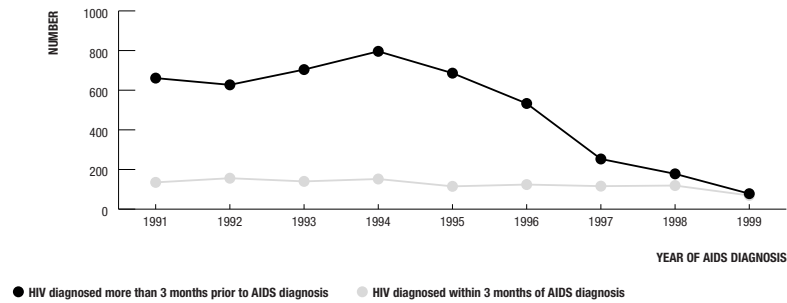
Figure 27 Survival following AIDS



¹ 1991 includes AIDS diagnosis prior to that year

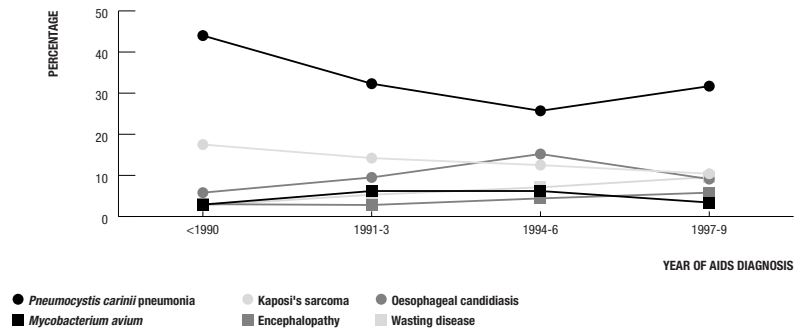
The impact of improved therapy for HIV infection in delaying progression to AIDS is supported by the striking difference in AIDS incidence trends between people whose HIV diagnosis was at least three months prior to their AIDS diagnosis, and those whose HIV diagnosis took place within three months of AIDS (Figure 28). A rapid decline in AIDS incidence has been observed among people diagnosed at least three months prior to AIDS, while no decline in AIDS incidence has occurred among people with late HIV diagnosis, who by definition would have received therapy for HIV infection for at most three months before developing AIDS.

Figure 28 AIDS incidence in adolescents/adults by timing of HIV diagnosis



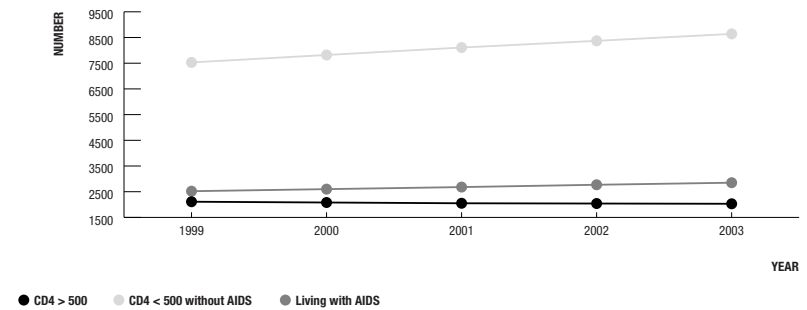
These trends have led to more than a doubling in the proportion of new AIDS cases in people with late HIV diagnosis, since the mid 1990s, with now almost one half of cases having undiagnosed HIV infection until around the time of AIDS diagnosis. The increasing proportion of AIDS cases with late HIV diagnosis has resulted in a reversal in the previously declining trend in the proportion of AIDS cases with a diagnosis of *Pneumocystis carinii* pneumonia (PCP) (Figure 29).

Figure 29 AIDS diagnoses by selected AIDS defining illnesses



The estimated numbers of people living with AIDS and people living with a CD4+ cell count of less than 500/ μ l and without AIDS are projected to increase through the year 2003 (Figure 30). The number of people living with a CD4+ cell count of more than 500/ μ l is expected to decline slightly.

Figure 30 Estimated number of people living with HIV by HIV disease stage, 1999 - 2003¹



¹ Including undiagnosed cases of HIV infection

Treatment for HIV infection

In the Sydney Gay Community Periodic Survey, 70 – 75% of gay and other homosexually active men with HIV infection reported that they were receiving combination antiretroviral therapy in 1997 – 1999. The percentage of homosexually active men in Brisbane who reported use of combination antiretroviral treatment remained stable in 1998 and 1999 at 68% whereas in Adelaide, the percentage increased from 65% in 1998 to 74% in 1999.

The Australian HIV Observational Database indicated that 68% of patients attending selected clinical sites was receiving triple combination antiretroviral treatment in 1999 (Figure 31).

The HIV Futures surveys, carried out in 1997 and 1999, also indicated that 66 – 67% of people with HIV infection were using three or more drugs.

Figure 31 Antiretroviral treatment among people enrolled on the Australian HIV Observational Database

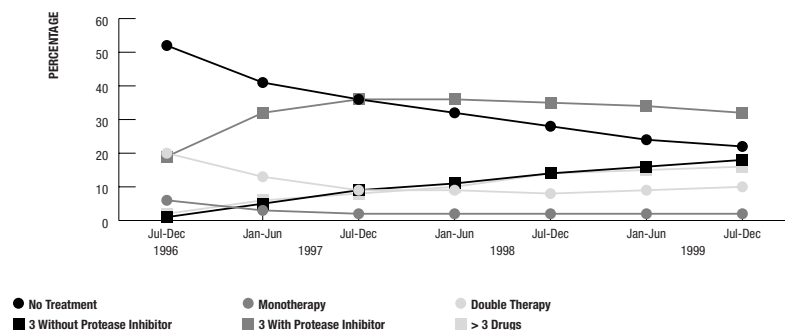
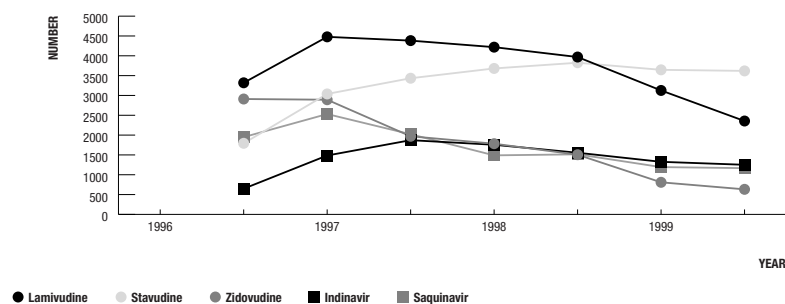


Figure 32 People prescribed antiretroviral treatment through the Highly Specialised Drugs Program



Based on data collated through the Highly Specialised Drugs Program, it is estimated that the total number of people prescribed antiretroviral treatment in Australia has plateaued at around 6,000 during 1998 and 1999. The number of people prescribed zidovudine decreased from 2,910 in the second half of 1996 to 1,910 in the second half of 1999, with a commensurate increase in the number of people prescribed stavudine in the same time periods, from 1,800 to 3,620 (Figure 32). The most commonly prescribed protease inhibitors in the second half of 1999 were nelfinavir (1,300 people) and indinavir (1,250).

Annual Surveillance Report

HIV/AIDS, Hepatitis C & Sexually Transmissible Infections in Australia

Tables

1 National surveillance for diagnoses of HIV infection, AIDS and perinatal exposure to HIV 1.1 National AIDS Registry

Table 1.1.1 Characteristics of AIDS cases by year. Number of AIDS diagnoses, median age, and percent of total cases by sex, late HIV diagnosis, State/Territory, HIV exposure category and AIDS defining condition

Description	Year of AIDS diagnosis										Total
	≤90	91	92	93	94	95	96	97	98	99	
Total cases	2 623	804	788	844	955	805	657	370	299	147	8 292
Males (%)	96.8	96.4	95.2	94.5	94.9	95.4	95.0	91.6	93.3	89.1	95.4
Median age (years)											
M	37	37	38	37	37	37	37	39	39	39	37
F	34	32	32	37	31	35	34	32	35	34	33
Late HIV diagnosis (%)											
M	–	19.3	19.7	16.8	16.9	15.3	19.6	32.6	40.9	48.8	20.8
F	–	14.3	41.7	19.5	28.9	23.5	18.2	41.9	52.6	37.5	29.7
State/Territory (%)											
ACT	1.2	1.0	1.0	1.1	1.5	1.1	1.4	0.0	1.7	0.0	1.1
NSW	62.6	55.3	54.6	57.0	57.9	58.1	54.6	52.4	55.2	60.5	58.2
NT	0.2	0.6	0.6	0.6	0.3	0.4	0.2	0.8	1.0	2.0	0.4
QLD	7.7	10.4	11.4	10.8	10.4	12.5	11.7	15.7	12.4	19.0	10.4
SA	3.5	4.7	4.2	5.3	5.2	3.7	4.7	6.2	6.4	6.1	4.5
TAS	0.5	0.4	1.3	0.1	0.5	0.2	1.1	0.5	1.0	0.0	0.6
VIC	19.7	22.8	21.1	21.3	19.9	20.1	20.5	20.3	18.4	10.2	20.2
WA	4.6	4.7	5.8	3.8	4.3	3.7	5.8	4.1	4.0	2.0	4.5
HIV exposure category (%)¹											
Male homosexual contact	87.8	83.4	82.2	80.7	83.5	81.3	79.7	74.8	67.4	63.7	82.7
Male homosexual contact and injecting drug use	3.2	4.1	5.0	7.5	5.0	5.4	5.9	3.4	3.2	5.2	4.6
Injecting drug use ²	1.8	3.8	2.1	3.3	3.1	3.6	3.9	5.7	8.2	5.9	3.1
Heterosexual contact	1.7	4.9	6.5	6.2	5.7	6.5	8.4	14.3	18.6	24.4	5.9
Haemophilia/coagulation disorder	1.8	1.4	1.7	1.3	1.1	1.9	1.1	1.1	0.4	0.0	1.5
Receipt of blood/tissue	3.4	2.0	2.0	1.0	1.0	0.6	1.0	0.3	1.4	0.7	1.9
Mother with/at risk for HIV infection	0.2	0.4	0.5	0.0	0.6	0.5	0.0	0.3	0.7	0.0	0.3
Other/undetermined	1.9	2.7	2.9	3.2	3.1	4.1	5.3	5.7	6.7	8.2	3.3
AIDS defining condition (%)											
<i>Pneumocystis carini</i> pneumonia (PCP)	36.5	31.2	26.9	22.2	22.4	19.8	22.7	25.4	23.1	21.8	28.0
Kaposi's sarcoma (KS)	14.4	12.1	12.3	11.0	9.9	10.9	11.4	9.5	9.4	7.5	12.0
PCP and other (not KS)	6.4	5.5	6.1	3.7	2.5	4.1	4.4	7.0	7.4	9.5	5.3
Oesophageal candidiasis	5.8	7.8	8.8	11.8	14.6	16.4	14.5	9.5	9.0	8.2	9.9
<i>Mycobacterium avium</i>	3.5	5.2	7.0	8.8	5.7	7.5	7.2	3.5	5.0	2.7	5.5
HIV wasting disease	2.7	3.7	5.8	6.2	7.3	8.8	5.0	7.0	10.4	14.3	5.4
Other conditions	30.7	34.5	33.1	36.4	37.6	32.5	34.9	38.1	35.8	36.1	33.8

¹ The 'Other/undetermined' category was excluded from the percentage of cases attributed to each HIV exposure category.

² Excludes males who also reported a history of homosexual contact.

Source: State/Territory health authorities

Table 1.1.2 Number of AIDS diagnoses adjusted for reporting delay by State/Territory, sex and year

State/Territory	Sex	Year of AIDS diagnosis										Total
		≤90	91	92	93	94	95	96	97 ¹	98 ¹	99 ¹	
ACT	M	31	7	8	9	13	7	7	0	4	0	86
	F	1	1	0	0	1	2	2	0	1	0	8
NSW	M	1 589	428	407	464	531	453	341	188	166	113	4 680
	F	50	16	21	15	20	14	18	9	9	13	185
NT	M	5	5	5	5	3	3	1	3	3	3	36
	F	0	0	0	0	0	0	0	0	0	0	0
QLD	M	193	82	85	82	96	96	74	49	37	32	826
	F	8	1	5	8	3	5	3	10	2	2	47
SA	M	88	36	30	42	45	29	30	22	16	8	346
	F	4	2	3	3	5	1	1	1	3	2	25
TAS	M	13	3	9	1	5	2	7	2	2	0	44
	F	1	0	1	0	0	0	0	0	1	0	3
VIC	M	505	177	163	165	177	150	129	69	57	20	1 612
	F	10	5	3	13	12	11	6	7	1	0	68
WA	M	114	37	43	30	36	28	35	11	10	3	347
	F	6	1	3	2	4	1	3	4	2	0	26
Total²		2 623	804	788	844	955	805	657	375	315	196	8 362

1 Adjusted for reporting delay; AIDS cases diagnosed in previous years were assumed to be completely reported.

2 Includes people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.3 Number of AIDS diagnoses adjusted for reporting delay by HIV exposure category, sex and year

HIV exposure category	Sex	Year of AIDS diagnosis										Total
		≤90	91	92	93	94	95	96	97 ¹	98 ¹	99 ¹	
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Male homosexual contact		2 256	650	627	659	768	626	496	265	199	123	6 669
Male homosexual contact and injecting drug use		80	31	38	56	46	42	37	12	9	8	359
Injecting drug use ²	M	28	18	10	17	19	20	19	12	19	6	168
	F	18	12	6	10	10	8	5	8	5	3	85
Heterosexual contact	M	26	32	29	26	27	30	31	30	43	29	303
	F	19	6	21	25	26	20	21	20	11	12	181
Haemophilia/coagulation disorder	M	41	10	13	10	10	15	7	4	1	0	111
	F	2	0	0	1	0	0	0	0	0	0	3
Receipt of blood/tissue	M	45	10	8	3	5	3	2	0	2	0	78
	F	33	4	6	5	3	2	4	1	2	1	61
Health care setting	M	0	0	0	1	0	0	0	0	0	0	1
	F	0	0	1	0	1	1	0	0	0	0	3
Other/undetermined	M	46	20	22	26	28	31	32	20	20	13	258
	F	4	2	0	0	1	0	3	1	1	1	13
Total adults/adolescents³		2 603	798	783	844	948	801	657	374	313	196	8 317
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for HIV infection	M	3	2	2	0	3	1	0	0	2	0	13
	F	3	1	2	0	3	3	0	1	0	0	13
Haemophilia/coagulation disorder	M	4	1	0	0	0	0	0	0	0	0	5
	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	9	1	1	0	0	0	0	0	0	0	11
	F	1	1	0	0	1	0	0	0	0	0	3
Total children		20	6	5	0	7	4	0	1	2	0	45
Total³		2 623	804	788	844	955	805	657	375	315	196	8 362

1 Adjusted for reporting delay; AIDS cases diagnosed in previous years were assumed to be completely reported.

2 Excludes males who also reported a history of homosexual contact.

3 Includes people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.4 Number of deaths following AIDS adjusted for reporting delay by State/Territory, sex and year of death

State/Territory	Sex	Year of death following AIDS										
		≤90	91	92	93	94	95	96	97 ¹	98 ¹	99 ¹	Total
ACT	M	17	5	8	6	14	7	3	1	1	2	64
	F	0	1	1	0	0	0	0	0	0	1	3
NSW	M	962	323	289	355	386	323	252	109	67	58	3 124
	F	32	8	10	12	19	18	5	4	2	1	111
NT	M	4	2	3	6	3	3	1	1	0	0	23
	F	0	0	0	0	0	0	0	1	0	0	1
QLD	M	118	53	59	77	75	76	62	29	23	15	587
	F	6	2	4	5	4	4	4	1	1	1	32
SA	M	44	21	28	30	29	33	26	8	13	5	237
	F	1	0	1	5	4	2	2	0	1	0	16
TAS	M	6	4	4	7	3	1	3	1	2	1	32
	F	1	0	0	0	1	0	0	0	0	0	2
VIC	M	305	128	152	157	152	146	119	59	41	26	1 285
	F	5	1	3	4	6	15	5	6	3	0	48
WA	M	66	35	35	27	30	22	22	14	2	1	254
	F	4	0	1	1	4	1	1	1	1	0	14
Total²		1 572	586	600	695	735	652	505	236	157	112	5 850

1 Adjusted for reporting delay; deaths following AIDS in previous years were assumed to be completely reported.

2 Includes people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.5 Number of deaths following AIDS adjusted for reporting delay by HIV exposure category, sex and year

Exposure category	Sex	Year of death following AIDS										
		≤90	91	92	93	94	95	96	97 ¹	98 ¹	99 ¹	Total
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Male homosexual contact		1 363	499	499	571	575	508	391	180	117	83	4 786
Male homosexual contact and injecting drug use		41	22	18	37	42	32	28	17	8	4	249
Injecting drug use ²	M	11	8	9	11	9	16	14	7	5	6	96
	F	7	3	8	10	5	8	4	4	0	0	49
Heterosexual contact	M	4	11	20	21	23	17	25	6	7	7	141
	F	10	3	7	11	22	26	11	7	5	2	104
Haemophilia/coagulation disorder	M	27	9	5	5	13	9	10	4	0	3	85
	F	1	0	0	0	2	0	0	0	0	0	3
Receipt of blood/tissue	M	35	8	8	5	4	4	2	1	0	0	67
	F	28	4	2	4	5	4	1	0	1	1	50
Health care setting	M	0	0	0	0	0	1	0	0	0	0	1
	F	0	0	0	0	1	1	0	0	0	0	2
Other/undetermined	M	30	12	18	10	24	22	18	7	12	6	159
	F	1	1	1	1	0	0	1	1	1	0	7
Total adults/adolescents³		1 559	583	597	689	730	649	505	235	156	112	5 815
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for HIV infection	M	0	0	0	3	2	2	0	0	0	0	7
	F	2	1	1	1	2	0	0	1	1	0	9
Haemophilia/coagulation disorder	M	3	1	0	1	0	0	0	0	0	0	5
	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	8	1	1	1	0	0	0	0	0	0	11
	F	0	0	1	0	1	1	0	0	0	0	3
Total children		13	3	3	6	5	3	0	1	1	0	35
Total²		1 572	586	600	695	735	652	505	236	157	112	5 850

1 Adjusted for reporting delay; deaths following AIDS in previous years were assumed to be completely reported.

2 Excludes males who also reported a history of homosexual contact.

3 Includes people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.6 Number (percent) of AIDS diagnoses in Australia, 1995 – 1999, and age standardised average annual incidence per 100 000 population¹ by region of birth

Region/ Country of birth	Number	Percent	Age standardised incidence
Australia	1 604	73.1	2.6
Overseas born	591	26.9	2.5
<i>New Zealand/ Pacific Islands</i>	110	5.0	4.3
<i>United Kingdom and Ireland</i>	110	5.0	1.9
<i>Other Europe</i>	130	5.9	2.1
<i>Middle East/ North Africa</i>	15	0.7	1.1
<i>Other Africa</i>	45	2.1	6.3
<i>Asia</i>	112	5.1	2.0
<i>North America</i>	34	1.5	6.9
<i>South and Central America</i>	35	1.6	7.0
Not reported	83		
Total	2 278	100.0	2.6

¹ Population estimates by country of birth and age group at 30 June 1996 from the Australian Bureau of Statistics.

Source: State/Territory health authorities

Table 1.1.7 Survival following the diagnosis of AIDS by year

Calendar year of diagnosis	Cases	Deaths to 31 Dec 99 ¹	Alive at 1 Jan 99 ²	Left Australia ³	Other ⁴	Median (months)	% Survival	
							1 year	2 year
≤90	2 623	2 453	8	30	132	15.7	59.4	29.8
91	804	724	4	9	67	16.3	61.9	34.7
92	788	678	7	14	89	16.8	63.7	33.8
93	844	665	21	4	154	17.4	62.0	36.5
94	955	624	42	4	285	19.1	63.8	39.1
95	805	372	57	0	376	22.5	68.9	48.1
96	657	186	61	0	410	34.6	72.0	60.0
97	370	72	48	0	250	32.1	76.9	54.1
98	299	46	64	0	189	–	–	–
99	147	9	138	0	0	–	–	–
Total	8 292	5 829	450	61	1 952	17.4	63.1	36.1

¹ Deaths occurring prior to 1 January 2000.

² Last medical contact on or after 1 January 1999.

³ Reported as having permanently left Australia with no subsequent report of status.

⁴ Last medical contact prior to 1 January 1999.

Source: State/Territory health authorities

Table 1.1.8 Number of AIDS diagnoses by AIDS-defining condition, year of diagnosis and sex

AIDS defining condition	Year of AIDS diagnosis								Total ¹
	≤90		91-93		94-96		97-99		
	M	F	M	F	M	F	M	F	
<i>Pneumocystis carinii</i> pneumonia (PCP)	938	17	624	22	492	30	184	11	2 324
Kaposi's sarcoma (KS)	375	3	286	1	257	1	74	0	998
KS and PCP alone	31	0	16	0	12	0	2	0	61
KS and other (not PCP)	49	0	41	0	32	0	9	0	131
PCP and other (not KS)	158	8	114	7	81	4	52	9	438
Oesophageal candidiasis	145	8	221	10	355	11	66	8	825
Toxoplasmosis	97	4	86	4	64	4	24	1	286
Cryptococcosis	89	2	93	3	87	4	35	5	320
Non-Hodgkin's lymphoma	94	3	84	7	103	5	46	1	343
<i>Mycobacterium avium</i>	71	5	142	8	133	16	27	1	404
Herpes simplex virus	69	6	52	6	39	2	13	2	189
HIV encephalopathy	76	3	68	1	101	6	41	6	303
Cytomegalovirus	71	0	122	2	98	3	15	0	312
HIV wasting disease	64	7	113	15	165	7	71	7	451
Cryptosporidiosis	40	3	68	0	70	2	9	1	193
<i>Mycobacterium tuberculosis</i>	14	2	18	2	9	2	4	0	51
Pulmonary tuberculosis ²	0	0	2	0	14	0	21	7	44
Recurrent pneumonia ²	0	0	7	1	26	1	17	1	54
Cervical cancer ²	0	0	0	2	0	1	0	2	5
Other single diagnoses	30	4	27	2	33	4	6	0	106
Other multiple diagnoses	127	5	139	10	127	9	33	4	454
Total¹	2 538	80	2 323	103	2 298	112	749	66	8 292

¹ Includes 23 people whose sex was reported as transgender.

² Included as an AIDS defining illness in Australia from January 1993.

Source: State/Territory health authorities

1.2 National HIV Database

Table 1.2.1 Characteristics of cases of newly diagnosed HIV infection by year. Number of cases, median age, and percent of total cases by sex, State/Territory and HIV exposure category

Characteristic	Year of HIV diagnosis											Total ¹
	≤90	91	92	93	94	95	96	97	98	99	2012	
Total cases	11 247	1 418	1 238	1 092	1 029	941	925	794	722	699	20 122	
Males (%)	95.6	94.0	92.9	93.1	91.4	92.2	92.1	91.0	87.4	88.7	93.9	
Median age (years)												
Males	32	32	33	32	33	34	34	34	35	35	32	
Females	29	29	31	30	28	31	29	30	30	30	29	
State/Territory (%)												
ACT	1.3	0.7	1.3	0.6	1.3	1.9	0.9	1.0	1.4	1.1	1.2	
NSW	61.1	57.4	57.7	55.7	49.7	57.8	50.4	51.6	51.2	51.7	58.0	
NT	0.5	0.4	0.5	0.9	0.7	0.2	0.5	1.4	1.7	1.0	0.6	
QLD	7.9	11.1	12.4	12.6	16.2	12.3	16.8	14.2	14.4	17.3	10.5	
SA	3.5	3.2	2.7	5.0	3.6	3.3	5.0	4.4	4.7	3.2	3.7	
TAS	0.4	0.4	0.8	0.2	0.2	0.6	0.3	0.0	0.4	0.4	0.4	
VIC	20.5	21.6	20.4	20.3	21.1	17.7	20.2	22.7	19.4	19.7	20.5	
WA	4.8	5.2	4.2	4.7	7.2	6.2	5.9	4.7	6.8	5.6	5.1	
HIV exposure category (%)²												
Male homosexual contact	82.2	78.4	77.0	78.6	74.6	74.0	75.5	72.4	64.4	64.0	78.4	
Male homosexual contact and injecting drug use	3.4	3.2	3.7	3.7	5.9	5.0	3.6	4.2	4.9	5.9	3.8	
Injecting drug use ³	4.9	4.7	5.0	3.5	3.3	4.4	2.8	3.0	3.3	5.7	4.5	
Heterosexual contact	4.0	11.6	12.4	13.4	14.2	15.2	17.0	19.3	26.1	23.4	9.7	
<i>Partner with/at risk of HIV infection</i>	<i>39.2</i>	<i>35.6</i>	<i>47.4</i>	<i>50.4</i>	<i>57.7</i>	<i>61.5</i>	<i>70.7</i>	<i>66.7</i>	<i>74.4</i>	<i>68.4</i>	<i>55.2</i>	
<i>Not further Specified</i>	<i>60.8</i>	<i>64.4</i>	<i>52.6</i>	<i>49.6</i>	<i>42.3</i>	<i>38.5</i>	<i>29.3</i>	<i>33.3</i>	<i>25.6</i>	<i>31.6</i>	<i>44.8</i>	
Haemophilia/coagulation disorder	3.3	0.4	0.4	0.0	0.0	0.2	0.0	0.0	0.2	0.5	1.8	
Receipt of blood/tissue	2.1	1.1	1.1	0.3	0.9	0.4	0.2	0.1	0.6	0.3	1.4	
Mother with/at risk of HIV infection	0.1	0.5	0.4	0.5	1.0	0.8	0.9	1.0	0.5	0.2	0.4	
Other/undetermined	24.7	18.0	12.0	10.4	6.4	8.9	11.0	12.1	12.7	16.9	19.1	

¹ Total includes 17 cases in males for which the date of HIV diagnosis was not reported.

² The 'Other/undetermined' category was excluded from the calculation of the percentage of cases attributed to each HIV exposure category.

³ Excludes males who also reported a history of homosexual contact.

Source: State/Territory health authorities

Table 1.2.2 Estimated number of cases of newly diagnosed HIV infection adjusted for multiple reporting by State/Territory, sex and year¹

State/Territory	Sex	Year of HIV diagnosis										Total
		≤90	91	92	93	94	95	96	97	98	99	
ACT	M	126	9	13	6	12	16	7	5	7	5	206
	F	8	1	3	1	2	2	1	3	2	3	26
NSW	M	5 320	671	673	570	482	528	415	343	311	298	9 613
	F	284	46	32	37	36	36	33	27	39	32	602
NT	M	46	5	6	10	7	2	5	7	11	4	103
	F	2	1	0	0	0	0	0	4	1	3	11
QLD	M	846	138	131	125	154	108	141	95	87	108	1 932
	F	36	13	15	5	10	10	11	18	13	17	148
SA	M	354	40	31	53	34	29	41	28	27	16	652
	F	29	2	4	2	4	1	4	6	6	3	61
TAS	M	47	6	10	2	1	6	3	0	1	1	79
	F	2	0	0	0	1	0	0	0	1	0	5
VIC	M	2 061	278	215	186	181	148	179	170	121	119	3 658
	F	77	14	23	20	18	10	14	13	9	12	210
WA	M	494	66	43	48	57	44	44	31	27	33	888
	F	27	3	10	3	15	14	9	6	19	17	113
Total	M	8 847	1 078	1 059	942	840	798	823	662	573	600	16 222
	F	465	80	87	68	86	73	72	77	90	78	1 176
Total		9 337	1 162	1 147	1 017	928	872	896	740	663	679	17 441

¹ Numbers given are the estimated number of HIV diagnoses in each year not reported in previous years. Numbers may not sum to totals because of rounding errors, diagnoses in people whose sex was reported as transgender, and diagnoses in more than one State/Territory.

Source: State/Territory health authorities

Table 1.2.3 Characteristics of diagnoses of newly acquired HIV infection¹, 1991 – 1999, by year. Total number of cases, median age, and number of cases by State/Territory, HIV exposure category, evidence of newly acquired HIV infection, sex and year

Characteristic	Sex	Year of HIV diagnosis									Total ²
		91	92	93	94	95	96	97	98	99	
Total cases		95	155	207	217	225	170	155	147	157	1 528
Males (%)		91.6	93.6	95.7	92.6	95.1	95.3	94.2	97.3	94.3	94.5
Median age (years)	M	29	29	29	29	31	31	32	31	32	31
	F	29	28	27	27	32	22	32	19	32	28
State/Territory											
ACT	M	2	2	1	1	6	2	0	3	1	18
	F	0	0	0	1	0	0	0	0	0	1
NSW	M	22	94	137	113	126	85	66	67	82	792
	F	3	5	5	7	4	2	2	0	3	31
NT	M	2	0	2	1	0	0	2	2	1	10
	F	0	0	0	0	0	0	1	0	0	1
QLD	M	12	5	5	18	27	19	18	19	26	149
	F	3	1	1	2	2	2	0	0	2	13
SA	M	1	3	20	4	11	6	9	6	6	66
	F	0	1	0	0	0	0	2	0	0	3
TAS	M	1	2	0	1	1	0	0	0	1	6
	F	0	0	0	0	0	0	0	0	0	0
VIC	M	41	37	29	60	37	40	47	38	29	358
	F	2	2	2	5	3	2	3	1	2	22
WA	M	6	3	4	3	6	10	4	8	2	46
	F	0	0	0	1	1	2	0	3	1	8
HIV exposure category											
Male homosexual contact	M	75	127	173	170	186	147	128	118	119	1 243
Male homosexual contact and injecting drug use	M	3	9	6	16	11	5	9	12	11	82
Injecting drug use ³	M	1	5	4	4	6	2	2	1	6	31
	F	3	4	2	2	1	1	0	2	2	17
Heterosexual contact	M	5	3	12	7	8	6	7	7	8	63
	F	5	4	6	11	9	7	6	2	6	56
Health care setting ⁴	M	0	0	0	1	0	0	0	0	0	1
	F	0	1	0	2	0	0	0	0	0	3
Other/undetermined	M	3	2	3	3	3	2	0	5	4	25
	F	0	0	0	1	0	0	2	0	0	3
Evidence of newly acquired infection											
Negative/indeterminate test only	M	69	99	120	105	93	85	68	67	75	781
	F	5	5	7	8	6	5	5	3	2	46
HIV seroconversion illness only	M	9	25	22	39	62	27	36	34	32	286
	F	2	1	0	5	2	2	0	0	5	17
Negative/indeterminate test and HIV seroconversion illness	M	9	22	56	57	59	50	42	42	41	378
	F	1	3	1	3	2	1	3	1	1	16

1 Newly acquired HIV infection was defined as newly diagnosed HIV infection with a negative or indeterminate HIV antibody test result, or a diagnosis of HIV seroconversion illness, within one year of HIV diagnosis.

2 Totals include 4 people whose sex was reported as transgender.

3 Excludes males who also reported a history of homosexual contact.

4 'Health care setting' includes 4 cases of occupationally acquired HIV infection.

Source: State/Territory health authorities

Table 1.2.4 Median CD4+ cell count at diagnosis of HIV infection in adults/adolescents (number of HIV diagnoses with CD4+ cell count), 1995 – 1999, by State/Territory, HIV exposure category, newly acquired infection status, sex and year

Description	Sex	Year of HIV diagnosis				
		1995	1996	1997	1998	1999
State/Territory						
ACT	M	540 (6)	385 (4)	290 (5)	90 (6)	465 (4)
	F	350 (2)	590 (1)	265 (2)	195 (2)	850 (3)
NSW	M	410(187)	427(203)	410(179)	343(132)	430(147)
	F	399 (14)	390 (16)	290 (17)	352 (24)	432 (11)
NT	M	580 (1)	210 (4)	440 (7)	465 (10)	105 (4)
	F	– (0)	– (0)	399 (4)	520 (1)	90 (3)
QLD	M	340 (90)	355(126)	400 (92)	410 (83)	410 (93)
	F	340 (7)	300 (9)	290 (17)	310 (13)	440 (17)
SA	M	500 (24)	421 (34)	350 (29)	334 (27)	432 (17)
	F	810 (1)	689 (3)	600 (6)	286 (5)	121 (3)
TAS	M	285 (4)	100 (3)	– (0)	867 (2)	543 (2)
	F	– (0)	– (0)	– (0)	12 (1)	250 (1)
VIC	M	450(119)	380(152)	350(143)	360(117)	400(105)
	F	295 (7)	360 (13)	254 (13)	500 (9)	325 (10)
WA	M	468 (27)	351 (34)	340 (27)	400 (27)	334 (22)
	F	572 (12)	531 (8)	276 (5)	348 (18)	624 (4)
Exposure category						
Male homosexual contact ¹	M	450(404)	425(468)	420(395)	420(311)	472(296)
Injecting drug use ²	M	410 (7)	325 (10)	412 (11)	440 (9)	340 (17)
	F	358 (2)	515 (2)	303 (4)	376 (6)	810 (1)
Heterosexual contact	M	192 (37)	221 (56)	290 (55)	221 (67)	282 (53)
	F	400 (36)	410 (47)	295 (56)	375 (62)	425 (48)
Other/undetermined	M	260 (10)	178 (26)	175 (21)	91 (17)	269 (28)
	F	176 (5)	150 (1)	265 (4)	12 (5)	260 (3)
Newly acquired HIV infection status						
Diagnoses of newly acquired HIV infection ³	M	551(136)	615(123)	610(121)	530(119)	504 (114)
	F	420 (7)	750 (8)	637 (8)	610 (4)	650 (7)
Other HIV diagnoses	M	310(322)	310(437)	320(361)	290(285)	357(280)
	F	365 (36)	345 (42)	281 (56)	350 (69)	329 (45)
Total⁴		400(502)	389(611)	374(546)	364(479)	410(447)

1 Includes males who also reported a history of injecting drug use.

2 Excludes males who also reported a history of homosexual contact.

3 Newly acquired HIV infection was defined as newly diagnosed HIV infection with a negative or indeterminate HIV antibody test result, or a diagnosis of HIV seroconversion illness, within one year of HIV diagnosis.

4 Total includes people whose sex was reported as transgender and people whose sex was not reported.

Source: State/Territory health authorities

Table 1.2.5 Number of cases of newly acquired HIV infection, 1991 – 1998, and number diagnosed with AIDS by year of, and number of years following, HIV diagnosis

	Year of HIV diagnosis								
	1991	1992	1993	1994	1995	1996	1997	1998	Total
Number of cases of newly acquired HIV infection	95	155	207	217	225	170	155	147	1 371
Number of cases of newly acquired HIV infection with AIDS by number of years following HIV diagnosis									
Less than 1 year	2	5	4	5	10	2	4	1	33
1 – 2	1	3	7	8	7	3	2	0	31
2 – 3	1	8	8	6	3	0	0	–	26
3 – 4	2	5	7	1	0	1	–	–	16
4 – 5	4	4	3	1	0	–	–	–	12
5 or more	5	4	0	3	–	–	–	–	12
Total	15	29	29	24	20	6	6	1	130

Source: State/Territory health authorities

Table 1.2.6 Number of specimens tested for HIV antibody in public health laboratories, 1990 – 1999, by State/Territory and year of test

State/Territory	Year of HIV antibody test									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
ACT	6 500	9 855	10 284	10 767	10 300	9 368	7 053	7 044	8 293	6 574
NSW	390 475	351 617	352 391	346 652	344 903	300 944	270 735	286 701	299 434	281 178
NT	10 626	9 322	8 992	10 002	11 283	12 122	13 111	13 424	13 137	15 374
QLD	111 287	128 988	141 896	147 329	137 133	154 992	141 741	156 738	164 388	143 829
SA	57 760	68 666	78 233	82 521	77 628	69 054	60 295	58 363	15 848	53 638
TAS	8 261	10 054	12 617	12 873	14 000	12 628	13 192	11 347	11 883	12 368
VIC	128 402	151 794	163 443	163 497	132 100	108 230	119 360	94 846	113 342	106 502
WA	52 438	70 862	67 257	70 733	76 544	72 317	77 435	73 826	79 308	78 194
Total	765 749	801 158	835 113	844 374	803 891	739 655	702 922	702 289	705 633	697 657

Source: National Serology Reference Laboratory, Australia

1.3 Back-projection estimation

Table 1.3.1 Estimated number of people living with HIV¹ by HIV disease stage, 1999 – 2003

Year	Estimated number of people			
	Living with HIV	CD4>500 cells/µl	CD4<500 cells/µl without AIDS	Living with AIDS ²
1999	12 160	2 110	7 530	2 520
2000	12 500	2 080	7 820	2 600
2001	12 840	2 050	8 110	2 680
2002	13 180	2 040	8 370	2 770
2003	13 520	2 030	8 640	2 850

- 1 Estimated numbers based on back-projection analyses, including people with diagnosed and undiagnosed HIV infection, and assuming 450 new infections per year since 1999.
- 2 In 1999, based on reported AIDS diagnoses and deaths following AIDS adjusted for reporting delay. In other years, based on back-projection estimates of AIDS incidence and expected survival distribution.

Source: State/Territory health authorities

1.4 Assessment of patient report of exposure to HIV, 1994 – 1999

Table 1.4.1 Number of cases of newly diagnosed HIV infection included in the assessment of patient reported HIV exposure history, 1994 – 1999, number for which the exposure assessment questionnaire was returned and number with additional information on HIV exposure history available on the returned questionnaire¹ by State/Territory and year

State/ Territory	Number included in the assessment			Number with returned questionnaire			Number with additional information on HIV exposure history		
	94 – 96	97 – 99	94 – 99	94 – 96	97 – 99	94 – 99	94 – 96	97 – 99	94 – 99
ACT	14	13	27	13	12	25	11	12	23
NSW	443	446	889	200	155	355	166	119	285
NT	7	17	24	6	17	23	5	17	22
QLD	77	106	183	76	70	146	70	68	138
SA	20	33	53	19	33	52	18	31	49
TAS	3	2	5	2	2	4	1	2	3
VIC	110	127	237	108	121	229	99	111	210
WA	82	67	149	63	52	115	58	52	110
Total	756	811	1 567	487	462	949	428	412	840

¹ Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (76), people whose medical condition limited reporting of an HIV exposure history (7) and people who were reported to have died (26).

Source: State/Territory health authorities

Table 1.4.2 Number of cases of newly diagnosed HIV infection included in the assessment of patient reported HIV exposure history, 1994 – 1999, number for which the exposure assessment questionnaire was returned and number with additional information on HIV exposure history available on the returned questionnaire¹ by year and HIV exposure category reported at HIV notification

HIV exposure category reported at notification	Number included in the assessment			Number with returned questionnaire			Number with additional information on HIV exposure history		
	94 – 96	97 – 99	94 – 99	94 – 96	97 – 99	94 – 99	94 – 96	97 – 99	94 – 99
Injecting drug use	94	77	171	64	55	119	50	49	99
<i>Heterosexual</i>	56	53	109	45	47	92	40	44	84
<i>Not further specified</i>	38	24	62	19	8	27	10	5	15
Heterosexual contact	405	445	850	328	327	655	307	319	626
<i>From a high prevalence country</i>	86	133	219	71	110	181	68	108	176
<i>Partner from a high prevalence country</i>	71	85	156	55	61	116	54	59	113
<i>Other partner with/at risk of HIV infection</i>	100	97	197	90	67	157	85	66	151
<i>Not further specified</i>	148	130	278	112	89	201	100	86	186
Receipt of blood/tissue	16	9	25	13	4	17	13	4	17
Health care setting	4	0	4	4	0	4	4	0	4
Other/undetermined	237	280	517	78	76	154	54	40	94
Total	756	811	1 567	487	462	949	428	412	840

¹ Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (76), people whose medical condition limited reporting of an HIV exposure history (7) and people who were reported to have died (26).

Source: State/Territory health authorities

Table 1.4.3 Number of cases of newly diagnosed HIV infection, 1994 – 1999, with additional information on HIV exposure history available on the returned exposure assessment questionnaire¹, by HIV exposure category reported at notification of HIV infection and on the questionnaire

HIV exposure category reported at HIV notification	HIV exposure category documented on the questionnaire										Total
	Male homosexual contact	Injecting drug use			Heterosexual contact			Receipt of blood/tissue		Other/undetermined	
		Heterosexual	Not further specified	Total	From a high prevalence country	Partner from a high prevalence country	Other partner with/at risk of HIV infection	Total	Receipt of blood/tissue	Other/undetermined	
Injecting drug use	1	66	15	81	2	0	7	10	0	2	94
<i>Heterosexual</i>	1	54	3	57	1	0	6	8	0	2	68
<i>Not further specified</i>	0	12	12	24	1	0	1	2	0	0	26
Heterosexual contact	5	10	1	11	193	104	133	564	0	24	604
<i>From a high prevalence country</i>	0	0	0	0	151	6	1	161	0	0	161
<i>Partner from a high prevalence country</i>	0	1	0	1	27	76	4	113	0	3	117
<i>Other partner with/at risk for HIV infection</i>	1	4	1	5	3	3	83	104	0	1	111
<i>Not further specified</i>	4	5	0	5	12	19	45	186	0	20	215
Receipt of blood/tissue	0	0	0	0	2	0	0	2	13	5	20
Other/undetermined	6	4	0	4	7	3	5	43	0	69	122
Total	12	80	16	96	204	107	145	619	13	100	840

¹ Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (76), people whose medical condition limited reporting of an HIV exposure history (7) and people who were reported to have died (26).

Source: State/Territory health authorities

1.5 National surveillance for perinatal exposure to HIV, 1982 – 1999

Table 1.5.1 Number of women with perinatally HIV exposed children, cumulative to 31 December 1999, and number and population rate of newly diagnosed HIV infection in women with perinatally HIV exposed children, 1994 – 1999, by State/Territory of the woman's HIV diagnosis

State/ Territory	1994 – 1999		Cumulative to 31 Dec 1999
	Number	Rate ¹	
ACT	4	0.75	8
NSW	24	0.25	74
NT	1	0.32	1
QLD	19	0.36	28
SA	2	0.09	8
TAS	0	0.0	0
VIC	11	0.15	24
WA	12	0.43	19
Total	73	0.25	162

¹ Average annual rate per 100 000 women in the age group 15 – 49 years, June 1996 population.

Source: Australian Paediatric Surveillance Unit; State/Territory health authorities

Table 1.5.2 Number of women with perinatally HIV exposed children, 1982 – 1999, by time of the woman's HIV diagnosis relative to the first exposed child's birth

First exposed child's year of birth	Interval of the woman's HIV diagnosis					Total
	Before the birth (years)			At or after the birth	Total	
	< 1	1–2	> 2			
1982 – 1984	0	0	0	0	20	20
1985 – 1987	4	1	0	5	13	18
1988 – 1990	7	3	2	12	10	22
1991 – 1993	7	3	8	18	12	30
1994 – 1996	11	0	7	18	18	36
1997 – 1999	12	4	15	31	5	36
Total	41	11	32	84	78	162

Source: Australian Paediatric Surveillance Unit; State/Territory health authorities

Table 1.5.3 Number of women with perinatally HIV exposed children, 1982 – 1999, and number of perinatally exposed children, by the woman's HIV exposure category

HIV exposure category	Number of women with exposed children	Number of exposed children
Injecting drug use	32	40
Heterosexual contact	105	134
<i>Sex with IDU</i>	19	24
<i>Sex with bisexual male</i>	11	14
<i>From high prevalence country</i>	28	34
<i>Sex with person from a high prevalence country</i>	13	17
<i>Sex with person with medically acquired HIV</i>	3	4
<i>Sex with person with HIV infection, other exposure</i>	14	19
<i>Not further specified</i>	17	22
Receipt of blood/tissue	20	24
Other/undetermined	5	6
Total	162	204

Source: Australian Paediatric Surveillance Unit; State/Territory health authorities

Table 1.5.4 Number of perinatally exposed children, 1982 – 1999, and number with diagnosed HIV infection by year of the child's birth and time of the woman's HIV diagnosis relative to the child's birth

Child's year of birth	Interval of the woman's HIV diagnosis					
	Before the birth		At or after the birth		Total	
	Number exposed	Number with HIV	Number exposed	Number with HIV	Number exposed	Number with HIV
1982 – 1984	0	0	20	5	20	5
1985 – 1987	6	0	16	7	22	7
1988 – 1990	14	4	12	7	26	11
1991 – 1993	22	6	14	9	36	15
1994 – 1996	30	10	23	11	53	21
1997 – 1999	41	0	6	4	47	4
Total	113	20	91	43	204	63

Source: Australian Paediatric Surveillance Unit; State/Territory health authorities

2 National monitoring of diagnoses of sexually transmissible infections and blood borne viruses

2.1 Notification of specific sexually transmissible infections and blood borne viruses to the National Notifiable Diseases Surveillance System

Table 2.1.1 Number and rate¹ of diagnoses of hepatitis A infection, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis									
	1995		1996		1997		1998		1999	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	15	4.9	62	20.1	53	17.2	53	15.9	9	2.9
NSW	620	10.0	980	15.8	1 455	23.4	924	15.6	406	6.5
NT	52	28.6	76	41.8	92	50.6	45	23.6	79	43.4
QLD	451	13.5	416	12.5	894	26.8	1 051	31.3	353	10.6
SA	34	2.3	38	2.6	94	6.4	98	6.7	121	8.2
TAS	9	1.9	9	1.9	3	0.6	8	1.7	5	1.1
VIC	246	5.4	460	10.1	363	8.0	168	3.9	262	5.7
WA	173	9.8	109	6.2	122	6.9	146	8.0	279	15.8
Total	1 600	8.7	2 150	11.7	3 076	16.8	2 493	13.8	1 514	8.3

¹ Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.2 Number of diagnoses of hepatitis A infection, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹
0 – 4	33	30	63	64	61	126	86	65	151	81	59	142	56	51	107
5 – 14	138	126	264	182	187	371	257	245	503	209	217	428	143	154	297
15 – 19	61	54	115	91	61	152	129	97	226	111	94	206	69	67	136
20 – 29	318	156	475	481	159	642	559	311	871	484	270	754	280	185	468
30 – 39	271	113	385	374	130	504	420	228	650	315	144	460	145	108	254
40 – 49	111	46	157	134	43	177	225	139	365	186	83	269	72	49	122
50 – 59	34	21	55	63	35	98	110	61	171	84	46	131	29	24	53
60+	37	32	69	33	37	71	64	70	134	44	43	88	35	38	73
Not reported	9	7	17	4	5	9	3	2	5	11	4	15	2	1	4
Total	1 012	585	1 600	1 426	718	2 150	1 853	1 218	3 076	1 525	960	2 493	831	677	1 514

¹ Totals include diagnoses in people whose sex was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.1.3 Number and rate¹ of diagnoses of newly acquired hepatitis B infection, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis									
	1995		1996		1997		1998		1999	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	13	4.2	4	1.3	2	0.6	1	0.3	3	1.0
NSW	66	1.1	47	0.8	50	0.8	53	0.9	67	1.1
NT	15	8.2	5	2.8	19	10.4	18	9.9	13	7.1
QLD	64	1.9	34	1.0	40	1.2	48	1.4	52	1.6
SA	33	2.2	18	1.2	16	1.1	18	1.2	19	1.3
TAS	7	1.5	8	1.7	1	0.2	6	1.3	5	1.1
VIC	92	2.0	98	2.1	119	2.6	86	1.9	93	2.0
WA	32	1.8	11	0.6	0	0.0	33	1.9	43	2.4
Total	322	1.8	225	1.2	247	1.3	263	1.4	295	1.6

¹ Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.4 Number of diagnoses of newly acquired hepatitis B infection, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T ¹	M	F	T	M	F	T	M	F	T	M	F	T ¹
0 – 4	2	0	2	0	0	0	1	1	2	2	0	2	0	2	2
5 – 14	3	3	6	3	4	7	5	2	7	5	6	11	2	2	4
15 – 19	17	18	35	12	20	32	25	21	46	19	17	36	24	27	51
20 – 29	89	61	150	58	28	86	54	35	89	61	40	101	84	37	122
30 – 39	45	21	66	47	10	57	36	18	54	37	17	55	41	21	62
40 – 49	29	8	37	13	5	18	18	3	21	20	8	28	22	7	29
50 – 59	9	1	10	8	3	11	10	5	15	10	3	13	10	5	15
60+	11	3	14	6	8	14	3	9	12	9	5	14	7	2	9
Not reported	1	1	2	0	0	0	1	0	1	2	1	3	0	1	1
Total	206	116	322	147	78	225	153	94	247	165	97	263	190	104	295

¹ Totals include diagnoses in people whose sex was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.1.5 Number and rate¹ diagnoses of hepatitis C infection, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis									
	1995		1996		1997		1998		1999	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	330	107.1	270	87.6	318	103.2	298	96.7	297	96.4
NSW	8 319	134.1	8 677	139.8	7 371	118.8	7 700	124.1	9 004	145.1
NT	309	169.9	217	119.3	341	187.5	297	163.3	221	121.5
QLD	2 920	87.5	2 884	86.4	2 953	88.4	3 005	90.0	3 039	91.0
SA	1 190	80.7	1 179	80.0	963	65.3	926	62.8	935	63.4
TAS	268	56.5	291	61.3	236	49.7	280	59.0	320	67.4
VIC	4 506	98.8	4 597	100.8	4 940	108.3	5 683	124.0	6 485	142.2
WA	1 146	64.9	1 146	64.9	1 137	64.4	1 248	70.7	1 108	62.8
Total	18 988	103.7	19 261	105.2	18 259	99.7	19 437	106.9	21 409	116.9

¹ Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.6 Number of diagnoses of hepatitis C infection, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹
0 – 4	67	72	150	66	65	135	93	80	188	60	51	113	69	66	144
5 – 14	38	17	55	44	27	73	32	23	58	32	24	57	35	26	63
15 – 19	215	265	482	340	344	689	415	399	847	497	544	1 059	667	656	1 350
20 – 29	3 175	2 118	5 336	3 241	2 076	5 348	3 085	1 834	5 153	3 302	2 104	5 488	4 129	2 346	6 600
30 – 39	5 411	2 919	8 375	5 175	2 761	7 980	4 246	2 342	6 984	4 140	2 390	6 591	4 536	2 491	7 126
40 – 49	2 031	937	2 983	2 331	1 020	3 372	2 302	978	3 469	2 713	1 236	3 988	3 044	1 387	4 479
50 – 59	336	234	575	356	279	636	344	217	583	433	249	693	490	282	784
60+	502	365	873	483	424	915	411	351	833	462	380	856	407	367	785
Not reported	97	48	159	65	34	113	66	37	144	346	223	592	38	21	78
Total	11 872	6 975	18 988	12 101	7 030	19 261	10 994	6 261	18 259	11 985	7 201	19 437	13 415	7 642	21 409

¹ Totals include diagnoses in people whose sex was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.1.7 Number of diagnoses of newly acquired hepatitis C infection, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis ¹				
	1995	1996	1997	1998	1999
ACT	7	10	2	8	20
NSW	41	22	19	106	69
NT	5	3	1	0	0
QLD	–	–	–	–	–
SA	34	31	52	73	86
TAS	1	6	2	17	18
VIC	–	–	9	21	66
WA	1	7	66	127	109
Total	89	79	151	352	368

¹ Dashes (–) indicate that data were not available.

Source: National Notifiable Diseases Surveillance System

Table 2.1.8 Number and rate¹ of diagnoses of gonorrhoea, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis									
	1995		1996		1997		1998		1999	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	10	3.2	18	5.8	21	6.8	28	9.1	19	6.2
NSW	420	6.8	538	8.7	636	10.3	1 049	16.9	1 274	20.5
NT	547	300.8	787	432.8	1 143	628.6	1 224	673.1	1 056	580.7
QLD	749	22.4	1 028	30.8	906	27.1	1 122	33.6	1 117	33.4
SA	252	17.1	288	19.5	323	21.9	213	14.4	221	15.0
TAS	3	0.6	2	0.4	8	1.7	12	2.5	18	3.8
VIC	243	5.3	366	8.0	386	8.5	603	13.2	785	17.2
WA	1 036	58.7	1 114	63.1	1 294	73.3	1 215	68.8	955	54.1
Total	3 260	17.8	4 141	22.6	4 717	25.8	5 466	29.9	5 445	29.7

¹ Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.9 Number of diagnoses of gonorrhoea, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹
0 – 4	20	18	38	9	25	34	52	56	108	19	28	47	20	21	41
5 – 14	14	38	52	33	72	105	79	133	212	39	98	137	31	88	119
15 – 19	377	302	685	444	423	867	388	512	901	479	535	1 017	476	513	991
20 – 29	1 023	470	1 497	1 146	661	1 807	1 191	753	1 948	1 425	789	2 222	1 454	697	2 156
30 – 39	547	106	654	673	204	877	778	256	1 037	1 044	304	1 349	1 147	264	1 420
40 – 49	160	33	194	240	65	305	259	70	329	370	85	456	420	69	492
50 – 59	56	11	68	76	16	92	84	15	99	101	21	123	135	16	153
60+	22	4	26	28	2	30	27	4	31	37	7	44	40	3	44
Not reported	24	16	46	17	7	24	37	15	52	50	15	71	22	6	29
Total	2 243	998	3 260	2 666	1 475	4 141	2 895	1 814	4 717	3 564	1 882	5 466	3 745	1 677	5 445

¹ Totals include diagnoses in people whose sex was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.1.10 Number and rate¹ of diagnoses of syphilis, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis									
	1995		1996		1997		1998		1999	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	11	3.6	14	4.5	8	2.6	16	5.2	11	3.6
NSW	923	14.9	745	12.0	528	8.5	630	10.2	643	10.4
NT	349	191.9	290	159.5	271	149.0	344	189.2	295	162.2
QLD	367	11.0	301	9.0	309	9.3	589	17.6	787	23.6
SA	40	2.7	37	2.5	31	2.1	23	1.6	16	1.1
TAS	2	0.4	13	2.7	7	1.5	7	1.5	8	1.7
VIC	19	0.4	18	0.4	16	0.4	12	0.3	5	0.1
WA	127	7.2	94	5.3	101	5.7	98	5.6	89	5.0
Total	1 838	10.0	1 512	8.3	1 271	6.9	1 719	9.4	1 854	10.1

¹ Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.11 Number of diagnoses of syphilis, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹
0 – 4	11	5	16	9	2	11	5	2	8	5	5	12	5	6	11
5 – 14	6	22	29	7	9	16	2	7	9	4	21	25	4	10	14
15 – 19	113	183	303	81	138	219	47	117	164	97	110	208	65	104	170
20 – 29	253	333	596	225	279	505	171	209	383	192	266	464	219	321	541
30 – 39	188	182	371	161	148	311	151	144	296	185	195	381	215	205	425
40 – 49	141	59	204	143	55	200	95	63	158	151	78	232	173	101	274
50 – 59	98	31	131	71	25	97	99	15	116	117	32	151	115	52	168
60+	115	49	168	97	46	144	96	38	134	152	64	218	144	93	238
Not reported	13	6	20	4	3	9	1	2	3	15	7	28	4	5	13
Total	938	870	1 838	798	705	1 512	667	597	1 271	918	778	1 719	944	897	1 854

¹ Totals include diagnoses in people whose sex was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.1.12 Number and rate¹ of diagnoses of chlamydia, 1995 – 1999, by State/Territory and year

State/Territory	Year of diagnosis									
	1995		1996		1997		1998		1999	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	81	26.3	119	38.6	142	46.1	194	62.9	177	57.4
NSW ²	–	–	–	–	–	–	560	9.0	2 393	38.6
NT	519	285.4	645	354.7	655	360.2	798	438.8	789	433.9
QLD	2 413	72.3	3 254	97.5	3 447	103.2	4 072	122.0	4 342	130.1
SA	769	52.2	1 025	69.5	1 055	71.6	1 022	69.3	974	66.1
TAS	277	58.4	277	58.4	263	55.4	197	41.5	249	52.5
VIC	1 317	28.9	1 614	35.4	2 029	44.5	2 578	56.5	2 902	63.6
WA	1 026	58.1	1 417	80.3	1 585	89.8	2 065	117.0	1 818	103.0
Total	6 402	35.0	8 351	45.6	9 176	50.1	11 486	62.7	13 644	74.5

¹ Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory from *Australian Demographic Statistics* (Australian Bureau of Statistics).

² Chlamydia was a notifiable condition in New South Wales from 1998.

Source: National Notifiable Diseases Surveillance System

Table 2.1.13 Number of diagnoses of chlamydia, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹	M	F	T ¹
0 – 4	30	37	67	30	39	69	20	32	52	33	50	83	33	46	79
5 – 14	8	46	55	15	64	79	18	64	82	35	133	168	28	151	179
15 – 19	249	1 223	1 482	362	1 659	2 027	431	1 732	2 166	590	2 130	2 725	672	2 395	3 074
20 – 29	1 152	2 504	3 680	1 653	3 029	4 689	1 881	3 308	5 196	2 425	3 728	6 168	2 856	4 425	7 293
30 – 39	362	411	777	528	564	1 095	565	620	1 186	825	721	1 547	1 192	948	2 143
40 – 49	106	91	199	159	121	281	198	152	350	278	180	458	375	221	596
50 – 59	27	17	44	38	15	53	55	28	83	147	53	201	130	50	181
60+	18	9	27	23	7	30	13	11	24	26	17	43	44	18	62
Not reported	26	40	71	14	14	28	13	22	37	57	33	93	13	22	37
Total	1 978	4 378	6 402	2 822	5 512	8 351	3 194	5 969	9 176	4 416	7 045	11 486	5 343	8 276	13 644

¹ Totals include diagnoses in people whose sex was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.1.14 Number of diagnoses of donovanosis, 1995 – 1999, by State/Territory¹ and year

State/Territory	Year of diagnosis ¹				
	1995	1996	1997	1998	1999
NT	43	21	31	18	5
QLD	17	5	2	3	3
VIC	0	0	0	0	0
WA	22	24	12	7	7
Total	82	50	45	28	15

¹ Donovanosis is notifiable only in the Northern Territory, Queensland, Victoria and Western Australia. Donovanosis was made notifiable in NSW in 1999 – 0 cases were notified.

Source: National Notifiable Diseases Surveillance System

Table 2.1.15 Number of diagnoses of donovanosis, 1995 – 1999, by age group, year and sex

Age group (years)	Year of diagnosis														
	1995			1996			1997			1998			1999		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0 – 14	3	1	4	0	1	1	0	0	0	0	3	3	0	0	0
15 – 19	5	21	26	0	6	6	2	6	8	0	4	4	1	2	3
20 – 29	10	20	30	5	7	12	3	16	19	1	9	10	0	5	5
30 – 39	6	8	14	6	8	14	3	4	7	2	1	3	0	1	1
40 – 49	0	2	2	3	7	10	1	5	6	0	2	2	1	2	3
50+	5	1	6	3	4	7	2	2	4	1	5	6	0	3	3
Not reported	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
Total	29	53	82	17	33	50	12	33	45	4	24	28	2	13	15

Source: National Notifiable Diseases Surveillance System

2.2 National monitoring of diagnoses of sexually transmissible infections and blood borne viruses in Indigenous Australians

Table 2.2.1 Characteristics of cases of newly diagnosed HIV infection in Indigenous people¹, 1992 – 1999, by year. Number of cases, median age and percent (number) of total cases for each year by sex, newly acquired infection and HIV exposure category

Characteristic	Year of HIV diagnosis									
	1992	1993	1994	1995	1996	1997	1998	1999	Total	
Total cases	13	18	19	22	17	16	25	10	140	
Males (%)	84.6	77.8	73.7	63.6	76.5	75.0	64.0	70.0	72.1	
Median age (years)	30	29	30	25	29	30	31	30	30	
Newly acquired infection (%)	15.4 (2)	16.7 (3)	5.3 (1)	31.8 (7)	11.8 (2)	31.3 (5)	16.0 (4)	20.0 (2)	18.6 (26)	
HIV exposure category (number)										
Male homosexual contact	66.7 (8)	64.7 (11)	27.8 (5)	31.8 (7)	62.5 (10)	62.5 (10)	22.8 (5)	12.5 (1)	43.5 (57)	
Male homosexual contact and injecting drug use	8.3 (1)	0.0 (0)	22.2 (4)	18.2 (4)	0.0 (0)	6.2 (1)	13.6 (3)	12.5 (1)	10.7 (14)	
Injecting drug use ²	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	13.6 (3)	25.0 (2)	6.1 (8)	
Heterosexual contact	25.0 (3)	29.4 (5)	44.5 (8)	50.0 (11)	25.0 (4)	31.3 (5)	45.5 (10)	50.0 (4)	38.2 (50)	
Haemophilia/coagulation disorder	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	
Receipt of blood/tissue	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	
Mother with/at risk for HIV infection	0.0 (0)	0.0 (0)	5.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	4.5 (1)	0.0 (0)	1.5 (2)	
Other/undetermined ³	7.7 (1)	5.6 (1)	5.3 (1)	0.0 (0)	5.9 (1)	0.0 (0)	12.0 (3)	20.0 (2)	6.4 (9)	

¹ Information on Indigenous status was not available from ACT at 31 March 2000. Information on Indigenous status was available in VIC from 1 June 1998.

² Excludes males who also reported a history of homosexual contact.

³ The 'Other/undetermined' HIV exposure category was excluded from the calculation of the percentage of cases attributed to each category.

Source: State/Territory health authorities

Table 2.2.2 Number of AIDS diagnoses in Indigenous people¹, 1992 – 1999, by year. Number of AIDS diagnoses, median age, and percent (number) of total cases by sex, late HIV diagnosis and HIV exposure category

Description	Year of AIDS diagnosis								
	1992	1993	1994	1995	1996	1997	1998	1999	Total
Total cases	6	7	11	10	10	4	9	4	61
Males (%)	83.3	57.1	81.8	90.0	80.0	75.0	77.8	100.0	80.3
Median age (years)	26	36	32	31	30	38	34	37	32
Late HIV diagnosis (number)	33.3 (2)	28.6 (2)	9.1 (1)	20.0 (2)	10.0 (1)	25.0 (1)	44.4 (4)	50.0 (2)	24.6 (15)
HIV exposure category (number)									
Male homosexual contact	66.7 (4)	42.9 (3)	54.5 (6)	66.7 (6)	30.0 (3)	33.3 (1)	37.5 (3)	25.0 (1)	46.6 (27)
Male homosexual contact and injecting drug use	0.0 (0)	14.2 (1)	9.1 (1)	22.2 (2)	40.0 (4)	0.0 (0)	0.0 (0)	25.0 (1)	15.5 (9)
Injecting drug use ²	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	25.0 (2)	25.0 (1)	5.2 (3)
Heterosexual contact	33.3 (2)	42.9 (3)	27.3 (3)	11.1 (1)	30.0 (3)	66.7 (2)	37.5 (3)	25.0 (1)	31.0 (18)
Haemophilia/coagulation disorder	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Receipt of blood/tissue	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Mother with/at risk for HIV infection	0.0 (0)	0.0 (0)	9.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	1.7 (1)
Other/undetermined ³	0.0 (0)	0.0 (0)	0.0 (0)	10.0 (1)	0.0 (0)	25.0 (1)	11.1 (1)	0.0 (0)	4.9 (3)

1 Information on Indigenous status was not available from ACT at 31 March 2000. Information on Indigenous status was available in VIC from 1 June 1998.
 2 Excludes males who also reported a history of homosexual contact.
 3 The 'Other/undetermined' HIV exposure category was excluded from the calculation of the percentage of cases attributed to each exposure category.

Source: State/Territory health authorities

Table 2.2.3 Number (percent) of diagnoses of hepatitis C infection, 1999, by State/Territory and Indigenous status

State/ Territory	Indigenous status			Total
	Indigenous	Non-Indigenous	Not reported	
ACT	8 (2.7)	134 (45.1)	155 (52.2)	297
NSW	57 (0.6)	779 (8.7)	8 168 (90.7)	9 004
NT	12 (5.4)	125 (56.6)	84 (38.0)	221
QLD	0 (0.0)	1 (0.0)	3 038 (100.0)	3 039
SA	54 (5.8)	845 (90.4)	36 (3.8)	935
TAS	2 (0.6)	0 (0.0)	318 (99.4)	320
VIC	1 (0.0)	15 (0.2)	6 469 (99.8)	6 485
WA	93 (8.4)	850 (76.7)	165 (14.9)	1 108
Total	227 (1.1)	2 749 (12.8)	18 433 (86.1)	21 409

Source: National Notifiable Diseases Surveillance System

Table 2.2.4 Number and rate¹ of diagnosis of gonorrhoea, 1992 – 1999, by State/Territory², Indigenous status and year

		NT		SA		WA		Total	
		Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³
1992	Number	382	201	81	83	551	263	1 014	547
	Rate	771	152	381	6	1 019	15	812	17
1993	Number	496	187	92	55	608	185	1 196	427
	Rate	1 001	141	433	4	1 125	11	958	13
1994	Number	527	209	95	63	670	173	1 292	445
	Rate	1 063	158	447	4	1 239	10	1 034	13
1995	Number	453	94	189	63	840	196	1 482	353
	Rate	914	71	889	4	1 554	12	1 187	11
1996	Number	620	167	214	74	778	336	1 612	577
	Rate	1 251	126	1 006	5	1 439	20	1 291	18
1997	Number	876	267	217	106	808	486	1 901	859
	Rate	1 767	202	1 020	7	1 495	28	1 522	26
1998	Number	902	322	134	79	866	349	1 902	750
	Rate	1 820	243	630	5	1 602	20	1 523	23
1999	Number	849	207	138	83	679	276	1 666	566
	Rate	1 713	156	649	6	1 256	16	1 334	17

1 Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory and Indigenous status from *Population Distribution, Indigenous Australians* (Australian Bureau of Statistics).
 2 State/Territory health authorities with Indigenous status recorded in more than 50% of diagnoses.
 3 Includes diagnoses in people whose Indigenous status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.2.5 Number (percent) of diagnoses of gonorrhoea, 1999, by State/Territory and Indigenous status

State/ Territory	Indigenous status			Total
	Indigenous	Non-Indigenous	Not reported	
ACT	1 (5.3)	6 (31.6)	12 (63.1)	19
NSW	56 (4.4)	75 (5.9)	1 143 (89.7)	1 274
NT	849 (80.4)	97 (9.2)	110 (10.4)	1 056
QLD	5 (0.4)	1 (0.1)	1 111 (99.5)	1 117
SA	138 (62.4)	82 (37.1)	1 (0.5)	221
TAS	0 (0.0)	0 (0.0)	18 (100.0)	18
VIC	5 (0.6)	647 (82.4)	133 (17.0)	785
WA	679 (71.1)	168 (17.6)	108 (11.3)	955
Total	1 733 (31.8)	1 076 (19.8)	2 636 (48.4)	5 445

Source: National Notifiable Diseases Surveillance System

Table 2.2.6 Number and rate¹ of diagnosis of syphilis, 1992 – 1999, by State/Territory², Indigenous status and year

		NT		SA		WA		Total	
		Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³
1992	Number	617	42	90	7	221	95	928	144
	Rate	1 245	32	423	0.5	409	6	743	4
1993	Number	605	34	59	4	91	60	755	98
	Rate	1 221	26	277	0.3	168	4	605	3
1994	Number	420	31	47	4	54	50	521	85
	Rate	847	23	221	0.3	100	3	417	3
1995	Number	335	15	37	3	105	25	477	43
	Rate	676	11	174	0.2	194	2	382	1
1996	Number	260	30	29	8	36	58	325	96
	Rate	525	23	136	0.6	67	3	260	3
1997	Number	246	23	31	0	35	51	312	74
	Rate	496	17	146	0.0	65	3	250	2
1998	Number	319	25	23	0	46	52	388	77
	Rate	644	19	108	0.0	85	3	311	2
1999	Number	271	24	14	2	31	58	316	84
	Rate	547	18	66	0.0	57	3	253	3

1 Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory and Indigenous status from *Population Distribution, Indigenous Australians* (Australian Bureau of Statistics).

2 State/Territory health authorities with Indigenous status recorded in more than 50% of diagnoses.

3 Includes diagnoses in people whose Indigenous status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.2.7 Number and rate¹ of diagnosis of chlamydia, 1992 – 1999, by State/Territory², Indigenous status and year

		NT		SA		WA		Total	
		Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³	Indigenous	Non-Indigenous ³
1992	Number	622	594	82	854	–	–	704	1 448
	Rate	1 255	449	386	59	–	–	564	44
1993	Number	299	353	48	708	164	618	511	1 679
	Rate	603	267	226	49	303	36	409	51
1994	Number	364	358	65	662	237	610	666	1 630
	Rate	734	270	306	46	438	36	533	49
1995	Number	315	227	152	617	366	660	833	1 504
	Rate	636	172	715	42	677	39	667	46
1996	Number	400	245	175	850	422	995	997	2 090
	Rate	807	185	823	58	781	58	798	63
1997	Number	390	270	197	858	429	1 160	1 016	2 288
	Rate	787	204	926	59	794	68	813	69
1998	Number	485	313	138	884	618	1 447	1 241	2 644
	Rate	978	236	649	61	1 143	85	994	80
1999	Number	487	302	128	846	486	1 332	1 101	2 480
	Rate	983	228	602	58	899	78	882	75

1 Rate per 100 000 population at 30 June 1996. Population estimates by State/Territory and Indigenous status from *Population Distribution, Indigenous Australians* (Australian Bureau of Statistics).

2 State/Territory health authorities with Indigenous status recorded in more than 50% of diagnoses.

3 Includes diagnoses in people whose Indigenous status was not reported.

Source: National Notifiable Diseases Surveillance System

2.3 Gonococcal isolates

2.3.1 Number of gonococcal isolates referred to the Australian Gonococcal Surveillance Programme in 1999 by State/Territory, sex and site, and antibiotic sensitivity by State/Territory

Sex and Site	State/Territory						Total ¹
	NSW	NT	QLD	SA	VIC	WA	
Males							
Urethra	1 133	178	369	65	568	226	2 552
Rectal	195	0	26	5	83	5	316
Pharynx	80	0	7	0	55	0	143
Other/not specified	6	62	23	5	3	1	100
Total	1 414	240	425	75	709	232	3 111
Females							
Cervix	103	174	148	13	32	75	548
Other/not specified	11	29	16	5	3	6	80
Total	114	203	164	18	35	81	628
Antibiotic sensitivity (%)							
PPNG	9.7	2.8	4.0	2.2	7.3	9.6	7.4
RR	24.6	1.6	8.5	19.1	9.7	2.0	14.4
LS	59.4	95.1	82.8	74.2	69.6	86.7	71.7
FS	6.3	0.5	4.7	4.5	13.4	1.7	6.5
Total¹	1 528	443	589	93	744	313	3 739

¹ Total includes gonococcal isolates from ACT and TAS.

PPNG penicillinase-producing *Neisseria gonorrhoeae* RR relatively resistant LS less sensitive FS fully sensitive

Source: Australian Gonococcal Surveillance Programme

2.3.2 Number of gonococcal isolates in New South Wales referred to the Australian Gonococcal Surveillance Programme, 1992 – 1999, by sex, site and year

Sex and Site	Year of diagnosis							
	1992	1993 ¹	1994	1995	1996	1997	1998	1999
Males								
Urethra	490	409	336	442	530	706	1 023	1 133
Rectal	75	87	56	60	73	72	158	195
Pharynx	32	48	30	38	36	52	63	80
Other/not specified	4	14	6	3	6	3	6	6
Total	601	558	428	543	645	833	1 250	1 414
Females								
Cervix	95	53	61	55	82	63	121	103
Rectal	0	0	1	0	0	0	3	4
Pharynx	7	5	4	5	2	6	12	4
Other/not specified	1	0	6	1	2	0	0	3
Total	103	58	72	61	86	69	136	114
Total	704	618	500	604	731	902	1 386	1 528

¹ Total includes isolates from people whose sex was not reported.

Source: Australian Gonococcal Surveillance Programme

3 Surveillance for HIV antibody and HCV antibody in sentinel populations

3.1 Sentinel HIV surveillance in sexual health clinics, 1994 – 1999

Table 3.1.1 Number of people seen at selected metropolitan sexual health clinics in Australia, 1994 – 1999, number tested for HIV antibody, number (percent) newly diagnosed with HIV infection and number (percent) newly diagnosed with HIV infection following a previous negative test by sex, clinic and year

		Sexual health clinic							
		Sydney Sexual Health Centre, NSW	Livingstone Road Sexual Health Centre, NSW	Clinic 34 Darwin, NT	Brisbane Sexual Health Clinic, QLD	Gold Coast Sexual Health Clinic, QLD	Clinic 275 Adelaide, SA	Melbourne Sexual Health Centre, VIC	
Males	1994	Seen	4 943	–	–	–	–	3 797	5 253
		Tested	3 032	–	–	–	–	3 006	3 862
		Newly diagnosed (%)	18 (0.6)	–	–	–	–	2 (0.1)	27 (0.7)
		Previously negative (%)	8 (0.5)	–	–	–	–	1 (0.05)	7 (0.6)
	1995	Seen	5 134	–	810	2 944	–	3 586	5 738
		Tested	2 797	–	354	964	–	2 853	4 373
		Newly diagnosed (%)	16 (0.6)	–	1 (0.3)	4 (0.4)	–	10 (0.4)	20 (0.5)
		Previously negative (%)	6 (0.4)	–	–	3 (0.6)	–	6 (0.4)	4 (0.3)
	1996	Seen	4 878	–	986	2 786	–	3 572	5 902
		Tested	2 419	–	393	1 191	–	2 832	4 245
		Newly diagnosed (%)	18 (0.7)	–	2 (0.5)	4 (0.3)	–	7 (0.2)	22 (0.5)
		Previously negative (%)	8 (0.6)	–	–	0 (0.0)	–	6 (0.4)	4 (0.2)
	1997	Seen	4 721	–	1 187	2 776	1 145	3 485	6 419
		Tested	2 491	–	463	1 214	687	2 766	4 303
		Newly diagnosed (%)	27 (1.1)	–	2 (0.4)	5 (0.4)	5 (0.7)	8 (0.3)	18 (0.4)
		Previously negative (%)	14 (1.0)	–	–	5 (0.7)	1 (0.9)	6 (0.4)	3 (0.2)
	1998	Seen	4 433	–	–	2 579	1 084	3 604	6 138
		Tested	2 152	–	–	1 057	665	2 823	3 747
		Newly diagnosed (%)	15 (0.7)	–	–	3 (0.3)	1 (0.1)	5 (0.2)	16 (0.4)
		Previously negative (%)	8 (0.7)	–	–	2 (0.3)	0 (0.0)	5 (0.3)	5 (0.3)
1999	Seen	3 465	761	–	2 662	1 076	3 211	5 620	
	Tested	1 682	399	–	1 156	489	2 435	3 453	
	Newly diagnosed (%)	19 (1.1)	2 (0.5)	–	4 (0.3)	6 (1.2)	4 (0.2)	16 (0.5)	
	Previously negative (%)	8 (0.8)	0 (0.0)	–	4 (0.6)	1 (0.8)	3 (0.2)	3 (0.2)	

		Sexual health clinic							
		Sydney Sexual Health Centre, NSW	Livingstone Road Sexual Health Centre, NSW	Clinic 34 Darwin, NT	Brisbane Sexual Health Clinic, QLD	Gold Coast Sexual Health Clinic, QLD	Clinic 275 Adelaide, SA	Melbourne Sexual Health Centre, VIC	
Females	1994	Seen	2 841	–	–	–	–	2 409	3 455
		Tested	1 701	–	–	–	–	1 920	2 737
		Newly diagnosed (%)	0 (0.0)	–	–	–	–	1 (0.05)	4 (0.1)
		Previously negative (%)	0 (0.0)	–	–	–	–	0 (0.0)	0 (0.0)
	1995	Seen	3 082	–	458	1 938	–	2 375	4 034
		Tested	1 700	–	257	576	–	1 875	3 371
		Newly diagnosed (%)	4 (0.2)	–	0 (0.0)	0 (0.0)	–	0 (0.0)	3 (0.1)
		Previously negative (%)	1 (0.1)	–	–	0 (0.0)	–	0 (0.0)	0 (0.0)
	1996	Seen	3 081	–	672	1 789	–	2 357	4 039
		Tested	1 569	–	212	653	–	1 853	3 384
		Newly diagnosed (%)	3 (0.2)	–	0 (0.0)	1 (0.2)	–	0 (0.0)	2 (0.1)
		Previously negative (%)	1 (0.1)	–	–	0 (0.0)	–	0 (0.0)	0 (0.0)
	1997	Seen	3 177	–	788	1 733	1 198	2 321	4 574
		Tested	1 668	–	333	644	707	1 751	3 790
		Newly diagnosed (%)	4 (0.2)	–	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.1)	3 (0.1)
		Previously negative (%)	2 (0.2)	–	–	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	1998	Seen	2 915	–	–	1 632	1 363	2 475	4 732
		Tested	1 364	–	–	563	905	1 832	3 230
		Newly diagnosed (%)	5 (0.4)	–	–	1 (0.2)	0 (0.0)	1 (0.1)	1 (0.03)
		Previously negative (%)	2 (0.3)	–	–	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
1999	Seen	2 196	869	–	1 773	1 302	2 289	4 542	
	Tested	1 011	402	–	632	636	1 645	2 968	
	Newly diagnosed (%)	1 (0.1)	1 (0.2)	–	0 (0.0)	1 (0.2)	0 (0.0)	2 (0.7)	
	Previously negative (%)	0 (0.0)	0 (0.0)	–	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	

¹ Data from the Brisbane Sexual Health Clinic, Brisbane, QLD, not available for 1994. Data from Clinic 34, Darwin, NT, not available for 1998 and 1999. Clinic 34, Gold Coast Sexual Health Clinic, and Livingstone Road Sexual Health Centre joined the network in 1995, 1997 and 1999, respectively.

Source: Collaborative group on sentinel HIV surveillance in sexual health clinics

Table 3.1.2 Number of people seen at selected metropolitan sexual health clinics in Australia¹, 1994 – 1999, number tested for HIV antibody, number (percent) newly diagnosed with HIV infection and number (percent) newly diagnosed with HIV infection following a previous negative test by sex, HIV exposure category and year

		HIV exposure category					Total
		Male homosexual contact ²	Male homosexual contact ² , age < 25 years	Injecting drug use	Heterosexual contact	Other males	
1994	Seen	2 518	575	797	9 496	1 182	13 993
	Tested	1 944	480	655	6 597	704	9 900
	Newly diagnosed (%)	28 (1.4)	6 (1.2)	1 (0.2)	4 (0.06)	14 (2.0)	47 (0.5)
	Previously negative (%)	16 (1.3)	4 (1.7)	0 (0.0)	0 (0.0)	0 (0.0)	16 (0.3)
1995	Seen	3 305	756	1 009	12 010	1 078	17 402
	Tested	2 260	573	708	7 461	558	10 987
	Newly diagnosed (%)	41 (1.8)	7 (1.2)	1 (0.1)	5 (0.07)	3 (0.5)	50 (0.5)
	Previously negative (%)	19 (1.4)	3 (1.0)	0 (0.0)	0 (0.0)	0 (0.0)	19 (0.4)
1996	Seen	3 350	706	951	11 312	1 525	17 138
	Tested	2 191	531	692	7 109	695	10 687
	Newly diagnosed (%)	40 (1.8)	7 (1.3)	2 (0.3)	2 (0.03)	7 (1.0)	51 (0.5)
	Previously negative (%)	17 (1.1)	2 (0.7)	1 (0.2)	0 (0.0)	0 (0.0)	18 (0.3)
1997	Seen	3 805	728	1 009	11 756	1 976	18 546
	Tested	2 568	561	744	7 315	834	11 461
	Newly diagnosed (%)	50 (1.9)	7 (1.2)	0 (0.0)	6 (0.08)	7 (0.8)	63 (0.5)
	Previously negative (%)	27 (0.8)	6 (1.0)	0 (0.0)	2 (0.03)	0 (0.0)	29 (0.3)
1998	Seen	3 936	739	1 021	11 154	1 727	17 838
	Tested	2 448	561	753	6 575	668	10 444
	Newly diagnosed (%)	28 (1.1)	2 (0.4)	0 (0.0)	6 (0.09)	6 (0.9)	40 (0.4)
	Previously negative (%)	16 (0.5)	1 (0.4)	0 (0.0)	2 (0.03)	2 (0.5)	20 (0.2)
1999	Seen	3 844	680	921	10 581	1 449	16 795
	Tested	2 346	503	642	6 110	516	9 614
	Newly diagnosed (%)	41 (1.7)	5 (1.0)	1 (0.2)	7 (0.1)	2 (0.4)	51 (0.5)
	Previously negative (%)	17 (1.1)	3 (1.2)	1 (0.3)	1 (0.03)	0 (0.0)	19 (0.4)

		HIV exposure category				Total
		Sex worker ³	Injecting drug use	Heterosexual contact	Other females	
1994	Seen	919	403	6 497	886	8 705
	Tested	852	329	4 594	583	6 358
	Newly diagnosed (%)	0 (0.0)	2 (0.5)	3 (0.07)	0 (0.0)	5 (0.08)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
1995	Seen	1 075	484	8 861	1 009	11 429
	Tested	916	344	5 704	558	7 522
	Newly diagnosed (%)	2 (0.2)	1 (0.3)	4 (0.07)	0 (0.0)	7 (0.09)
	Previously negative (%)	1 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.03)
1996	Seen	1 098	457	8 467	1 244	11 266
	Tested	973	328	5 499	659	7 459
	Newly diagnosed (%)	1 (0.1)	0 (0.0)	4 (0.07)	1 (0.2)	6 (0.08)
	Previously negative (%)	0 (0.0)	0 (0.0)	1 (0.04)	0 (0.0)	1 (0.03)
1997	Seen	991	684	9 689	1 639	13 003
	Tested	893	496	6 257	914	8 560
	Newly diagnosed (%)	1 (0.1)	1 (0.2)	5 (0.08)	1 (0.1)	8 (0.09)
	Previously negative (%)	0 (0.0)	1 (0.2)	1 (0.02)	0 (0.0)	2 (0.03)
1998	Seen	858	708	9 802	1 749	13 117
	Tested	790	521	5 890	783	7 894
	Newly diagnosed (%)	2 (0.3)	0 (0.0)	4 (0.06)	2 (0.3)	8 (0.1)
	Previously negative (%)	2 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.03)
1999	Seen	956	665	9 895	1 455	12 971
	Tested	773	408	5 512	601	7 294
	Newly diagnosed (%)	1 (0.1)	2 (0.3)	1 (0.02)	1 (0.2)	5 (0.07)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

1 Sydney Sexual Health Centre, Livingstone Road Sexual Health Centre, Brisbane Sexual Health Clinic, Gold Coast Sexual Health Clinic, Clinic 275 and Melbourne Sexual Health Centre only.

2 Includes males who also reported a history of injecting drug use.

3 Includes females who also reported a history of injecting drug use.

Source: Collaborative group on sentinel HIV surveillance in sexual health clinics

Table 3.1.3 Number of people seen at selected metropolitan sexual health clinics in Australia¹, 1994 – 1999, number tested for HIV antibody, number (percent) newly diagnosed with HIV infection and number (percent) newly diagnosed with HIV infection following a previous negative test by sex, age group and year

		Age group (years)							
Males		13 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60+	Unknown	Total
1994	Seen	545	6 403	4 329	1 798	585	320	13	13 993
	Tested	406	4 711	2 943	1 223	399	210	8	9 900
	Newly diagnosed (%)	0 (0.0)	16 (0.3)	18 (0.6)	7 (0.6)	6 (1.4)	0 (0.0)	0 (0.0)	47 (0.5)
	Previously negative (%)	0 (0.0)	7 (0.3)	6 (0.4)	2 (0.3)	1 (0.5)	0 (0.0)	0 (0.0)	16 (0.3)
1995	Seen	725	7 969	5 191	2 314	796	403	4	17 402
	Tested	475	5 212	3 186	1 405	485	221	3	10 987
	Newly diagnosed (%)	1 (0.2)	17 (0.3)	19 (0.6)	8 (0.6)	2 (0.4)	3 (1.4)	0 (0.0)	50 (0.5)
	Previously negative (%)	0 (0.0)	7 (0.3)	9 (0.5)	1 (0.1)	1 (0.4)	1 (0.9)	0 (0.0)	19 (0.4)
1996	Seen	665	7 750	5 261	2 282	816	363	1	17 138
	Tested	442	5 123	3 155	1 334	441	191	1	10 687
	Newly diagnosed (%)	0 (0.0)	19 (0.4)	24 (0.8)	8 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	51 (0.5)
	Previously negative (%)	0 (0.0)	6 (0.2)	11 (0.6)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	18 (0.3)
1997	Seen	708	8 131	5 687	2 603	975	440	2	18 546
	Tested	478	5 387	3 354	1 466	547	229	0	11 461
	Newly diagnosed (%)	0 (0.0)	24 (0.4)	21 (0.6)	11 (0.8)	5 (0.9)	2 (0.9)	–	63 (0.5)
	Previously negative (%)	0 (0.0)	14 (0.3)	11 (0.3)	2 (0.3)	1 (0.2)	1 (0.4)	–	29 (0.3)
1998	Seen	678	7 801	5 512	2 378	1 035	428	6	17 838
	Tested	449	5 006	3 016	1 219	529	222	3	10 444
	Newly diagnosed (%)	0 (0.0)	7 (0.1)	21 (0.7)	8 (0.7)	2 (0.4)	2 (0.9)	0 (0.0)	40 (0.4)
	Previously negative (%)	0 (0.0)	2 (0.04)	8 (0.2)	7 (0.5)	2 (0.3)	1 (0.4)	0 (0.0)	20 (0.2)
1999	Seen	592	6 954	5 349	2 411	1 024	460	5	16 795
	Tested	378	4 268	2 945	1 260	539	224	0	9 614
	Newly diagnosed (%)	1 (0.3)	17 (0.4)	22 (0.7)	7 (0.6)	3 (0.6)	1 (0.4)	–	51 (0.5)
	Previously negative (%)	1 (1.1)	7 (0.4)	8 (0.4)	2 (0.3)	1 (0.3)	0 (0.0)	–	19 (0.4)

		Age group (years)							
Females		13 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60+	Unknown	Total
1994	Seen	1 044	4 682	1 996	724	192	55	12	8 705
	Tested	736	3 477	1 466	528	123	25	3	6 358
	Newly diagnosed (%)	0 (0.0)	5 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (0.08)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
1995	Seen	1 567	6 218	2 421	897	253	69	4	11 429
	Tested	966	4 155	1 627	590	153	30	1	7 522
	Newly diagnosed (%)	3 (0.3)	2 (0.05)	1 (0.06)	0 (0.0)	1 (0.6)	0 (0.0)	0 (0.0)	7 (0.09)
	Previously negative (%)	0 (0.0)	1 (0.05)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.03)
1996	Seen	1 532	6 251	2 306	874	236	62	5	11 266
	Tested	958	4 215	1 515	589	151	31	0	7 459
	Newly diagnosed (%)	0 (0.0)	5 (0.1)	1 (0.07)	0 (0.0)	0 (0.0)	0 (0.0)	–	6 (0.08)
	Previously negative (%)	0 (0.0)	1 (0.05)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	–	1 (0.03)
1997	Seen	1 580	7 294	2 702	1 051	306	64	6	13 003
	Tested	931	4 929	1 791	697	183	29	0	8 560
	Newly diagnosed (%)	0 (0.0)	6 (0.1)	1 (0.06)	1 (0.2)	0 (0.0)	0 (0.0)	–	8 (0.09)
	Previously negative (%)	0 (0.0)	1 (0.02)	1 (0.05)	0 (0.0)	0 (0.0)	0 (0.0)	–	2 (0.03)
1998	Seen	1 586	7 260	2 757	1 132	307	70	5	13 117
	Tested	870	4 453	1 664	707	175	25	0	7 894
	Newly diagnosed (%)	0 (0.0)	6 (0.1)	2 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	–	8 (0.1)
	Previously negative (%)	0 (0.0)	2 (0.04)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	–	2 (0.03)
1999	Seen	1 485	7 043	2 897	1 147	314	82	3	12 971
	Tested	746	4 012	1 692	656	158	29	1	7 294
	Newly diagnosed (%)	0 (0.0)	1 (0.02)	4 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (0.07)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	–	0 (0.0)

1 Sydney Sexual Health Centre, Livingstone Road Sexual Health Centre, Brisbane Sexual Health Clinic, Gold Coast Sexual Health Clinic, Clinic 275 and Melbourne Sexual Health Centre only.

Source: Collaborative group on sentinel HIV surveillance in sexual health clinics

3.2 National monitoring of HIV infection among entrants into Australian prisons, 1993 – 1999

Table 3.2.1 Number of receptions into Australian prisons, 1993 – 1999, proportion tested for HIV antibody at reception and number (%) with diagnosed HIV infection by year and Corrections jurisdiction of reception

Year of reception	State/Territory Corrections jurisdiction								Total
	ACT ¹	NSW	NT	QLD ²	SA ³	TAS	VIC ⁴	WA	
1993									
Number of receptions	300	8 117	1 607	5 038	5 952	1 238	3 862	6 095	32 209
Tested for HIV antibody (%)	8.7	99.5	82.9	100.0	43.0	55.7	97.2	38.5	73.9
Number (%) with HIV infection	0 (0.0)	29 (0.4)	0 (0.0)	12 (0.2)	6 (0.2)	1 (0.1)	22 (0.6)	2 (0.1)	72 (0.3)
1994									
Number of receptions	293	8 819	1 784	5 350	5 135	1 292	3 760	6 075	32 508
Tested for HIV antibody (%)	9.9	99.0	81.2	100.0	47.3	34.6	99.4	33.9	74.5
Number (%) with HIV infection	1 (3.4)	21 (0.2)	1 (0.1)	5 (0.1)	3 (0.1)	0 (0.0)	9 (0.2)	0 (0.0)	40 (0.2)
1995									
Number of receptions	316	5 356	1 597	6 461	4 460	1 109	3 821	4 656	27 776
Tested for HIV antibody (%)	7.9	62.2	90.7	100.0	60.1	65.1	97.8	43.6	73.5
Number (%) with HIV infection	0 (0.0)	17 (0.5)	0 (0.0)	10 (0.1)	4 (0.1)	0 (0.0)	7 (0.2)	0 (0.0)	38 (0.2)
1996									
Number of receptions	381	8 718	1 359	7 834	2 106	1 131	3 903	4 670	30 102
Tested for HIV antibody (%)	3.9	39.9	91.7	100.0	74.1	68.8	80.1	42.7	67.2
Number (%) with HIV infection	0 (0.0)	21 (0.6)	0 (0.0)	8 (0.1)	4 (0.3)	0 (0.0)	11 (0.3)	0 (0.0)	44 (0.2)
1997									
Number of receptions	387	9 767	2 165	8 073	4 224	1 010	3 031	4 560	33 217
Tested for HIV antibody (%)	2.8	44.5	100.0	100.0	85.6	64.9	64.2	44.7	78.7
Number (%) with HIV infection	0 (0.0)	9 (0.2)	4 (0.2)	14 (0.2)	2 (0.1)	1 (0.2)	3 (0.2)	0 (0.0)	33 (0.1)
1998									
Number of receptions	–	10 253	2 607	10 123	2 213	1 950	4 519	5 276	36 941
Tested for HIV antibody (%)	–	41.0	100.0	100.0	27.9	70.9	59.7	40.0	60.7
Number (%) with HIV infection	–	19 (0.5)	2 (0.1)	15 (0.2)	3 (0.5)	0 (0.0)	–	0 (0.0)	39 (0.2)
1999									
Number of receptions	254	15 206	2 587	10 975	4 016	2 233	1 994	5 958	43 223
Tested for HIV antibody (%)	5.5	28.9	100.0	100.0	28.5	58.1	68.5	55.5	58.0
Number (%) with HIV infection	0 (0.0)	38 (0.9)	4 (0.2)	16 (0.1)	3 (0.3)	0 (0.0)	7 (0.5)	0 (0.0)	68 (0.3)

- 1 The corrections centre in the ACT is a remand centre only. HIV antibody testing is carried out on prisoner request. Data not available for 1998 or the first six months of 1999.
- 2 Data not available from QLD for the third quarter of 1992.
- 3 Data from SA in the years 1996 and 1998 available for the third and fourth quarters only.
- 4 Data available from VIC on males only in the interval 1 January – 30 September 1997, 1 January – 31 December 1998 and 1 January 1999 – 30 June 1999. Information on number of HIV diagnoses not available in 1998.

Source: State/Territory Departments of Corrections

3.3 National monitoring of HIV antibody and HCV antibody in blood donors, 1985 – 1999

3.3.1 Number of donations tested for HIV antibody at blood services, number of donations positive for HIV antibody and prevalence of HIV antibody¹, 1985 – 1999, by State/Territory and years of donation

State/Territory	1985 ² – 1990			1991 – 1993			1994 – 1996		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT	99 645	0	0.0	50 765	1	2.0	36 143	0	0.0
NSW	1 683 696	25	1.5	895 485	5	0.6	822 754	5	0.6
NT	49 614	0	0.0	28 757	0	0.0	27 020	1	3.7
QLD	913 840	8	0.9	571 943	6	1.0	483 483	8	1.7
SA	560 692	0	0.0	292 256	3	1.0	261 611	1	0.4
TAS	141 511	0	0.0	79 091	0	0.0	74 016	0	0.0
VIC	1 511 570	9	0.6	786 752	5	0.6	656 863	3	0.5
WA	426 362	5	1.2	239 158	1	0.4	242 511	1	0.4
Total	5 386 930	47	0.9	2 944 207	21	0.7	2 604 401	19	0.7

State/Territory	1997 – 1999 ^{3,4}			All years		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT	–	–	–	186 553	1	0.5
NSW	879 019	1	0.1	4 280 954	36	0.8
NT	24 519	1	4.1	129 910	2	1.5
QLD	555 562	4	0.7	2 524 828	26	1.0
SA	253 661	2	0.8	1 368 220	6	0.4
TAS	65 559	1	1.5	360 177	1	0.3
VIC	676 170	2	0.3	3 631 355	19	0.5
WA	273 899	2	0.7	1 181 930	9	0.8
Total	2 728 389	13	0.5	13 663 927	100	0.7

- 1 Prevalence per 100 000 donations.
- 2 From 1 May 1985.
- 3 HIV antibody testing of blood donors in the ACT carried out in NSW from 1 July 1996.
- 4 HIV antibody testing of blood donors in TAS carried out in VIC from 1 July 1999.

Source: Australian Red Cross Blood Service; National Serology Reference Laboratory, Australia

3.3.2 Number of blood donors in Australia with HIV antibody, 1985 – 1999, by HIV exposure category and sex, and number of new HIV infections in blood donors with a previous donation negative for HIV antibody by years of donation

HIV exposure category	1985 – 1990		1991 – 1993		1994 – 1996		1997 – 1999		All years		
	M	F	M	F	M	F	M	F	M	F	Total
Male homosexual contact	12 ¹	–	4	–	1	–	2	–	19	–	19
Injecting drug use	1	0	0	0	1	0	1	0	3	0	3
Heterosexual contact	13	12	2	3	4	3	1	4	20	22	42
Person from a high prevalence country	0	0	0	0	0	0	0	2	0	2	2
Receipt of blood/tissue	1	2	0	0	0	0	0	0	1	2	3
Other	0	0	0	0	1	1	0	0	1	1	2
Undetermined	4	2	12	0	8	0	1	2	25	4	29
Total	31	16	18	3	15	4	5	8	69	31	100
New HIV infection²	11	7	4	0	4	4	1	2	20	13	33

- 1 Includes one male who also reported a history of injecting drug use.
- 2 Year of HIV infection was estimated as the midpoint between the date of last HIV negative donation and the date of HIV positive donation.

Source: Australian Red Cross Blood Service

3.3.3 Number of donations tested for HCV antibody at blood services, number of donations positive for HCV antibody and prevalence of HCV antibody¹, by State/Territory and year of donation

State/ Territory	1998			1999		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT ²	9 080	0	0.0	—	—	—
NSW	268 393	63	23.5	271 622	61	22.5
NT	9 140	1	10.9	9 714	0	0.0
QLD	192 060	85	44.3	189 392	53	28.0
SA	87 843	11	12.5	88 549	6	6.8
TAS ³	26 219	5	19.1	13 013	0	0.0
VIC	234 403	50	21.3	243 126	27	11.1
WA	92 001	24	26.1	100 379	21	20.9
Total	919 139	239	26.0	915 795	168	18.3

- 1 Prevalence per 100 000 donations.
 2 HCV antibody testing of blood donors in the ACT carried out in NSW from 1 July 1998.
 3 HCV antibody testing of blood donors in TAS carried out in VIC from 1 July 1999.

Source: Australian Red Cross Blood Service

3.4 National monitoring of HIV antibody and HCV antibody among entrants to the Australian Defence Force

Table 3.4.1 Prevalence of HIV infection among entrants to the Australian Defence Force, 1988 – 1999

	Apr 88 – Dec 91	Jan 92 – Dec 92	Jan 93 – Dec 93	Jan 94 – Dec 94	Jan 95 – Dec 95	Jan 96 – Dec 96	Jan 97 – Dec 97	Jan 98 – Dec 98	Jan 99 – Dec 99 ¹	Total
Number of entrants tested	23 569	3 686	1 353	5 002	5 583	5 431	3 897	5 163	3 211	56 895
Number positive for HIV antibody	2	0	1	0	1	0	0	0	0	4
HIV prevalence per 100 000 entrants	8	0	74	0	18	0	0	0	0	7

1 Data from the Royal Australian Air Force available for October – December 1999 only.

Source: Australian Defence Force

Table 3.4.2 Prevalence of HCV antibody among entrants to the Australian Defence Force, 1997 – 1999

	Jun 97 – Dec 97 ^{1,2}	Jan 98 – Dec 98 ^{1,2}	Jan 99 – Dec 99 ²	Total
Number of entrants tested ¹	1 676	3 352	4 379	9 407
Number positive for HCV antibody ²	1	2	9	12
HCV prevalence per 100 000 entrants	60	60	205	128

- 1 Data on HCV antibody testing available from the Royal Australian Army and the Royal Australian Navy only.
 2 Data on results of HCV antibody testing available from the Royal Australian Navy only.
 3 Data on HCV antibody testing and results available from the Royal Australian Army, the Royal Australian Navy and the Royal Australian Air Force. Data from the Royal Australian Air Force available for October to December 1999 only.

Source: Australian Defence Force

4 Sentinel surveillance for blood borne viruses in injecting drug users

4.1 HIV and HCV seroprevalence among people attending needle and syringe programs, 1995 – 1999

Table 4.1.1 Number of participating needle and syringe programs (NSP), 1995 – 1999, number of injecting drug users tested for HIV or HCV antibody (percent of clients seen) and number (percent) with HIV or HCV antibody by year, State/Territory and sex

1995										
State/ Territory	Number of NSP	Number of clients tested (% of clients seen)			Number with HIV antibody (%)			Number with HCV antibody (%)		
		Male	Female	Total ¹	Male	Female	Total ¹	Male	Female	Total ^{1,2}
NSW	4	254 (38)	152 (50)	412 (40)	6 (2.4)	3 (2.0)	10 (2.4)	219 (86)	124 (82)	348 (85)
QLD	4	223 (55)	82 (57)	309 (56)	4 (1.8)	1 (1.2)	5 (1.6)	84 (38)	37 (45)	124 (40)
VIC	5	77 (23)	41 (33)	118 (25)	1 (1.3)	0 (0.0)	1 (0.8)	43 (56)	20 (49)	63 (53)
Other	8	85 (45)	52 (53)	140 (43)	4 (4.7)	0 (0.0)	4 (2.9)	54 (64)	27 (52)	83 (59)
Total	21	639 (40)	327 (49)	979 (41)	15 (2.3)	4 (1.2)	20 (2.0)	400 (63)	208 (64)	618 (63)

1996										
State/ Territory	Number of NSP	Number of clients tested (% of clients seen)			Number with HIV antibody (%)			Number with HCV antibody (%)		
		Male	Female	Total ¹	Male	Female	Total	Male	Female	Total ^{1,2}
NSW	4	322 (48)	169 (54)	496 (48)	11 (3.4)	0 (0.0)	11 (2.2)	232 (72)	118 (70)	354 (71)
QLD	5	355 (68)	125 (67)	485 (68)	7 (2.0)	1 (0.8)	8 (1.6)	106 (30)	54 (43)	160 (33)
VIC	3	128 (44)	61 (47)	190 (45)	3 (2.3)	0 (0.0)	3 (1.6)	56 (44)	34 (56)	91 (48)
Other	8	167 (50)	111 (61)	282 (53)	2 (1.2)	0 (0.0)	2 (0.7)	82 (49)	54 (49)	140 (50)
Total	20	972 (53)	466 (58)	1 453 (54)	23 (2.4)	1 (0.2)	24 (1.7)	476 (49)	260 (56)	745 (51)

1997										
State/ Territory	Number of NSP	Number of clients tested (% of clients seen)			Number with HIV antibody (%) ³			Number with HCV antibody (%)		
		Male	Female	Total ¹	Male	Female	Total	Male	Female	Total ^{1,2}
NSW	5	316 (50)	206 (64)	523 (54)	5 (1.6)	1 (0.5)	6 (1.1)	216 (68)	149 (72)	366 (70)
QLD	5	327 (72)	150 (76)	479 (74)	7 (2.1)	2 (1.3)	9 (1.9)	86 (26)	51 (34)	138 (29)
VIC	4	294 (39)	141 (61)	436 (44)	4 (1.4)	1 (0.7)	5 (1.1)	140 (48)	81 (57)	221 (51)
Other	8	182 (69)	77 (65)	261 (64)	7 (3.8)	0 (0.0)	7 (2.7)	84 (46)	36 (47)	121 (46)
Total	22	1 119 (54)	574 (67)	1 699 (56)	23 (2.1)	4 (0.7)	27 (1.6)	526 (47)	317 (55)	846 (50)

1998										
State/ Territory	Number of NSP	Number of clients tested (% of clients seen)			Number with HIV antibody (%)			Number with HCV antibody (%)		
		Male	Female	Total ¹	Male	Female	Total	Male	Female	Total ^{1,2}
ACT	1	87 (73)	50 (85)	137 (77)	0 (0.0)	0 (0.0)	0 (0.0)	46 (53)	22 (44)	68 (50)
NSW	11	542 (32)	368 (48)	916 (37)	6 (1.1)	2 (0.5)	8 (0.9)	368 (68)	264 (72)	635 (69)
NT	2	65 (61)	22 (69)	87 (62)	7 (10.8)	0 (0.0)	7 (8.1)	28 (43)	6 (27)	34 (39)
QLD	5	472 (48)	196 (56)	670 (50)	11 (2.3)	2 (1.0)	13 (1.9)	114 (24)	76 (39)	192 (29)
SA	5	96 (44)	71 (50)	168 (46)	1 (1.0)	1 (1.4)	2 (1.2)	28 (29)	17 (24)	45 (27)
TAS	2	35 (59)	8 (47)	43 (52)	2 (5.7)	0 (0.0)	2 (4.7)	14 (40)	4 (50)	18 (42)
VIC	4	193 (30)	90 (45)	283 (35)	0 (0.0)	0 (0.0)	0 (0.0)	104 (54)	48 (53)	152 (54)
WA	2	76 (37)	48 (45)	126 (40)	2 (2.6)	2 (4.2)	4 (3.2)	32 (42)	19 (40)	52 (41)
Total	32	1 566 (40)	853 (51)	2 430 (42)	29 (1.9)	7 (0.8)	36 (1.5)	734 (47)	456 (53)	1 196 (49)

1999										
State/ Territory	Number of NSP	Number of clients tested (% of clients seen)			Number with HIV antibody (%)			Number with HCV antibody (%)		
		Male	Female	Total ¹	Male	Female	Total	Male	Female	Total ^{1,2}
ACT	1	48 (39)	42 (86)	90 (53)	0 (0.0)	1 (2.3)	1 (1.1)	30 (63)	24 (57)	54 (60)
NSW	14	536 (38)	312 (49)	853 (41)	8 (1.5)	1 (0.3)	9 (1.1)	321 (60)	198 (63)	523 (61)
NT	1	64 (59)	15 (45)	79 (55)	3 (4.5)	0 (0.0)	3 (3.8)	36 (56)	3 (20)	39 (49)
QLD	6	531 (47)	268 (58)	804 (51)	11 (2.1)	2 (0.8)	13 (1.6)	191 (36)	115 (43)	307 (38)
SA	6	142 (67)	96 (83)	238 (70)	2 (1.4)	4 (4.2)	6 (2.5)	61 (43)	37 (39)	98 (41)
TAS	1	18 (30)	6 (35)	24 (28)	0 (0.0)	0 (0.0)	0 (0.0)	7 (39)	4 (67)	11 (46)
VIC	3	135 (23)	69 (36)	205 (26)	2 (1.5)	0 (0.0)	2 (1.0)	81 (60)	40 (58)	122 (60)
WA	2	53 (40)	32 (51)	85 (43)	0 (0.0)	0 (0.0)	0 (0.0)	28 (53)	15 (47)	43 (51)
Total	34	1 527 (42)	840 (55)	2 378 (45)	26 (1.7)	8 (1.0)	34 (1.4)	755 (49)	430 (52)	1 197 (50)

1 Totals include people whose sex was reported as transgender and people whose sex was not reported.

2 HCV prevalence adjusted for State/Territory population was 63% in 1995, 54% in 1996, 52% in 1997, 51% in 1998 and 54% in 1999.

3 Excludes 2 cases with insufficient specimen for confirmatory testing.

Source: Collaboration of Australian Needle and Syringe Programs

Table 4.1.2 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or HCV antibody, 1995 – 1999, and number with HIV or HCV antibody by year, history of injecting drug use and sex

1995									
History of injecting drug use	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Less than 3 years	77	53	131	1.3	0.0	0.8	18	28	22
3 to 5 years	103	60	165	1.9	0.0	1.2	33	37	35
6 or more years	445	212	665	2.7	1.9	2.6	77	80	78
Not reported	14	2	18	0.0	0.0	0.0	64	50	61
Total	639	327	979	2.3	1.2	2.0	63	64	63

1996									
History of injecting drug use	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Less than 3 years	161	74	237	2.5	0.0	1.7	11	16	13
3 to 5 years	178	103	283	1.7	0.0	1.1	13	35	22
6 or more years	597	278	884	2.7	0.4	1.9	69	73	71
Not reported	36	11	49	0.0	0.0	0.0	56	73	57
Total	972	466	1 453	2.4	0.2	1.7	49	56	51

1997									
History of injecting drug use	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Less than 3 years	186	121	308	0.5	0.0	0.3	12	16	13
3 to 5 years	223	122	345	0.9	0.0	0.6	21	37	26
6 or more years	677	322	1 004	2.8	1.3	2.3	65	77	69
Not reported	33	9	42	3.0	0.0	2.0	48	56	50
Total	1 119	574	1 699	2.1	0.7	1.6	47	55	50

1998									
History of injecting drug use	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Less than 3 years	273	182	457	1.1	0.6	0.9	15	20	17
3 to 5 years	298	178	476	1.7	0.0	1.1	25	34	29
6 or more years	960	482	1 449	2.1	1.2	1.8	63	73	66
Not reported	35	11	48	2.9	0.0	2.1	49	55	52
Total	1 566	853	2 430	1.9	0.8	1.5	47	53	49

1999									
History of injecting drug use	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Less than 3 years	238	155	393	0.9	0.7	0.8	16	28	20
3 to 5 years	297	177	475	0.7	2.3	1.3	29	33	30
6 or more years	951	491	1 448	2.2	0.6	1.7	64	66	65
Not reported	41	17	62	2.4	0.0	1.6	49	59	52
Total	1 527	840	2 378	1.7	1.0	1.4	49	52	50

¹ Totals include people whose sex was reported as transgender and people whose sex was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

Table 4.1.3 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or HCV antibody, 1995 – 1999, and number with HIV or HCV antibody by year, sexual orientation and sex

1995									
Sexual orientation	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Heterosexual	538	233	775	0.7	0.9	0.9	64	64	64
Bisexual	37	64	104	2.7	1.6	1.9	49	64	59
Homosexual	42	23	69	23.8	4.3	15.9	52	57	54
Not reported	22	7	31	0.0	0.0	0.0	64	86	71
Total	639	327	979	2.3	1.2	2.0	63	64	63

1996									
Sexual orientation	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Heterosexual	803	321	1 133	0.5	0.3	0.4	52	58	52
Bisexual	69	97	166	4.3	0.0	1.8	48	48	48
Homosexual	60	32	92	26.7	0.0	17.4	38	44	38
Not reported	40	16	62	0.0	0.0	0.0	65	75	66
Total	972	466	1 453	2.4	0.2	1.7	49	56	51

1997									
Sexual orientation	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Heterosexual	950	387	1 341	0.5	0.8	0.6	48	58	51
Bisexual	70	120	191	2.9	0.8	1.6	39	50	46
Homosexual	51	54	105	31.4	0.0	15.2	39	39	39
Not reported	48	13	62	0.0	0.0	0.0	42	92	53
Total	1 119	574	1 699	2.1	0.7	1.6	47	55	50

1998									
Sexual orientation	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Heterosexual	1 339	620	1 963	1.0	0.8	0.9	48	56	51
Bisexual	88	139	228	3.4	1.4	2.2	42	45	43
Homosexual	69	74	144	17.4	0.0	8.3	31	45	39
Not reported	70	20	95	1.4	0.0	1.1	47	60	49
Total	1 566	853	2 430	1.9	0.8	1.5	47	53	49

1999									
Sexual orientation	Number tested			Percent with HIV antibody			Percent with HCV antibody		
	Male	Female	Total ¹	Male	Female	Total	Male	Female	Total
Heterosexual	1 242	553	1 795	0.8	1.3	1.0	51	51	51
Bisexual	104	187	297	1.9	0.5	1.0	41	55	51
Homosexual	70	52	124	17.1	0.0	9.7	34	38	35
Not reported	111	48	162	1.8	0.0	1.2	52	60	54
Total	1 527	840	2 378	1.7	1.0	1.4	49	52	50

¹ Totals include people whose sex was reported as transgender and people whose sex was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

5 Treatment for HIV infection

5.1 Uptake of antiretroviral treatment for HIV infection by gay and other homosexually active men

5.1.1 Number of gay and other homosexually active men with diagnosed HIV infection participating in the Periodic Surveys, 1997 – 1999, and proportion reporting use of combination antiretroviral therapy for HIV infection, by city and month and year of survey

	Sydney 1997		Sydney 1998		Sydney 1999		Brisbane 1998		Adelaide 1999	
	August	February	August	February	August	June	June	November	October	
Sample size	265	400	206	379	223	113	99	34	34	
Proportion reporting use of combination therapy										
Yes	74.7	70.8	75.7	72.3	69.5	68.1	67.7	64.7	73.5	
No	25.3	29.2	24.3	26.4	30.5	31.9	32.3	35.3	26.5	

Source: National Centre in HIV Social Research; National Centre in HIV Epidemiology and Clinical Research; State AIDS Councils ; People living with HIV/AIDS

5.2 Uptake of antiretroviral treatment for HIV infection in the Australian HIV Observational Database

5.2.1 Antiretroviral treatment among people enrolled in the Australian HIV Observational Database in 1999

	Current antiretroviral treatment					
	None	Mono	Double	3+ without protease inhibitor	3+ with protease inhibitor	Total
Total	252 (20%)	27 (2%)	126 (10%)	238 (19%)	606 (49%)	1 249
Sex						
Male	233 (20%)	23 (2%)	116 (10%)	235 (20%)	582 (49%)	1 189
Female	19 (32%)	4 (7%)	10 (17%)	3 (5%)	24 (40%)	60
Age at enrolment (years)						
<30	34 (34%)	0 (-)	8 (8%)	22 (22%)	37 (36%)	101
30–39	116 (22%)	8 (1%)	55 (10%)	99 (18%)	262 (49%)	540
40–49	65 (17%)	9 (2%)	38 (10%)	87 (23%)	187 (48%)	386
50+	37 (17%)	10 (4%)	25 (11%)	30 (13%)	120 (54%)	222
Exposure category						
Male homosexual contact	205 (20%)	22 (2%)	97 (10%)	207 (20%)	492 (48%)	1 023
Other/not reported	47 (21%)	5 (2%)	29 (13%)	31 (14%)	114 (50%)	226
Viral load (copies/ml)						
<400	19 (5%)	3 (1%)	26 (7%)	82 (23%)	225 (64%)	355
400–10 000	81 (17%)	17 (4%)	54 (11%)	105 (22%)	222 (46%)	479
10 000+	140 (36%)	6 (1%)	43 (11%)	51 (13%)	150 (38%)	390
Not reported	12	1	3	0	9	25
CD4+ count (cells/μl)						
<200	22 (14%)	3 (2%)	21 (13%)	23 (15%)	89 (56%)	158
200–500	105 (22%)	12 (3%)	44 (9%)	83 (18%)	227 (48%)	471
500+	117 (19%)	11 (2%)	59 (10%)	132 (22%)	283 (47%)	602
Not reported	8	1	2	0	7	18
AIDS prior to enrolment						
No	223 (22%)	13 (1%)	106 (11%)	202 (20%)	454 (45%)	998
Yes	29 (11%)	14 (6%)	20 (8%)	36 (14%)	152 (61%)	251
Previous treatment						
None	197 (38%)	14 (3%)	46 (9%)	109 (21%)	150 (29%)	516
Mono	26 (7%)	6 (2%)	48 (13%)	67 (18%)	226 (61%)	373
Double	14 (9%)	2 (1%)	12 (7%)	27 (17%)	108 (66%)	163
3 without protease inhibitor	5 (17%)	2 (7%)	5 (17%)	7 (24%)	10 (34%)	29
3 with protease inhibitor	10 (6%)	3 (2%)	15 (9%)	28 (17%)	112 (67%)	168

Source: Australian HIV Observational Database

5.3 Uptake of antiretroviral treatment for HIV infection among people participating in the HIV Futures surveys

5.3.1 Antiretroviral treatment reported by people with HIV infection enrolled in the HIV Futures surveys, by year

	Current antiretroviral treatment									
	None		1 drug		2 drugs		3 or more drugs		Total	
	1997	1999	1997	1999	1997	1999	1997	1999	1997	1999
Total	199 (22%)	243 (27)	14 (2%)	5 (<1%)	87 (10%)	52 (6%)	593 (66%)	611 (67%)	893	911
Sex										
Male	173 (21%)	206 (25%)	14 (2%)	4 (<1%)	79 (9%)	46 (6%)	565 (68%)	569 (69%)	831	825
Female	24 (42%)	34 (41%)	0 (0%)	1 (1%)	7 (12%)	7 (9%)	26 (46%)	40 (49%)	57	82
Age (years)										
<30	30 (32%)	20 (53%)	0 (0%)	0 (0%)	11 (12%)	2 (5%)	52 (56%)	16 (42%)	93	38
30–39	88 (23%)	96 (28%)	6 (2%)	2 (<1%)	32 (8%)	20 (6%)	251 (67%)	226 (66%)	377	344
40–49	59 (20%)	92 (28%)	6 (2%)	0 (0%)	25 (9%)	18 (5%)	202 (69%)	222 (67%)	292	332
50+	21 (18%)	26 (15%)	1 (1%)	3 (1%)	18 (16%)	12 (7%)	74 (65%)	134 (77%)	114	175
Not reported	1	9	1	0	1	0	14	13	17	22
Year of HIV diagnosis										
1981–1989	96 (22%)	111 (27%)	8 (2%)	4 (1%)	47 (11%)	26 (6%)	291 (66%)	271 (66%)	442	412
1990–1993	59 (23%)	66 (27%)	6 (2%)	1 (<1%)	23 (9%)	13 (5%)	170 (66%)	169 (68%)	258	249
1994–1997	44 (23%)	63 (26%)	0 (0%)	0 (0%)	17 (9%)	13 (5%)	132 (68%)	166 (68%)	193	242
Not reported	0	3	0	0	0	0	0	5	0	8
Exposure category										
Male homosexual contact	145 (20%)	169 (25%)	10 (1%)	4 (<1%)	67 (9%)	39 (6%)	494 (69%)	478 (69%)	716	690
Other/Not reported	54 (31%)	74 (33%)	4 (2%)	1 (1%)	20 (11%)	13 (6%)	99 (56%)	133 (60%)	177	221
Viral load (copies/ml)										
<400	21 (6%)	27 (6%)	1 (<1%)	2 (<1%)	35 (10%)	22 (5%)	300 (84%)	402 (89%)	357	453
400–20 000	63 (24%)	82 (40%)	10 (4%)	1 (<1%)	30 (12%)	18 (9%)	155 (60%)	102 (50%)	258	203
20 000+	58 (34%)	91 (54%)	1 (<1%)	1 (1%)	17 (10%)	9 (5%)	97 (56%)	67 (40%)	173	168
Not reported	57	43	2	1	5	3	41	40	105	87
CD4+ count (cells/μl)										
<200	18 (10%)	37 (27%)	1 (<1%)	2 (1%)	23 (12%)	5 (4%)	144 (77%)	94 (68%)	186	138
200–500	78 (20%)	90 (25%)	8 (2%)	0 (0%)	36 (9%)	20 (6%)	265 (69%)	242 (69%)	387	352
500+	91 (35%)	87 (24%)	4 (1%)	3 (1%)	23 (9%)	23 (7%)	143 (55%)	243 (68%)	261	356
Not reported	12	29	1	0	5	4	41	32	59	65
Prior AIDS										
No	180 (25%)	201 (28%)	11 (1%)	3 (<1%)	69 (10%)	38 (5%)	455 (64%)	465 (66%)	715	707
Yes	19 (11%)	42 (21%)	3 (1%)	2 (1%)	18 (10%)	14 (7%)	138 (78%)	146 (72%)	178	204

Source: Australian Research Centre in Sex, Health and Society

5.4 Uptake of antiretroviral treatment for HIV infection among people enrolled in Positive Health

5.4.1 Number of people enrolled in Positive Health in 1999 by city and percentage reporting use of antiretroviral treatment for HIV infection

	Sydney	Melbourne	Total
Sample size	362	56	418
No antiretroviral therapy	21.0	16.1	20.4
One antiretroviral agent	1.9	5.4	2.4
Two antiretroviral agents	6.6	1.8	5.9
Three or more antiretroviral agents	70.5	76.7	71.3
Protease inhibitor	49.4	58.9	50.8

Source: National Centre in HIV Social Research; National Centre in HIV Epidemiology and Clinical Research; State AIDS Councils; People living with HIV/AIDS

5.5 Monitoring prescriptions for antiretroviral agents

Table 5.5.1 Number of people prescribed antiretroviral treatment through the Highly Specialised Drugs (S100) Program and total cost of prescribed treatment, by 6 month intervals

Antiretroviral agent	1994/95	Jul-Dec 95	Jan-Jun 96	Jul-Dec 96	Jan-Jun 97	Jul-Dec 97	Jan-Jun 98	Jul-Dec 98	Jan-Jun 99	Jul-Dec 99
	Nucleoside analogue reverse transcriptase inhibitors									
Didanosine	659	520	606	483	783	1 063	1 318	1 495	1 456	1 473
Lamivudine	n/a	n/a	n/a	3 319	4 478	4 383	4 218	3 969	3 126	2 355
Stavudine	n/a	n/a	n/a	1 793	3 038	3 434	3 681	3 825	3 646	3 619
Zalcitabine	896	1 054	1 301	1 019	801	318	237	201	163	137
Zidovudine	2 455	2 484	2 529	2 910	2 892	1 970	1 783	1 505	809	632
Lamivudine & Zidovudine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	220	958	1 283
Non-nucleoside analogue reverse transcriptase inhibitors										
Delavirdine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	98	88	84
Nevirapine	n/a	n/a	n/a	n/a	n/a	1 157	1 716	1 884	2 064	2 177
Protease inhibitors										
Indinavir	n/a	n/a	n/a	618	1 485	1 872	1 756	1 555	1 326	1 251
Nelfinavir	n/a	n/a	n/a	n/a	n/a	n/a	1 012	1 359	1 370	1 336
Ritonavir	n/a	n/a	n/a	213	758	817	764	704	546	696
Saquinavir	n/a	n/a	n/a	1 949	2 531	2 021	1 489	1 515	1 193	1 166
Total patients¹	n/a	n/a	n/a	5 168	6 516	5 938	6 004	6 099	5 948	6 081
Total cost (\$'000s)	9 724	5 461	5 549	19 083	28 522	30 354	31 427	34 885	32 066	35 623

¹ Total patients calculated as (Stavudine + Zidovudine)/0.91

Source: Highly Specialised Drugs (S100) Program

Table 5.5.2 Number of people prescribed drugs for HIV/AIDS related conditions through the Highly Specialised Drugs (S100) Program and total cost of prescribed treatment, by 6 month intervals

Antiretroviral agent	1994/95	Jul-Dec 95	Jan-Jun 96	Jul-Dec 96	Jan-Jun 97	Jul-Dec 97	Jan-Jun 98	Jul-Dec 98	Jan-Jun 99	Jul-Dec 99
	Azithromycin	n/a	n/a	n/a	n/a	n/a	89	256	287	294
Cidofovir	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	7	6
Clarithromycin	n/a	n/a	314	318	322	257	192	183	130	177
Doxorubicin	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	9
Foscarnet	33	28	34	41	32	31	32	22	14	13
Ganciclovir	172	122	145	174	158	163	121	92	78	80
Rifabutin	404	513	571	416	297	140	95	85	66	66
Total cost (\$'000s)	1 637	1 335	1 326	2 122	1 744	1 655	1 496	1 204	1 119	1 013

Source: Highly Specialised Drugs (S100) Program

6 Monitoring behaviour

6.1 Monitoring sexual, injecting and HIV antibody testing behaviour in gay and other homosexually active men

6.1.1 Number of gay and other homosexually active men participating in the Periodic Surveys, 1996 – 1999, prevalence of anal intercourse by city and month and year of survey, partner type and condom use, and prevalence of injecting drug use and HIV antibody testing by city and month and year of survey

	Sydney 1996		Sydney 1997		Sydney 1998		Sydney 1999		Brisbane 1999		Adelaide 1999	
	Feb	Aug	Feb	Aug	Feb	Aug	Feb	Aug	Jun	Jun	Nov	Oct
Sample size	1 611	627	1 609	1 021	2 201	836	2 401	942	1 341	1 225	552	463
Anal intercourse with regular partners												
No regular partner	28.1	35.6	37.4	39.4	37.3	42.3	33.4	36.4	38.4	29.6	34.6	36.5
No anal intercourse	10.6	9.6	7.1	7.8	6.0	5.9	9.2	5.8	7.5	14.0	10.0	8.6
Always with condom	31.7	31.6	25.5	26.9	25.9	23.2	25.4	23.8	23.4	26.6	21.0	21.8
Any without condom	29.7	23.3	30.0	25.9	30.9	28.6	31.9	34.0	30.6	29.8	34.4	33.0
Anal intercourse with casual partners												
No casual partners	18.4	14.4	31.1	22.3	27.0	18.7	33.4	21.1	28.3	11.0	39.5	38.2
No anal intercourse	25.7	18.7	16.7	18.1	18.9	19.0	16.6	17.5	21.6	35.1	17.9	17.5
Always with condom	44.2	47.2	36.3	37.6	37.1	41.3	34.2	36.0	36.2	39.2	28.4	32.2
Any without condom	11.7	19.8	15.9	21.9	17.1	21.1	15.9	25.4	14.0	14.7	14.1	12.1
Injecting drug use												
	–	–	–	–	–	12.4	6.7	7.6	8.7	8.6	–	7.5
HIV antibody testing												
	61.2	64.7	60.2	67.4	61.8	63.3	62.4	67.6	45.9	60.0	55.2	54.0

Source: National Centre in HIV Social Research; National Centre in HIV Epidemiology and Clinical Research; State AIDS Councils; People living with HIV/AIDS

6.2 Monitoring sexual behaviour in university students

Table 6.2.1 Sexual practice among 17 – 19 year old first year university students, 1990 – 1999, by year of enrolment

	Year of enrolment										
	90	91	92	93	94	95	96	97	98	99	
Total	843	418	573	553	235	297	377	393	336	206	
Male	280	121	158	166	63	57	97	97	92	52	
Female	563	297	415	387	172	240	280	296	244	154	
Number of partners, ever (%)											
0	45.5	42.7	45.6	41.0	38.4	49.8	44.9	39.3	45.2	42.2	
1	20.0	22.3	23.9	26.3	26.2	27.1	24.9	26.7	23.5	27.7	
2–4	24.7	24.9	22.6	25.7	23.6	16.5	21.4	27.5	26.5	21.8	
>4	9.9	10.1	7.9	7.0	11.8	6.5	8.8	6.4	4.8	8.3	
Ready access to condoms (%) ¹											
Male	47.9	56.2	61.1	62.6	73.8	59.3	52.6	56.0	65.4	58.8	
Female	19.7	21.3	32.4	35.8	52.4	49.4	42.2	30.3	40.6	42.2	
Condom use with regular partner in the last month (%)											
Never	–	14.1	11.4	13.0	12.3	13.7	12.8	14.9	10.4	14.6	
Sometimes	–	5.3	6.0	4.2	6.2	4.5	4.4	4.6	5.4	4.4	
Most times	–	3.8	4.6	6.2	6.2	5.2	4.7	6.2	5.1	5.3	
Every time	–	11.7	14.7	13.9	13.7	8.2	10.0	18.6	13.4	14.1	
no partner	–	65.1	63.4	62.7	61.7	68.4	68.1	55.7	65.8	61.6	
Condom use with casual partner in the last 6 months (%)											
Never	–	4.1	2.4	2.9	3.5	3.1	1.9	2.4	1.2	2.9	
Sometimes	–	0.7	0.5	1.8	2.2	1.0	1.1	0.8	1.2	1.5	
Most times	–	2.9	1.2	1.6	1.8	1.7	2.8	1.3	3.9	3.9	
Every time	–	8.9	8.4	11.3	11.4	7.5	11.3	9.4	8.9	7.7	
no partner	–	83.5	87.4	82.3	81.1	86.6	82.9	86.1	84.8	84.0	
Sexual practice, ever (%)											
Vaginal sex	50.0	50.4	47.1	53.2	56.8	43.4	50.4	56.7	49.1	51.0	
Regular partner	46.7	48.2	44.3	50.1	53.7	39.5	47.4	54.2	46.5	50.0	
Casual partner	24.9	24.8	18.3	22.2	28.2	16.3	23.4	21.0	14.3	16.5	
Anal sex	5.5	7.7	5.1	6.4	2.3	4.5	3.0	7.6	5.7	5.8	
Regular partner	4.6	6.8	4.7	5.7	2.7	4.0	2.6	6.1	4.8	5.8	
Casual partner	1.6	3.5	1.3	2.4	0.5	1.1	0.3	1.8	1.8	0.5	
Any form of sex (oral, vaginal, anal)	57.7	60.4	56.0	61.5	69.4	57.6	60.6	66.4	57.4	60.7	

¹ Answering 'yes' to the question: 'Do you currently keep condoms readily accessible, for example, in a purse, wallet, glovebox or a bedside table?'

Source: National Centre in HIV Social Research

6.3 Monitoring condom use

6.3.1 Number of participants in annual surveys carried out by Ansell International, percentage who refused to answer questions on sexual behaviour, number of survey respondents, and percentage reporting sexual activity and condom use, by year of survey and age group

Year	1994	1995	1996	1997	1998	1999
Number of participants	1 113	1 194	1 143	1 183	1 109	1 057
Refused to answer questions on sexual behaviour (%)	12.6	16.3	13.7	17.6	24.4	16.4
Number of respondents	1 044	940	986	975	838	884
Sexually active (%)	76.3	79.2	71.5	73.7	75.9	74.8
Percent sexually active by age group (years)						
16 – 24	73.8	76.5	72.2	71.0	69.7	66.3
25 – 34	91.7	93.2	92.6	90.7	88.8	93.9
35 – 49	87.8	89.6	84.3	86.3	88.3	86.0
50+	52.6	60.2	45.6	49.5	53.4	56.8
Ever used condoms (%)	60	64	61	61	71	71
Condom use in the past three months (%)	25	27	22	28	26	24
Percent reporting condom use in the past three months by age group (years)						
16 – 24	33.0	36.0	31.4	27.7	30.6	27.1
25 – 34	36.9	37.4	36.2	37.2	38.2	36.7
35 – 49	26.3	19.6	24.2	31.5	25.5	28.0
50+	3.8	7.0	8.2	3.6	5.7	8.2

Source: Ansell International

6.4 Monitoring sexual and injecting behaviour in injecting drug users

Table 6.4.1 Number of injecting drug users participating in surveys carried out at needle and syringe programs (NSP), 1995 – 1999, percent reporting HIV and HCV tests within the past twelve months, number reporting drug injection in the past month, and percent reporting use of a needle and syringe after someone else in the last month by year, sex, history of injecting drug use and last drug injected

	Number of participants			% reporting recent HIV test			Number reporting IDU last month			% using after someone else		
	M	F	T ¹	M	F	T	M	F	T ¹	M	F	T
1995												
<i>History of injecting drug use</i>												
Less than 3 years	77	53	131	49	58	53	69	48	118	22	29	25
More than 3 years	548	272	830	69	75	71	507	257	774	29	36	32
Not reported	14	2	18	71	100	72	13	2	17	31	50	35
<i>Last drug injected</i>												
Heroin/opiates	424	219	649	71	74	72	398	209	613	29	36	32
Amphetamine	131	71	206	49	72	57	114	65	183	27	32	30
Combination	57	25	85	77	64	74	54	22	79	33	50	37
Other/not reported	27	12	39	59	75	64	23	11	34	4	9	6
Total¹	639	327	979	67	73	69	589	307	909	28	35	31
1996												
<i>History of injecting drug use</i>												
Less than 3 years	161	74	237	51	64	55	148	67	217	19	28	22
More than 3 years	775	381	1 167	69	78	72	728	355	1 093	28	30	29
Not reported	36	11	49	67	73	67	34	11	47	38	27	34
<i>Last drug injected</i>												
Heroin/opiates	635	343	987	69	80	73	607	323	938	27	29	28
Amphetamines	193	73	269	55	56	55	176	61	239	24	25	25
Combination	90	35	126	76	74	75	85	34	120	40	47	42
Other/not reported	54	15	71	50	87	58	43	15	60	12	33	17
Total¹	972	466	1 453	66	76	69	910	433	1 357	27	30	28
1997												
<i>History of injecting drug use</i>												
Less than 3 years	186	121	308	44	62	51	166	117	284	11	21	15
More than 3 years	900	444	1 349	70	73	71	838	418	1 260	13	15	14
Not reported	33	9	42	70	78	71	28	9	37	11	22	14
<i>Last drug injected</i>												
Heroin/opiates	769	428	1 200	70	73	71	724	409	1 135	14	18	15
Amphetamines	214	96	312	49	60	53	185	85	272	9	9	9
Combination	69	35	104	75	80	77	66	35	101	23	17	21
Other/not reported	67	15	83	61	73	63	57	15	73	2	20	5
Total¹	1 119	574	1 699	66	71	67	1 032	544	1 581	13	16	14

	Number of participants			% reporting recent HIV test			% reporting recent HCV test			Number reporting IDU last month			% using after someone else		
	M	F	T ¹	M	F	T	M	F	T	M	F	T	M	F	T
1998															
<i>History of injecting drug use</i>															
Less than 3 years	273	182	457	52	63	56	50	65	56	257	173	432	13	24	17
More than 3 years	1 258	660	1 925	65	71	67	66	70	70	1 194	624	1 824	17	20	18
Not reported	35	11	48	57	55	54	49	82	54	27	7	34	19	14	18
<i>Last drug injected</i>															
Heroin/opiates	978	581	1 562	66	71	68	68	73	70	946	559	1 508	16	21	18
Amphetamines	354	155	510	52	62	55	47	55	49	315	137	453	9	12	10
Combination	155	88	247	68	67	68	68	64	69	152	83	239	29	29	29
Other/not reported	79	29	111	64	76	67	54	76	59	65	25	90	17	24	19
Total¹	1 566	853	2 430	63	69	65	62	69	65	1 478	804	2 290	16	21	18
1999															
<i>History of injecting drug use</i>															
Less than 3 years	238	155	393	52	66	58	52	67	58	218	146	364	20	24	22
3 to 5 years	297	177	475	59	58	62	61	69	64	271	169	441	17	25	20
6 or more years	951	491	1 448	65	66	65	66	70	67	884	456	1 346	21	20	21
Not reported	41	17	62	49	71	53	18	65	50	29	11	40	21	27	23
<i>Last drug injected</i>															
Heroin/opiates	896	522	1 424	67	69	68	67	73	69	848	500	1 354	20	22	21
Amphetamines	401	212	614	52	60	55	52	60	55	363	190	554	19	16	18
Combination	121	70	192	42	73	66	66	71	68	114	66	180	29	39	33
Other	109	36	148	67	64	47	51	64	53	77	26	103	15	15	15
Total¹	1 527	840	2 378	61	67	63	62	69	65	1 402	782	2 191	20	22	23

1 Totals include people whose sex was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

Table 6.4.2 Number of injecting drug users participating in surveys carried out at needle and syringe programs (NSP), 1995 – 1999, percent reporting HIV and HCV tests within the past twelve months, and number reporting sexual intercourse in the last month, and percent reporting condom use at last intercourse by year, sex, age group and sexual identity

1995	Number of participants			% reporting recent HIV test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T ¹	M	F	T	M	F	T ¹	M	F	T
	<i>Age group</i>											
Less than 20 years	36	28	65	64	54	60	24	22	47	50	50	51
20 – 24 years	127	93	226	58	80	68	101	78	183	42	28	36
25 – 34 years	296	136	435	70	72	70	223	100	324	31	31	31
35+ years	174	69	246	68	72	70	105	41	148	23	24	24
Not reported	6	1	7	50	100	57	4	1	5	0	0	0
<i>Sexual identity</i>												
Heterosexual	538	233	775	66	73	68	384	174	560	30	26	29
Bisexual	37	64	104	68	73	72	27	51	80	30	49	44
Homosexual	42	23	69	69	70	70	32	14	49	63	14	51
Not reported	22	7	31	68	71	71	14	3	18	21	33	22
Total¹	639	327	979	67	73	69	457	242	707	32	31	32
<i>1996</i>												
1996	Number of participants			% reporting recent HIV test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T ¹	M	F	T	M	F	T ¹	M	F	T
<i>Age group</i>												
Less than 20 years	80	56	137	49	71	58	61	45	107	51	33	44
20 – 24 years	241	115	358	70	72	71	182	95	278	42	33	39
25 – 34 years	378	203	589	66	77	69	254	152	410	33	31	32
35+ years	268	92	362	67	80	70	152	59	211	25	29	26
Not reported	5	0	7	80	–	71	3	0	4	33	–	25
<i>Sexual identity</i>												
Heterosexual	803	321	1 133	65	74	68	535	236	776	31	26	30
Bisexual	69	97	166	70	79	75	48	84	132	58	45	50
Homosexual	60	32	92	72	88	77	42	18	60	67	33	57
Not reported	40	16	62	70	63	66	27	13	42	30	31	31
Total¹	972	466	1 453	66	76	69	652	351	1 010	33	31	34

1997	Number of participants			% reporting recent HIV test			% reporting recent HCV test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T ¹	M	F	T	M	F	T	M	F	T ¹	M	F	T
	<i>Age group</i>														
Less than 20 years	95	89	184	53	66	60	48	71	59	62	76	138	45	30	37
20 – 24 years	294	145	440	63	74	67	61	74	65	211	129	342	32	26	30
25 – 34 years	429	226	658	73	75	74	73	73	73	310	168	479	34	29	32
35+ years	298	114	414	62	62	63	68	66	68	173	75	248	25	28	26
Not reported	3	0	3	33	–	33	33	–	33	3	0	3	33	–	33
<i>Sexual identity</i>															
Heterosexual	950	387	1 341	65	71	67	66	72	68	659	315	976	30	27	29
Bisexual	70	119	191	67	71	70	68	70	69	49	99	149	53	34	41
Homosexual	51	54	105	71	70	70	74	70	72	23	26	49	61	12	35
Not reported	48	14	62	67	92	73	66	79	65	28	8	36	25	38	28
Total¹	1 119	574	1 699	66	71	67	66	66	72	759	448	1 210	32	28	31

1998	Number of participants			% reporting recent HIV test			% reporting recent HCV test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T ¹	M	F	T	M	F	T	M	F	T ¹	M	F	T
	<i>Age group</i>														
Less than 20 years	138	117	255	54	70	61	49	71	59	94	87	181	44	20	32
20 – 24 years	386	235	622	64	74	68	63	71	66	290	179	470	41	25	35
25 – 34 years	626	300	933	65	71	67	64	69	66	435	215	656	31	29	30
35+ years	414	201	618	62	61	61	63	64	63	220	106	328	25	21	23
Not reported	2	0	2	0	–	0	0	–	0	1	0	1	0	–	0
<i>Sexual identity</i>															
Heterosexual	1 339	620	1 963	63	68	65	63	69	65	885	424	1 313	31	23	28
Bisexual	88	139	228	69	73	71	68	73	71	62	99	162	48	38	43
Homosexual	69	74	144	65	70	68	65	66	66	53	52	106	53	17	36
Not reported	70	20	95	54	60	56	46	55	62	40	12	55	40	25	38
Total¹	1 566	853	2 430	63	69	65	62	69	65	1 040	587	1 636	34	25	31

1999	Number of participants			% reporting recent HIV test			% reporting recent HCV test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T ¹	M	F	T	M	F	T	M	F	T	M	F	T
	<i>Age group</i>														
Less than 20 years	130	114	244	48	67	57	50	75	62	93	92	185	55	41	48
20 – 24 years	324	201	527	59	70	63	61	68	64	249	170	420	38	26	33
25 – 34 years	665	331	1 000	64	68	66	64	68	66	449	243	696	29	31	30
35+ years	408	194	607	63	61	62	63	68	65	205	128	337	33	26	30
<i>Sexual identity</i>															
Heterosexual	1 242	553	1 795	60	63	61	62	66	63	787	419	1 206	32	25	30
Bisexual	104	187	297	66	77	74	61	77	71	74	148	227	38	49	45
Homosexual	70	52	124	74	75	75	61	77	69	50	33	84	60	15	42
Not reported	111	48	162	65	56	61	63	60	62	85	33	121	40	36	36
Total¹	1 527	840	2 378	61	67	63	62	69	65	996	633	1 638	34	30	33

¹ Totals include people whose sex was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

7 Global comparisons

Table 7.1 Estimated HIV prevalence and AIDS incidence in selected countries

Country	HIV prevalence		AIDS incidence	
	1999	Rate ¹	1999	Rate ¹
Asia Pacific				
Australia	12 160	66	196	1.1
Cambodia ²	220 000	2 013	8 257	172
China	500 000	40	–	–
India	3 700 000	378	–	–
Indonesia	52 000	25	–	–
Japan	10 000	8	–	–
Malaysia	49 000	225	–	–
Myanmar	530 000	1 176	–	–
New Zealand	1 200	31	33	0.9
Papua New Guinea	5 400	115	–	–
Philippines	28 000	38	–	–
Republic of Korea	3 800	8	–	–
Thailand ^{3,4}	755 000	1 241	25 847	42.5
Vietnam	100 000	127	–	–
Europe				
France ^{3,4}	130 000	221	2 026	3.4
Germany ⁴	37 000	45	575	0.7
Italy ⁴	95 000	166	2 200	3.8
Spain ³	120 000	303	3 462	8.7
United Kingdom ⁴	31 000	53	788	1.3
North America				
Canada	49 000	159	701	2.3
United States	850 000	308	46 400	16.7

1 Rate per 100 000 population.

2 AIDS incidence estimated in people aged 15–49 years.

3 AIDS incidence in 1998.

4 AIDS incidence not adjusted for reporting delay.

Methodological notes

1 National surveillance for diagnoses of HIV infection, AIDS and perinatal exposure to HIV

1.1 National AIDS Registry

National surveillance for AIDS diagnoses

AIDS is a notifiable condition in all State/Territory health jurisdictions in Australia. AIDS cases are notified by the diagnosing doctor through State/Territory health authorities to the national HIV surveillance centre. Information sought at AIDS notification includes State/Territory of diagnosis, name code (based on the first two letters of the family name and given name), sex, date of birth, country of birth, date of AIDS diagnosis, AIDS defining illness, CD4+ cell count at AIDS diagnosis, date of first HIV diagnosis, and source of exposure to HIV. Late HIV diagnosis was defined as HIV infection newly diagnosed within three months of AIDS diagnosis (Kaldor and French 1993). Further information on the AIDS surveillance system in Australia is available in Kaldor *et al* (1993).

Prior to 1993, the US Centers for Disease Control and Prevention AIDS surveillance definition was used in Australia (Centers for Disease Control 1987). From 1993, three additional conditions, recurrent pneumonia, pulmonary tuberculosis and cervical cancer, were included as AIDS defining illnesses in Australia (Australian National Council on AIDS 1994).

Adjusting AIDS incidence for reporting delay

Reporting delay, the interval between date of AIDS diagnosis and date of entry of the AIDS notification onto the National AIDS Registry, was calculated for AIDS cases diagnosed from 1 January 1997 to 31 December 1999 and notified by 31 March 2000. It was assumed that AIDS cases were completely reported in three years. The number of AIDS diagnoses in each quarter from the second quarter of 1997 was adjusted for reporting delay using the methods of Brookmeyer and Liao (1990) and Law and Kaldor (1997).

The reporting delay distribution varied between State/Territory health authorities, and AIDS cases diagnosed in the fourth quarter of a year were reported more quickly than cases diagnosed in other quarters. These factors were considered in the adjustment of the number of AIDS diagnoses. There was no significant difference in reporting delay due to sex or age. Similar methods were used for adjusting the number of deaths following AIDS for reporting delay.

Survival following AIDS

The analysis was based on AIDS cases diagnosed by 31 December 1999 and reported to the National AIDS Registry by 31 March 2000. Cases without any follow-up information after AIDS diagnosis were excluded from the analysis. Survival following AIDS was calculated as the interval from the date of AIDS diagnosis to the date of death if the person had died; otherwise to the date of last medical contact or 31 December 1999, whichever came first. Survival rates at 1 and 2 years following AIDS diagnosis, and median survival, were estimated by the Kaplan-Meier method. Further information on survival following AIDS is available in Li *et al* (2000).

1.2 National HIV Database

National surveillance for newly diagnosed HIV infection

Newly diagnosed HIV infection, as well as AIDS, is a notifiable condition in all State/Territory health jurisdictions in Australia. Cases of diagnosed HIV infection were notified through State/Territory health authorities to the national HIV surveillance centre on the first occasion of diagnosis in Australia. Information sought at notification of HIV infection included State/Territory of diagnosis, name code (based on the first two letters of the family name and the first two letters of the given name), sex, date of birth, Indigenous status, date of HIV diagnosis, CD4+ cell count at diagnosis, source of exposure to HIV and evidence of newly acquired HIV infection.

Newly acquired HIV infection was defined as newly diagnosed HIV infection with evidence of a negative or indeterminate HIV antibody test result, or a diagnosis of HIV seroconversion illness, within one year of HIV diagnosis. Cases of newly acquired HIV infection which had progressed to AIDS were identified by matching HIV diagnoses, notified to the National HIV Database, to AIDS diagnoses, notified to the National AIDS Registry. HIV and AIDS diagnoses were matched by name code, sex and date of birth.

The surveillance systems for newly diagnosed HIV infection and newly acquired HIV infection are described in McDonald *et al* (1994a) and McDonald *et al* (1994b). The National Serology Reference Laboratory, Australia (Dax and Vandenbelt 1993), carried out monitoring of HIV antibody testing.

Adjusting the number of HIV diagnoses for multiple reports

The number of diagnoses of HIV infection reported to the National HIV Database was adjusted for multiple reporting, based on the reported dates of birth of each case. By assuming that all dates of birth were equally likely, and that all diagnoses of HIV infection were reported with the correct date of birth, it was possible to estimate the number of distinct HIV diagnoses. Further details of the methods used are described in Law *et al* (1996).

The total number of distinct HIV diagnoses was estimated for each State/Territory and year of diagnosis. Because adult/adolescent women and people whose sex was reported as transgender are a relatively small proportion of all HIV diagnoses, and also because diagnoses in women are thought to be almost completely accurate, their numbers of HIV diagnoses were simply enumerated, assuming that there was no multiple reporting (McDonald and Cui 1997). The number of men diagnosed with HIV infection adjusted for multiple reporting was then estimated for each State/Territory by subtracting the appropriate number of women and transgender from the corresponding State/Territory total.

1.3 Back-projection estimation

Estimates of past HIV incidence and future AIDS incidence were obtained using back-projection methods. The method uses observed AIDS incidence data (adjusted for reporting delay), and knowledge of the rate at which HIV infected people progress to AIDS, to reconstruct the likely pattern of past HIV incidence. It is then also possible to estimate future AIDS incidence. The form of back-projection used was that suggested by Becker *et al* (1991), as modified by Marschner and Watson (1992).

The baseline rate of progression to AIDS was modelled using a Weibull-with-leveilling distribution (Rosenberg *et al* 1992), corresponding to a median time to AIDS of just under 10 years and a progression rate of 11.2% at four years (Alcabes *et al* 1993). The extended definition of AIDS, adopted in Australia in January 1988, was assumed to result in a 10% increase in the rate of progression to AIDS (Rosenberg *et al* 1992).

Because of the uncertainties surrounding both the effect of combination antiretroviral treatments in reducing the rate of progression to AIDS, and the numbers of people living with HIV infection taking up such treatments, back-projections were performed using the following methods. First, a back-projection based on AIDS cases diagnosed to the end of 1994 was performed to estimate the pattern of HIV incidence up to this time. Over this period only moderately effective antiretroviral treatments were available, assumed to correspond to an overall 10% reduction in the rate of progression to AIDS, so the pattern of past HIV incidence can be reliably reconstructed. Second, the effects of improved combination treatments since the beginning of 1995 were then estimated, based on the estimated pattern of HIV incidence, so as to closely approximate AIDS incidence observed between 1995 and 1999.

The effects of improved combination treatments on reducing the overall rate of progression to AIDS were estimated based on all cases of AIDS, and are summarised in the Table below.

Table Estimated percentage effect of combination antiretroviral treatments in reducing the overall rate of progression to AIDS between 1995 and 1999

Year/ Quarter	1995				1996				1997				1998				1999			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Estimated reduction in progression rate (%)	11	14	17	21	23	25	28	50	54	56	61	64	67	70	72	75	77	78	80	82

Projections of AIDS incidence from 2000 onwards were made by assuming that the effect of treatments continued to be a 82% reduction in the rate of progression to AIDS. The estimated effects of treatment based on all cases of AIDS given in the table above were also applied to back-projections for other subgroups.

Where there were sufficient numbers of AIDS cases, back-projection analyses were based on quarterly AIDS counts (overall analyses, New South Wales, Victoria, Queensland and in males who reported a history of homosexual or bisexual contact with or without a report of injecting drug use). In other subgroups, analyses were based on annual AIDS counts.

In all analyses HIV incidence was fixed from 1994 onwards. The level at which HIV incidence was fixed in each subgroup (State/Territory or HIV exposure category) was decided on the basis of the number of HIV diagnoses and diagnoses of newly acquired HIV infection reported to the National HIV Database, and was also chosen to be consistent with the estimated HIV incidence obtained from the back-projection analyses.

All back-projection analyses are presented unadjusted for under-reporting of AIDS cases (that is AIDS cases which were never reported) unless specifically noted otherwise. Reporting of AIDS cases was thought to be relatively complete in Australia, with completeness estimated to be at least 95% (Grulich *et al* 1999).

Estimates of the number of people living with HIV infection

Estimates of the number of people living with HIV infection by disease stage (a CD4+ cell count more than 500/μl, a CD4+ cell count of less than 500/μl and AIDS free, or living with AIDS) were based on the estimated pattern of past HIV incidence. The rate of progression to a CD4+ cell count fewer than 500/μl was modelled using a similar Weibull-with-leveilling distribution to that used to model the time from HIV infection to AIDS. The median time from HIV infection to a CD4+ cell count of 500/μl was assumed to be 4 years, with 95% below 500/μl by 10 years. Survival following AIDS was modelled using a Weibull distribution corresponding to a median survival of 16 months, and survival rates of 30% and 13% at 2 and 3 years respectively. Survival following AIDS has been reasonably consistent in Australia between 1988 and 1994. The effect of combination antiretroviral treatment in improving survival following AIDS from 1995 was estimated so as to closely approximate observed numbers of deaths between 1995 and 1999. The improvement in survival corresponded to a 28% reduction in the death rate in 1995, a 51% reduction in 1996, an 80% reduction in 1997, an 88% reduction in 1998 and a 93% reduction in 1999. Projections of deaths from 1999 onwards were made by assuming that the effects of treatments continued to result in an 93% reduction in the death rate.

1.4 Assessment of patient report of exposure to HIV

The basis for HIV exposure category classification was documented in cases of newly diagnosed HIV infection in adults/adolescents, for which the person reported a source of exposure to HIV other than male homosexual/bisexual contact. The medical practitioner involved in the person's HIV diagnosis was asked to complete a questionnaire which sought specific information on the person's reported history of receipt of blood, injecting drug use and heterosexual contact, both in Australia and overseas. The medical practitioner was also asked to indicate whether he/she was generally satisfied with the person's reported HIV exposure history. Further information is available in McDonald *et al* (1994c), McDonald (1995) and Raman *et al* (1996).

1.5 National surveillance for perinatal exposure to HIV

Cases of perinatal exposure to HIV were reported to the national HIV surveillance centre by paediatricians, through the Australian Paediatric Surveillance Unit and through assessment of perinatal exposure in children born to women newly diagnosed with HIV infection. Diagnoses of HIV infection in women and their exposed children were notified through national HIV/AIDS surveillance procedures. Further details are given in McDonald *et al* (1997).

2 National monitoring of diagnoses of specific sexually transmissible infections and blood borne viruses

2.1 Notifications of specific sexually transmissible infections and blood borne viruses to the National Notifiable Diseases Surveillance System

Diagnoses of specific sexually transmissible infections were notified by State/Territory health authorities to the National Notifiable Diseases Surveillance System (NNDSS), maintained by the Commonwealth Department of Health and Aged Care. Gonorrhoea and syphilis were notifiable conditions in all health jurisdictions. Chlamydia was notifiable in all health jurisdictions except New South Wales prior to 1998; chlamydia was made a notifiable condition in NSW in 1998. Diagnoses of hepatitis B (newly acquired cases) and hepatitis C infection (newly acquired and prevalent cases) were also notified to the NNDSS. In most State/Territory health authorities, diagnoses of sexually transmissible infections were notified by the diagnosing laboratory, the medical practitioner, hospital, or a combination of these. In Western Australia, a parent or guardian, household co-occupant, local government, or employer can also notify a diagnosis (see Table below).

Population rates of diagnosis of specific sexually transmissible infections were calculated for each State/Territory using population estimates for 1996, provided by the Australian Bureau of Statistics.

Table Source of notification of specific sexually transmissible infections and blood borne viruses to the National Notifiable Diseases Surveillance System by State/Territory

Diagnosis	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Gonorrhoea	Doctor	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Other ¹
Syphilis	Doctor	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Other ¹
Chlamydia	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor Other ¹
Donovanosis	Not notifiable	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Not notifiable	Laboratory	Doctor Laboratory	Doctor Laboratory
Hepatitis A	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory
Hepatitis B (newly acquired)	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory Other ¹	Doctor Other ¹
Hepatitis C (prevalent)	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor Other ¹
Hepatitis C (newly acquired)	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory		Doctor Laboratory	Doctor	Doctor	Doctor

1. Parent or guardian, occupier of household, local government, or employer.

2.2 National monitoring of diagnoses of sexually transmissible infections and blood borne viruses in Indigenous people

Information on Indigenous status was routinely sought at diagnosis of HIV infection and AIDS in the Northern Territory, Queensland, South Australia, Tasmania and Western Australia. Information on Indigenous status was sought for cases of HIV infection and AIDS newly diagnosed in New South Wales from January 1992 and from June 1998 in Victoria. Information on Indigenous status was not available for cases of HIV/AIDS diagnosed in the Australian Capital Territory by the end of March 2000. Nationally, information on Indigenous status at HIV/AIDS diagnosis was sought prospectively from May 1995. For HIV/AIDS diagnoses prior to 1995, information on Indigenous status was obtained retrospectively through State/Territory health authorities. In 1992 – 1999, 90% of

HIV notifications from State/Territory health authorities other than the Australian Capital Territory and Victoria prior to June 1998 included information on Indigenous status.

In the case of diagnoses of gonorrhoea, syphilis, chlamydia and hepatitis C infection, information on Indigenous status was sought through doctor notification in the Australian Capital Territory, the Northern Territory, South Australia, Victoria and Western Australia. New South Wales and Tasmania were the only health authorities that sought information on Indigenous status through laboratory notification. In Queensland, information on Indigenous status was not sought at notification of sexually transmissible infections other than HIV, by 31 March 2000.

Population rates of diagnosis of specific sexually transmissible infections was calculated by year and State/Territory of diagnosis using population estimates for 1996, provided by the Australian Bureau of Statistics (*Population Distribution, Indigenous Australians, 1996*).

2.3 Gonococcal isolates

The Australian Gonococcal Surveillance Programme (AGSP) is a collaborative project involving gonococcal reference laboratories in each State/Territory and is coordinated by the NSW Gonococcal Reference Laboratory at the Prince of Wales Hospital, Sydney. The primary objective of the programme is to monitor the antibiotic susceptibility of isolates of *Neisseria gonorrhoeae*, to assist in the effective treatment of gonorrhoea. Information on sex and site of isolation of gonococcal strains was also collected (AGSP 2000).

3 Surveillance for HIV antibody and HCV antibody in sentinel populations

3.1 Sentinel HIV surveillance in sexual health clinics

A network of selected metropolitan sexual health clinics provided tabulations, at the end of each quarter and annually, of the number of people seen, the number tested for HIV antibody and the number newly diagnosed with HIV infection, broken down by sex, age group, HIV exposure category and HIV antibody testing history. Potential exposure to HIV was categorised according to the person's reported sexual behaviour in the 12 months prior to being seen at the clinic and any history of injecting drug use. HIV antibody testing history was subdivided into two categories: any history of HIV antibody testing prior to being seen at the clinic and HIV antibody testing in the 12 months prior to being seen. Estimates of HIV incidence among gay and other homosexually active men were based on the number of men seen at the clinic during the year who reported a history of male homosexual contact and who had a negative HIV antibody test within 12 months of their last HIV antibody test. Further information is available in NCHCR (1996).

3.2 National monitoring of HIV infection among entrants into Australian prisons

From 1991, State/Territory Departments of Corrections have forwarded to the national HIV surveillance centre tabulations of the number of people received into prisons in the jurisdiction in each calendar quarter, the number tested for HIV antibody at reception and the number newly diagnosed with HIV infection, broken down by sex. Further information is available in McDonald *et al* (1999).

3.3 National monitoring of HIV antibody and HCV antibody among blood donors

All blood donations in Australia have been screened for HIV-1 antibodies since May 1985, for HIV-2 antibodies since April 1992 and for HCV antibody from 1990. Prior to donation all donors are required to sign a declaration that they do not have a history of any specified factors associated with a higher risk of HIV infection and other blood-borne infections. In all State/Territory health jurisdictions, detailed information is routinely sought on donors found to have antibody to HIV-1, HIV-2 or hepatitis C, and reports are routinely forwarded to the NCHCR. Further details of the national data collection on HIV infection in blood donors are given in NCHCR (1996), and Kaldor *et al* (1991).

3.4 National monitoring of HIV antibody and HCV antibody among entrants into the Australian Defence Force

The Australian Defence Force policy for the detection and prevention of HIV infection is detailed in Defence Instruction 16-6 (Australian Defence Force 1989). Since April 1988, the policy required compulsory testing for HIV antibody of all entrants into the Defence Force once application requirements had been fulfilled. All potential entrants to the Defence Force are advised that they will be tested for HIV and HCV antibodies after entry, are warned of the consequences of providing an inaccurate history and are given the option of withdrawing their application should they not wish to proceed. Further details of the Defence Force policy are given by Flynn (1993).

4 Sentinel surveillance for HIV antibody and HCV antibody among injecting drug users

4.1 HIV and HCV seroprevalence among people attending needle and syringe programs

All clients attending needle and syringe program (NSP) sites during one week in March 1995 (20 fixed sites and one mobile site), June 1996 (19 fixed sites and one mobile site), October 1997 (21 fixed sites and one mobile site), October 1998 (30 fixed sites and two mobile sites) and November 1999 (32 fixed sites and 2 mobile sites) were asked to complete a brief, self-administered questionnaire and to provide a finger prick blood spot sample for HIV and HCV antibody testing. NSP sites were selected on the basis of large numbers of clients and representation from all State/Territory health jurisdictions. Further information is available in MacDonald *et al* (1997).

5 Monitoring uptake of antiretroviral treatment for HIV infection

5.1 Monitoring uptake of antiretroviral treatment for HIV infection among gay and other homosexually active men participating in the Periodic Surveys

Self-reported use of antiretroviral therapy for the treatment of HIV infection was monitored, from 1997, among gay and other homosexually active men with HIV infection participating in the Periodic Surveys in Adelaide, Brisbane and Sydney (see 6.1 for further information).

5.2 Monitoring uptake of antiretroviral treatment for HIV infection in the Australian HIV Observational Database

The Australian HIV Observational Database (AHOD) is a collaborative study, recording observational data on the natural history of HIV infection and its treatment. The primary objective of the AHOD is to monitor the pattern of antiretroviral and prophylactic treatment use by demographic factors and markers of HIV infection stage. Other objectives are to monitor how often people with HIV infection change antiretroviral treatments and the reasons for treatment change.

Information is collected from hospitals, general practitioner sites and sexual health centres throughout Australia. Participating sites contribute data biannually from established computerised patient management systems. Core variables from these patient management systems are transferred electronically to the National Centre in HIV Epidemiology and Clinical Research (NCHECR), where the data are collated and analysed. By March 2000, 19 participating clinical sites enrolled a total of 1,249 people into the AHOD.

A detailed summary of treatments data from the AHOD is published in the *Australian HIV Observational Database Biannual Report* (NCHECR 2000; Australian HIV Observational Database 2000).

5.3 Uptake of antiretroviral treatment for HIV infection among people participating in the HIV Futures surveys

The HIV Futures II survey was an anonymous, self complete, mail back questionnaire consisting of 193 items organised into eight sections: demographics, accommodation, health and treatments, services and organisations, sex and relationships, employment, recreational drug use and finances (Grierson *et al* 2000). The questionnaire was based, in large part, on the original HIV Futures survey (Ezzy *et al* 1998) with most items retained in their original format, to allow comparisons between the two studies. The questionnaire is available at the website www.latrobe.edu.au/hivfutures. Study participants were recruited using a multi-pronged approach including mail-out, organisational distribution and advertisement. Advertisements inviting people living with HIV/AIDS to participate in the study were placed in HIV/AIDS, gay and lesbian and injecting drug use publications. Active recruitment took place between August and October 1999.

5.4 Monitoring uptake of antiretroviral treatment for HIV infection in Positive Health

The Positive Health (pH) study is an ongoing cohort study of over 420 people with HIV infection living in New South Wales and Victoria. Participants were recruited (roughly in order of frequency) through the SMASH study, at gay community events, through PLWHA organisations and events, doctors' clinics, AIDS Councils, gay and HIV publications, other organisations and friends. Each participant has one face-to-face interview each year. Information on use of antiretroviral treatment for HIV infection is based on participant self-report.

5.5 Monitoring prescriptions for antiretroviral agents

All antiretroviral treatments for HIV infection, and some treatments for HIV/AIDS opportunistic infections, are funded through the Highly Specialised Drugs (HSDs) Program, a joint Commonwealth Government and State/Territory mechanism for the supply of HSDs. The HSDs Program is coordinated federally by the Commonwealth Department of Health and Aged Care.

The reported number of people prescribed each treatment was for people treated in community and day services only. Hospital in-patients, and people treated in pharmaceutical company-sponsored clinical trials or expanded access schemes, were excluded. The Commonwealth Government covers the cost of antiretroviral treatment for people seen in community or day services. State/Territory health authorities meet the cost of in-patient supply and costs associated with the management of these drugs.

Data on the HSDs Program were initially provided by financial year until the 1995/1996 financial year, thereafter quarterly reporting became a requirement. Prior to the 1995/1996 financial year, the reported number of people prescribed each treatment was averaged or aggregated depending on the method used by the individual State/Territory health authorities. For instance, in some hospitals, people were counted per treatment prescription rather than as individuals. Therefore, the number of people prescribed antiretroviral treatment until 1995/1996 is suggestive rather than actual. Quarterly reporting, from 1996/1997, ensured that the reported number reflected the number of people being prescribed each antiretroviral treatment rather than the number of treatment prescriptions.

Data on drugs for HIV/AIDS related conditions restricted to the HSDs program primarily include drugs for the treatment of the HIV/AIDS. There were, however, two exceptions. Rifabutin has both treatment and prophylactic uses, while azithromycin was prescribed for prophylactic use only.

The Observational Database Pilot Study (Law *et al* 1998) indicated that, in the last quarter of 1997, 91% of all people receiving antiretroviral treatment were receiving zidovudine or stavudine as a component of their therapy. Therefore, the total number of people receiving antiretroviral treatment through the HSDs program was estimated as the number receiving either stavudine or zidovudine divided by 0.91.

6 Monitoring behaviour**6.1 Monitoring sexual, injecting and HIV antibody testing behaviour among gay and other homosexually active men**

Information on sexual behaviour reported by gay and other homosexually active men was obtained through the Sydney Men and Sexual Health (SMASH) study and through Periodic Surveys in Adelaide, Brisbane, Melbourne, Sydney and Perth. The SMASH behavioural data are based on each individual's first interview in each year, so that two 6 month period in each year represent information from different men. As there has been some loss to follow up, and continuing recruitment, respondents in each year are not exactly the same men.

The Sydney Gay Community Periodic Survey commenced in 1996 and provides information on sexual behaviour in a broader cross section of Sydney gay men than was available through the SMASH study. In February 1996, 1997, 1998 and 1999, gay and homosexually active men were recruited at the Sydney Gay and Lesbian Mardi Gras fair day or at one of several gay community venues or medical clinics during the subsequent week. In August/September of each year, the sample was available only for the venues. The questionnaire was self-completed and takes approximately 5 minutes to answer. Information was sought on participant demographics, sexual practices with men and women, injecting drug use, HIV tests and results, and antiretroviral use for respondents with HIV infection.

The Adelaide, Brisbane, Melbourne and Perth Gay Community Periodic Surveys commenced in 1998 using similar recruitment strategies to the Sydney surveys and a compatible survey instrument. In February 1998, gay and homosexually active men were recruited at the local equivalent of Sydney's Mardi Gras Fair Day (the Pride Fair in Brisbane and Picnic in the Park in Adelaide) or at one of a small number of community venues or medical clinics during the subsequent week. These sites were selected to be comparable with the range of sites used in the Sydney surveys.

6.2 Monitoring sexual behaviour in university students

In 1988, the National Centre in HIV Social Research commenced a study of patterns of condom use, understandings of safe sex and knowledge of HIV transmission among 17 to 19 year old university students. Each year, first year students in a large introductory class at Macquarie University complete a questionnaire regarding sexual practice and understanding of safe sex. Questionnaire design and preliminary results have been described elsewhere (Rodden *et al* 1996).

6.3 Monitoring condom use in Australia

Annual surveys of condom use were carried out among a sample of men and women living in metropolitan or non-metropolitan areas in Australia who were aged 16 years and older at the time of the survey. Information on condom use was obtained through a face-to-face interview with survey respondents who reported that they were sexually active.

6.4 Monitoring sexual, injecting and blood borne virus testing behaviour among injecting drug users

Information on sexual behaviour, history of injecting drug use and blood borne virus testing was obtained by client completion of a questionnaire administered at 21 needle and syringe programs in 1995, 20 in 1996, 23 in 1997, 32 in 1998 and 34 in 1999. Further information is available in MacDonald *et al* (1997).

7 HIV prevalence and AIDS incidence in selected countries

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