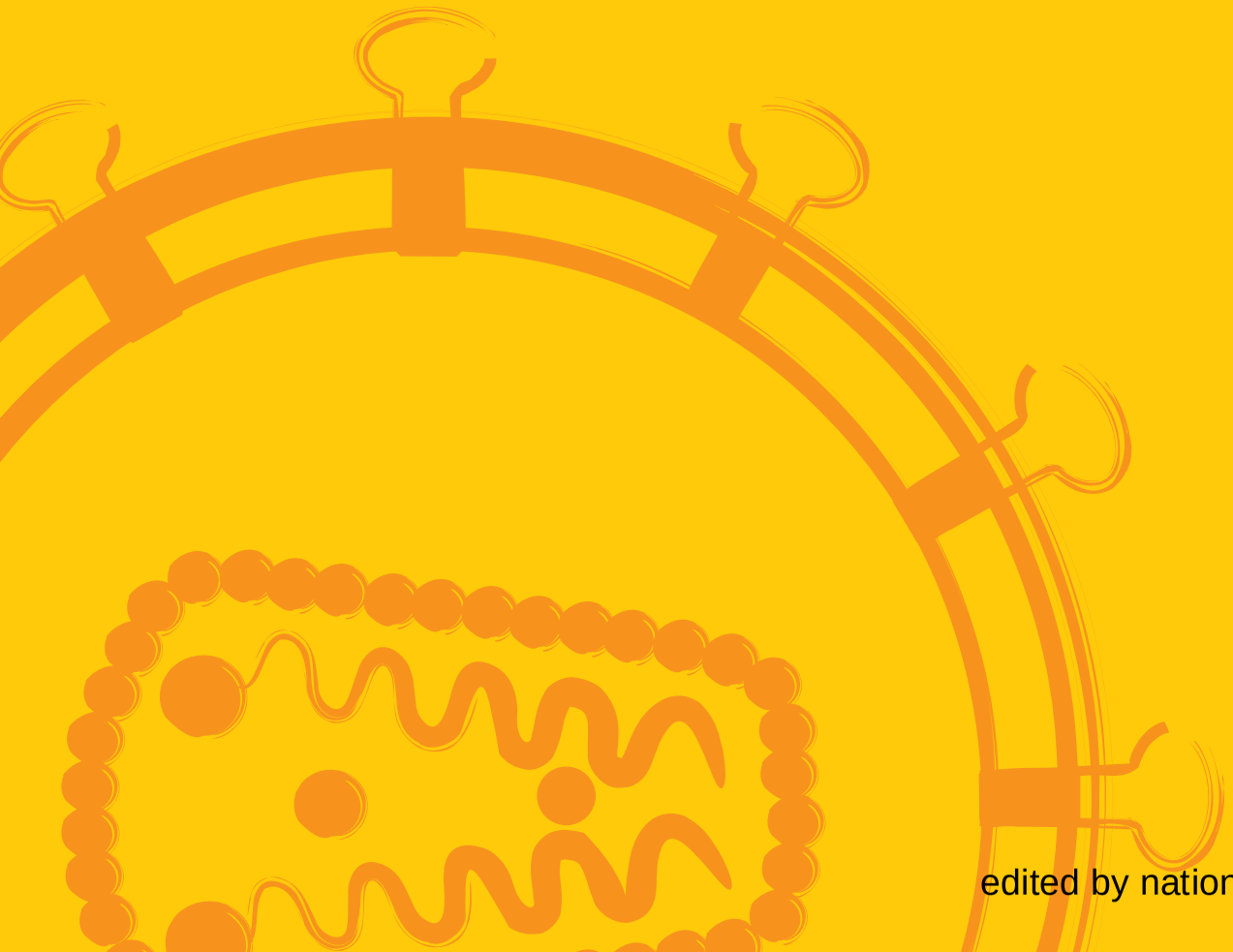
1999

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

Annual Surveillance Report



edited by national centre in HIV epidemiology and clinical research

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National Centre in HIV Epidemiology and Clinical Research
376 Victoria Street, Darlinghurst NSW 2010 Australia

Telephone: **02 9332 4648** Facsimile: **02 9332 1837** International prefix: 612 E-mail: **recept@nchecr.unsw.edu.au**

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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, hepatitis C and sexually transmissible infections

The National Centre in HIV Epidemiology and Clinical Research is supported by the Commonwealth Department of Health and Aged Care through the Australian National Council on AIDS and Related Diseases (ANCARD), and is affiliated with the Faculty of Medicine, The University of New South Wales.

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Preface

This report is the third 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 and related diseases in Australia: Annual Report on Behavioural Data relating to Risk*, edited by the National Centre in HIV Social Research. Specifically, data reported in Tables 6.1.1, 6.1.2, 7.1.1, 7.1.2, 7.1.3, and 7.2.1 of *HIV/AIDS, Hepatitis C and Sexually Transmissible Infections in Australia Annual Surveillance Report 1999* also appears in the report on behavioural data.

Unless specifically stated otherwise, all data provided in the report are to the end of 1998, as reported by 31 March 1999.

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.

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Acknowledgments

- AIDS Council of New South Wales, Sydney, NSW
- AIDS Council of South Australia, Adelaide, SA
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- Australian Paediatric Surveillance Unit and its contributors
- Becton Dickinson Pty Ltd
- Communicable Diseases Network Australia New Zealand, Canberra, ACT
- Gay Men's Health Centre, Melbourne, VIC
- Macfarlane Burnet Centre for Medical Research, Fairfield, VIC
- 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
- Queensland AIDS Council, Brisbane, QLD
- School of Statistical Science, La Trobe University, Bundoora, VIC
- St Vincent's Hospital, Sydney NSW: Alcohol and Drug Service; Centre for Immunology
- Sydney Children's Hospital, Randwick, NSW
- Victorian AIDS Council, Melbourne, 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
- Communicable Diseases Control Unit, Health Department of WA, Perth, WA

Australian Gonococcal Surveillance Programme

Reference Laboratories:

- Microbiology Department, Canberra Hospital, Woden, ACT
- 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
- 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
- Prison Medical Services, 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

Red Cross Blood Transfusion 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

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; QuIVva; 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

National network for monitoring occupational exposure to blood or body fluids in health care workers

Contributing hospitals:

- Calvary, Canberra and John James Memorial hospitals, ACT
- Bankstown/Lidcombe, Ballina, Bathurst, Blacktown, Bonalbo, Bloomfield (Orange), Byron Bay, Calvary (Wagga Wagga), Campbell (Coraki), Campbelltown, Casino and District, Coffs Harbour, Concord, Grafton Base, Goulburn Base, Kyogle, Lismore Base, Maclean, Mount Druitt, Murwullumbah, Northern Rivers, Nowra Community, Prince of Wales, Royal Women's, St Luke's Private, St. Vincent's Public (Darlinghurst), St Vincent's Private (Darlinghurst), St Vincent's (Lismore), Strathfield Private, Tamworth, Tweed Heads, Westmead, United Dental and Urbenville Multipurpose Centre, NSW
- St Andrews (Toowoomba), Caboolture, Cairns Base, Gold Coast, Holy Spirit, Ipswich, Logan, Mater Misericordiae Public, Mt Isa, Pindara Private, Prince Charles, Princess Alexandra, Royal Brisbane, Townsville General hospitals, QLD
- Flinders Medical Centre, Lyell McEwin, Royal Adelaide, Whyalla hospitals, SA
- Calvary and Royal Hobart hospitals, TAS
- Alexander District, Alfred, Beechworth, Beleura Private, Box Hill, Cabrini, Dandenong, Epworth Private, Freemasons, Kerang, Kyabram, Mt Alexander (Castlemaine), Mt Alvernia (Bendigo), Mansfield, Monash Medical Centre, Mornington Peninsula, Mildura Base, Royal Melbourne, St John of God (Ballarat), St. Vincent's, Upper Murray, Coorong, West Gippsland, Wimmera Base, Wodonga District hospitals, VIC
- Glengarry, King Edward, Mount, Mount Henry Health Service, Princess Margaret, St John of God (Murdoch), Silver Chain Community Health Care, Sir Charles Gardiner, Swan District hospitals, WA

Summary

HIV/AIDS

It is now clear that 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 two to three years by improvements in therapy. Over 1,000 fewer AIDS cases have occurred than would have been expected had there been no improvement in therapy for HIV infection since 1995.

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, nor any increase in the very low rates of transmission through the injecting of illicit drugs, or heterosexual contact.

Among people with HIV infection, over a third were not receiving antiretroviral therapy in 1998. 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 40% of AIDS cases in 1998, up from 20% in 1994, 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. As a consequence, 1998 saw an increase, for the first time since the 1980s, in the proportion of AIDS diagnoses presenting as *Pneumocystis carinii* pneumonia.

Hepatitis C infection

The high number of hepatitis C diagnoses reported in 1998 continued to make this infection the most frequently reported notifiable infection in Australia. There was a substantial increase in the number of diagnoses reported among people aged less than 20 years, and the reported number of newly acquired infections increased sharply in 1998. Transmission of hepatitis C continued at high levels among people who inject illicit drugs. There has been no further decline in prevalence following that observed among people attending needle and syringe programs in 1997.

Sexually transmissible infections

Reported cases of gonorrhoea increased; reported cases of syphilis also increased in 1998. These trends may be due to changing diagnostic methods and case definitions rather than to real shifts in prevalence or incidence of these infections. Indigenous people continue to be diagnosed with these infections at much higher rates than non–Indigenous people.

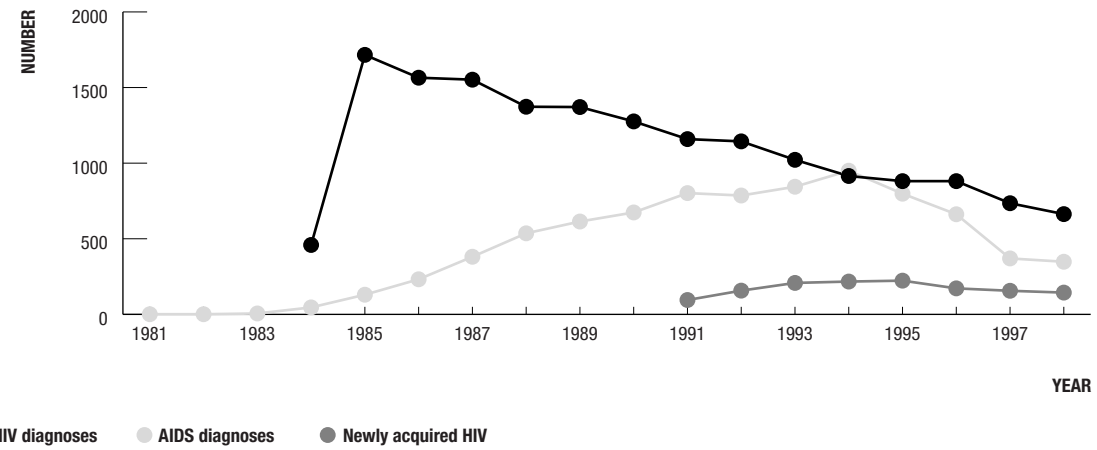
Main Findings

General Patterns

HIV/AIDS

The annual number of AIDS diagnoses in Australia, after adjustment for reporting delay, peaked in Australia in 1994 with 950 AIDS diagnoses, and is estimated to have declined to 348 cases in 1998 (Figure 1). The peak in AIDS incidence around 1994 had been predicted for several years on the basis of back–projection analyses (Figure 2), which indicated that annual HIV incidence in Australia peaked around 1984, followed by a rapid decline. However, the decline in AIDS diagnoses since 1994 has been much more rapid than originally predicted. It seems clear now that the additional decrease in the number of AIDS diagnoses is due to the use of effective combination antiretroviral therapy for the treatment of HIV infection. Potent combination antiretroviral treatments, including protease inhibitors, became widely available in Australia from mid–1996. It is estimated that there have been 1,090 fewer AIDS diagnoses between 1995 and 1998 than would have been expected if use of these therapies had not reduced the rate of progression to AIDS. There have been similar findings in Canada, the United States and in a number of European countries.

Figure 1 Number of diagnoses of HIV infection[1] and AIDS in Australia

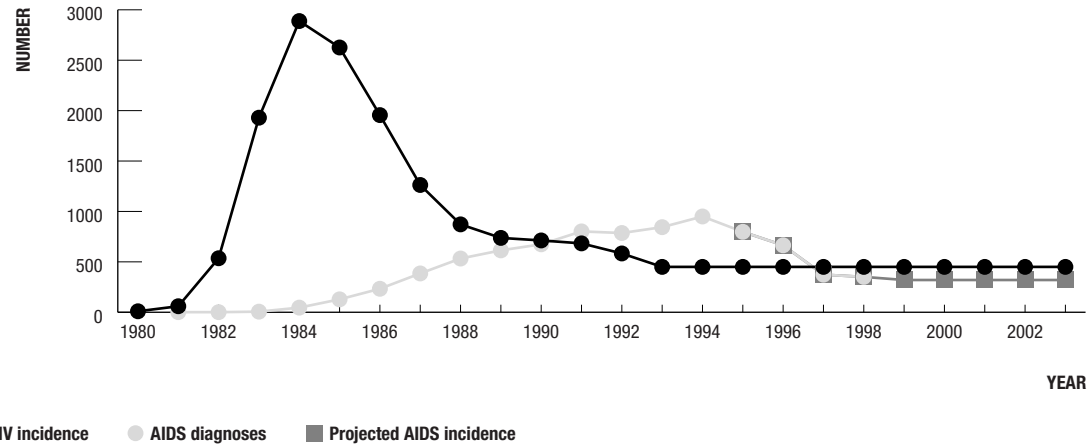


1 HIV diagnoses adjusted for multiple reporting. AIDS diagnoses adjusted for reporting delays.

The cumulative number of HIV infections in Australia to the end of 1998 was estimated to be 17,600, with an estimated 11,800 people living with HIV infection. Assuming that the overall effect of antiretroviral treatment on the rate of progression to AIDS remains at the 1998 level, AIDS incidence is predicted to remain steady at around 320 cases per year until 2003 (Figure 2). It is currently estimated that around 60% of all people living with HIV infection are using antiretroviral treatment. If this proportion were to increase substantially, then AIDS incidence would be expected to decline. However, the long–term sustainability of antiretroviral treatment is unknown, and if treatments fail for a substantial proportion of people, then AIDS incidence could increase again.

In fact, while the number of AIDS diagnoses in Australia, adjusted for reporting delay, declined from 370 in 1997 to 348 in 1998, in New South Wales there was a small increase in AIDS diagnoses.

Figure 2 Estimated HIV incidence, observed AIDS diagnoses and projected AIDS incidence[1]

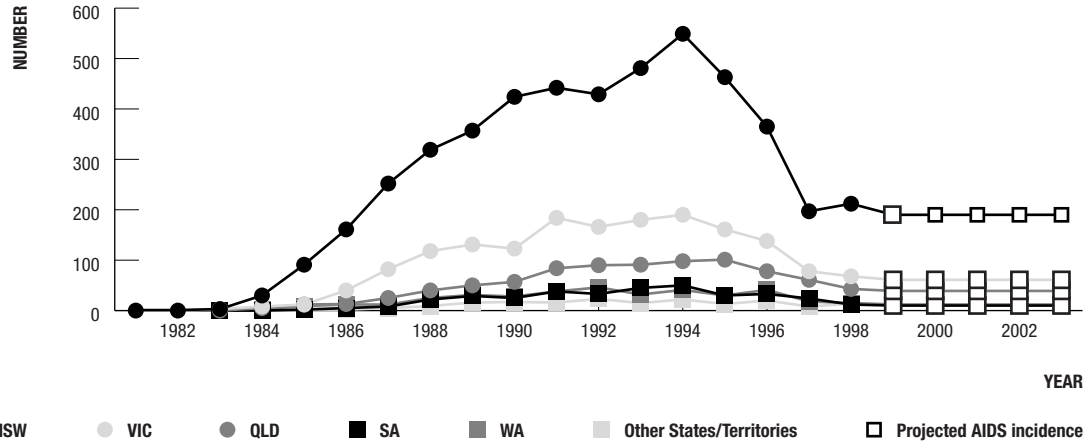


1 Observed AIDS diagnoses adjusted for reporting delays. HIV and projected AIDS incidence estimated by back-projection

There has been a continuing decline in the annual number of HIV diagnoses in Australia to just over 660 in 1998 (Figure 1). It is clear, however, that new HIV infections continue to occur in Australia. Within the total number of HIV diagnoses, around 150 – 200 each year from 1993 were in people who were found to have newly acquired HIV infection (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.

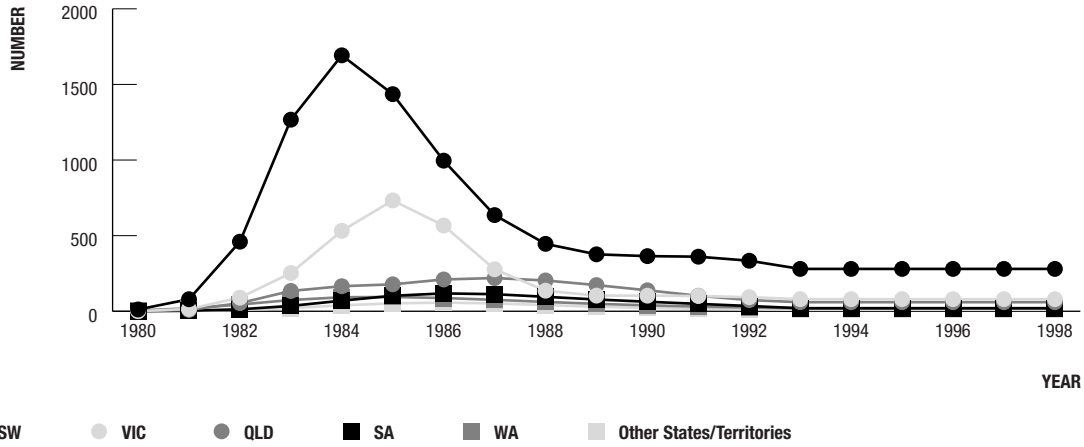
Despite the apparently similar trends over time in AIDS incidence across the Australian States and Territories (Figure 3), there have been some differences between them in the estimated time trends in HIV incidence (Figure 4). Peak HIV incidence is believed to have occurred first in New South Wales, and somewhat later in other States/Territories. In Queensland, HIV incidence is estimated to have increased rather slowly, reaching a peak only in 1987. The total estimated *per capita* number of HIV infections was highest in New South Wales at 163 infections per 100,000 resident population, followed by Victoria (65), Queensland (61), South Australia (61), Western Australia (47), and other States and Territories combined (43). AIDS incidence is projected to continue at around the 1998 level in all States and Territories over the coming years, assuming that the overall effectiveness of antiretroviral treatments remains constant at the 1998 effect.

Figure 3 Observed AIDS diagnoses[1], and projected AIDS incidence, by State/Territory



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

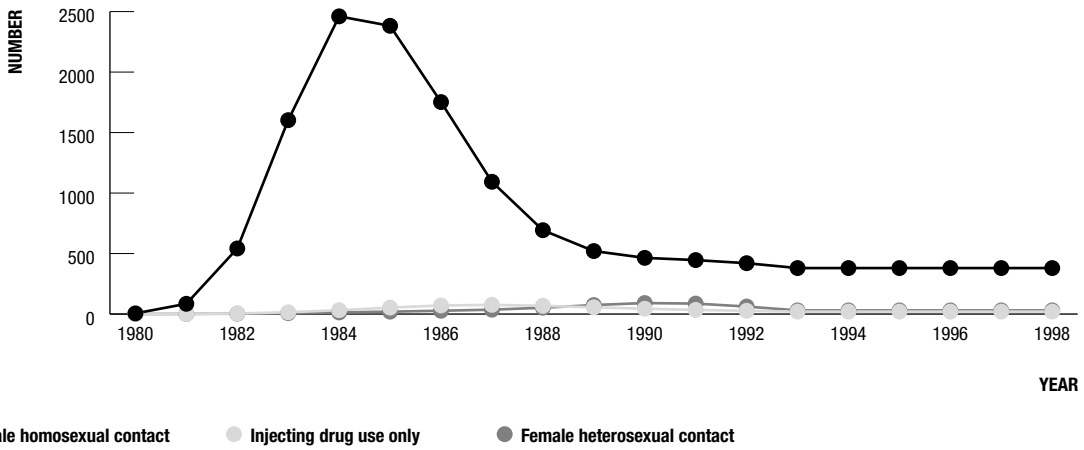
Figure 4 Estimated HIV incidence[1] by State/Territory



1 HIV incidence estimated by back–projection

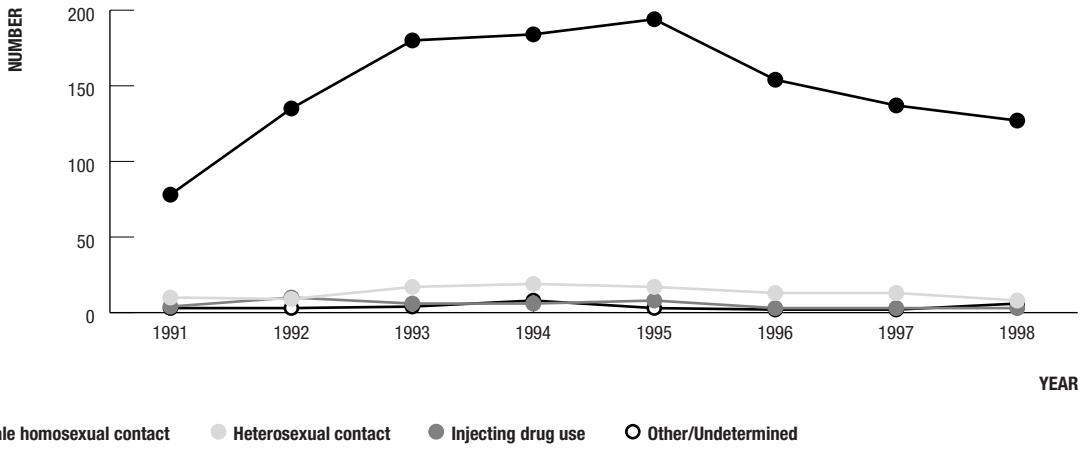
Transmission of HIV in Australia continues to be overwhelmingly through sexual contact between men (Figure 5). Over 85% of all HIV transmissions in Australia were estimated to have been via this route. Similarly, most reported diagnoses of newly acquired HIV infection were in men who were exposed through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

Figure 5 Estimated HIV incidence[1] by exposure category



1 HIV incidence estimated by back–projection

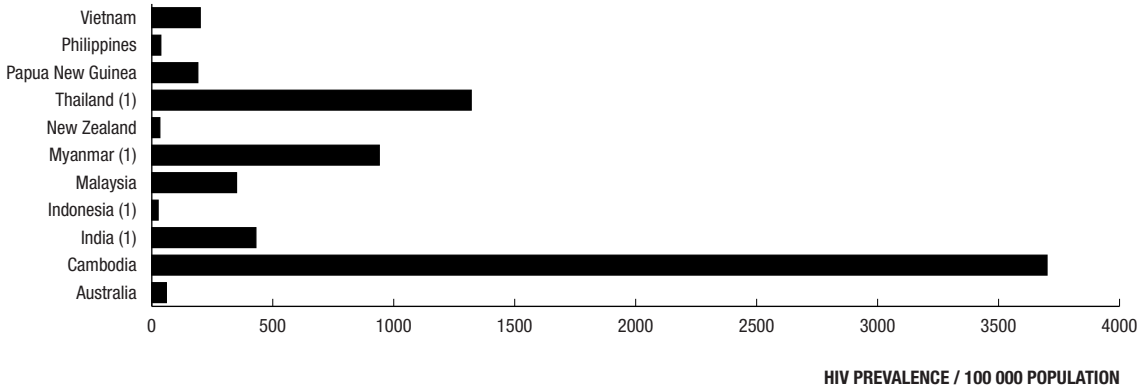
Figure 6 Number of diagnoses of newly acquired HIV infection by HIV exposure category



In the Asia–Pacific region, HIV prevalence in Thailand, Cambodia and Myanmar was substantially higher than that in Australia in 1998, suggesting that the rate of new HIV infection in those countries had been particularly high in recent years (Figure 7). HIV prevalence in India, Malaysia and Vietnam was also higher than that in Australia whereas HIV prevalence in the Philippines, Indonesia and New Zealand was lower than that in Australia.

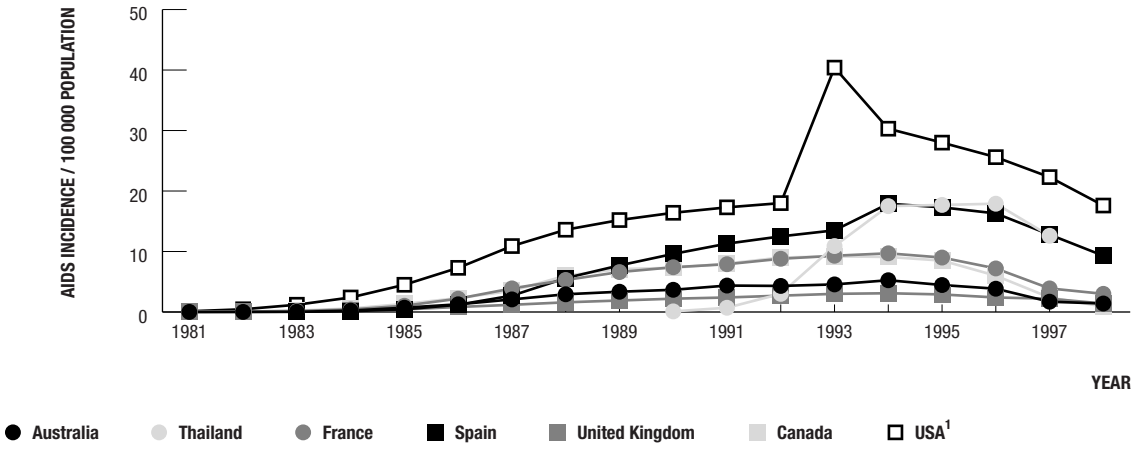
Compared with other industrialised countries, AIDS incidence in Australia in 1998 (1.8 per 100,000 population) was slightly higher than that in the United Kingdom (1.4 per 100,000 population), and lower than that in France (3.0 per 100,000 population), Spain (9.3 per 100,000 population) and the United States (17.6 per 100,000 population) (Figure 8).

Figure 7 HIV prevalence in 1998 in selected countries in the Asia-Pacific region



1 HIV prevalence in 1997

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

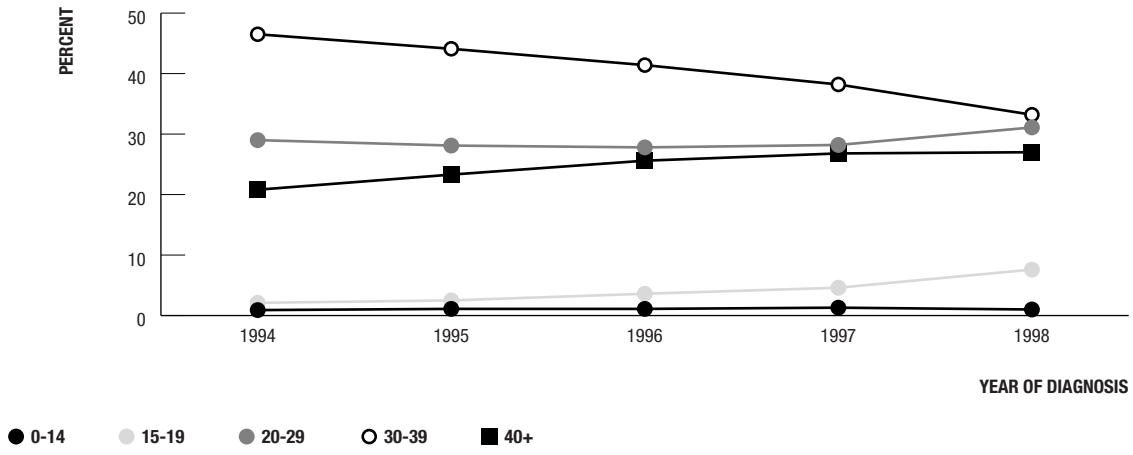
Hepatitis C infection

Hepatitis C continues to be the most commonly diagnosed notifiable infection in Australia. More than 125,000 people have been notified with hepatitis C infection since antibody testing became available in 1990, and the number of notifications over the period 1994 – 1998 has remained relatively stable at 18,000 – 20,000 per year. The total number of notified hepatitis C cases represents approximately 60% of an estimated 200,000 people living with hepatitis C infection at the end of 1998, although the true proportion of diagnosed cases may be lower, depending on the extent of multiple notification. It is clear, 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, and 1998 saw an increase in the number of reported cases to more than 300, which is still only a small fraction of the true number of newly acquired hepatitis C infections that occurred in Australia last year.

Most hepatitis C notifications in the period 1994 – 1998 were among people in the 20 – 39 year age group, although an increasing percentage of cases were aged 15 – 19 years and 40 years or older (Figure 9). 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. In contrast, the more than three fold increase over the period 1994 – 1998 in annual number of notifications in the 15 – 19 year age group suggests continuing high levels of hepatitis C transmission among young people who inject drugs. 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



Monitoring disease complications related to hepatitis C infection is challenging because of the prolonged period between infection with hepatitis C to the development of advanced liver disease (more than 20 years in most people), and the lack of a standardised system for reporting advanced hepatitis C – related disease complications. However, surveillance mechanisms are currently under development to monitor the incidence of hepatitis C – related liver cancer and liver failure, the latter partly through collection of data on people being assessed for liver transplantation.

Sexually transmissible infections other than HIV

In 1994 – 1998, the number of diagnoses of gonorrhoea and syphilis per 100,000 population was highest for the Northern Territory (Figures 10 and 11), followed by Western Australia and Queensland for gonorrhoea, and New South Wales, Queensland and Western Australia for syphilis. Notifications of gonorrhoea increased in both sexes and in all age groups. Over the years 1994 – 1998, notifications of gonorrhoea increased by 80% whereas notifications of syphilis declined by 30%.

Figure 10 Gonorrhoea diagnoses by year and State/Territory

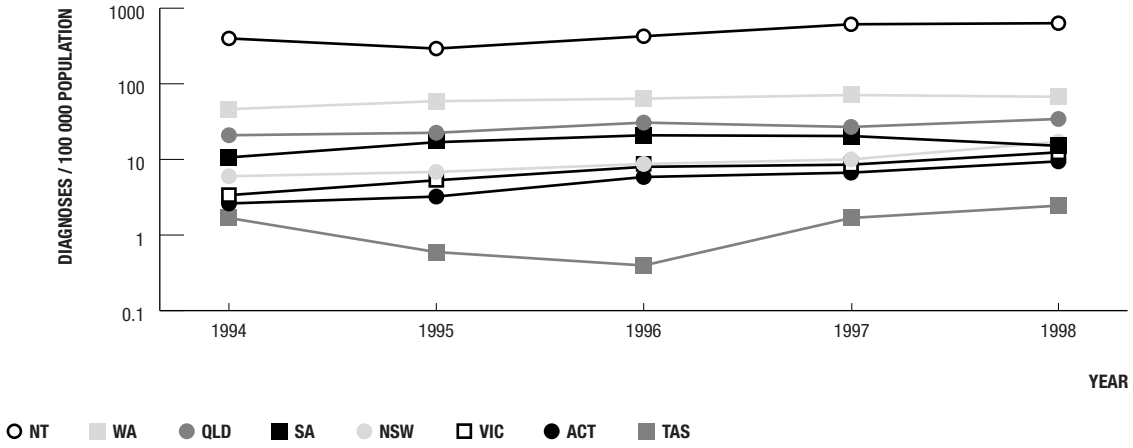
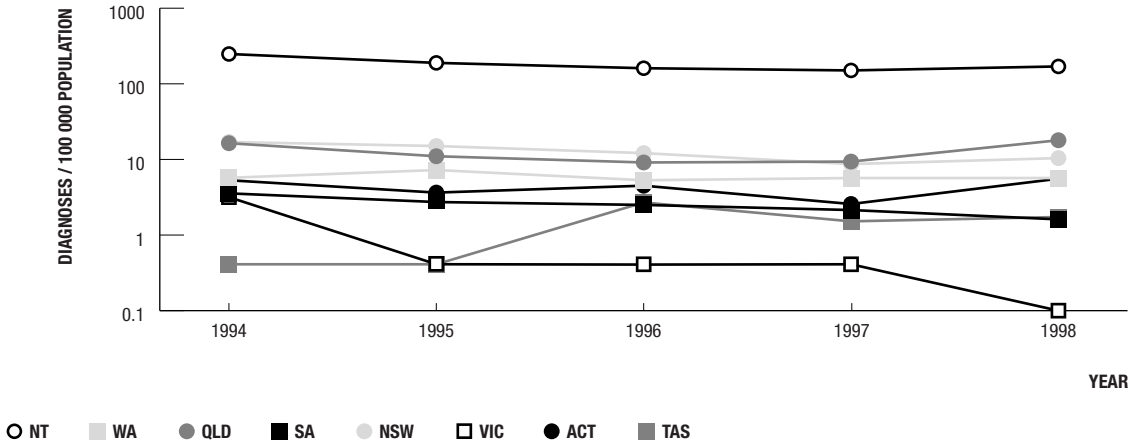


Figure 11 Syphilis diagnoses by year and State/Territory



Gay and other homosexually active men

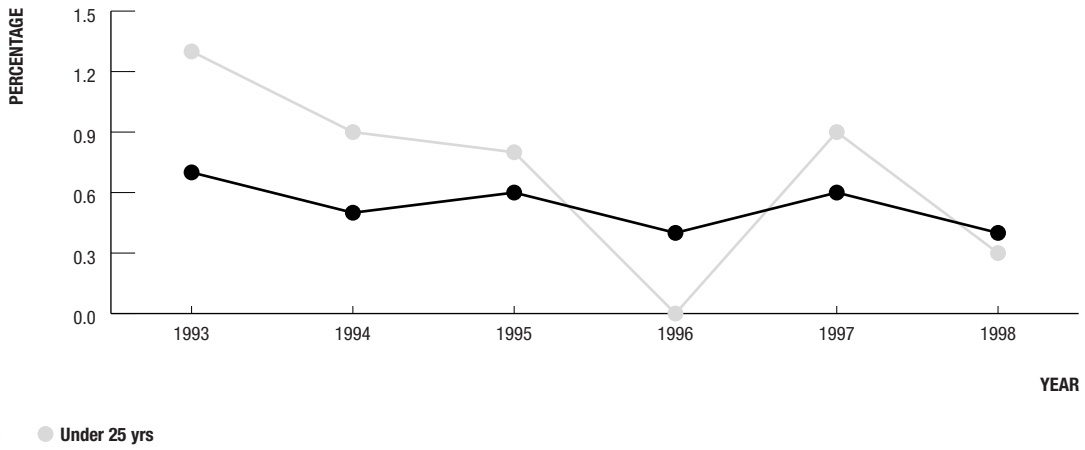
Men with a history of homosexual contact continue to make up the great majority of people diagnosed with AIDS and HIV infection in Australia. Sexual transmission of HIV between men peaked in the mid 1980s, and then dropped later that decade (Figure 5). Available information for more recent years suggests a continuing stable incidence of HIV infection in gay men. There is no indication of recent changes in HIV incidence among gay and other homosexually active men in the surveillance reports of newly acquired HIV infection, from estimates of HIV incidence among men participating in the Sydney Men and Sexual Health (SMASH) study or among men seen at metropolitan sexual health clinics in Australia.

The number of 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 (88%) than total HIV diagnoses (70%) in 1998. This is likely to be related to higher rates of testing among gay and other homosexually active men compared with other risk groups.

Among men participating in the SMASH study, HIV incidence declined from 2.9% per year in 1993, to 1.7% in 1995 and below 1% in 1997 and 1998. Some of this decline may be related to a cohort effect, whereby those members at highest risk of infection become infected earlier, leaving the remainder of the cohort at lower risk and producing an apparent decline in incidence. Because the date of infection is estimated as midway between the last negative and the first positive test, further new HIV infections may be reported for 1998, as testing of participants continues during 1999.

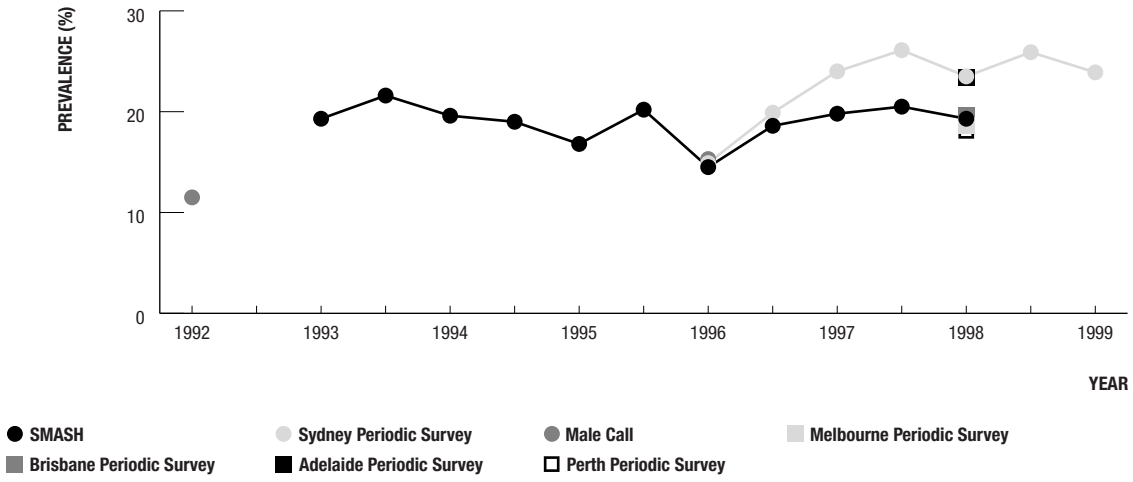
Incidence of HIV infection among gay and other homosexually active men seen at metropolitan sexual health clinics within twelve months of their last negative test remained stable at 0.5% in 1993 – 1998 (Figure 12).

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



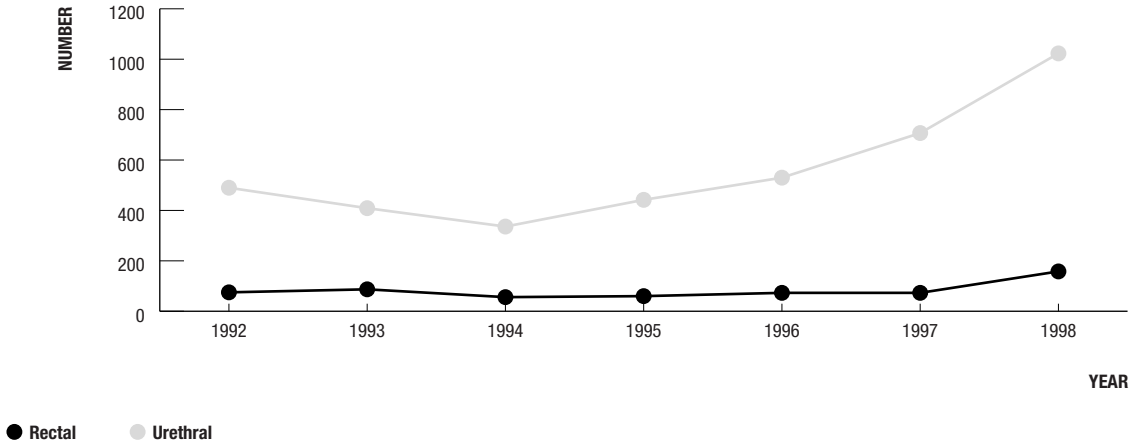
Behavioural survey data from SMASH suggest that the proportion of men reporting unprotected anal intercourse with casual partners has remained stable through 1998, at around 15 – 20% (Figure 13). There has been, however, some increase in the proportion of respondents reporting unprotected anal sex with casual partners in the Sydney Gay Community Periodic Survey, a 6–monthly cross sectional survey of gay and other homosexually active men which commenced in February 1996. The proportion increased from 15% of respondents with casual partners in February 1996 to 26% in August 1997, and remained at this level in 1998 (Figure 13). Periodic surveys carried out among gay and other homosexually active men in Adelaide, Brisbane, Melbourne and Perth show similar levels of unsafe sexual behaviour with casual partners across Australia.

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



Other disease surveillance data suggest that there may have been a recent increase in sexual risk among gay and other homosexually active men in Australia. In particular, the number of rectal gonococcal isolates in men in NSW has increased from 72 in 1997 to 158 in 1998 (Figure 14).

Figure 14 Gonococcal isolates among men in New South Wales

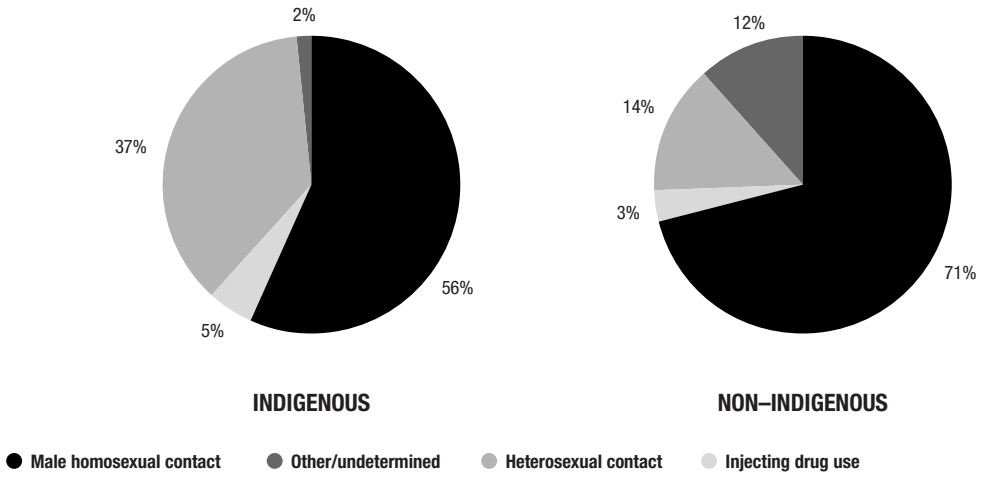


Indigenous Australians

The prevention and treatment of sexually transmissible infections among Indigenous people was emphasised as a priority of the Third National HIV/AIDS Strategy. The endorsement of the Indigenous Australians' Sexual Health Strategy by the Commonwealth in March 1997 represented a substantial step forward in this area.

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 (26% vs 8% for the non–Indigenous cases).

Figure 15 HIV diagnoses, 1992–1998, by HIV exposure category and Indigenous status



High rates of sexually transmissible infections other than HIV infection were recorded in Indigenous people by the three State/Territory health authorities which received 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 0.6%) in both men and women seen at metropolitan sexual health centres from 1993 to 1998 who identified themselves as injecting drug users (Figure 16). HIV prevalence among people attending needle and syringe programs has also remained low (less than 3%) except among men who identified themselves as homosexual (17.4%) (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

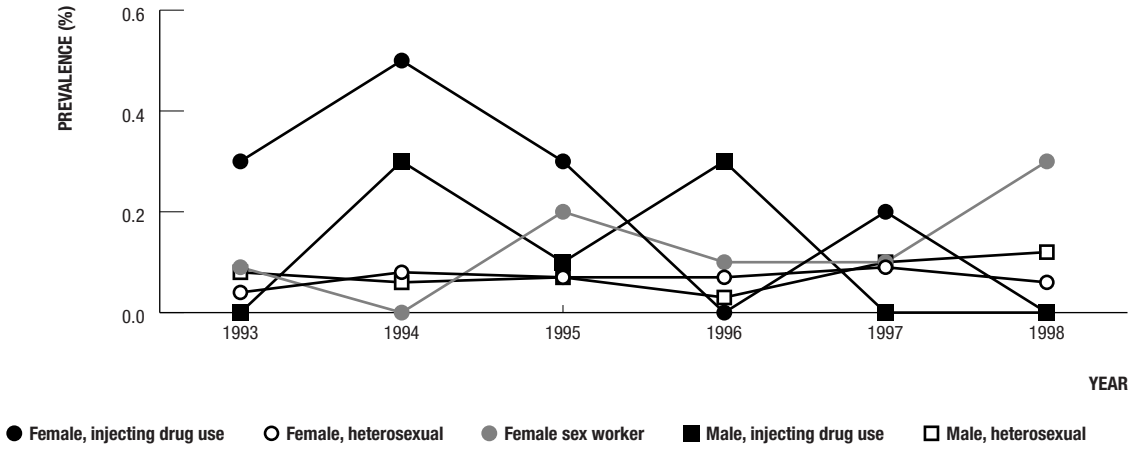
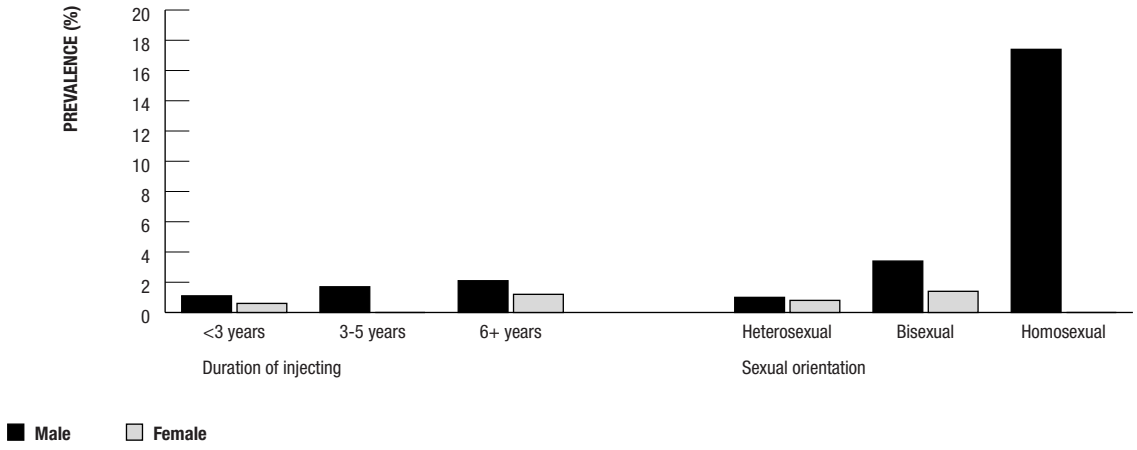


Figure 17 HIV prevalence in people seen at needle and syringe programs, 1998, by duration of injecting drugs and sexual orientation



In contrast to the low HIV prevalence, hepatitis C prevalence among people attending needle and syringe programs remained high in 1998 (Figure 18), and was higher in females than in males. However, hepatitis C prevalence declined from over 60% in 1995 to around 50% in 1996 – 1998. Hepatitis C prevalence was strongly related to duration of injecting in both men and women, with infection levels of less than 20% in people who had injected for less than three years (Figure 19).

A steady decline has been reported among people attending needle and syringe programs in the proportion reporting use of a syringe after someone else in the last month, from 29% and 26% in 1995 and 1996, to less than 20% in 1997 and 1998.

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

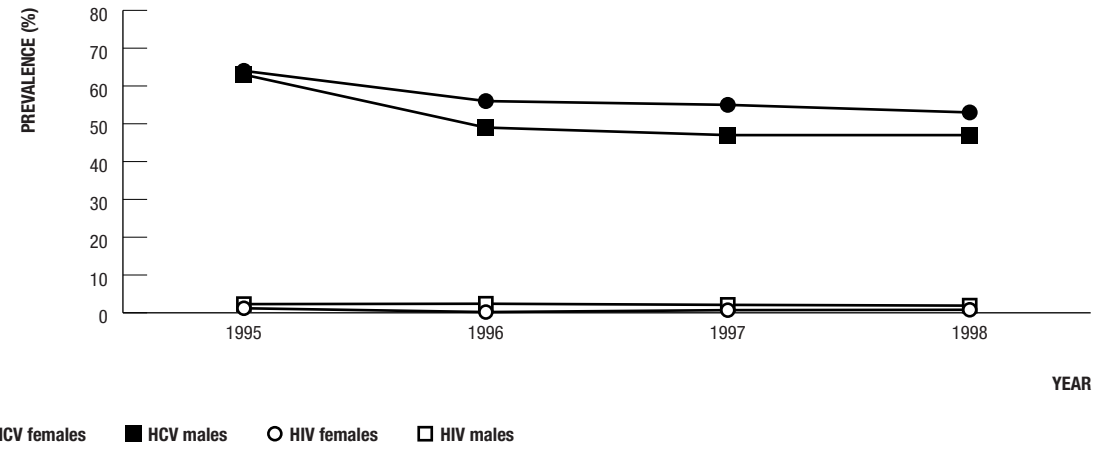
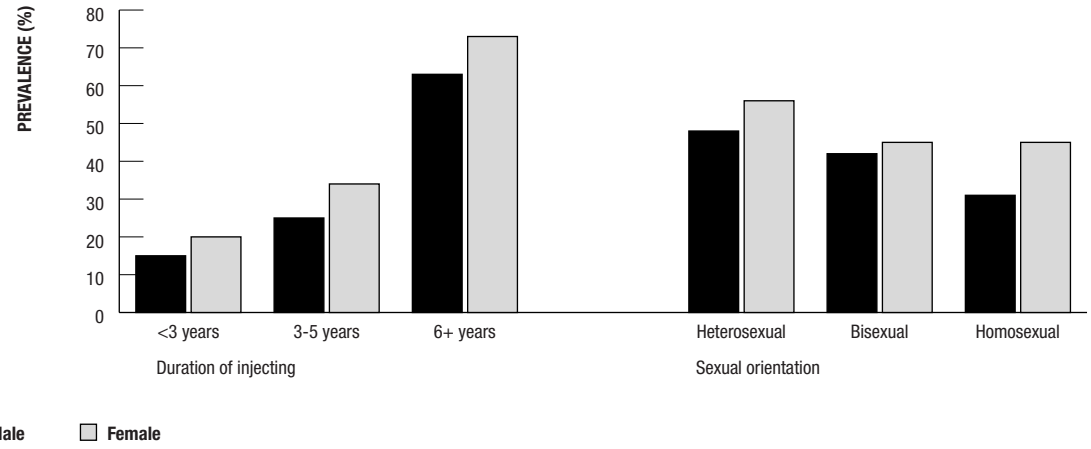


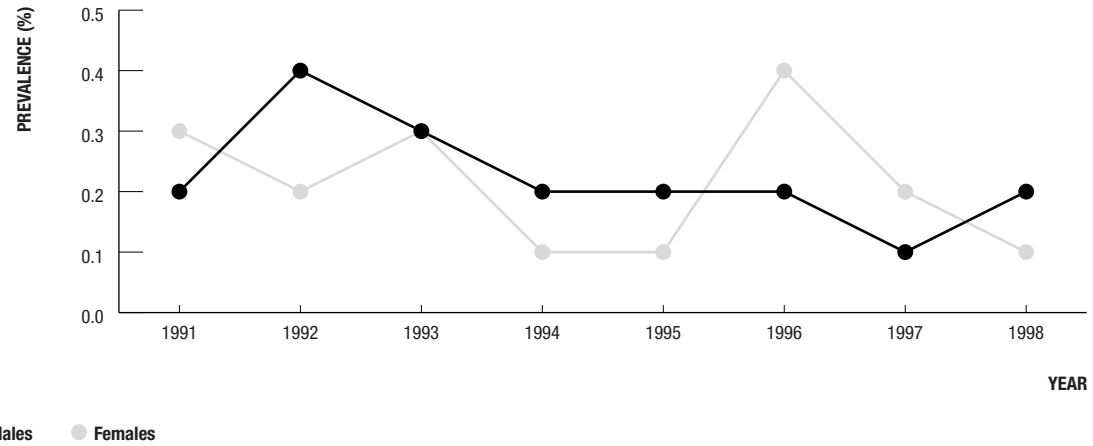
Figure 19 HCV prevalence in people seen at needle and syringe programs, 1998, by duration of injecting drugs and sexual orientation



People entering Australian prisons

HIV prevalence among people entering Australian prisons in 1991 to 1998 remained less than 0.5% (Figure 20). There was no difference in HIV prevalence by sex. HIV prevalence at reception into prisons was higher in New South Wales than in other State/Territory corrections jurisdictions.

Figure 20 HIV prevalence in prison entrants



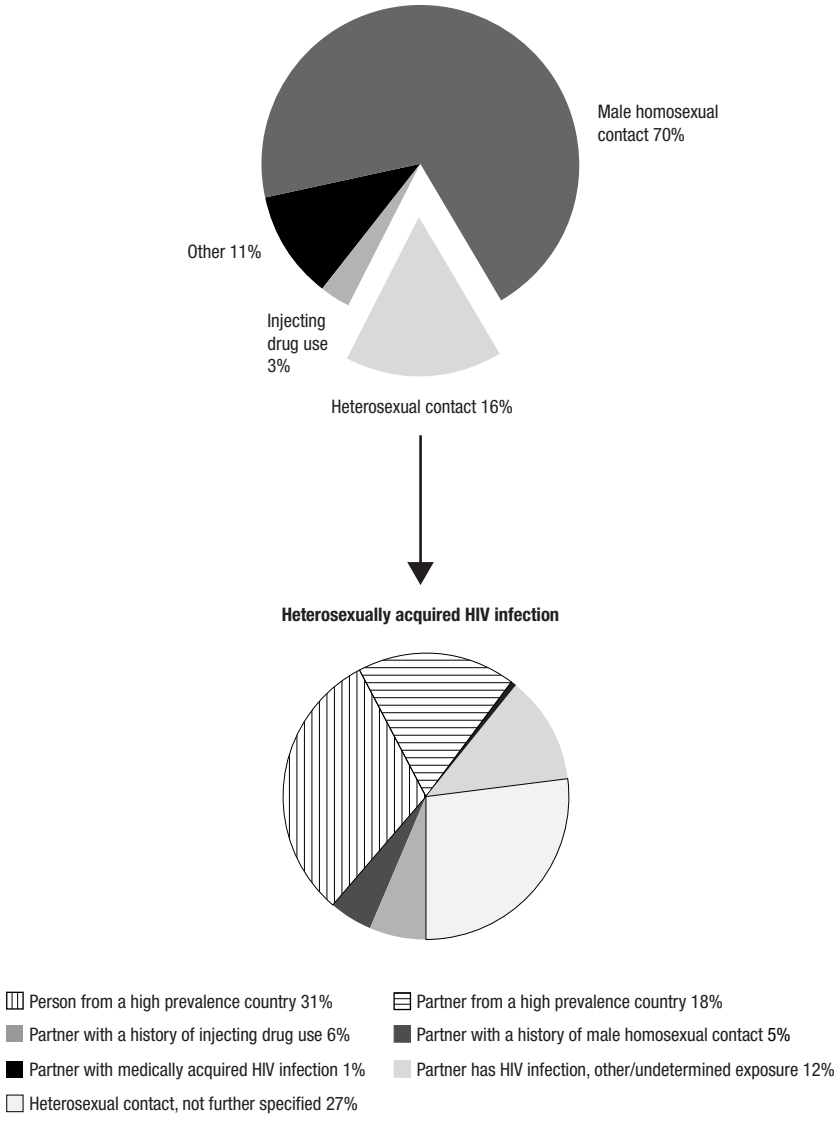
Female sex workers

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

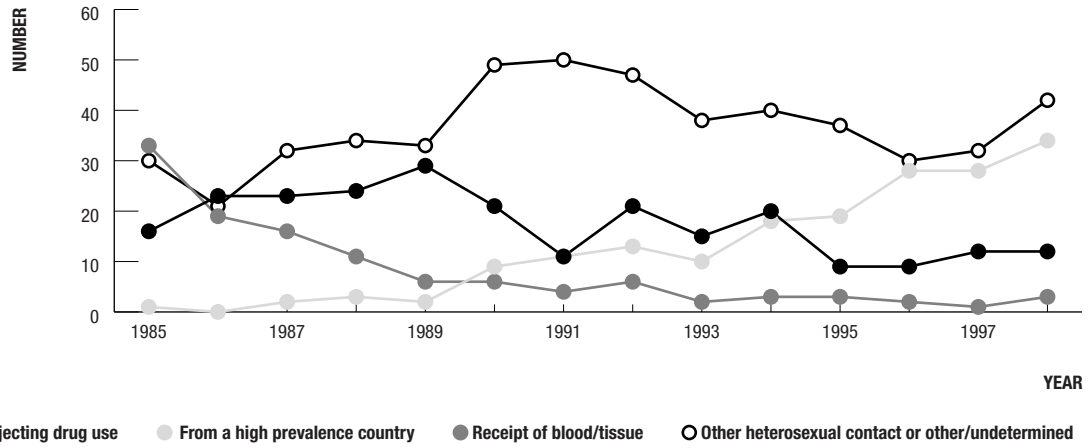
In 1994 – 1998, exposure to HIV was attributed to heterosexual contact in 16% of new diagnoses. Among cases attributed to heterosexual contact, almost 50% were in people who were either from a high prevalence country where HIV is transmitted primarily through heterosexual contact, or who had a history of heterosexual contact with a person from such a country (Figure 21). The sexual partner's history of exposure to HIV remained unclear in 27% of cases attributed to heterosexual contact.

Figure 21 HIV diagnoses in adults/adolescents, 1994-1998, by HIV exposure category



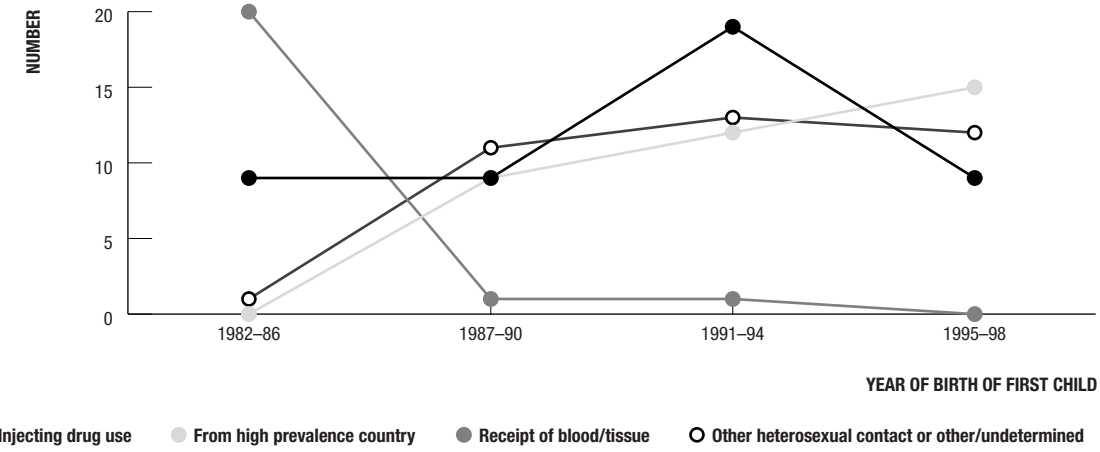
HIV incidence in women having heterosexual contact was estimated by back–projection to have increased during the late 1980s to a peak of around 80 new infections in 1990 followed by a decline (Figure 5). Similar trends were estimated for men who report heterosexual contact, but possible underreporting 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 60 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 category[1]



1 Includes women who reported heterosexual contact with men with the specific HIV exposure

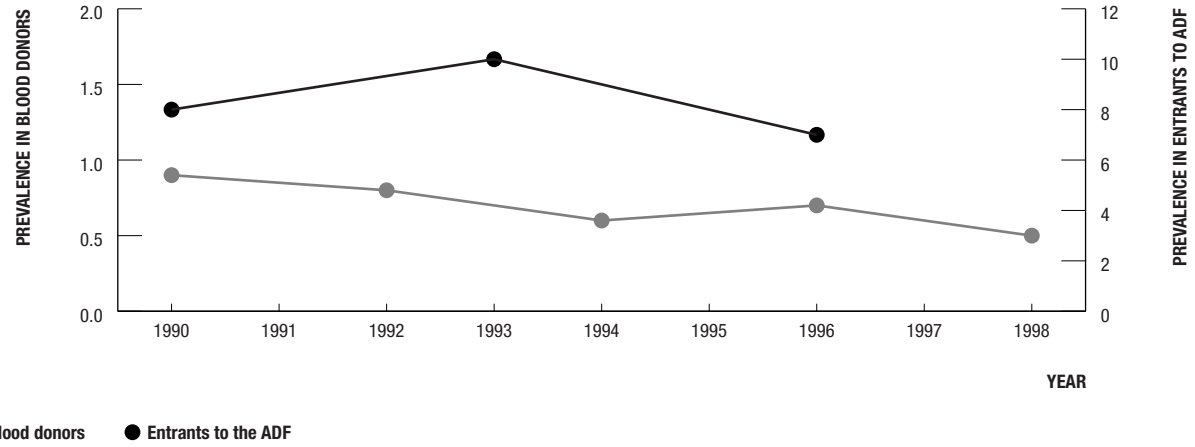
Figure 23 Women with HIV infection who had children by year and HIV exposure category[1]



1 Includes women who reported heterosexual contact with men with the specific HIV exposure

While HIV prevalence is not directly monitored at the national level among people whose only potential exposure to HIV is through heterosexual contact, two subgroups 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 1989 and 1998.

Figure 24 HIV prevalence[1] in blood donors and entrants to the Australian Defence Force by year[2]



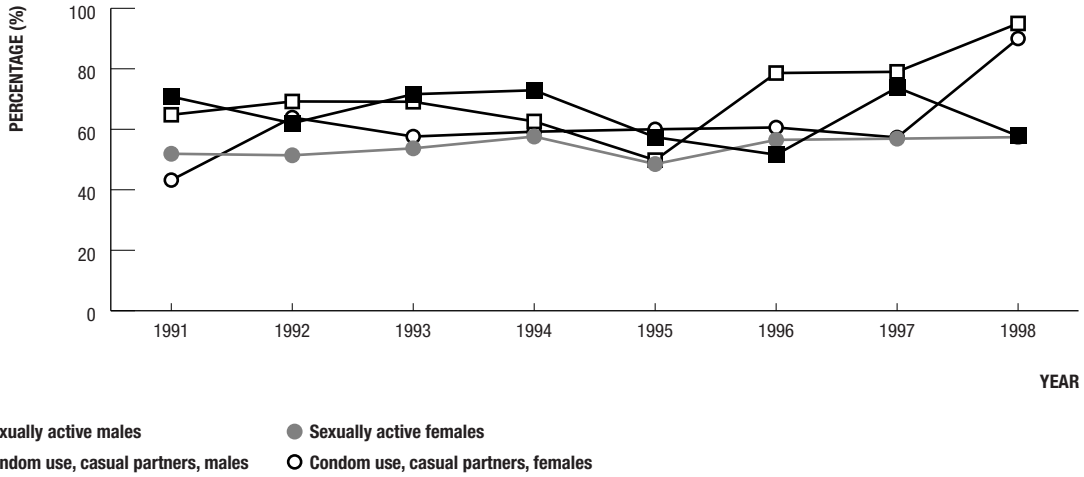
1 HIV prevalence per 100 000 donations in blood donors, per 100 000 entrants to the ADF

2 Prevalence estimates are based on three year intervals for the ADF and two year intervals in 1990-1998 for blood donors

People who attend sexual health clinics may be considered to be potentially at higher risk of HIV infection than blood donors or Defence Force entrants. HIV prevalence was below 0.2% between 1993 and 1998 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, since 1988, 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 proportion of students reporting condom use with casual partners (Figure 25).

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



Occupational exposure to blood and body fluids

Reports from a national network of hospitals show that the rate of occupational exposure to blood or body fluids in health care workers declined from around 29 exposures per 100 daily occupied beds in 1995 to approximately 22 in 1997, and then increased to 25 in 1998 (Figure 26). However, in 1998, the number of reporting sites dropped to half the number of sites that reported in 1997. When analyses were limited to sites that participated in both years, the rate of reported percutaneous exposures in 1997 and 1998 remained stable. The prevalence of antibody to HIV, HCV and HBV remained low among patients tested following occupational exposure to blood or body fluids in health care workers (Figure 27). At follow up, no cases of HIV, HBV or HCV infection were reported in health care workers.

Figure 26 Rate of occupational exposure to blood or body fluids in health care workers by year and type of exposure

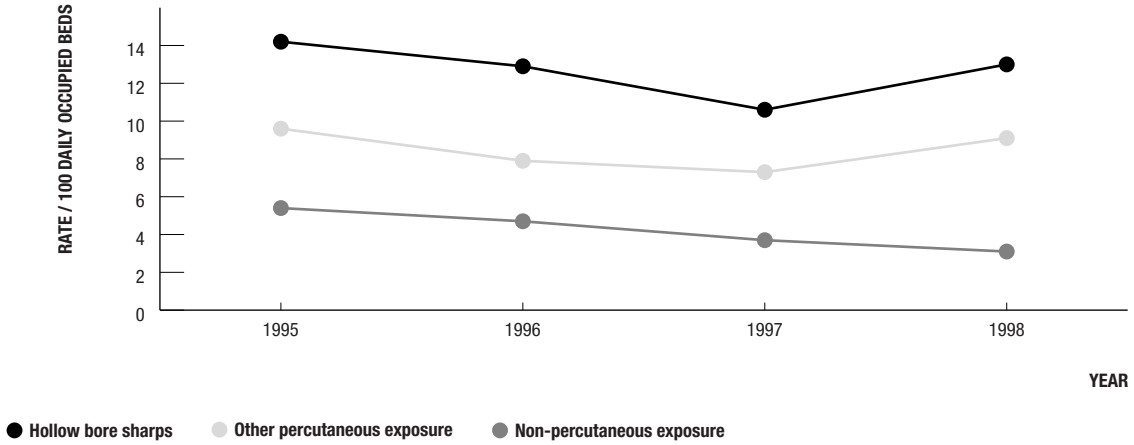
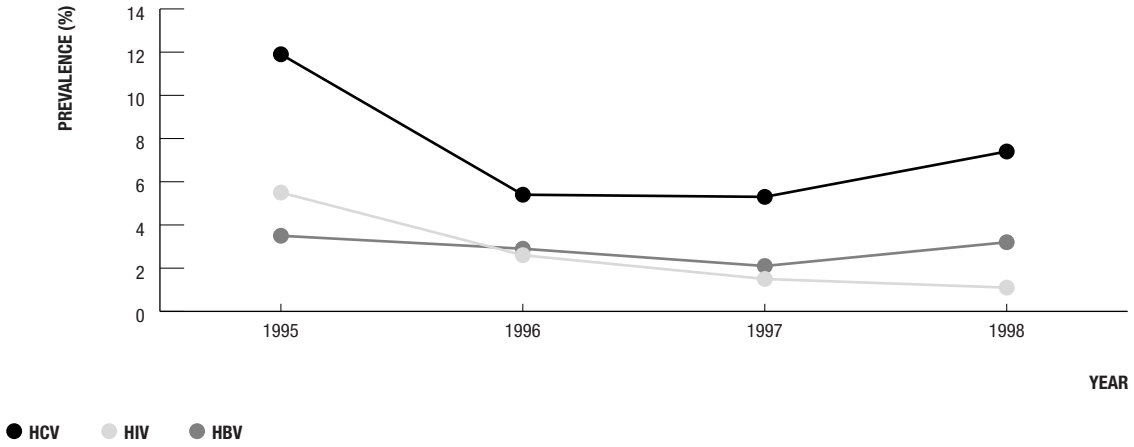


Figure 27 HIV, HCV and HBV prevalence in patients tested following occupational exposure in health care workers

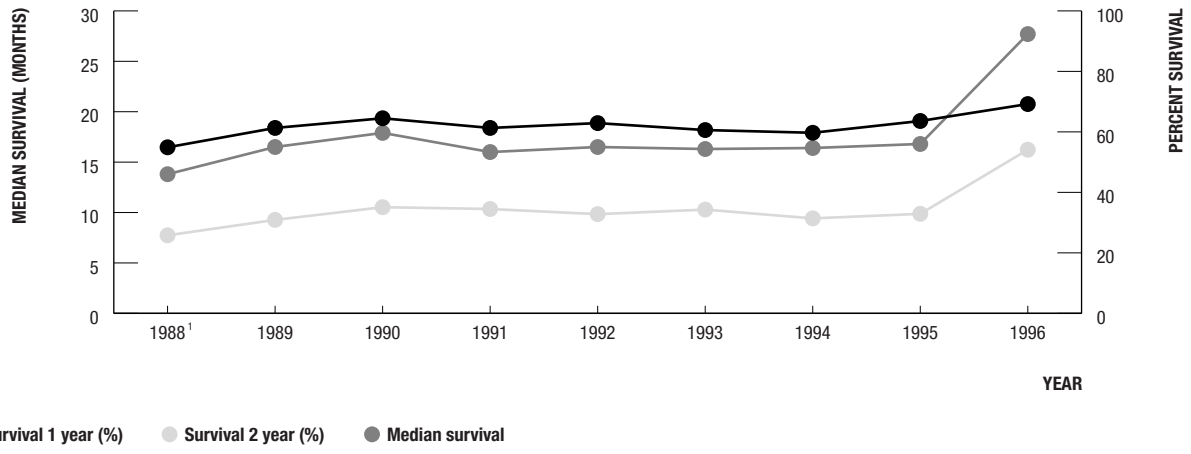


Patterns of illness and mortality in people with HIV infection

The initial success of combination antiretroviral therapy in clinical trials in the mid 1990s has been confirmed in population settings in several countries, through reduction in progression to AIDS and declining 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 (Figure 28). Median survival for people diagnosed with AIDS in 1996 was approximately 28 months, an increase of 10 months compared to people diagnosed with AIDS in 1994.

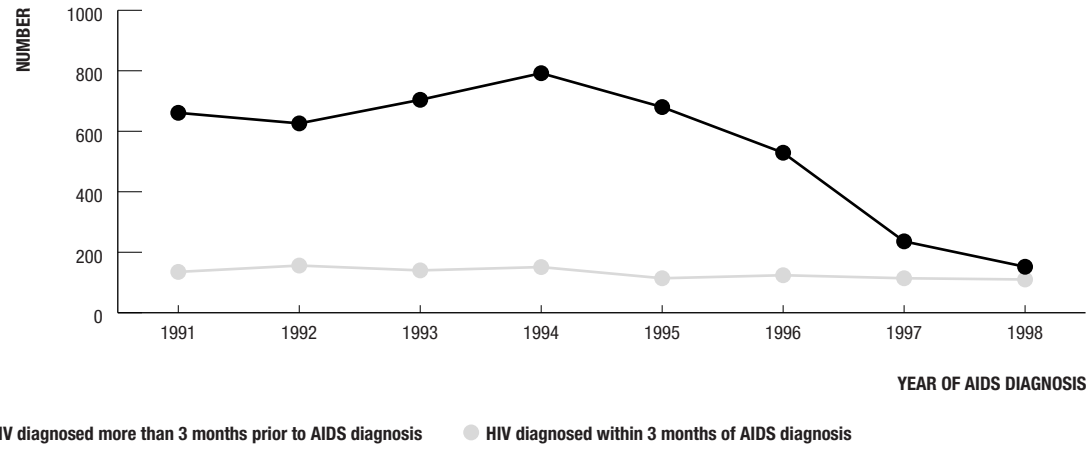
Figure 28 Survival following AIDS



1 1988 includes AIDS diagnosis prior to that year

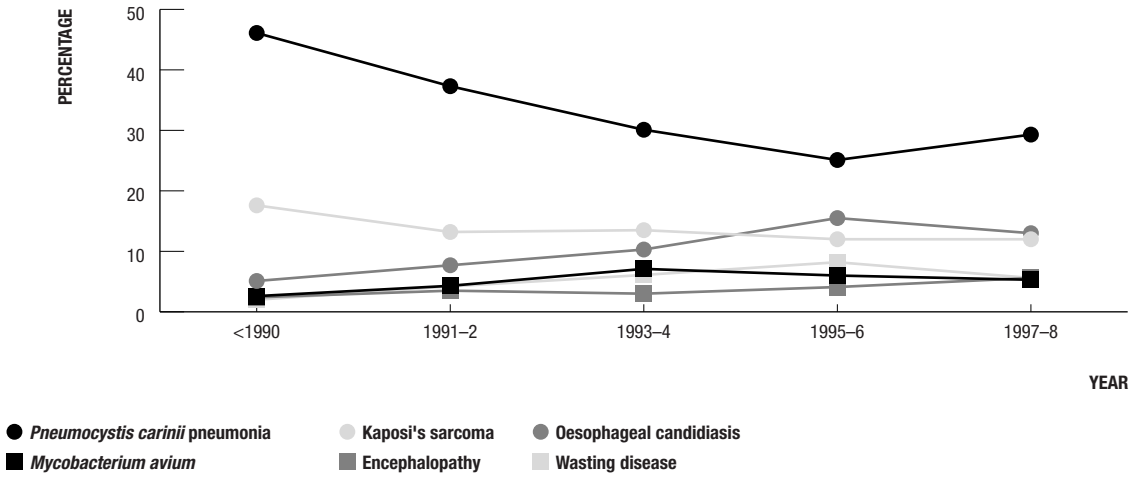
The impact of improved therapy for HIV infection in delaying progression to AIDS is supported by the striking difference in AIDS incidence trends between people whose HIV diagnosis was at least three months prior to their AIDS diagnosis, and those whose HIV diagnosis took place within three months of AIDS (Figure 29). A rapid decline in AIDS incidence among people with early HIV diagnosis has been seen since the mid–1990s, 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 29 AIDS incidence in adolescents/adults by timing of HIV diagnosis



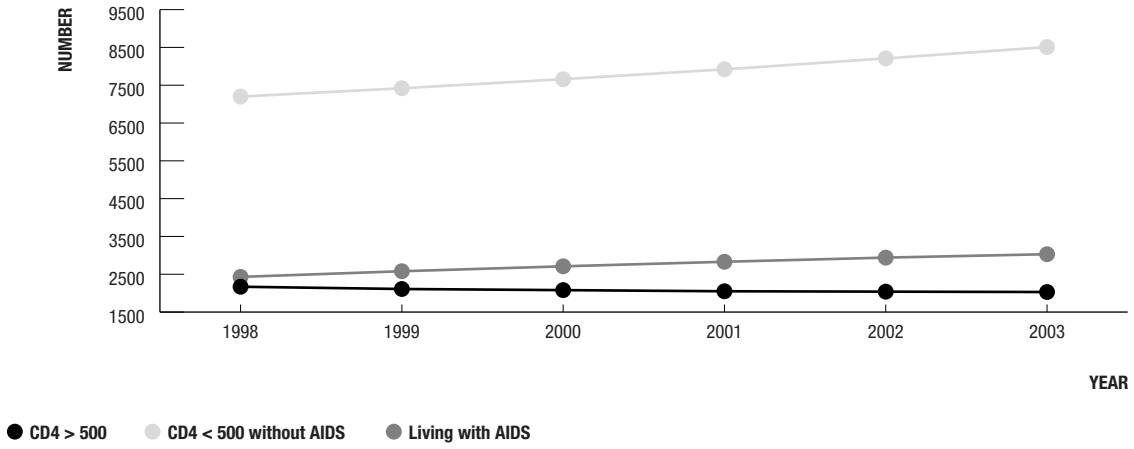
These trends have led to a doubling in the proportion of new AIDS cases in people with late HIV diagnosis, since the mid–1990s, with now two out of five male cases, and three out of five female cases having undiagnosed HIV infection until around the time of AIDS diagnosis. The increasing proportion of 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 30 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/µl and without AIDS are projected to increase through the year 2003 (Figure 31). The number of people living with a CD4+ cell count of more than 500/µl is expected to decline slightly.

Figure 31 Estimated number of people living with HIV by HIV disease stage, 1998 - 2003[1]

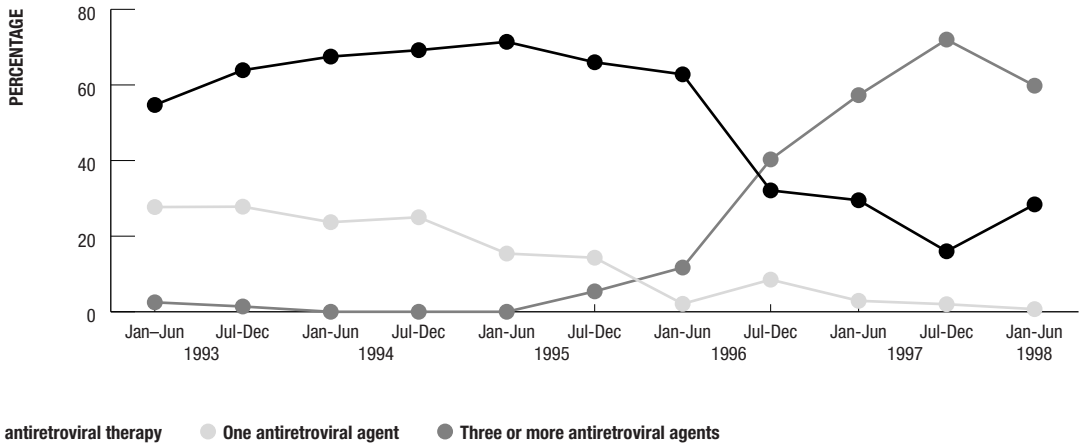


1 Including undiagnosed cases of HIV infection

Patterns of treatment for HIV infection

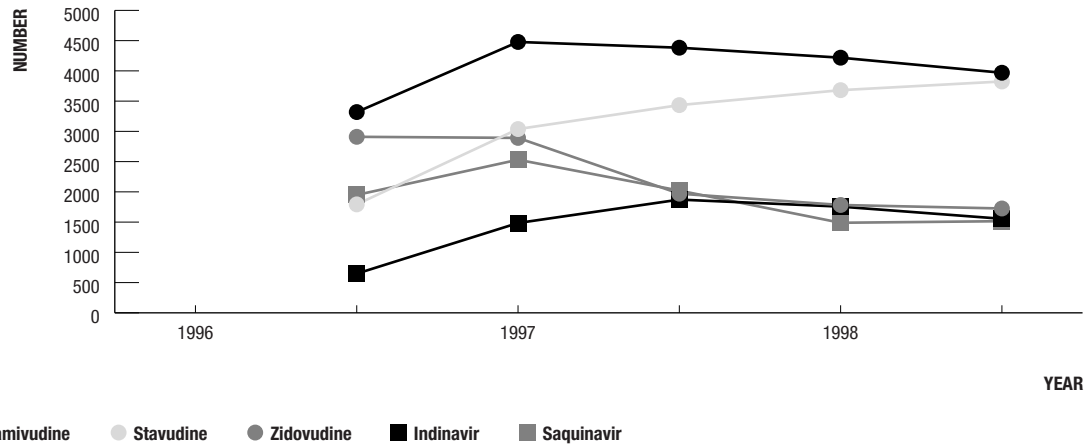
The proportion of gay and other homosexually active men with HIV infection enrolled in the SMASH study who reported use of three or more antiretroviral agents increased from zero in 1994 to 72% in the last half of 1997 but then decreased to 60% in the first half of 1998 (Figure 32). Over the same time period, the proportion of men reporting that they were taking no antiretroviral therapy decreased from 55% in 1994 to 16% in the last half of 1997, but then increased to 28% in the first half of 1998. However, the proportion reporting that they received antiretroviral monotherapy decreased consistently from 28% to 1% in the first half of 1998.

Figure 32 Uptake of antiretroviral therapy by gay and other homosexually active men with HIV infection participating in SMASH



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 during 1997 and 1998. In February 1998, 83% of men participating in the Melbourne Gay Community Periodic Survey reported receipt of combination antiretroviral therapy. However, similar surveys carried out in 1998 in Brisbane, Perth and Adelaide reported lower proportions (62–68%) of men were receiving combination antiretroviral therapy. The Observational Database Pilot Study indicated that 60% of patients attending selected clinical sites were receiving triple combination antiretroviral treatment during 1997.

Figure 33 People prescribed antiretroviral therapy 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 1997 and 1998. The number of people prescribed zidovudine decreased from 2,900 in the second half of 1996 to 1,700 in the second half of 1998, with a commensurate increase in the number of people prescribed stavudine in the same time periods, from 1,800 to 3,800 (Figure 33). The most commonly prescribed protease inhibitors in the second half of 1998 were indinavir (1,600 people) and saquinavir (1,500).

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

	Year of AIDS diagnosis										
Description	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**Total**
Total cases	**1 947**	**674**	**802**	**787**	**844**	**950**	**798**	**653**	**351**	**265**	**8 071**
Males (%)	96.6	97.2	96.4	95.2	94.4	94.8	95.5	95.0	92.3	94.0	95.5
Median age (years)											
M	36	37	37	38	37	37	37	37	39	39	37
F	35	33	32	32	38	31	34	34	31	35	33
Late HIV diagnosis (%)											
M	–	–	17.1	19.2	16.3	15.8	14.0	19.0	31.8	41.0	18.9
F	–	–	11.5	41.7	19.0	28.9	24.2	18.2	44.4	60.0	28.8
State/Territory (%)											
ACT	1.1	1.5	1.0	1.0	1.1	1.5	1.0	1.4	0.0	1.9	1.1
NSW	62.4	62.9	55.1	54.5	57.0	57.8	58.0	54.8	51.9	57.4	58.2
NT	0.1	0.4	0.6	0.6	0.6	0.3	0.4	0.1	0.8	1.1	0.4
QLD	7.5	8.5	10.5	11.4	10.8	10.3	12.6	11.5	16.2	12.5	10.3
SA	3.4	3.7	4.7	4.2	5.3	5.3	3.8	4.6	5.7	3.0	4.3
TAS	0.5	0.6	0.4	1.3	0.1	0.5	0.2	1.1	0.6	0.7	0.6
VIC	20.2	18.2	23.0	21.1	21.3	20.0	20.2	20.7	20.8	19.2	20.5
WA	4.7	4.2	4.7	5.8	3.8	4.3	3.8	5.8	4.0	4.2	4.6
HIV exposure category (%)[1]											
Male homosexual contact	88.1	87.3	83.5	82.1	81.0	83.3	81.7	79.9	75.5	69.7	83.3
Male homosexual contact and injecting drug use	3.2	2.9	3.9	5.0	6.9	5.0	5.2	5.8	3.3	3.3	4.4
Injecting drug use[2]	1.6	2.3	3.9	2.1	3.3	3.2	3.5	3.9	4.9	6.6	3.0
Heterosexual contact	1.3	3.1	4.9	6.6	6.4	5.8	6.4	8.3	14.5	18.0	5.5
Haemophilia/ coagulation disorder	1.8	1.8	1.4	1.7	1.4	1.1	2.0	1.0	1.2	0.4	1.5
Receipt of blood/tissue	3.9	2.1	2.0	2.0	1.0	1.0	0.7	1.1	0.3	1.2	2.0
Mother with/at risk for HIV infection	0.1	0.5	0.4	0.5	0.0	0.6	0.5	0.0	0.3	0.8	0.3
Other/undetermined	1.8	2.7	3.1	3.2	3.8	3.6	4.4	5.5	6.0	7.9	3.5
AIDS defining condition (%)											
Pneumocystis carini pneumonia (PCP)	38.8	29.8	31.3	26.9	22.1	22.4	19.8	22.5	25.9	23.8	28.2
Kaposi's sarcoma (KS)	15.8	10.7	12.1	12.3	11.0	10.0	10.9	11.5	10.0	9.4	12.2
PCP and other (not KS)	6.6	8.5	6.0	6.3	3.8	2.5	4.1	4.4	7.4	8.3	5.6
Oesophageal candidiasis	5.1	7.5	7.7	8.8	11.7	14.4	16.4	14.7	8.8	8.7	9.9
Mycobacterium avium	3.1	4.6	5.2	7.1	8.8	5.7	7.5	6.9	3.7	5.3	5.6
HIV wasting disease	2.0	4.9	3.7	5.8	6.2	7.3	8.8	5.1	6.8	9.0	5.2
Other conditions	28.6	34.0	33.9	32.8	36.4	37.7	32.5	34.9	37.3	35.5	33.3

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

		Year of AIDS diagnosis										
State/Territory	**Sex**	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96[1]**	**97[1]**	**98[1]**	**Total[2]**
ACT	M	21	10	7	8	9	13	6	7	0	4	85
	F	1	0	1	0	0	1	2	2	0	1	8
NSW	M	1175	411	425	406	463	527	449	346	187	202	4 591
	F	37	13	16	21	16	20	13	18	8	8	170
NT	M	2	3	5	5	5	3	3	1	3	3	33
	F	0	0	0	0	0	0	0	0	0	0	0
QLD	M	139	55	82	85	82	95	96	73	49	38	794
	F	6	2	1	5	8	3	5	3	10	2	45
SA	M	64	24	36	30	42	45	29	29	21	8	328
	F	3	1	2	3	3	5	1	1	0	1	20
TAS	M	9	4	3	9	1	5	2	7	2	1	43
	F	1	0	0	1	0	0	0	0	0	1	3
VIC	M	385	120	178	163	165	177	149	131	70	65	1 603
	F	9	1	5	3	13	12	11	6	6	1	67
WA	M	86	28	37	43	30	36	28	35	11	10	344
	F	6	0	1	3	2	4	1	3	3	2	25
Total[2]		**1 947**	**674**	**802**	**787**	**844**	**950**	**798**	**662**	**370**	**348**	**8 182**

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

		Year of AIDS diagnosis										
HIV exposure category	**Sex**	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96[1]**	**97[1]**	**98[1]**	**Total[2]**
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Male homosexual contact		1 683	573	649	626	658	763	623	501	265	238	6 579
Male homosexual contact and injecting drug use		61	19	30	38	56	46	40	36	11	8	345
Injecting drug use[3]	M	19	8	18	10	17	19	20	19	10	15	155
	F	11	7	12	6	10	10	7	5	6	3	77
Heterosexual contact	M	9	17	32	29	26	27	29	30	32	44	275
	F	16	3	6	21	26	26	20	21	18	11	168
Haemophilia/	M	31	10	10	13	10	10	15	6	4	1	110
coagulation disorder	F	2	0	0	0	1	0	0	0	0	0	3
Receipt of blood/tissue	M	36	9	10	8	3	5	3	3	0	1	78
	F	28	5	4	6	5	3	2	4	1	1	59
Health care setting	M	0	0	0	0	1	0	0	0	0	0	1
	F	0	0	0	1	0	1	1	0	0	0	3
Other/undetermined	M	30	15	20	22	26	28	31	34	21	22	249
	F	3	1	2	0	0	1	0	3	1	1	12
Total adults/adolescents[2]		**1 932**	**669**	**796**	**782**	**844**	**943**	**794**	**662**	**369**	**346**	**8 137**
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for	M	1	2	2	2	0	3	1	0	0	2	13
HIV infection	F	2	1	1	2	0	3	3	0	1	0	13
Haemophilia/	M	2	2	1	0	0	0	0	0	0	0	5
coagulation disorder	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	9	0	1	1	0	0	0	0	0	0	11
	F	1	0	1	0	0	1	0	0	0	0	3
Total children		**15**	**5**	**6**	**5**	**0**	**7**	**4**	**0**	**1**	**2**	**45**
Total[2]		**1 947**	**674**	**802**	**787**	**844**	**950**	**798**	**662**	**370**	**348**	**8 182**

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.

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

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

		Year of death following AIDS										
State/Territory	**Sex**	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96[1]**	**97[1]**	**98[1]**	**Total[2]**
ACT	M	10	7	5	8	6	14	6	3	1	1	61
	F	0	0	1	1	0	0	0	0	0	0	2
NSW	M	654	308	323	287	355	386	323	255	111	79	3 081
	F	24	8	8	10	12	19	18	5	5	2	111
NT	M	3	1	2	3	6	3	3	1	1	0	23
	F	0	0	0	0	0	0	0	0	1	0	1
QLD	M	80	38	53	59	77	75	76	62	29	23	572
	F	4	2	2	4	5	4	4	4	1	1	31
SA	M	28	16	21	28	30	29	33	26	8	12	231
	F	1	0	0	1	5	4	2	2	0	1	16
TAS	M	4	2	4	4	7	3	1	3	1	2	31
	F	1	0	0	0	0	1	0	0	0	0	2
VIC	M	201	104	128	152	157	152	146	120	60	43	1 263
	F	3	2	1	3	4	6	15	5	6	3	48
WA	M	40	26	35	35	27	30	22	22	14	2	253
	F	3	1	0	1	1	4	1	1	1	1	14
Total[2]		**1 057**	**515**	**586**	**598**	**695**	**735**	**651**	**509**	**240**	**170**	**5 756**

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

		Year of death following AIDS										
Exposure category	**Sex**	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96[1]**	**97[1]**	**98[1]**	**Total[2]**
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Male homosexual contact		913	450	499	497	571	575	508	395	183	131	4 722
Male homosexual contact and injecting drug use		26	15	22	18	37	42	32	28	17	8	245
Injecting drug use[3]	M	5	6	8	9	11	9	16	14	7	4	89
	F	1	6	3	8	10	5	8	4	4	0	49
Heterosexual contact	M	3	1	11	20	21	23	16	25	6	6	132
	F	7	3	3	7	11	22	26	11	8	5	103
Haemophilia/	M	17	10	9	5	5	13	9	10	4	0	82
coagulation disorder	F	1	0	0	0	0	2	0	0	0	0	3
Receipt of blood/tissue	M	27	8	8	8	5	4	4	2	1	0	67
	F	26	2	4	2	4	5	4	1	0	1	49
Health care setting	M	0	0	0	0	0	0	1	0	0	0	1
	F	0	0	0	0	0	1	1	0	0	0	2
Other/undetermined	M	20	10	12	18	10	24	22	18	7	13	154
	F	0	1	1	1	1	0	0	1	1	1	7
Total adults/adolescents[2]		**1 047**	**512**	**583**	**595**	**689**	**730**	**648**	**509**	**239**	**169**	**5 721**
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for	M	0	0	0	0	3	2	2	0	0	0	7
HIV infection	F	1	1	1	1	1	2	0	0	1	1	9
Haemophilia/	M	1	2	1	0	1	0	0	0	0	0	5
coagulation disorder	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	8	0	1	1	1	0	0	0	0	0	11
	F	0	0	0	1	0	1	1	0	0	0	3
Total children		**10**	**3**	**3**	**3**	**6**	**5**	**3**	**0**	**1**	**1**	**35**
Total[2]		**1 057**	**515**	**586**	**598**	**695**	**735**	**651**	**509**	**240**	**170**	**5 756**

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.

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

Source: State/Territory health authorities

Table 1.1.6 Number (percent) of AIDS diagnoses in Australia, 1995 – 1998, and age standardised average annual incidence per 100 000 population[1] by region of birth

Region/ Country of birth	Number	Percent	Age standardised incidence
Australia	1 465	73.8	2.9
Overseas born	519	26.2	3.1
New Zealand/ Pacific Islands	*96*	*4.8*	*4.6*
United Kingdom and Ireland	*98*	*4.9*	*2.6*
Other Europe	*118*	*6.0*	*3.3*
Middle East/ North Africa	*17*	*0.9*	*1.6*
Other Africa	*37*	*1.9*	*6.9*
Asia	*90*	*4.5*	*2.0*
North America	*32*	*1.6*	*8.1*
South and Central America	*31*	*1.6*	*7.7*
Unknown	83		
Total	**2 067**		**2.9**

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 98[1]	Alive at 1 Jan 98[2]	Left Australia[3]	Other[4]	Median (months)	% Survival 1 year	% Survival 2 year
≤89	1 947	1 844	8	25	70	14.6	57.5	27.7
90	674	602	8	5	59	18.0	65.0	35.7
91	802	722	7	9	64	16.3	61.8	34.5
92	787	674	6	14	93	16.8	63.7	33.3
93	844	660	38	4	142	17.1	61.8	36.1
94	950	603	64	4	279	18.1	62.4	36.3
95	798	353	97	0	348	19.7	67.6	44.7
96	653	178	109	0	366	27.7	69.2	54.1
97	351	59	87	0	205	–	–	–
98	265	26	239	0	0	–	–	–
Total	**8 071**	**5 721**	**663**	**61**	**1 626**	**16.9**	**62.2**	**34.5**

1 Deaths occurring prior to 1 January 1999.

2 Last medical contact on or after 1 January 1998.

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

4 Last medical contact prior to 1 January 1998.

Source: State/Territory health authorities

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

	Year of AIDS diagnosis										
	≤90		91-92		93-94		95-96		97-98		Total[1]
AIDS defining condition	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	
Pneumocystis carinii pneumonia (PCP)	938	17	447	14	374	24	291	14	145	9	2 279
Kaposi's sarcoma (KS)	376	3	193	1	188	0	161	1	60	0	984
KS and PCP alone	31	0	9	0	14	0	5	0	0	0	59
KS and other (not PCP)	52	0	30	0	31	0	16	0	8	0	137
PCP and other (not KS)	175	9	90	6	52	3	58	3	40	7	448
Oesophageal candidiasis	143	8	126	5	225	10	221	6	48	6	799
Toxoplasmosis	97	4	53	4	59	2	39	2	19	1	282
Cryptococcosis	89	2	61	2	73	3	46	2	23	3	306
Non-Hodgkin's lymphoma	94	3	52	4	68	4	67	4	33	0	329
Mycobacterium avium	71	5	81	3	106	9	87	12	23	1	399
Herpes simplex virus	69	6	35	4	30	3	25	1	11	1	185
HIV encephalopathy	76	3	40	0	69	3	59	4	36	3	294
Cytomegalovirus	71	0	77	0	89	3	54	2	13	0	310
HIV wasting disease	64	7	65	11	115	5	96	6	46	2	419
Cryptosporidiosis	39	3	47	0	51	1	40	1	9	1	192
Mycobacterium tuberculosis	14	2	13	1	11	2	4	1	3	0	51
Pulmonary tuberculosis[2]	0	0	0	0	5	0	10	0	13	3	31
Recurrent pneumonia[2]	0	0	1	0	19	2	13	0	10	1	47
Cervical cancer[2]	0	0	0	0	0	3	0	0	0	2	5
Other single diagnoses	30	4	19	1	23	3	18	2	5	0	105
Other multiple diagnoses	107	4	83	6	96	7	72	5	28	2	410
Total[1]	**2 536**	**80**	**1 522**	**62**	**1 698**	**87**	**1 382**	**66**	**573**	**42**	**8 071**

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[1]. Number of cases, median age, and percent of total cases by sex, State/Territory and HIV exposure category

	Year of HIV diagnosis										
Characteristic	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**Total[2]**
Total cases	**9 813**	**1 422**	**1 415**	**1 239**	**1 100**	**1 031**	**945**	**929**	**795**	**721**	**19 427**
Males (%)	94.1	91.0	93.0	92.2	92.3	90.7	91.7	91.9	88.6	86.3	92.6
Median age (years)											
Males	32	31	32	33	32	33	34	34	34	35	32
Females	29	27	29	31	29	28	31	29	30	30	29
State/Territory (%)											
ACT	1.1	1.1	0.6	1.2	0.5	1.3	1.8	1.0	1.0	1.2	1.1
NSW	61.9	56.8	57.5	57.8	56.0	50.1	58.1	50.8	51.7	52.0	58.5
NT	0.5	0.6	0.4	0.5	0.9	0.7	0.2	0.5	1.4	1.7	0.6
QLD	7.6	10.4	11.1	12.4	12.5	16.3	12.3	16.8	14.4	14.3	10.3
SA	3.3	4.6	3.3	2.7	5.0	3.4	3.3	4.8	4.4	4.7	3.6
TAS	0.3	0.6	0.4	0.8	0.2	0.2	0.6	0.3	0.0	0.4	0.4
VIC	20.6	20.9	21.6	20.4	20.3	21.0	17.7	20.0	22.6	19.3	20.5
WA	4.7	5.0	5.1	4.2	4.6	7.0	6.0	5.8	4.5	6.4	5.0
Exposure category (%)[3]											
Male homosexual contact	82.6	78.8	78.4	76.8	78.7	75.1	73.7	75.5	72.6	64.7	78.9
Male homosexual contact and injecting drug use	3.2	3.9	3.2	3.7	3.6	5.5	4.9	3.6	4.0	5.0	3.7
Injecting drug use[4]	4.7	6.5	4.7	5.0	3.6	3.3	4.5	3.0	3.2	3.2	4.5
Heterosexual contact	3.3	8.9	11.7	12.6	13.4	14.2	15.5	16.6	19.0	25.8	9.2
Partner with/at risk of HIV infection	*38.4*	*40.6*	*33.1*	*47.4*	*48.9*	*52.9*	*59.4*	*70.1*	*65.9*	*76.1*	*52.9*
Not further specified	*61.6*	*59.4*	*66.9*	*52.6*	*51.1*	*47.1*	*40.6*	*29.9*	*34.1*	*23.9*	*47.1*
Haemophilia/coagulation disorder	3.8	0.3	0.4	0.4	0.0	0.0	0.2	0.0	0.0	0.2	1.9
Receipt of blood/ tissue	2.2	1.5	1.1	1.1	0.3	0.9	0.3	0.4	0.1	0.6	1.4
Mother with/at risk of HIV infection	0.2	0.1	0.5	0.4	0.4	1.0	0.8	0.9	1.0	0.5	0.4
Other/ undetermined	25.0	23.8	18.0	12.3	11.0	6.7	9.1	11.4	12.7	14.4	19.5

1 Not adjusted for multiple reporting.

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

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

4 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 year[1]

		Year of HIV diagnosis										
State/Territory	**Sex**	**≤89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**Total**
ACT	M	94	15	7	12	5	11	14	6	5	7	176
	F	6	1	1	3	1	2	2	1	3	2	22
NSW	M	4 609	712	674	668	577	496	527	424	346	304	9 337
	F	246	44	45	34	37	36	37	33	27	41	580
NT	M	38	8	5	6	10	7	2	5	7	11	99
	F	1	1	1	0	0	0	0	0	4	1	8
QLD	M	712	134	138	131	123	153	108	142	95	86	1 822
	F	25	11	13	15	5	10	11	10	18	13	131
SA	M	294	58	39	31	53	31	29	41	28	27	631
	F	25	4	2	4	2	4	1	3	6	6	57
TAS	M	32	8	6	10	2	1	6	3	0	2	70
	F	2	1	0	0	0	1	0	0	0	1	5
VIC	M	1 805	256	278	215	186	181	148	178	170	121	3 538
	F	59	18	14	23	21	18	11	14	13	8	199
WA	M	429	64	66	43	48	54	44	43	29	26	846
	F	22	5	2	10	3	15	13	8	5	18	101
Total	M	7 629	1 283	1 077	1 056	945	827	805	811	658	556	15 569
	F	386	85	78	89	69	86	75	69	76	90	1 103
Total		**8 036**	**1 276**	**1 159**	**1 144**	**1 022**	**915**	**881**	**881**	**735**	**663**	**16 714**

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 infection[1], 1991 – 1998, 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

		Year of HIV diagnosis								
Characteristic	**Sex**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**Total[2]**
Total cases		**95**	**157**	**208**	**217**	**223**	**172**	**156**	**144**	**1 372**
Males (%)		91.6	92.4	96.2	92.2	94.6	95.9	93.6	97.9	94.4
Median age (years)	M	29	31	29	30	31	31	32	31	30
	F	29	28	24	26	35	21	31	21	28
State/Territory										
ACT	M	2	2	1	1	6	3	0	3	18
	F	0	0	0	1	0	0	0	0	1
NSW	M	22	95	138	113	124	87	65	65	709
	F	3	6	5	8	5	1	3	0	31
NT	M	2	0	2	1	0	0	2	2	9
	F	0	0	0	0	0	0	1	0	1
QLD	M	12	4	6	18	26	19	19	19	123
	F	3	2	0	2	2	2	0	0	11
SA	M	1	3	21	4	11	6	9	6	61
	F	0	1	0	0	0	0	2	0	3
TAS	M	1	2	0	1	1	0	0	0	5
	F	0	0	0	0	0	0	0	0	0
VIC	M	41	37	29	59	37	40	47	38	328
	F	2	3	2	5	3	2	3	1	21
WA	M	6	2	3	3	6	10	4	8	42
	F	0	0	0	1	1	2	0	2	6
HIV exposure category										
Male homosexual contact	M	75	126	175	169	184	149	128	115	1121
Male homosexual contact and injecting drug use	M	3	9	5	15	10	5	9	12	68
Injecting drug use[3]	M	1	5	4	4	6	2	2	1	25
	F	3	5	2	2	2	1	1	2	18
Heterosexual contact	M	5	3	12	8	8	7	7	7	57
	F	5	6	5	11	9	6	6	1	49
Health care setting[4]	M	0	0	1	1	0	0	0	0	2
	F	0	1	0	2	0	0	0	0	3
Other/undetermined	M	3	2	3	3	3	2	0	6	22
	F	0	0	0	2	0	0	2	0	4
Evidence of newly acquired infection										
Negative/indeterminate test only	M	69	98	120	105	92	86	68	65	703
	F	5	6	6	8	6	5	6	2	44
HIV seroconversion illness only	M	9	25	24	39	61	28	38	34	258
	F	2	3	0	6	3	1	0	0	15
Negative/indeterminate	M	9	22	56	56	58	51	40	42	334
test and HIV seroconversion illness	F	1	3	1	3	2	1	3	1	15

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 3 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 – 1998, by State/Territory, HIV exposure category, newly acquired infection status, sex and year

		Year of HIV diagnosis			
Description	**Sex**	**1995**	**1996**	**1997**	**1998**
State/Territory					
ACT	M	540 (6)	385 (4)	290 (5)	90 (6)
	F	350 (2)	590 (1)	265 (2)	195 (2)
NSW	M	410 (187)	429 (204)	412 (178)	336 (123)
	F	400 (15)	440 (15)	295 (18)	354 (23)
NT	M	580 (1)	210 (4)	440 (7)	465 (10)
	F	– (0)	– (0)	399 (4)	520 (1)
QLD	M	340 (90)	350 (127)	400 (93)	410 (81)
	F	340 (7)	300 (9)	290 (17)	310 (13)
SA	M	500 (24)	421 (34)	350 (29)	334 (27)
	F	810 (1)	689 (3)	600 (6)	286 (5)
TAS	M	285 (4)	100 (3)	– (0)	867 (2)
	F	– (0)	– (0)	– (0)	12 (1)
VIC	M	450 (119)	380 (152)	350 (143)	360 (116)
	F	291 (8)	360 (13)	254 (13)	500 (8)
WA	M	468 (27)	361 (33)	390 (26)	364 (23)
	F	544 (11)	531 (8)	276 (5)	308 (17)
Exposure category					
Male homosexual contact[1]		449 (403)	429 (468)	420 (395)	420 (297)
Injecting drug use[2]	M	410 (7)	310 (11)	412 (11)	440 (8)
	F	358 (2)	515 (2)	440 (5)	376 (6)
Heterosexual contact	M	206 (38)	221 (56)	290 (53)	255 (63)
	F	380 (37)	440 (45)	295 (56)	360 (59)
Other/undetermined	M	260 (10)	178 (26)	173 (22)	96 (20)
	F	176 (5)	235 (2)	265 (4)	12 (5)
Newly acquired HIV infection status					
Diagnoses of newly	M	553 (134)	608 (124)	610 (121)	554 (114)
acquired HIV infection[3]	F	420 (7)	770 (7)	614 (9)	500 (3)
Other HIV diagnoses	M	311 (324)	310 (437)	320 (360)	285 (274)
	F	360 (37)	355 (42)	281 (56)	350 (67)
Total[4]		**400 (503)**	**390 (611)**	**379 (546)**	**360 (460)**

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 diagnoses of newly acquired HIV infection, 1991 – 1997, 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**	**Total**
Number of diagnoses of newly acquired HIV infection	95	157	208	217	223	172	156	1 228
Number of years following HIV diagnosis								
Less than 1	2	5	5	5	10	2	4	33
1 – 2	1	4	7	8	7	3	1	31
2 – 3	0	8	8	6	3	0	–	25
3 – 4	2	5	6	1	0	–	–	14
4 – 5	4	4	4	1	–	–	–	13
5 or more	4	2	0	–	–	–	–	6
Total	**13**	**28**	**30**	**21**	**20**	**5**	**5**	**122**

Source: State/Territory health authorities

Table 1.2.6 Number of HIV antibody tests carried out in public health laboratories in Australia, 1989 – 1998, by State/Territory and year of test

	Year of HIV antibody test									
State/ Territory	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
ACT	5 844	6 500	9 855	10 284	10 767	10 300	9 368	7 053	7 044	8 293
NSW	284 620	390 475	351 617	352 391	346 652	344 903	300 944	270 735	286 701	299 434
NT	8 584	10 626	9 322	8 992	10 002	11 283	12 122	13 111	13 424	13 137
QLD	84 752	111 287	128 988	141 896	147 329	137 133	154 992	141 741	156 738	164 388
SA	39 300	57 760	68 666	78 233	82 521	77 628	69 054	60 295	58 363	15 848
TAS	7 931	8 261	10 054	12 617	12 873	14 000	12 628	13 192	11 347	11 883
VIC	109 193	128 402	151 794	163 443	163 497	132 100	108 230	119 360	94 846	113 342
WA	30 679	52 438	70 862	67 257	70 733	76 544	72 317	77 435	73 826	79 308
Total	**570 903**	**765 749**	**801 158**	**835 113**	**844 374**	**803 891**	**739 655**	**702 922**	**702 289**	**705 633**

Source: National Serology Reference Laboratory, Australia

1.3 Back-projection estimation

Table 1.3.1 Estimated number of people living with HIV[1] by HIV disease stage, 1998 – 2003

	Estimated number of people			
Year	Living with HIV	CD4> 500 cells/µl	CD4<500 cells/µl without AIDS	Living with AIDS[2]
1998	11 800	2 170	7 200	2 430
1999	12 080	2 110	7 390	2 580
2000	12 350	2 080	7 550	2 720
2001	12 630	2 050	7 710	2 870
2002	12 900	2 040	7 850	3 010
2003	13 180	2 030	7 990	3 160

1 Estimated numbers based on back-projection analyses, including people with diagnosed and undiagnosed HIV infection, and assuming 450 new infections per year since 1998.

2 In 1998, 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 – 1998

Table 1.4.1 Number of cases of newly diagnosed HIV infection included in the assessment of patient reported HIV exposure history, 1994 – 1998, number for which the exposure assessment questionnaire was returned and number with additional information on HIV exposure history available on the returned questionnaire[1] 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 – 98	94 – 98	94 – 96	97 – 98	94 – 98	94 – 96	97 – 98	94 – 98
ACT	13	10	23	13	9	22	11	9	20
NSW	456	310	766	201	107	308	166	87	253
NT	7	13	20	6	13	19	5	13	18
QLD	77	60	137	75	53	128	68	51	119
SA	19	21	40	19	21	40	18	19	37
TAS	3	1	4	2	0	2	1	0	1
VIC	110	77	187	107	77	184	100	71	171
WA	81	46	127	63	41	104	58	41	99
Total	**766**	**538**	**1 304**	**486**	**321**	**807**	**427**	**291**	**718**

1 Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (61), people whose medical condition limited reporting of an HIV exposure history (7) and people who were reported to have died (21).

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 – 1998, number for which the exposure assessment questionnaire was returned and number with additional information on HIV exposure history available on the returned questionnaire[1] by year and HIV exposure category reported at HIV notification

State/ Territory	Number included in the assessment			Number with returned questionnaire			Number with additional information on HIV exposure history		
	94 – 96	97 – 98	94 – 98	94 – 96	97 – 98	94 – 98	94 – 96	97 – 98	94 – 98
Injecting drug use	94	42	136	63	36	99	49	32	81
Heterosexual	*55*	*35*	*90*	*44*	*33*	*77*	*38*	*30*	*68*
Not further specified	*39*	*7*	*46*	*19*	*3*	*22*	*11*	*2*	*13*
Heterosexual contact	405	293	698	324	226	550	303	223	526
Partner with/at risk of HIV infection	*247*	*208*	*455*	*204*	*161*	*365*	*195*	*159*	*354*
Not further specified	*158*	*85*	*243*	*120*	*65*	*185*	*108*	*64*	*172*
Receipt of blood/tissue	17	6	23	14	3	17	14	3	17
Health care setting	4	0	4	4	0	4	4	0	4
Other/undetermined	246	197	443	81	56	137	57	33	90
Total	**766**	**538**	**1 304**	**486**	**321**	**807**	**427**	**291**	**718**

1 Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (61), people whose medical condition limited reporting of an HIV exposure history (7) and people who were reported to have died (21).

Source: State/Territory health authorities

Table 1.4.3 Number of cases of newly diagnosed HIV infection, 1994 – 1998, with additional information on HIV exposure history available on the returned exposure assessment questionnaire[1], by HIV exposure category reported at notification of HIV infection and on the questionnaire

	HIV exposure category documented on the questionnaire										
		Injecting drug use			Heterosexual contact						
HIV exposure category reported at HIV notification	**Male homosexual contact**	***Heterosexual***	***Not further specified***	***Total***	***Partner with/ at risk of HIV infection***	***Not further specified***	***Total***	**Receipt of blood/tissue**	**Health care setting**	**Other/ undetermined**	**Total**
Injecting drug use	2	59	12	71	6	0	6	0	0	2	81
Heterosexual	*2*	*54*	*5*	*59*	*5*	*0*	*5*	*0*	*0*	*2*	*68*
Not further specified	*0*	*5*	*7*	*12*	*1*	*0*	*1*	*0*	*0*	*0*	*13*
Heterosexual contact	4	7	0	7	373	125	498	0	0	17	526
Partner with/at risk for HIV infection	*1*	*5*	*0*	*5*	*320*	*25*	*345*	*0*	*0*	*3*	*354*
Not further specified	*3*	*2*	*0*	*2*	*53*	*100*	*153*	*0*	*0*	*14*	*172*
Receipt of blood/tissue	0	0	0	0	2	0	2	12	0	3	17
Health care setting	0	0	0	0	0	0	0	0	4	0	4
Other/undetermined	6	0	0	0	7	19	26	0	0	58	90
Total	**12**	**66**	**12**	**78**	**388**	**144**	**532**	**12**	**4**	**80**	**718**

1 Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (61), people whose medical condition limited reporting of an HIV exposure history (7) and people who were reported to have died (21).

Source: State/Territory health authorities

1.5 National surveillance for perinatal exposure to HIV, 1982 – 1998

Table 1.5.1 Number of women with perinatally HIV exposed children, cumulative to 31 December 1998, and number and population rate of newly diagnosed HIV infection in women with perinatally HIV exposed children, 1995 – 1998, by State/Territory of the woman's HIV diagnosis

State/ Territory	1995 – 1998		Cumulative
	Number	Rate[1]	to 31 Dec 1998
ACT	1	1.1	6
NSW	12	0.8	67
NT	0	0.0	0
QLD	14	1.6	24
SA	0	0.0	7
TAS	0	0.0	0
VIC	4	0.3	21
WA	8	1.7	16
Total	**39**	**0.8**	**141**

1 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 – 1998, by time of the woman's HIV diagnosis relative to the first exposed child's birth

	Interval of the woman's HIV diagnosis					
First exposed	Before the birth (years)					
child's year of birth	< 1	1–2	> 2	Total	At or after the birth	Total
1982 – 1986	3	0	0	3	27	30
1987 – 1990	9	3	2	14	16	30
1991 – 1994	11	8	10	25	20	45
1995 – 1998	12	2	10	24	12	36
Total	**35**	**9**	**22**	**66**	**75**	**141**

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

Table 1.5.3 Number of women with perinatally HIV exposed children, 1982 – 1998, 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	30	38
Heterosexual contact	90	116
Sex with injecting drug user	*16*	*20*
Sex with bisexual male	*10*	*12*
From high prevalence country	*24*	*29*
Sex with person from a high prevalence country	*12*	*17*
Sex with person with medically acquired HIV	*3*	*4*
Sex with person with HIV infection, other exposure	*12*	*17*
Not further specified	*13*	*17*
Receipt of blood/tissue	19	23
Other/undetermined	2	2
Total	**141**	**179**

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

Table 1.5.4 Number of perinatally exposed children 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

	Interval of the woman's HIV diagnosis					
	Before the birth		At or after the birth		Total	
Child's year of birth	Number exposed	Number with infection	Number exposed	Number with infection	Number exposed	Number with infection
1982 – 1986	4	0	29	9	33	9
1987 – 1990	16	4	19	10	35	14
1991 – 1994	35	9	25	13	60	22
1995 – 1998	36	6	15	10	51	16
Total	**91**	**19**	**88**	**42**	**179**	**61**

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 rate[1] of diagnoses of hepatitis A infection, 1994 – 1998, by State/Territory and year

	Year of diagnosis									
	1994		1995		1996		1997		1998	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	17	5.5	15	4.9	62	20.1	53	17.2	49	15.9
NSW	568	9.2	620	10.0	980	15.8	1 455	23.4	968	15.6
NT	68	37.4	52	28.6	76	41.8	92	50.6	43	23.6
QLD	803	24.1	451	13.5	416	12.5	894	26.8	1 044	31.3
SA	54	3.7	34	2.3	38	2.6	94	6.4	99	6.7
TAS	10	2.1	9	1.9	9	1.9	3	0.6	8	1.7
VIC	154	3.4	246	5.4	460	10.1	363	8.0	178	3.9
WA	227	12.9	173	9.8	109	6.2	122	6.9	141	8.0
Total	**1 901**	**10.4**	**1 600**	**8.7**	**2 150**	**11.7**	**3 076**	**16.8**	**2 530**	**13.8**

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, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	1994			1995			1996			1997			1998		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	57	45	107	33	30	63	64	61	126	86	65	151	73	49	126
5 – 14	236	201	446	138	126	264	182	187	371	257	245	503	201	212	416
15 – 19	72	58	132	61	54	115	91	61	152	129	97	226	114	86	201
20 – 29	301	189	495	318	156	475	481	159	642	559	311	871	518	277	796
30 – 39	229	150	384	271	113	385	374	130	504	420	228	650	336	163	501
40 – 49	115	59	174	111	46	157	134	43	177	225	139	365	183	84	267
50 – 59	38	25	63	34	21	55	63	35	98	110	61	171	80	44	126
60+	36	39	75	37	32	69	33	37	71	64	70	134	42	43	86
Not known	15	8	25	9	7	17	4	5	9	3	2	5	8	3	11
Total	**1 099**	**774**	**1 901**	**1 012**	**585**	**1 600**	**1 426**	**718**	**2 150**	**1 853**	**1 218**	**3 076**	**1 555**	**961**	**2 530**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.3 Number[1] and rate[2] of diagnoses of newly acquired hepatitis B infection, 1994 – 1998, by State/Territory and year

	Year of diagnosis									
	1994		1995		1996		1997		1998	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	–	–	13	4.2	4	1.3	2	0.6	0	0.0
NSW	82	1.3	66	1.1	47	0.8	50	0.8	58	0.9
NT	26	14.3	15	8.2	5	2.8	19	10.4	17	9.3
QLD	49	1.5	64	1.9	34	1.0	40	1.2	48	1.4
SA	34	2.3	33	2.2	18	1.2	16	1.1	18	1.2
TAS	2	0.4	7	1.5	8	1.7	1	0.2	5	1.1
VIC	96	2.1	92	2.0	98	2.1	119	2.6	88	1.9
WA	39	2.2	32	1.8	11	0.6	0	0.0	31	1.8
Total	**328**	**1.8**	**322**	**1.8**	**225**	**1.2**	**247**	**1.3**	**265**	**1.4**

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

2 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, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	1994			1995			1996			1997			1998		
(years)	M	F	T[1]	M	F	T	M	F	T	M	F	T	M	F	T[1]
0 – 4	0	1	1	2	0	2	0	0	0	1	1	2	1	0	1
5 – 14	3	7	10	3	3	6	3	4	7	5	2	7	3	5	8
15 – 19	16	36	52	17	18	35	12	20	32	25	21	46	19	15	34
20 – 29	83	41	126	89	61	150	58	28	86	54	35	89	72	42	115
30 – 39	44	29	73	45	21	66	47	10	57	36	18	54	33	17	51
40 – 49	23	6	29	29	8	37	13	5	18	18	3	21	22	8	30
50 – 59	15	5	20	9	1	10	8	3	11	10	5	15	10	4	14
60+	11	0	11	11	3	14	6	8	14	3	9	12	7	4	11
Not known	5	1	6	1	1	2	0	0	0	1	0	1	1	0	1
Total	**200**	**126**	**328**	**206**	**116**	**322**	**147**	**78**	**225**	**153**	**94**	**247**	**168**	**95**	**265**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.5 Number and rate[1] diagnoses of hepatitis C infection, 1994 – 1998, by State/Territory and year

	Year of diagnosis									
	1994		1995		1996		1997		1998	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	428	138.8	330	107.1	270	87.6	318	103.2	295	95.7
NSW	9 304	150.0	8 319	134.1	8 677	139.8	7 371	118.8	7 701	124.1
NT	301	165.5	309	169.9	217	119.3	341	187.5	276	151.8
QLD	3 177	95.2	2 920	87.5	2 884	86.4	2 953	88.4	3 181	95.3
SA	2 285	155.0	1 190	80.7	1 179	80.0	963	65.3	976	66.2
TAS	53	11.2	268	56.5	291	61.3	236	49.7	282	59.4
VIC	3 523	77.3	4 506	98.8	4 597	100.8	4 940	108.3	4 502	98.7
WA	1 314	74.4	1 146	64.9	1 146	64.9	1 137	64.4	1 261	71.4
Total	**20 385**	**111.3**	**18 988**	**103.7**	**19 261**	**105.2**	**18 259**	**99.7**	**18 474**	**100.9**

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, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	1994			1995			1996			1997			1998		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	65	47	116	67	72	150	66	65	135	93	80	188	69	60	133
5 – 14	43	32	75	38	17	55	44	27	73	32	23	58	25	21	46
15 – 19	177	235	422	215	265	482	340	344	689	415	399	847	724	659	1 401
20 – 29	3 427	2 407	5 912	3 175	2 118	5 336	3 241	2 076	5 348	3 085	1 834	5 153	3 416	2 239	5 738
30 – 39	6 018	3 348	9 479	5 411	2 919	8 375	5 175	2 761	7 980	4 246	2 342	6 984	3 823	2 270	6 136
40 – 49	1 970	813	2 824	2 031	937	2 983	2 331	1 020	3 372	2 302	978	3 469	2 521	1 129	3 673
50 – 59	361	231	601	336	234	575	356	279	636	344	217	583	393	221	619
60+	428	365	805	502	365	873	483	424	915	411	351	833	368	309	687
Not known	93	48	151	97	48	159	65	34	113	66	37	144	24	8	41
Total	**12 582**	**7 526**	**20 385**	**11 872**	**6 975**	**18 988**	**12 101**	**7 030**	**19 261**	**10 994**	**6 261**	**18 259**	**11 363**	**6 916**	**18 474**

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, 1994 – 1998, by State/Territory and year

	Year of diagnosis[1]				
State/Territory	1994	1995	1996	1997	1998
ACT	6	7	10	2	7
NSW	32	41	22	19	106
NT	–	5	3	1	0
QLD	–	–	–	–	–
SA	4	34	31	52	72
TAS	–	1	6	2	12
VIC	–	–	–	9	17
WA	–	1	7	66	125
Total	**42**	**89**	**79**	**151**	**339**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.8 Number and rate[1] of diagnoses of gonorrhoea, 1994 – 1998, by State/Territory and year

	Year of diagnosis									
	1994		1995		1996		1997		1998	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	8	2.6	10	3.2	18	5.8	21	6.8	30	9.7
NSW	367	5.9	420	6.8	538	8.7	636	10.3	1 052	17.0
NT	736	404.7	547	300.8	787	432.8	1 143	628.6	1 157	636.3
QLD	708	21.2	749	22.4	1 028	30.8	906	27.1	1 134	34.0
SA	158	10.7	252	17.1	288	19.5	323	21.9	225	15.3
TAS	8	1.7	3	0.6	2	0.4	8	1.7	12	2.5
VIC	154	3.4	243	5.3	366	8.0	386	8.5	560	12.3
WA	843	47.8	1 036	58.7	1 114	63.1	1 294	73.3	1 215	68.8
Total	**2 982**	**16.3**	**3 260**	**17.8**	**4 141**	**22.6**	**4 717**	**25.8**	**5 385**	**29.4**

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, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	1994			1995			1996			1997			1998		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	11	14	25	20	18	38	9	25	34	52	56	108	21	28	49
5 – 14	13	28	52	14	38	52	33	72	105	79	133	212	36	98	134
15 – 19	297	255	554	377	302	685	444	423	867	388	512	901	461	523	987
20 – 29	994	393	1 394	1 023	470	1 497	1 146	661	1 807	1 191	753	1 948	1 403	803	2 215
30 – 39	407	157	567	547	106	654	673	204	877	778	256	1 037	1 043	303	1 348
40 – 49	179	31	210	160	33	194	240	65	305	259	70	329	367	76	444
50 – 59	63	6	69	56	11	68	76	16	92	84	15	99	98	18	117
60+	25	4	29	22	4	26	28	2	30	27	4	31	50	11	61
Not known	41	39	82	24	16	46	17	7	24	37	15	52	18	10	30
Total	**2 030**	**927**	**2 982**	**2 243**	**998**	**3 260**	**2 666**	**1 475**	**4 141**	**2 895**	**1 814**	**4 717**	**3 497**	**1 870**	**5 385**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.10 Number and rate[1] of diagnoses of syphilis, 1994 – 1998, by State/Territory and year

	Year of diagnosis									
	1994		1995		1996		1997		1998	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	16	5.2	11	3.6	14	4.5	8	2.6	17	5.5
NSW	1 057	17.0	923	14.9	745	12.0	528	8.5	627	10.1
NT	451	248.0	349	191.9	290	159.5	271	149.0	308	169.4
QLD	549	16.4	367	11.0	301	9.0	309	9.3	583	17.5
SA	51	3.5	40	2.7	37	2.5	31	2.1	23	1.6
TAS	2	0.4	2	0.4	13	2.7	7	1.5	8	1.7
VIC	143	3.1	19	0.4	18	0.4	16	0.4	6	0.1
WA	103	5.8	127	7.2	94	5.3	101	5.7	100	5.7
Total	**2 372**	**13.0**	**1 838**	**10.0**	**1 512**	**8.3**	**1 271**	**6.9**	**1 672**	**9.1**

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, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	1994			1995			1996			1997			1998		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	18	9	30	11	5	16	9	2	11	5	2	8	7	8	16
5 – 14	11	25	36	6	22	29	7	9	16	2	7	9	3	31	34
15 – 19	116	216	340	113	183	303	81	138	219	47	117	164	129	125	254
20 – 29	319	380	713	253	333	596	225	279	505	171	209	383	227	303	531
30 – 39	263	226	504	188	182	371	161	148	311	151	144	296	175	198	373
40 – 49	234	70	315	141	59	204	143	55	200	95	63	158	118	70	188
50 – 59	126	32	166	98	31	131	71	25	97	99	15	116	67	31	99
60+	144	77	226	115	49	168	97	46	144	96	38	134	109	38	148
Not known	19	20	42	13	6	20	4	3	9	1	2	3	19	8	29
Total	**1 250**	**1 055**	**2 372**	**938**	**870**	**1 838**	**798**	**705**	**1 512**	**667**	**597**	**1 271**	**854**	**812**	**1 672**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.12 Number and rate[1] of diagnoses of chlamydia, 1994 – 1998, by State/Territory and year

	Year of diagnosis									
	1994		1995		1996		1997		1998	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	93	30.2	81	26.3	119	38.6	142	46.1	193	62.6
NSW[2]	–	–	–	–	–	–	–	–	560	9.0
NT	734	403.7	519	285.4	645	354.7	655	360.2	750	412.4
QLD	2 444	73.2	2 413	72.3	3 254	97.5	3 447	103.2	4 157	124.5
SA	727	49.3	769	52.2	1 025	69.5	1 055	71.6	1 047	71.0
TAS	300	63.2	277	58.4	277	58.4	263	55.4	200	42.2
VIC	1 318	28.9	1 317	28.9	1 614	35.4	2 029	44.5	2 444	53.6
WA	848	48.0	1 026	58.1	1 417	80.3	1 585	89.8	2 048	116.0
Total	**6 464**	**35.3**	**6 402**	**35.0**	**8 351**	**45.6**	**9 176**	**50.1**	**11 399**	**62.3**

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, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	1994			1995			1996			1997			1998		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	28	44	78	30	37	67	30	39	69	20	32	52	43	62	105
5 – 14	5	43	48	8	46	55	15	64	79	18	64	82	29	116	145
15 – 19	214	1 253	1 484	249	1 223	1 482	362	1 659	2 027	431	1 732	2 166	544	2 050	2 602
20 – 29	1 071	2 531	3 643	1 152	2 504	3 680	1 653	3 029	4 689	1 881	3 308	5 196	2 437	3 856	6 316
30 – 39	342	403	753	362	411	777	528	564	1 095	565	620	1 186	820	746	1 567
40 - 49	109	118	230	106	91	199	159	121	281	198	152	350	279	183	463
50 - 59	37	20	57	27	17	44	38	15	53	55	28	83	78	34	113
60+	15	14	29	18	9	27	23	7	30	13	11	24	22	16	38
Not known	46	84	142	26	40	71	14	14	28	13	22	37	24	22	50
Total	**1 867**	**4 510**	**6 464**	**1 978**	**4 378**	**6 402**	**2 822**	**5 512**	**8 351**	**3 194**	**5 969**	**9 176**	**4 276**	**7 085**	**11 399**

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, 1994 – 1998, by State/Territory[1] and year

	Year of diagnosis[1]				
State/Territory	**1994**	**1995**	**1996**	**1997**	**1998**
NT	71	43	21	31	26
QLD	28	17	5	2	3
WA	19	22	24	12	7
Total	**118**	**82**	**50**	**45**	**36**

1 Donovanosis is notifiable only in the Northern Territory, Queensland, Victoria and Western Australia. No cases of donovanosis were notified in Victoria in 1994 – 1998.

Source: National Notifiable Diseases Surveillance System

Table 2.1.15 Number of diagnoses of donovanosis, 1994 – 1998, by age group, year and sex

	Year of diagnosis														
Age group	**1994**			**1995**			**1996**			**1997**			**1998**		
(years)	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
0 – 14	0	5	5	3	1	4	0	1	1	0	0	0	0	4	4
15 – 19	6	14	20	5	21	26	0	6	6	2	6	8	0	9	9
20 – 29	20	25	45	10	20	30	5	7	12	3	16	19	1	9	10
30 – 39	7	23	30	6	8	14	6	8	14	3	4	7	3	1	4
40 – 49	4	6	10	0	2	2	3	7	10	1	5	6	0	3	3
50+	2	3	5	5	1	6	3	4	7	2	2	4	1	5	6
Not known	2	1	3	0	0	0	0	0	0	1	0	1	0	0	0
Total	**41**	**77**	**118**	**29**	**53**	**82**	**17**	**33**	**50**	**12**	**33**	**45**	**5**	**31**	**36**

Source: National Notifiable Diseases Surveillance System

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

2.2.1 Characteristics of cases of newly diagnosed HIV infection in Indigenous people[1], 1992 – 1998, 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

	Year of HIV diagnosis							
Characteristic	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Total**
Total cases	**13**	**17**	**18**	**21**	**17**	**16**	**25**	**127**
Males (%)	84.6	82.4	70.6	66.7	76.5	75.0	64.0	73.2
Median age (years)	30	29	30	26	30	33	31	30
Newly acquired infection	15.4 (2)	17.6 (3)	5.5 (1)	33.3 (7)	11.8 (2)	31.3 (5)	16.0 (4)	18.8 (24)
HIV exposure category								
Male homosexual contact	66.7 (8)	68.8 (11)	29.4 (5)	33.3 (7)	62.5 (10)	62.5 (10)	22.7 (5)	46.7 (56)
Male homosexual contact and injecting drug use	8.3 (1)	0.0 (0)	17.6 (3)	19.1 (4)	0.0 (0)	6.2 (1)	13.6 (3)	10.0 (12)
Injecting drug use[2]	0.0 (0)	6.2 (1)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	13.6 (3)	5.0 (6)
Heterosexual contact	25.0 (3)	25.0 (4)	47.1 (8)	47.6 (10)	25.0 (4)	31.3 (5)	45.5 (10)	36.7 (44)
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)
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)
Mother with/at risk for HIV infection	0.0 (0)	0.0 (0)	5.9 (1)	0.0 (0)	0.0 (0)	0.0 (0)	4.5 (1)	1.6 (2)
Other/undetermined[3]	7.1 (1)	5.9 (1)	5.5 (1)	0.0 (0)	5.9 (1)	0.0 (0)	12.0 (3)	5.5 (7)

1 Information on Indigenous status was not available from ACT at 31 March 1999. 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 people[1], 1992 – 1998, by year. Number of AIDS diagnoses, median age, and percent (number) of total cases by sex, late HIV diagnosis and HIV exposure category

	Year of AIDS diagnosis							
Description	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Total**
Total cases	**6**	**7**	**11**	**9**	**10**	**4**	**8**	**55**
Males (%)	83.3	57.1	81.8	88.9	80.0	75.0	75.0	77.8
Median age (years)	26	36	32	31	30	38	35	32
Late HIV diagnosis	33.3 (2)	28.6 (2)	9.1 (1)	22.2 (2)	10.0 (1)	25.0 (1)	50.0 (4)	23.6 (13)
HIV exposure category								
Male homosexual contact	66.7 (4)	42.9 (3)	54.6 (6)	75.0 (6)	30.0 (3)	33.3 (1)	42.9 (3)	50.0 (26)
Male homosexual contact and injecting drug use	0.0 (0)	14.2 (1)	9.1 (1)	12.5 (1)	40.0 (4)	0.0 (0)	0.0 (0)	13.5 (7)
Injecting drug use[2]	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	14.2 (1)	1.9 (1)
Heterosexual contact	33.3 (2)	42.9 (3)	27.3 (3)	12.5 (1)	30.0 (3)	66.7 (2)	42.9 (3)	32.7 (17)
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)
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)
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)	1.9 (1)
Other/undetermined[3]	0.0 (0)	0.0 (0)	0.0 (0)	11.1 (1)	0.0 (0)	25.0 (1)	12.5 (1)	5.5 (3)

1 Information on Indigenous status was not available from ACT at 31 March 1999. 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, 1998, by State/Territory and Indigenous status

	Indigenous status			
State/ Territory	**Indigenous**	**Non–Indigenous**	**Not reported**	**Total**
ACT	1 (0.3)	112 (38.0)	182 (61.7)	295
NSW	22 (0.3)	768 (10.0)	6 911 (89.7)	7 701
NT	16 (5.8)	176 (63.8)	84 (30.4)	276
QLD	0 (0.0)	12 (0.4)	3 169 (99.6)	3 181
SA	64 (6.6)	912 (93.4)	0 (0.0)	976
TAS	6 (2.1)	63 (22.4)	213 (75.5)	282
VIC	2 (0.1)	4 500 (99.9)	0 (0.0)	4 502
WA	82 (6.5)	1 059 (84.0)	120 (9.5)	1 261
Total	**193 (1.0)**	**7 602 (41.2)**	**10 679 (57.8)**	**18 474**

Source: National Notifiable Diseases Surveillance System

Table 2.2.4 Number and rate[1] of diagnosis of gonorrhoea, 1992 – 1998, by State/Territory[2], 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	850	307	143	82	866	349	1 859	738
	Rate	1 715	232	672	6	1 602	20	1 488	22

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, 1998, by State/Territory and Indigenous status

	Indigenous status			
State/ Territory	**Indigenous**	**Non–Indigenous**	**Not reported**	**Total**
ACT	1 (3.3)	11 (36.7)	18 (60.0)	30
NSW	26 (2.5)	57 (5.4)	969 (92.1)	1 052
NT	850 (73.5)	142 (12.3)	165 (14.2)	1 157
QLD	3 (0.3)	5 (0.4)	1126 (99.3)	1 134
SA	143 (63.6)	82 (36.4)	0 (0.0)	225
TAS	0 (0.0)	12(100.0)	0 (0.0)	12
VIC	4 (0.7)	444 (79.3)	112 (20.0)	560
WA	866 (71.3)	185 (15.2)	164 (13.5)	1 215
Total	**1 893 (35.2)**	**938 (17.4)**	**2 554 (47.4)**	**5 385**

Source: National Notifiable Diseases Surveillance System

Table 2.2.6 Number and rate[1] of diagnosis of syphilis, 1992 – 1998, by State/Territory[2], 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	285	23	23	0	45	55	353	78
	Rate	575	17	108	0.0	83	3	283	2

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 rate[1] of diagnosis of chlamydia, 1992 – 1998, by State/Territory[2], 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	456	294	143	904	613	1 435	1 212	2 633
	Rate	920	222	672	62	1 134	84	970	80

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 1998 by State/Territory, sex and site, and antibiotic sensitivity

	State/Territory						
Sex and Site	**NSW**	**NT**	**QLD**	**SA**	**VIC**	**WA**	**Total[1]**
Males							
Urethra	1 023	305	336	67	438	320	2 495
Rectal	158	4	8	7	63	5	246
Pharynx	63	2	9	7	22	0	109
Other/not specified	6	4	19	3	4	3	39
Total	**1 250**	**315**	**372**	**84**	**527**	**328**	**2 889**
Females							
Cervix	121	234	133	15	33	118	654
Other/not specified	15	5	11	1	5	6	43
Total	**136**	**239**	**144**	**16**	**38**	**124**	**697**
Antibiotic sensitivity (%)							
PPNG	6.6	2.0	6.1	3.0	6.0	7.5	5.7
RR	39.3	1.4	6.1	30.0	29.2	0.0	21.9
LS	48.4	94.8	81.0	65.0	62.8	90.3	68.3
FS	5.7	1.8	6.8	2.0	2.0	2.2	4.1
Total[1]	**1 386**	**554**	**516**	**100**	**565**	**452**	**3 586**

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 – 1998, by sex, site and year

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

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

Source: Australian Gonococcal Surveillance Programme

3 Surveillance for HIV infection in sentinel populations

3.1 HIV incidence in the Sydney Men and Sexual Health (SMASH) study

Table 3.1.1 HIV incidence in the Sydney Men and Sexual Health (SMASH) study, 1993 – 1998

Year	Number of participants[1]	Number of new HIV infections	Person-years follow-up	Incidence per 100 person years
1993	545	9	314.5	2.9
1994	597	7	535.3	1.3
1995	587	9	526.0	1.7
1996	517	5	460.6	1.1
1997	392	3	307.1	1.0
1998	197	0	71.9	0.0
Total	**704**	**33**	**2215.4**	**1.5**

1. Number of participants with follow up information.

Source: National Centre in HIV Epidemiology and Clinical Research; National Centre in HIV Social Research; AIDS Council of New South Wales

3.2 Sentinel HIV surveillance in sexual health clinics, 1993 – 1998

Table 3.2.1 Number of people seen at selected metropolitan sexual health clinics in Australia[1], 1993 – 1998, 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						
Males	**Sydney Sexual Health Centre, NSW**	**Parramatta Sexual Health Clinic, 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**
1993							
Seen	4 684	1 425	–	3 104	–	4 319	5 081
Tested	2 270	1 040	–	2 330	–	3 361	3 238
Newly diagnosed (%)	14 (0.6)	17 (1.6)	–	9 (0.4)	–	13 (0.4)	25 (0.8)
Previously negative (%)	9 (0.7)	7 (1.8)	–	8 (0.8)	–	9 (0.8)	4 (0.3)
1994							
Seen	4 943	1 395	–	–	–	3 797	5 253
Tested	3 032	843	–	–	–	3 006	3 862
Newly diagnosed (%)	18 (0.6)	4 (0.5)	–	–	–	2 (0.1)	27 (0.7)
Previously negative (%)	8 (0.5)	0 (0.0)	–	–	–	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)

	Sexual health clinic						
Females	**Sydney Sexual Health Centre, NSW**	**Parramatta Sexual Health Clinic, 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**
1993							
Seen	2 656	1 161	–	1 918	–	2 652	3 221
Tested	1 274	604	–	1 409	–	2 047	2 192
Newly diagnosed (%)	1 (0.1)	1 (0.2)	–	1 (0.1)	–	0 (0.0)	1 (0.05)
Previously negative (%)	0 (0.0)	1 (0.3)	–	1 (0.2)	–	–	0 (0.0)
1994							
Seen	2 841	1 244	–	–	–	2 409	3 455
Tested	1 701	569	–	–	–	1 920	2 737
Newly diagnosed (%)	0 (0.0)	1 (0.2)	–	–	–	1 (0.05)	4 (0.1)
Previously negative (%)	–	1 (0.3)	–	–	–	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)
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)
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)
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)

1 Data from Parramatta Sexual Health Clinic, Parramatta, NSW, not available in 1995 – 1998.
Data from the Brisbane Sexual Health Clinic, Brisbane, QLD, not available for 1994. Clinic 34, Darwin, NT, joined the network in 1995. The Gold Coast Sexual Health Clinic, QLD, joined the network in 1997.

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

Table 3.2.2 Number of people seen at selected metropolitan sexual health clinics in Australia[1], 1993 – 1998, 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					
Males	**Male homosexual contact[2]**	**Male homosexual contact[2], age < 25 years**	**Injecting drug use**	**Heterosexual contact**	**Other males**	**Total**
1993						
Seen	2 940	657	1 180	13 710	783	18 613
Tested	2 066	488	918	8 887	368	12 239
Newly diagnosed (%)	63 (3.0)	16 (3.3)	0 (0.0)	7 (0.08)	8 (2.2)	78 (0.6)
Previously negative (%)	33 (2.7)	7 (3.0)	0 (0.0)	4 (0.1)	0 (0.0)	37 (0.8)
1994						
Seen	2 744	598	873	10 573	1 198	15 388
Tested	2 117	498	705	7 213	708	10 743
Newly diagnosed (%)	31 (1.5)	6 (1.2)	2 (0.3)	4 (0.06)	14 (2.0)	51 (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)	–	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)	–	2 (0.03)	2 (0.5)	20 (0.2)

	HIV exposure category				
Females	**Sex worker[3]**	**Injecting drug use**	**Heterosexual contact**	**Other females**	**Total**
1993					
Seen	1 293	522	9 116	677	11 608
Tested	1 164	383	5 602	377	7 526
Newly diagnosed (%)	1 (0.09)	1 (0.3)	2 (0.04)	0 (0.0)	4 (0.05)
Previously negative (%)	0 (0.0)	1 (0.5)	2 (0.1)	–	3 (0.1)
1994					
Seen	1 174	448	7 422	905	9 949
Tested	1 139	364	4 834	590	6 927
Newly diagnosed (%)	0 (0.0)	2 (0.5)	4 (0.08)	0 (0.0)	6 (0.09)
Previously negative (%)	–	0 (0.0)	1 (0.05)	–	1 (0.03)
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)	–	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)	–	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	70	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)	2 (0.03)

1 Sydney Sexual Health Centre, Parramatta Sexual Health Clinic, 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 3.2.3 Number of people seen at selected metropolitan sexual health clinics in Australia[1], 1993 – 1998, 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**
1993								
Seen	860	8 589	5 426	2 277	747	399	315	18 613
Tested	631	5 765	3 424	1 462	496	236	225	12 239
Newly diagnosed (%)	1 (0.2)	36 (0.6)	19 (0.6)	8 (0.5)	5 (1.0)	3 (1.3)	6 (2.7)	78 (0.6)
Previously negative (%)	1 (0.9)	15 (0.7)	13 (0.8)	3 (0.5)	0 (0.0)	2 (2.2)	3 (3.9)	37 (0.7)
1994								
Seen	576	6 865	4 716	1 964	650	343	274	15 388
Tested	427	5 003	3 161	1 337	437	215	163	10 743
Newly diagnosed (%)	0 (0.0)	17 (0.3)	20 (0.6)	8 (0.6)	6 (1.4)	0 (0.0)	0 (0.0)	51 (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	5	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)

Females	Age group (years) 13 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60+	Unknown	Total
1993								
Seen	1 518	6 035	2 460	972	277	139	207	11 608
Tested	1 040	3 945	1 624	620	153	31	113	7 526
Newly diagnosed (%)	0 (0.0)	3 (0.08)	0 (0.0)	0 (0.0)	1 (0.7)	0 (0.0)	0 (0.0)	4 (0.05)
Previously negative (%)	0 (0.0)	2 (0.1)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)	0 (0.0)	3 (0.1)
1994								
Seen	1 113	5 098	2 238	862	266	110	262	9 949
Tested	758	3 677	1 611	580	139	25	137	6 927
Newly diagnosed (%)	0 (0.0)	5 (0.1)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	6 (0.09)
Previously negative (%)	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.03)
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)

1 Sydney Sexual Health Centre, Parramatta Sexual Health Clinic, 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

3.3 National monitoring of HIV infection among entrants into Australian prisons, 1992 – 1998

Table 3.3.1 Rate of reception into Australian prisons[1], 1992 – 1998, proportion tested for HIV antibody at reception and number (%) with diagnosed HIV infection by year and Corrections jurisdiction of reception

	State/Territory Corrections jurisdiction								
Year of reception	**ACT[2]**	**NSW**	**NT**	**QLD[3]**	**SA[4]**	**TAS**	**VIC[5]**	**WA**	**Total**
1992									
Reception rate	106.9	173.7	1 485.2	228.0	653.2	337.6	115.2	433.3	247.6
Tested for HIV antibody (%)	–	99.7	64.8	100.0	32.3	61.4	99.9	33.4	69.8
Number (%) with HIV infection	1 (-)	47 (0.6)	1 (0.1)	11 (0.2)	14 (0.6)	0 (0.0)	18 (0.4)	3 (0.2)	95 (0.4)
1993									
Reception rate	129.9	172.1	1 300.8	208.8	512.9	339.9	109.5	470.7	232.9
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									
Reception rate	125.4	185.1	1 420.3	216.0	440.5	353.1	106.1	461.1	232.3
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									
Reception rate	133.4	111.1	1 237.7	254.3	389.9	302.1	107.0	346.3	196.6
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									
Reception rate	158.5	178.2	1 025.6	301.0	387.6	306.9	108.0	340.3	237.1
Tested for HIV antibody (%)	3.9	39.9	91.7	100.0	86.4	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 (0.2)	0 (0.0)	11 (0.3)	0 (0.0)	44 (0.2)
1997									
Reception rate	159.3	207.8	1 578.5	303.5	300.0	273.7	82.9	325.0	155.9
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)	24 (0.1)
1998									
Reception rate	–	204.0	1 867.8	373.3	365.6	527.2	121.8	367.7	263.6
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)

1 Population reception rate per 100 000 population aged 15 years or older at 30 June.

2 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.

3 Data not available from QLD for the third quarter of 1992.

4 Data on HIV antibody not available from SA for the first and second quarters of 1996 and the first and second quarters of 1998.

5 Data available from VIC on males only in the interval 1 January - 30 September 1997 and 1 January - 31 December 1998. Information on number of HIV diagnoses not available in 1998.

Source: State/Territory Departments of Corrections

3.4 National monitoring of HIV infection in blood donors, 1985 – 1998

3.4.1 Number of HIV antibody tests carried out at blood transfusion services, number of donations positive for HIV antibody and prevalence of HIV antibody[1], 1985 – 1998, by State/Territory and years of donation

State/ Territory	1985[2] – 1990 Tests	Positive	Prevalence	1991– 1992 Tests	Positive	Prevalence	1993– 1994 Tests	Positive	Prevalence
ACT	99 645	0	0.0	35 430	1	2.8	30 865	0	0.0
NSW	1 683 696	25	1.5	603 877	4	0.7	574 285	2	0.3
NT	49 614	0	0.0	19 632	0	0.0	16 996	1	5.9
QLD	913 840	8	0.9	386 781	5	1.3	361 984	3	0.8
SA	560 692	0	0.0	195 419	2	1.0	192 143	1	0.5
TAS	141 511	0	0.0	53 878	0	0.0	49 242	0	0.0
VIC	1 511 570	9	0.6	532 783	3	0.6	486 451	4	0.8
WA	426 362	5	1.2	160 626	1	0.6	153 307	0	0.0
Total	**5 386 930**	**47**	**0.9**	**1 988 426**	**16**	**0.8**	**1 865 273**	**11**	**0.6**

State/ Territory	1995 – 1996[3] Tests	Positive	Prevalence	1997 – 1998[3,4] Tests	Positive	Prevalence	1985 – 1998 Tests	Positive	Prevalence
ACT	20 613	0	0.0	–	0	–	186 553	1	0.5
NSW	551 881	4	0.7	613 411	0	0.0	4 027 150	35	0.9
NT	19 149	0	0.0	5 665	1	17.6	111 056	2	1.8
QLD	306 661	5	1.6	368 174	3	0.8	2 337 440	24	1.0
SA	166 305	1	0.6	166 020	2	1.2	1 280 579	6	0.5
TAS	51 987	0	0.0	50 903	1	2.0	347 521	1	0.3
VIC	433 020	1	0.2	448 631	1	0.2	3 412 455	18	0.5
WA	167 736	1	0.6	176 727	1	0.6	1 084 758	8	0.7
Total	**1 717 352**	**12**	**0.7**	**1 829 531**	**9**	**0.5**	**12 787 512**	**95**	**0.7**

1 Prevalence per 100 000 tests.
2 From 1 May 1985.
3 HIV antibody testing of blood donors in the ACT carried out in NSW from 1 July 1996.
4 Number of HIV antibody tests carried out in the NT in 1997 only.

Source: Red Cross Blood Transfusion Services; National Serology Reference Laboratory, Australia

3.4.2 Number of blood donors in Australia with HIV antibody, 1985 – 1998, 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 M	F	1991 – 1992 M	F	1993 – 1994 M	F	1995 – 1996 M	F	1997 – 1998 M	F	All years M	F	Total
Male homosexual contact	12[1]	–	4	–	1	–	0	–	1	–	18	–	18
Injecting drug use	1	0	0	0	0	0	1	0	1	0	3	0	3
Heterosexual contact	13	12	0	3	2	1	3	2	1	2	19	20	39
Person from a high prevalence country	0	0	0	0	0	0	0	0	0	2	0	2	2
Receipt of blood/tissue	1	2	0	0	0	0	0	0	0	0	1	2	3
Other	0	0	0	0	1	1	0	0	0	0	1	1	2
Undetermined	4	2	9	0	5	0	6	0	1	1	25	3	28
Total	**31**	**16**	**13**	**3**	**9**	**2**	**10**	**2**	**4**	**5**	**67**	**28**	**95**
New HIV infection[2]	**10**	**6**	**4**	**1**	**1**	**2**	**3**	**1**	**1**	**1**	**19**	**11**	**30**

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: Red Cross Blood Transfusion Services; National Serology Reference Laboratory, Australia

3.5 National monitoring of HIV infection among entrants to the Australian Defence Force, 1988 – 1998

Table 3.5.1 Prevalence of HIV infection in entrants to the Australian Defence Force

	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	Total
Number of entrants tested	23 569	3 686	1 353	5 002	5 583	5 431	3 897	5 163	53 684
Number positive for HIV antibody	2	0	1	0	1	0	0	0	4
HIV prevalence per 100 000 entrants	8	0	74	0	18	0	0	0	7

Source: Australian Defence Force

Table 3.5.2 Diagnoses of HIV infection in serving members of the Australian Defence Force

	To 30 Jun 88	Jun 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	Total
Average ADF strength	–	68 000	66 380	59 904	57 923	57 948	57 404	56 585	54 495	–
Number of HIV tests	7 549	51 110	16 520	18 829	20 272	16 061	14 479	14 435	16 082	175 337
Number of members newly diagnosed with HIV infection	13	14	6	8	2	1	2	0	1	47
New diagnoses per 1 000 strength	–	0.21	0.09	0.13	0.03	0.02	0.03	0.00	0.02	–
New diagnoses per 100 000 tests	172	27	36	42	10	6	14	0	6	27

Source: Australian Defence Force

Table 3.5.3 HIV infection in the Australian Defence Force by age and exposure category

	Age group (years)					
HIV exposure category	Unavailable	15 – 19	20 – 29	30 – 39	40 – 49	Total
Male homosexual contact	0	0	8	1	0	9
Heterosexual contact	0	0	11	8	5	24
Receipt of blood/tissue	0	0	0	1	0	1
Other/undetermined	1	2	7	6	1	17
Total	**1**	**2**	**26**	**16**	**6**	**51**

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 – 1998

Table 4.1.1 Number of participating needle and syringe programs (NSP), 1995 – 1998, 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]
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]
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 (%)[2]			Number with HCV antibody (%)		
		Male	Female	Total[1]	Male	Female	Total	Male	Female	Total[1]
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]
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)**

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

2 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 – 1998, 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**

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 – 1998, and number with HIV or HCV antibody by year, sexual orientation and sex

1995

	Number tested			Percent with HIV antibody			Percent with HCV antibody		
Sexual orientation	**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

	Number tested			Percent with HIV antibody			Percent with HCV antibody		
Sexual orientation	**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

	Number tested			Percent with HIV antibody			Percent with HCV antibody		
Sexual orientation	**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

	Number tested			Percent with HIV antibody			Percent with HCV antibody		
Sexual orientation	**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**

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 National monitoring of occupational exposure to blood and body fluids, 1995 – 1998

Table 5.1 Number of cases of occupational exposure to blood or body fluids in health care workers reported by the participating sites and number of cases of occupational exposure per 100 daily occupied beds by year and type of exposure

	Jul – Dec 1995 (13 sites)		1996 (26 sites)		1997 (56 sites)		1998 (28 sites)	
Type of exposure	Number of exposures	Exposures per 100 daily occupied beds[1]	Number of exposures	Exposures per 100 daily occupied beds	Number of exposure	Exposures per 100 daily occupied beds	Number of exposure	Exposures per 100 daily occupied beds
Percutaneous	434	23.8	1 283	20.8	2 565	17.9	1 508	22.2
Hollow bore needles	258	14.2	796	12.9	1 505	10.6	887	13.0
Other percutaneous	176	9.6	487	7.9	1 060	7.3	621	9.1
Non–percutaneous	98	5.4	289	4.7	527	3.7	209	3.1
Total	**532**	**29.2**	**1 572**	**25.5**	**3 092**	**21.6**	**1 717**	**25.2**

1 Rate of exposure per 100 daily occupied beds over 12 months.

Source: National network for monitoring occupational exposure to blood and body fluids in health care workers

Table 5.2 Number (percent) of cases of occupational exposure to blood or body fluids in health care workers reported by the participating sites for which the source was tested for specific blood borne viruses, and number (percent) with diagnosed infection by year, viral test and type of exposure

	Jul – Dec 1995		1996		1997		1998	
Viral test/ Type of exposure	Number (%) tested	Number (%) with infection	Number (%) tested	Number (%) with infection	Number (%) tested	Number (%) with infection	Number (%) tested	Number (%) with infection
HIV antibody								
Hollow bore needles	91 (35)	3 (3.3)	426 (54)	12 (2.8)	939 (62)	11 (1.2)	682 (77)	9 (1.3)
Other percutaneous	66 (38)	3 (4.5)	229 (47)	6 (2.6)	538 (51)	7 (1.3)	474 (76)	4 (0.8)
Non–percutaneous	44 (45)	5 (11.4)	125 (43)	2 (1.6)	354 (67)	10 (2.8)	176 (84)	2 (1.1)
HCV antibody								
Hollow bore needles	89 (35)	5 (5.6)	418 (53)	19 (4.5)	969 (64)	39 (4.0)	685 (77)	28 (4.1)
Other percutaneous	60 (34)	4 (6.7)	228 (47)	9 (3.9)	551 (52)	23 (4.2)	473 (76)	32 (6.8)
Non–percutaneous	44 (45)	14 (32)	127 (44)	14 (11.0)	351 (67)	37 (10.5)	175 (84)	38 (22)
HBs antigen								
Hollow bore needles	93 (36)	1 (1.1)	430 (54)	8 (1.9)	963 (64)	10 (1.0)	680 (77)	22 (3.2)
Other percutaneous	62 (35)	2 (3.2)	235 (48)	7 (3.0)	551 (52)	13 (2.4)	472 (76)	13 (2.8)
Non–percutaneous	44 (45)	4 (9.1)	126 (43)	8 (6.3)	349 (66)	16 (4.6)	172 (82)	7 (4.1)

Source: National network for monitoring occupational exposure to blood and body fluids in health care workers

Table 5.3 Number of health care workers (HCWs) occupationally exposed to blood or body fluids with at least three months follow up post exposure, number (percent) tested for specific blood borne viruses at follow up and number with occupationally acquired infection by year, source serostatus and type of exposure

	Jul–Dec 1995 (13 sites)			1996 (26 sites)			1997 (56 sites)			1998 (28 sites)		
Source serostatus/ Type of exposure	**Number of exposed HCWs**	**Number (%) tested at follow up**	**Number with infection**	**Number of exposed HCWs**	**Number (%) tested at follow up**	**Number with infection**	**Number of exposed HCWs**	**Number (%) tested at follow up**	**Number with infection**	**Number exposed HCWs**	**Number (%) tested at follow up**	**Number with infection**
HIV infection												
Hollow bore needle	2	1 (50)	0	8	0 (0)	0	10	4 (40)	0	9	3 (33)	0
Other percutaneous	2	1 (50)	0	6	2 (33)	0	6	2 (33)	0	4	2 (50)	0
Non–percutaneous	2	0 (0)	0	2	1 (50)	0	7	4 (57)	0	2	1 (50)	0
Unknown HIV status												
Hollow bore needle	121	31 (26)	0	329	79 (24)	0	444	183 (41)	0	172	98 (57)	0
Other percutaneous	83	21 (25)	0	234	75 (32)	0	391	164 (42)	0	108	56 (52)	0
Non–percutaneous	39	13 (33)	0	162	40 (25)	0	132	55 (42)	0	35	13 (37)	0
HCV antibody												
Hollow bore needle	5	2 (40)	0	15	1 (7)	0	34	28 (83)	0	23	15 (65)	0
Other percutaneous	3	1 (33)	0	8	2 (25)	0	18	12 (67)	0	20	9 (45)	0
Non–percutaneous	10	6 (60)	0	13	3 (23)	0	30	16 (53)	0	23	8 (35)	0
Unknown HCV status												
Hollow bore needle	120	19 (16)	0	335	43 (13)	0	431	181 (42)	0	188	99 (53)	0
Other percutaneous	85	14 (16)	0	233	39 (17)	0	379	162 (43)	0	122	63 (52)	0
Non–percutaneous	38	8 (21)	0	155	11 (7)	0	136	55 (40)	0	37	16 (43)	0
HBs antigen[1]												
Hollow bore needle	1 (100)	0 (0)	0	7 (75)	1 (14)	0	7 (100)	0 (0)	0	14 (86)	1 (7)	0
Other percutaneous	2 (100)	0 (0)	0	5 (80)	0 (0)	0	11 (100)	0 (0)	0	8 (75)	0 (0)	0
Non–percutaneous	3 (100)	0 (0)	0	8 (63)	0 (0)	0	11 (100)	0 (0)	0	5 (100)	0 (0)	0
Unknown HBsAg status												
Hollow bore needle	118 (60)	7 (6)	0	324 (84)	15 (5)	0	433 (86)	71 (16)	0	152 (74)	6 (4)	0
Other percutaneous	85 (57)	1 (1)	0	229 (84)	20 (9)	0	378 (83)	64 (17)	0	92 (77)	5 (5)	0
Non–percutaneous	40 (65)	0 (0)	0	158 (86)	4 (3)	0	134 (83)	25 (19)	0	25 (83)	0 (0)	0

1 Percentage of health care workers with hepatitis B surface antibody at the time of the exposure.

Source: National network for monitoring occupational exposure to blood and body fluids in health care workers

6 Patterns of treatment for HIV infection

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

6.1.1 Number of gay and other homosexually active men with diagnosed HIV infection participating in the Sydney Men and Sexual Health study (SMASH), and proportion reporting use of antiretroviral therapy for HIV infection, 1993 – 1998, by six month interval of interview and specific treatment

Six month interval of interview	1993 Jan–Jun	1993 Jul–Dec	1994 Jan–Jun	1994 Jul–Dec	1995 Jan–Jun	1995 Jul–Dec	1996 Jan–Jun	1996 Jul–Dec	1997 Jan–Jun	1997 Jul–Dec	1998 Jan–Jun
Sample size	**119**	**72**	**114**	**52**	**91**	**56**	**94**	**47**	**68**	**50**	**72**
Antiretroviral therapy											
No antiretroviral therapy	54.7	63.9	67.5	69.2	71.4	66.0	62.8	32.1	29.5	16.0	28.4
One antiretroviral agent	27.7	27.8	23.7	25.0	15.4	14.3	2.1	8.5	2.9	2.0	0.7
Two antiretroviral agents	15.1	6.9	8.8	5.8	13.2	14.3	23.4	19.1	10.3	10.0	11.1
Three or more antiretroviral agents	2.5	1.4	0.0	0.0	0.0	5.4	11.7	40.3	57.3	72.0	59.8
Protease inhibitor	0.0	0.0	0.0	0.0	0.0	0.0	10.6	44.7	51.5	68.0	43.1

Source: National Centre in HIV Epidemiology and Clinical Research; National Centre in HIV Social Research; AIDS Council of New South Wales

6.1.2 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 site and month and year of survey

	Sydney 1997	Sydney 1998		Sydney 1999	Melbourne 1998	Brisbane 1998	Perth 1998	Adelaide 1998
	August	February	August	February	February	June		November
Sydney								
Sample size	**265**	**400**	**206**	**379**	**155**	**113**	**45**	**34**
Proportion reporting use of combination therapy								
Yes	74.7	70.8	75.7	72.3	82.6	68.1	62.1	64.7
No	25.3	29.2	24.3	26.4	17.4	31.9	37.8	35.3

Source: National Centre in HIV Social Research; National Centre in HIV Epidemiology and Clinical Research; AIDS Council of New South Wales; People living with HIV/AIDS (NSW)

6.2 Monitoring uptake of treatment for HIV infection in the Observational Database Pilot Study

Table 6.2.1 Uptake of antiretroviral treatments in the Observational Database Pilot Study[1]

	Current antiretroviral treatment					
	None	Mono	Double	3+ without protease inhibitor	3+ with protease inhibitor	Total
Total	**309 (29%)**	**31 (3%)**	**89 (8%)**	**99 (9%)**	**545 (51%)**	**1 073**
Sex						
Male	286 (28%)	27 (3%)	83 (8%)	94 (9%)	524 (52%)	1 014
Female	23 (39%)	4 (7%)	6 (10%)	5 (8%)	21 (36%)	59
Age (years)						
<30	75 (47%)	4 (2%)	8 (5%)	13 (8%)	61 (38%)	161
30–39	137 (29%)	16 (3%)	33 (7%)	41 (9%)	253 (53%)	480
40–49	70 (23%)	6 (2%)	25 (8%)	31 (10%)	166 (56%)	298
50+	27 (20%)	5 (4%)	23 (17%)	13 (10%)	65 (49%)	133
Not known	0	0	0	1	0	1
Year of first HIV diagnosis						
1981–89	87 (24%)	11 (3%)	32 (9%)	42 (11%)	195 (53%)	367
1990–93	90 (26%)	10 (3%)	31 (9%)	24 (7%)	191 (55%)	346
1994–97	115 (35%)	10 (3%)	22 (7%)	33 (10%)	145 (45%)	325
Not known	17	0	4	0	14	35
Exposure category						
Homosexual	253 (28%)	19 (2%)	72 (8%)	87 (10%)	484 (53%)	915
Other/NK	56 (35%)	12 (8%)	17 (11%)	12 (8%)	61 (39%)	158
Viral load (copies/µl)						
<400	31 (7%)	6 (1%)	25 (6%)	57 (13%)	325 (73%)	444
400–20000	108 (35%)	12 (4%)	37 (12%)	26 (8%)	124 (40%)	307
20000+	134 (54%)	11 (4%)	24 (10%)	7 (3%)	72 (29%)	248
Not known	36	2	3	9	24	74
CD4+ count (cells/µl)						
<200	55 (26%)	12 (6%)	20 (10%)	8 (4%)	115 (55%)	210
200–500	99 (22%)	11 (2%)	38 (8%)	43 (10%)	261 (58%)	452
500+	151 (37%)	8 (2%)	28 (7%)	48 (12%)	168 (41%)	403
Not known	4	0	3	0	1	8
Prior AIDS						
No	277 (32%)	25 (3%)	71 (8%)	89 (10%)	411 (47%)	873
Yes	32 (16%)	6 (3%)	18 (9%)	10 (5%)	134 (67%)	200

1 Antiretroviral treatments prescribed at the person's last visit during 1997.

Source: Observational Database Pilot Study

6.3 Monitoring prescriptions for antiretroviral agents

Table 6.3.1 Number of people prescribed antiretroviral treatment through the Highly Specialised Drugs (S100) Program by year and antiretroviral agent

Antiretroviral agent	1992/93	1993/94	1994/95	Jul–Dec 95	Jan–Jun 96	Jul–Dec 96	Jan–Jun 97	Jul–Dec 97	Jan–Jun 98	Jul–Dec 98
Nucleoside analogue reverse transcriptase inhibitors										
Didanosine	907	1 030	659	520	606	483	783	1 063	1 318	1 495
Lamivudine	n/a	n/a	n/a	n/a	n/a	3 319	4 478	4 383	4 218	3 969
Stavudine	n/a	n/a	n/a	n/a	n/a	1 793	3 038	3 434	3 681	3 825
Zalcitabine	n/a	680	896	1 054	1 301	1 019	801	318	237	201
Zidovudine	2 371	5 266	2 455	2 484	2 529	2 910	2 892	1 970	1 783	1 505
Lamivudine & Zidovudine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	220
Non–nucleoside analogue reverse transcriptase inhibitors										
Delavirdine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	98
Nevirapine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1 157	1 716	1 884
Protease inhibitors										
Indinavir	n/a	n/a	n/a	n/a	n/a	618	1 485	1 872	1 756	1 555
Nelfinavir	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1 012	1 359
Ritonavir	n/a	n/a	n/a	n/a	n/a	213	758	817	764	704
Saquinavir	n/a	n/a	n/a	n/a	n/a	1 949	2 531	2 021	1 489	1 515
Total patients[1]	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**5 168**	**6 516**	**5 938**	**6 004**	**6 099**
Total cost ($'000s)	**11 956**	**9 906**	**9 724**	**5 461**	**5 549**	**19 083**	**28 522**	**30 354**	**31 427**	**34 885**

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

Source: Highly Specialised Drugs (S100) Program

Table 6.3.2 Number of people prescribed drugs for HIV/AIDS related conditions through the Highly Specialised Drugs (S100) Program

Antiretroviral agent	1992/93	1993/94	1994/95	Jul–Dec 95	Jan–Jun 96	Jul–Dec 96	Jan–Jun 97	Jul–Dec 97	Jan–Jun 98	Jul–Dec 98
Azithromycin	n/a	n/a	n/a	n/a	n/a	n/a	n/a	89	256	287
Cidofovir	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9
Clarithromycin	n/a	n/a	n/a	n/a	314	318	322	257	192	183
Foscarnet	n/a	61	33	28	34	41	32	31	32	22
Ganciclovir	931	88	172	122	145	174	158	163	121	92
Rifabutin	n/a	n/a	404	513	571	416	297	140	95	85
Total cost ($'000s)	**183**	**148**	**1 637**	**1 335**	**1 326**	**2 122**	**1 744**	**1 655**	**1 496**	**1 204**

Source: Highly Specialised Drugs (S100) Program

7 Monitoring behaviour

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

7.1.1 Number of gay and other homosexually active men participating in the Sydney Men and Sexual Health study, 1993 – 1998, prevalence of anal intercourse by 6 month reporting interval, partner type and condom use and prevalence of injecting drug use by 6 month reporting interval

	1993		1994		1995		1996		1997		1998
	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun	Jul–Dec	Jan–Jun
Sample size	**520**	**336**	**537**	**272**	**464**	**297**	**477**	**235**	**389**	**246**	**393**
Anal intercourse with regular partners											
No regular partner	46.0	44.0	38.4	39.3	41.6	34.7	38.2	40.4	40.1	35.0	36.4
No anal intercourse	10.8	9.2	10.8	9.6	10.3	14.5	13.8	11.5	12.0	7.3	11.2
Always with condom	19.8	22.0	20.5	25.0	17.5	21.2	18.2	15.3	18.3	16.7	18.8
Any without condom	23.5	24.7	30.4	26.1	30.6	29.6	29.8	32.8	29.6	41.0	33.6
Never use condom	*14.2*	*13.4*	*18.1*	*16.9*	*19.6*	*19.5*	*18.7*	*22.1*	*20.8*	*32.9*	*20.6*
Anal intercourse with casual partners											
No casual partners	17.1	21.4	24.0	24.6	22.2	24.9	22.0	24.7	24.7	28.5	23.7
No anal intercourse	24.2	19.3	21.6	16.5	21.6	21.9	25.6	26.4	23.1	20.7	20.6
Always with condom	42.7	42.3	39.5	44.5	43.1	38.0	41.1	34.9	37.3	36.2	41.0
Any without condom	16.0	17.0	14.9	14.3	13.1	15.2	11.3	14.0	14.9	14.6	14.7
Mostly or always without condom	*1.3*	*2.1*	*2.0*	*1.5*	*1.7*	*3.4*	*1.7*	*1.3*	*1.3*	*2.4*	*2.5*
Injecting drug use	12.1	10.4	12.1	9.2	12.7	11.4	10.1	11.1	9.8	12.2	12.1

Source: **National Centre in HIV Epidemiology and Clinical Research; National Centre in HIV Social Research; AIDS Council of New South Wales**

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

	Sydney 1996		Sydney 1997		Sydney 1998		Sydney 1999	Melbourne 1998	Brisbane 1998	Perth 1998	Adelaide 1998
	February	August	February	August	February	August	February	February	June		November
Sample size	**1 611**	**627**	**1 609**	**1 021**	**2 201**	**836**	**2 401**	**1 891**	**1 341**	**846**	**552**
Anal intercourse with regular partners											
No regular partner	28.1	35.6	37.4	39.4	37.3	42.3	33.4	35.7	38.4	37.7	34.6
No anal intercourse	10.6	9.6	7.1	7.8	6.0	5.9	9.2	8.9	7.5	10.9	10.0
Always with condom	31.7	31.6	25.5	26.9	25.9	23.2	25.4	26.3	23.4	21.4	21.0
Any without condom	29.7	23.3	30.0	25.9	30.9	28.6	31.9	29.1	30.6	30.0	34.4
Anal intercourse with casual partners											
No casual partners	18.4	14.4	31.1	22.3	27.0	18.7	33.4	28.0	28.3	34.9	39.5
No anal intercourse	25.7	18.7	16.7	18.1	18.9	19.0	16.6	21.0	21.6	23.8	17.9
Always with condom	44.2	47.2	36.3	37.6	37.1	41.3	34.2	37.7	36.2	29.6	28.4
Any without condom	11.7	19.8	15.9	21.9	17.1	21.1	15.9	13.4	14.0	11.8	14.1
Injecting drug use	–	–	–	–	–	12.4	6.7	–	8.7	–	–
HIV antibody testing	61.2	64.7	60.2	67.4	61.8	63.3	62.4	50.1	45.9	53.3	55.2

Source: National Centre in HIV Social Research; National Centre in HIV Epidemiology and Clinical Research; AIDS Council of New South Wales; People living with HIV/AIDS (NSW)

7.2 Monitoring sexual behaviour in university students

Table 7.2.1 Sexual practice among 17 – 19 year old first year university students, 1989 – 1998, by year of enrolment

	Year of enrolment									
	89	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**
Total	**670**	**843**	**418**	**573**	**553**	**235**	**297**	**377**	**393**	**336**
Male	209	280	121	158	166	63	57	97	97	92
Female	461	563	297	415	387	172	240	280	296	244
Number of partners, ever (%)										
0	–	45.5	42.7	45.6	41.0	38.4	49.8	44.9	39.3	45.2
1	–	20.0	22.3	23.9	26.3	26.2	27.1	24.9	26.7	23.5
2–4		24.7	24.9	22.6	25.7	23.6	16.5	21.4	27.5	26.5
>4		9.9	10.1	7.9	7.0	11.8	6.5	8.8	6.4	4.8
Ready access to condoms (%)[1]										
Male	44.7	47.9	56.2	61.1	62.6	73.8	59.3	52.6	56.0	65.4
Female	16.6	19.7	21.3	32.4	35.8	52.4	49.4	42.2	30.3	40.6
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
sometimes	–	–	5.3	6.0	4.2	6.2	4.5	4.4	4.6	5.4
most times	–	–	3.8	4.6	6.2	6.2	5.2	4.7	6.2	5.1
every time	–	–	11.7	14.7	13.9	13.7	8.2	10.0	18.6	13.4
no partner	–	–	65.1	63.4	62.7	61.7	68.4	68.1	55.7	65.8
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
sometimes	–	–	0.7	0.5	1.8	2.2	1.0	1.1	0.8	1.2
most times	–	–	2.9	1.2	1.6	1.8	1.7	2.8	1.3	3.9
every time	–	–	8.9	8.4	11.3	11.4	7.5	11.3	9.4	8.9
no partner	–	–	83.5	87.4	82.3	81.1	86.6	82.9	86.1	84.8
Sexual practice, ever (%)										
Vaginal sex	44.5	50.0	50.4	47.1	53.2	56.8	43.4	50.4	56.7	49.1
Regular partner	–	46.7	48.2	44.3	50.1	53.7	39.5	47.4	54.2	46.5
Casual partner	–	24.9	24.8	18.3	22.2	28.2	16.3	23.4	21.0	14.3
Anal sex	2.8	5.5	7.7	5.1	6.4	2.3	4.5	3.0	7.6	5.7
regular partner	–	4.6	6.8	4.7	5.7	2.7	4.0	2.6	6.1	4.8
casual partner	–	1.6	3.5	1.3	2.4	0.5	1.1	0.3	1.8	1.8
Any form of sex (oral, vaginal, anal)	53.3	57.7	60.4	56.0	61.5	69.4	57.6	60.6	66.4	57.4

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

7.3 Monitoring sexual and injecting behaviour in injecting drug users

Table 7.3.1 Number of injecting drug users participating in surveys carried out at needle and syringe programs (NSP), 1995 –1998, 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

1995

	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**
History of injecting drug use												
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
Last drug injected												
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
Total[1]	**639**	**327**	**979**	**67**	**73**	**69**	**589**	**307**	**909**	**28**	**35**	**31**

1996

	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**
History of injecting drug use												
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
Last drug injected												
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
Total[1]	**972**	**466**	**1 453**	**66**	**76**	**69**	**910**	**433**	**1 357**	**27**	**30**	**28**

1997

	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
History of injecting drug use												
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
Last drug injected												
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
Total[1]	**1 119**	**574**	**1 699**	**66**	**71**	**67**	**1 032**	**544**	**1 581**	**13**	**16**	**14**

1998

	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
History of injecting drug use															
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
Last drug injected															
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
Total[1]	**1 566**	**853**	**2 430**	**63**	**69**	**65**	**62**	**69**	**65**	**1 478**	**804**	**2 290**	**16**	**21**	**18**

1 Totals include people whose sex was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

Table 7.3.2 Number of injecting drug users participating in surveys carried out at needle and syringe programs (NSP), 1995 – 1998, 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**
Age group												
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
Sexual identity												
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
Total[1]	**639**	**327**	**979**	**67**	**73**	**69**	**457**	**242**	**707**	**32**	**31**	**32**

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**
Age group												
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
Sexual identity												
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
Total[1]	**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
Age group															
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
Sexual identity															
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
Total[1]	**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
Age group															
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
Sexual identity															
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
Total[1]	**1 566**	**853**	**2 430**	**63**	**69**	**65**	**62**	**69**	**65**	**1 040**	**587**	**1 636**	**34**	**25**	**31**

1 Totals include people whose sex was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

8 Global comparisons

Table 8.1 AIDS incidence and estimated HIV prevalence in selected countries

	AIDS incidence		HIV prevalence	
Country	**1998**	**Rate[1]**	**1998**	**Rate[1]**
Asia Pacific				
Australia	348	1.8	11 800	63
Cambodia[2]	6 000	52.9	180 000	3 700
China[2]	6 000	0.5	400 000	<100
India[3,4,5]	1 984	0.2	4 100 000	427
Indonesia[3]	–	–	52 000	26
Japan[2]	300	0.2	7 300	<100
Malaysia[2]	1 250	6.0	45 000	350
Myanmar[3]	–	–	440 000	940
New Zealand[5]	26	0.7	1 000	27
Papua New Guinea[2]	420	9.1	4 400	190
Philippines[2]	650	0.8	29 000	80
Republic of Korea[2]	160	0.8	3 400	26
Thailand[3,4,5]	7 445	12.6	780 000	1 318
Vietnam[2]	2 650	3.5	80 000	200
Europe				
France[3]	1 810	3.0	110 000	188
Germany[3]	871	1.1	35 000	43
Italy[3]	2 343	4.1	90 000	157
Spain[3]	3 713	9.3	120 000	302
United Kingdom[3]	801	1.4	25 000	43
North America				
Canada[5,6]	279	0.9	40 100	135
United States	48 269	17.6	775 000	300

1 Rate per 100 000 population.
2 HIV prevalence in people aged 15–49 years.
3 HIV prevalence in 1997.
4 AIDS incidence in 1997.
5 AIDS incidence not adjusted for reporting delay.
6 HIV prevalence in 1996.

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 1996 to 31 December 1998 and notified by 31 March 1999. 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 1996 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 were no significant differences in reporting delay due to sex, age or HIV exposure category. 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 1998 and reported to the National AIDS Registry by 31 March 1999. 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 1998, whichever came first. Survival rates at 1 and 2 years following AIDS diagnosis, and median survival, were estimated by the Kaplan–Meier method.

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 (1996a).

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–levelling 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 1998.

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 1998

Year/	1995				1996				1997				1998			
Quarter	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	53	56	57	59	61	63	65	66	68

Projections of AIDS incidence from 1999 onwards were made by assuming that the effect of treatments continued to be a 68% 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–levelling 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 1998. 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 and an 87% reduction in 1998. Projections of deaths from 1998 onwards were made by assuming that the effects of treatments continued to result in an 87% 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 Family Services. Gonorrhoea and syphilis were notifiable conditions in all health jurisdictions. Chlamydia was notifiable in all health jurisdictions except New South Wales. 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	Not notifiable	Doctor Laboratory	Doctor Laboratory	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor Other[1]
Donovanosis	Not notifiable	Not notifiable	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	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 1999. 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 – 1998, 91% 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. Tasmania was the only State/Territory health authority 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 1999.

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 1999).

3 Surveillance for HIV infection in sentinel populations

3.1 HIV incidence in the Sydney Men and Sexual Health (SMASH) study

SMASH is an ongoing cohort study of over 1,100 homosexually active men in Sydney. Men were recruited (roughly in order of frequency) through gay community events, personal contacts and snowballing, gay venues, gay organisations, gay and non–gay press, and through doctors and clinics.

Each participant has one or two interviews each year. Data concerning HIV test results of participants in SMASH were as reported by the participants at their interviews. Efforts were also made to contact each participant's general practitioner to obtain further information on HIV test results. HIV incidence was calculated by combining data reported by the general practitioners and the participants.

3.2 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 being seen at the clinic. Further information is available in NCHECR (1996).

3.3 National monitoring of HIV infection in 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).

3.4 National monitoring of HIV infection in blood donors

All blood donations in Australia have been screened for HIV–1 antibodies since May 1985, and for HIV–2 antibodies since April 1992. 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 HIV–1 or HIV–2 antibodies, and reports are routinely forwarded to the NCHECR. Further details of the national data collection on HIV infection in blood donors are given in NCHECR (1996), and Kaldor et al (1991).

3.5 National monitoring of HIV infection in 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 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 blood borne viruses in 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 (22 fixed sites and one mobile site) and October 1998 (30 fixed sites and two 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 National monitoring of occupational exposure to blood and body fluids

A network of hospitals has been established to provide information on the characteristics of occupational exposure to blood or body fluids (MacDonald 1996a, MacDonald 1996b). Reported cases of occupational exposure to blood or body fluids were exposures classified as possible or definite parenteral and massive exposures according to the Australian National Council on AIDS classification (Australian National Council on AIDS 1996).

6 Monitoring uptake of treatment for HIV infection

6.1 Monitoring uptake of treatment for HIV infection in gay and other homosexually active men

Self–reported use of antiretroviral therapy for the treatment of HIV related disease was monitored among gay and other homosexually active men with HIV infection enrolled in the SMASH cohort study and among men participating in the Periodic Surveys in Sydney and Melbourne. The SMASH cohort included over 200 men with HIV infection. Information on self–reported use of antiretroviral therapy was based on their first interview in each year.

6.2 Monitoring uptake of treatment for HIV infection in the Observational Database Pilot Study

Core demographic, HIV disease and antiretroviral treatment data were combined from 3 sites in Melbourne, Sydney and Perth. Patients were included if they had visited the clinic in 1997. Data were obtained from the clinic visit closest to the end of 1997. Further details are given in Law et al (1998).

6.3 Monitoring prescriptions for antiretroviral treatment

All antiretroviral treatments for HIV related disease, 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 related conditions. 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.

7 Monitoring behaviour

7.1 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 annual interview, so the two 6 month periods 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, to provide 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, Melbourne, South East Queensland 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 (Melbourne Midsumma Carnivale, the Pride Fair in both Brisbane and Perth, 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.

7.2 Monitoring sexual behaviour in university students

In 1988, the National Centre in HIV Social Research at Macquarie University 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. From 1988 to 1998, first year students in a large introductory class at Macquarie University completed a questionnaire regarding sexual practice and understanding of safe sex. Questionnaire design and preliminary results have been described elsewhere (Rodden et al 1996).

7.3 Monitoring sexual, injecting and blood borne virus testing behaviour in 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 and 32 in 1998. Further information is available in MacDonald et al (1997).

8 AIDS incidence and HIV prevalence in selected countries

The data in Table 8.1 were obtained from the following sources:

Asia Pacific:

- Data for all countries except India and Thailand: WHO Western Pacific Region. *STD/HIV/AIDS Surveillance Report* 1999;13. WHO Regional Office, Manila, Philippines
- AIDS Epidemiology Group, Department of Preventive and Social Medicine, University of Otago Medical School, Dunedin, New Zealand. *AIDS – New Zealand* 1999; 42

Europe:

- European Centre for the Epidemiological Monitoring of AIDS. *HIV/AIDS Surveillance in Europe*: Surveillance Report no 60, 1998
- PHLS AIDS and STD Centre – Communicable Disease Surveillance Centre, and Scottish Centre for Infection and Environmental Health. Unpublished Quarterly Surveillance Tables No 42: 1999
- UNAIDS/World Health Organisation. Epidemiological Fact Sheet on HIV/AIDS and sexually transmitted diseases. December 1998
- UNAIDS/World Health Organisation. AIDS Epidemic Update: December 1998

North America:

- Health Canada. *HIV and AIDS in Canada*. Surveillance report to December 31, 1998. Division of HIV/AIDS Surveillance, Bureau of HIV/AIDS, STD and TB. LCDC, Health Canada, 1999
- Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report* 1998; 10(2)

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Design & Layout : **Axis Media Design** Telephone: **02 9267 9996** Facsimile: **02 9267 3336** E-mail: **design@axis.com.au**