HIV/AIDS and related diseases in Australia

Annual Surveillance Report 1998

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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 and related diseases

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Preface

This report is the second annual review of available surveillance data pertaining to the occurrence of HIV/AIDS and related diseases 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.

Unless specifically stated otherwise, all data provided in the report are to the end of 1997, as reported by 31 March 1998.

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 and related diseases is gratefully acknowledged.

Acknowledgments

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Australian Paediatric Surveillance Unit and its contributors

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Sydney Children's Hospital, Randwick, NSW

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	Parramatta Sexual Health Clinic, Parramatta, NSW
	Clinic 275, Adelaide, SA
	Clinic 34, Darwin, NT
	Brisbane Sexual Health Clinic, Brisbane, QLD
	Melbourne Sexual Health Centre, Melbourne, VIC
	Murray Street Clinic, Perth, WA
State/Territory Departments of Corrections	ACT Corrective Services, Woden, ACT
	Prison Medical Service, Matraville, NSW
	Department of Correctional Services, Darwin, NT
	Queensland Corrective Services Commission, Brisbane, QLD
	South Australian Forensic Health Services, Adelaide, SA
	Corrective Services Division, Department of Justice, Hobart, TAS
	Department of Human Services, Melbourne, VIC
	Strategic and Specialist Services, Ministry of Justice of Western Australia, Perth, WA
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 Exchanges	ACT IV League; Drug Referral Information Centre, ACT
	Kirketon Road Centre, K2, Kings Cross; St George Needle Exchange, Kogarah; Western Sydney AIDS Prevention Service, Blacktown and Harris Park; Northern Rivers Needle Exchange, NSW
	AIDS Council of Central Australia, Alice Springs; Northern Territory AIDS Council, Darwin, NT
	Bodyline needle exchange, Brisbane; Community Alcohol and Drug Services; BIALA; Cairns Base Hospital; Kobi House, Toowoomba; GAIN, Gold Coast; QuIVAA, QLD
	Clovelly Park Needle Exchange; Noarlunga Needle Exchange; SAVIVE; Salisbury Needle Exchange; South Australian Drug and Alcohol Services Council, SA
	Tasmanian AIDS Council, Hobart, TAS

Ballarat Community Health Services, Ballarat; Geelong Community Health Services, Geelong; Melbourne Inner Needle Exchange, Collingwood; St Kilda Needle Exchange, St Kilda; SHARPS, Frankston; Western Region AIDS and Hepatitis Prevention, VIC

AIDS Council of Western Australia, Perth, WA

Collaborative network of methadone clinics and programmes

Jacaranda House, South Western Sydney; Praxis Centre, Coffs Harbour, NSW

Brisbane South Region Alcohol and Drug Program, QLD

Warrinalla Clinic; Drug and Alcohol Services Council, SA

Barkly Street Clinic, VIC

Carrellis Centre; Alcohol and Drug Authority, 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

It is estimated that there were 11,150 people living with HIV infection in Australia by the end of 1997. The number of people living with HIV infection is estimated to gradually increase to 11,420 by the year 2000, and includes an increasing number of people living with AIDS, from 2,190 in 1997 to 2,410 in 2000.

AIDS surveillance to the end of 1997 indicates that a peak in incidence was reached in Australia in 1994, followed by a relatively rapid decline. This pattern is largely a consequence of the sharp rise and subsequent decline in the number of HIV infections transmitted in the mid-1980s. AIDS incidence is projected to remain steady from 1997, assuming that the proportion of people with HIV infection using combination antiretroviral therapy, and the effectiveness of therapy, stays at the 1997 level.

The decline in AIDS incidence first occurred in New South Wales, which experienced the highest rates of HIV transmission, and also the earliest peak and decline in HIV incidence.

Most cases of HIV infection in Australia continue to be transmitted by sexual contact between men. There has been relatively little transmission through other sources of exposure to HIV. Among homosexually active men, there is no evidence of an increase in HIV transmission. Sexual behaviour reported by homosexually active men suggests that the proportion of men who did not use condoms with casual partners has not changed substantially over time.

Among Indigenous people in Australia, the rate of diagnosed HIV infection remains relatively low, but a number of communities are still experiencing very high rates of other sexually transmissible diseases.

Reuse of equipment for injecting illicit drugs has infrequently resulted in HIV transmission in Australia, but transmission of hepatitis C virus continues to occur at very high rates in people who inject drugs.

People living with HIV infection in Australia have benefitted from improved prevention of some opportunistic infections, especially *Pneumocystis carinii* pneumonia (PCP), but gains in survival have been limited since about 1987. Although use of combination antiretroviral therapy has been associated with a drop in AIDS incidence, the extent to which therapy may contribute to improved survival following AIDS is not yet clear.

Main findings

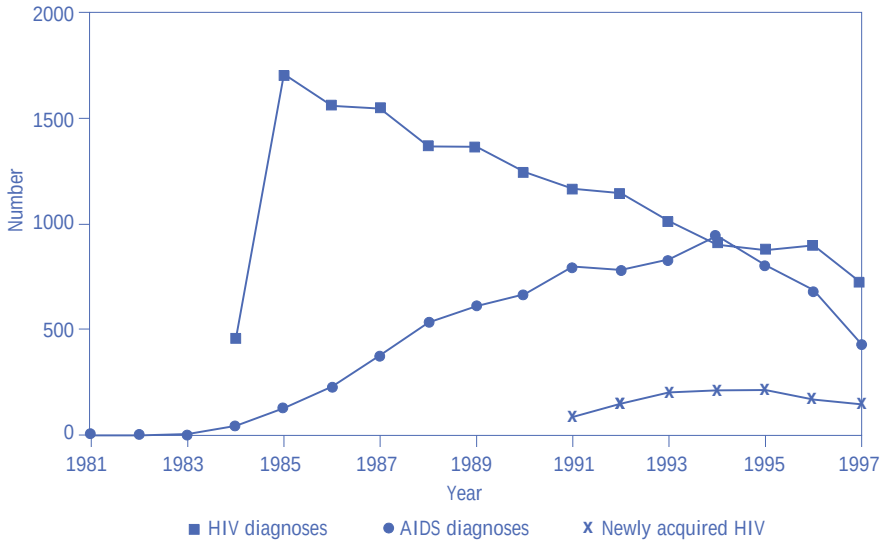
General patterns

HIV/AIDS

The annual number of AIDS diagnoses in Australia, after adjustment for reporting delay, peaked in Australia in 1994 with 948 AIDS diagnoses, and is estimated to have declined to 432 cases in 1997 (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 expected. The most likely explanation for the decrease in the number of AIDS diagnoses is use of effective combination antiretroviral therapy for the treatment of HIV related disease. Potent combination antiretroviral treatments, including protease inhibitors, became widely available in Australia from mid-1996. It is estimated that there have been 530 fewer AIDS diagnoses since 1995 than would have been expected if use of potent combination therapies had not reduced the rate of progression to AIDS.

Figure 1

Number of diagnoses[1] of HIV infection and AIDS



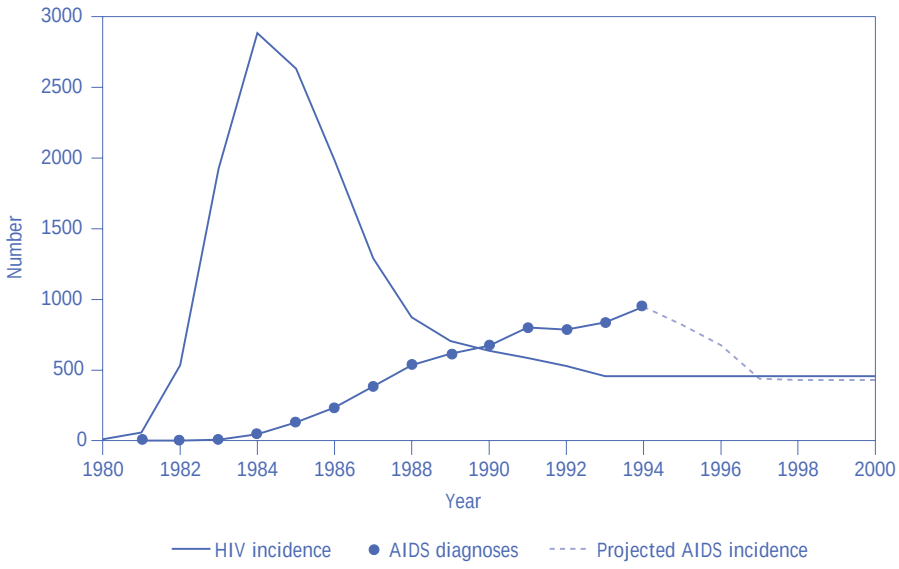
1. HIV diagnoses adjusted for multiple reporting. AIDS diagnoses adjusted for reporting delays.

The cumulative number of HIV infections in Australia to the end of 1997 was estimated to be 16,900, with an estimated 11,150 people living with HIV infection. Assuming that the overall effect of antiretroviral treatment on the rate of progression to AIDS remains at the 1997 level, AIDS incidence is predicted to remain steady at around 430 cases per year until 2000 (Figure 2). If the proportion of people with HIV infection who use antiretroviral treatments increases from 1997 levels, then AIDS incidence would be expected to decline further. However, if antiretroviral treatments fail for a substantial proportion of people with HIV infection, then AIDS incidence could be seen to increase again.

In parallel with the fall in AIDS incidence, there has been a continuing decline in the annual number of HIV diagnoses in Australia to just over 700 in 1997 (Figure 1). It is clear, however, that new HIV infections continue to occur in Australia. Within the total number of HIV diagnoses, around 200 diagnoses of newly acquired HIV infection were reported from 1993 (Figure 1), giving a lower limit to the number of cases of HIV transmission that have actually occurred in Australia over this time.

Figure 2

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

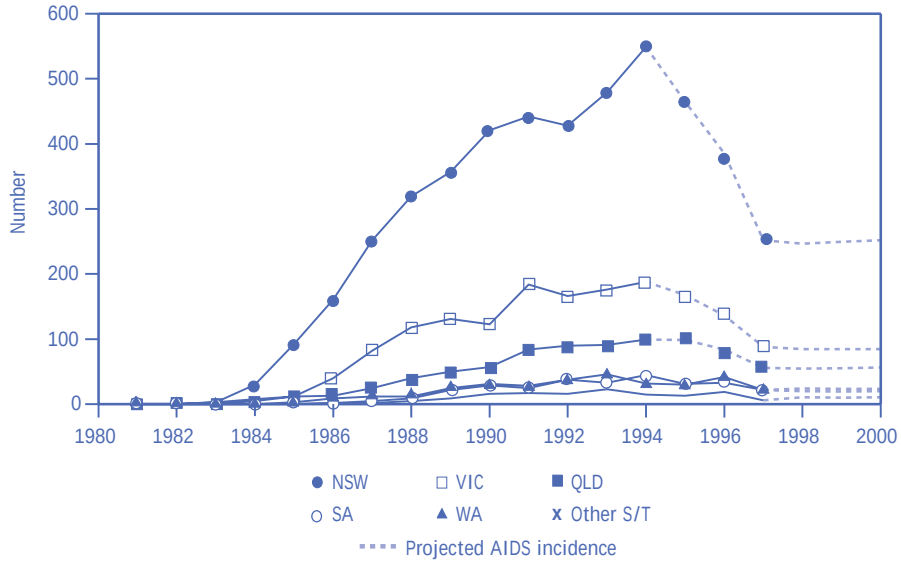


1. Observed AIDS diagnoses adjusted for reporting delay. HIV and projected AIDS incidence estimated by back-projection.

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 164 infections per 100,000 resident population, followed by Victoria (75), Queensland (63), South Australia (58), Western Australia (46), and other States and Territories combined (41). AIDS incidence is projected to continue at around the 1997 level in all States and Territories over the coming years, assuming that the overall effectiveness of antiretroviral treatments remains constant at the 1997 effect.

Figure 3

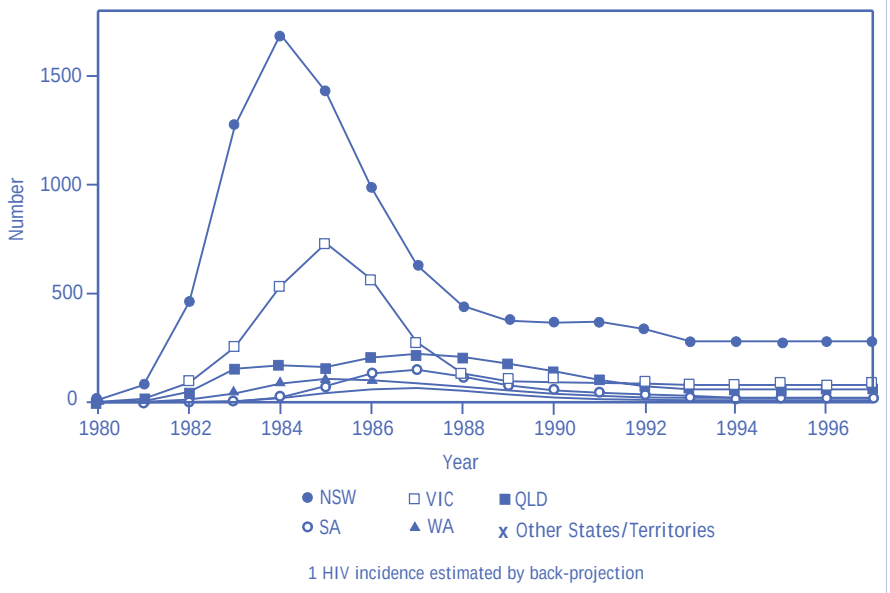
Observed AIDS diagnoses[1] and projected AIDS incidence, by State/Territory



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

Figure 4

Estimated HIV incidence[1] by State/Territory

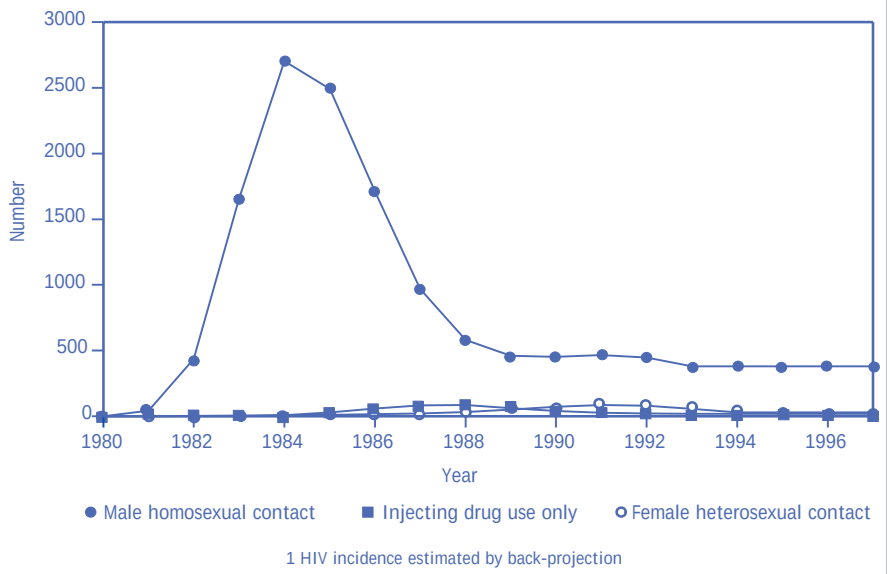


1 HIV incidence estimated by back-projection

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

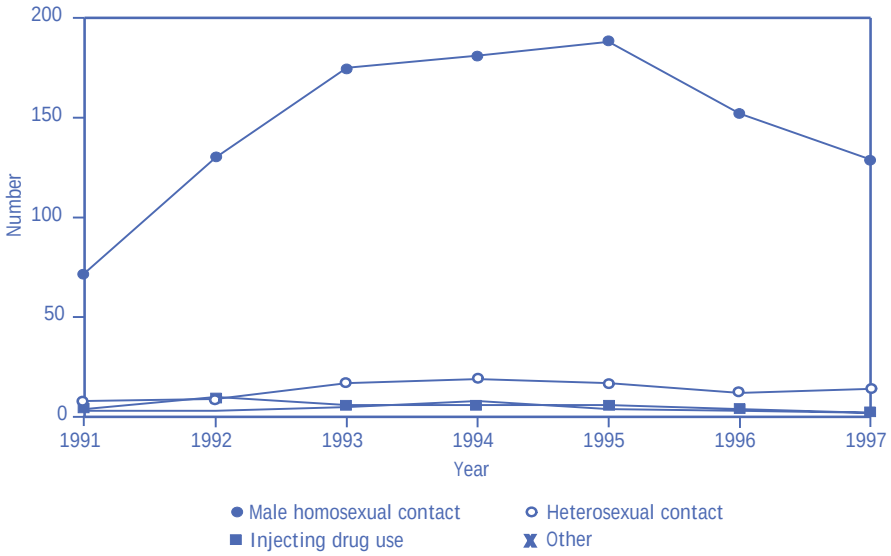
Estimated HIV incidence[1] by exposure category



1 HIV incidence estimated by back-projection

Figure 6

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



Other sexually transmissible diseases and blood borne viruses

The number of diagnoses of gonorrhoea and syphilis per 100,000 population between 1993 and 1997 was highest for the Northern Territory (Figures 7 and 8), followed by Western Australia and Queensland for gonorrhoea, and New South Wales, Queensland and Western Australia for syphilis. Notifications of gonorrhoea increased by 52% over the interval 1993 to 1997 whereas notifications of syphilis declined by 47%. The pattern of notification of these sexually transmissible diseases may be influenced by changing diagnostic tests and notification procedures, and by completeness of notification.

Figure 7

Gonorrhoea diagnoses by year and State/Territory

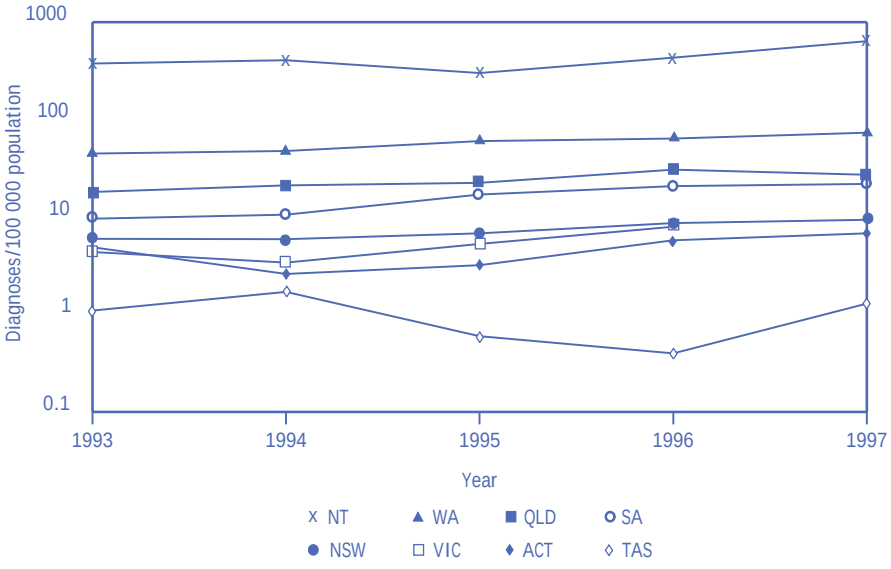
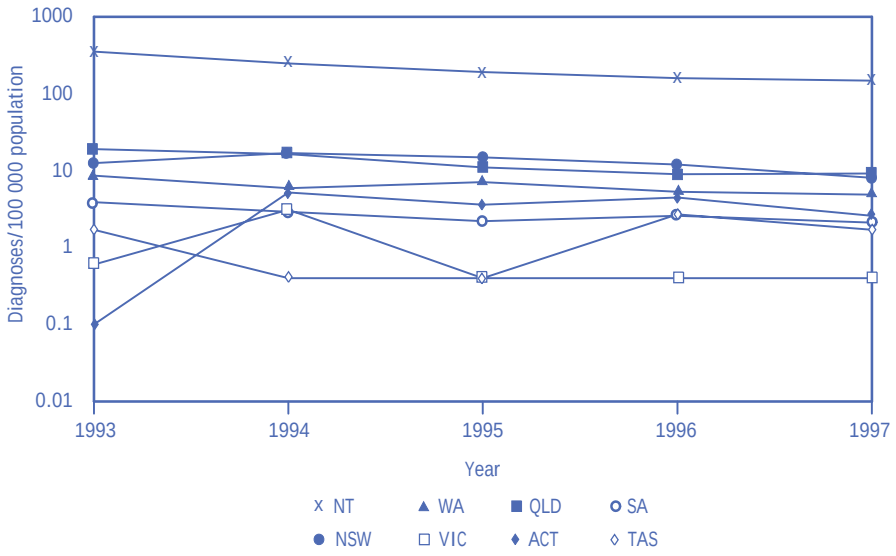


Figure 8

Syphilis diagnoses by year and State/Territory



Of HIV and related diseases, hepatitis C was the most commonly notified condition in 1997. More than 18,500 diagnoses of hepatitis C infection were notified in 1997 compared with 787 diagnoses of HIV infection and 4,285 diagnoses of gonorrhoea. The annual number of notifications of hepatitis C infection has slowly declined from a peak in 1994. Surveillance for cases of newly acquired hepatitis C infection, while incomplete, indicates that hepatitis C continues to be transmitted in Australia.

Global comparisons

In the Asia-Pacific region, HIV prevalence in Thailand, Cambodia and Myanmar was substantially higher than that in Australia in 1997, suggesting that the rate of new HIV infection in those countries had been particularly high in recent years (Figure 9). HIV prevalence in India, Malaysia and Vietnam was also higher than that in Australia whereas in the Philippines HIV prevalence was lower than that in Australia and similar to that in New Zealand. Compared with other industrialised countries, AIDS incidence in Australia in 1997 was higher than in New Zealand and lower than in the United Kindgom, Canada, France, Spain and the United States (Figure 10). For AIDS cases diagnosed in 1997, exposure to HIV was attributed predominantly to male homosexual contact in Australia and in several other industrialised countries. Among AIDS cases diagnosed in Spain in 1997, exposure to HIV was attributed primarily to injecting drug use whereas in Thailand, heterosexual contact was the most frequently reported source of exposure to HIV (Figure 11).

Figure 9

HIV prevalence in 1997 in selected countries in the Asia-Pacific region

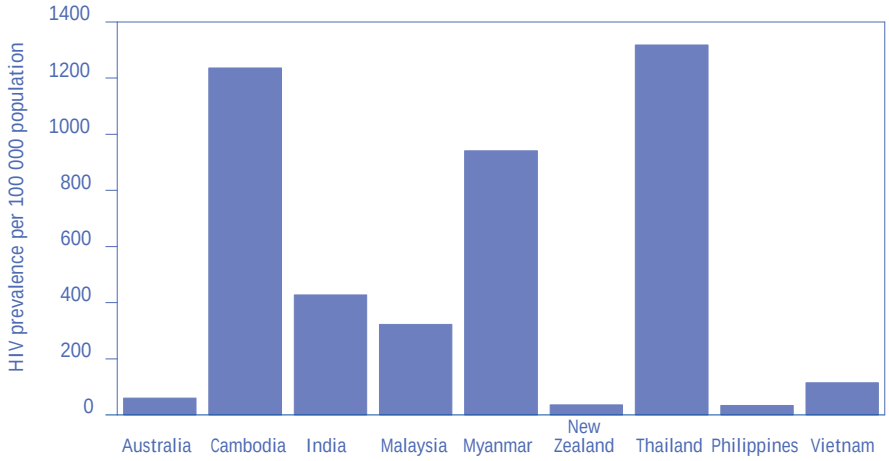
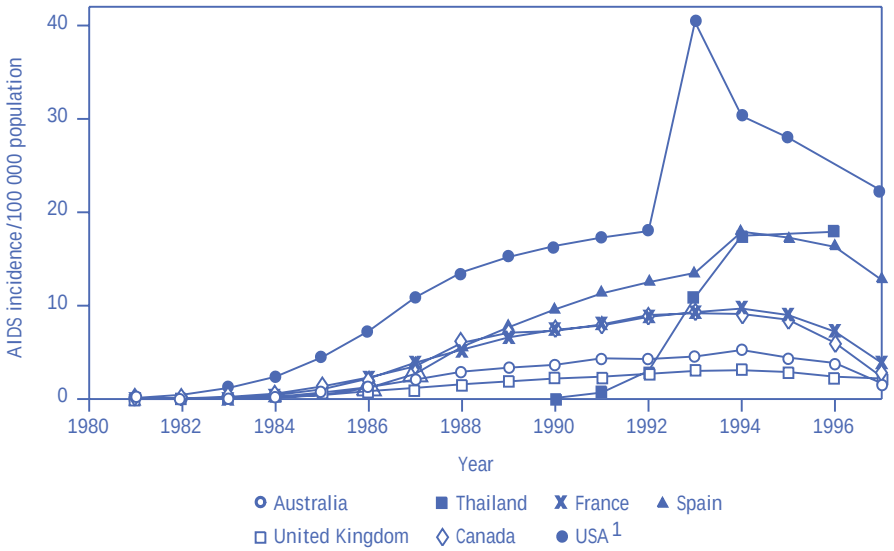


Figure 10

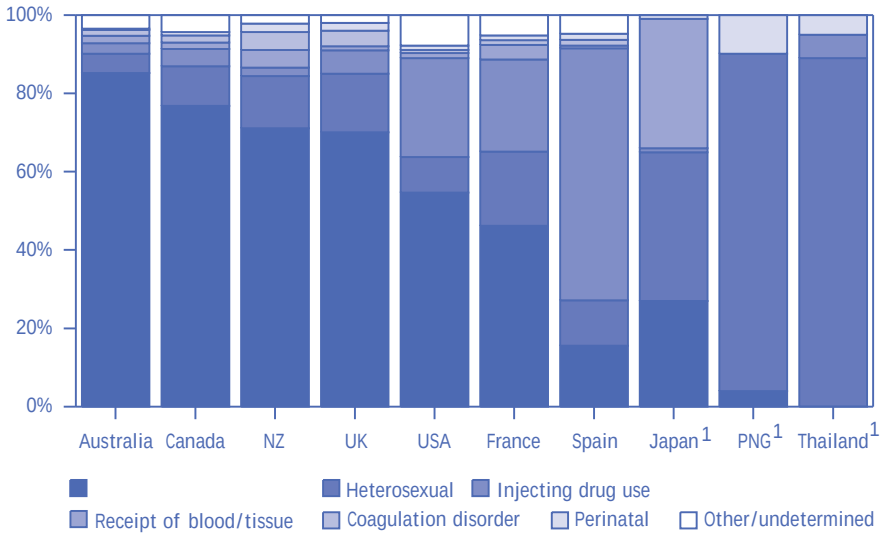
AIDS incidence in selected countries by year



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

Figure 11

AIDS incidence in selected countries in 1997 by HIV exposure category



1 Other/undetermined category not included for Japan, Papua New Guinea or Thailand.

Homosexually active men

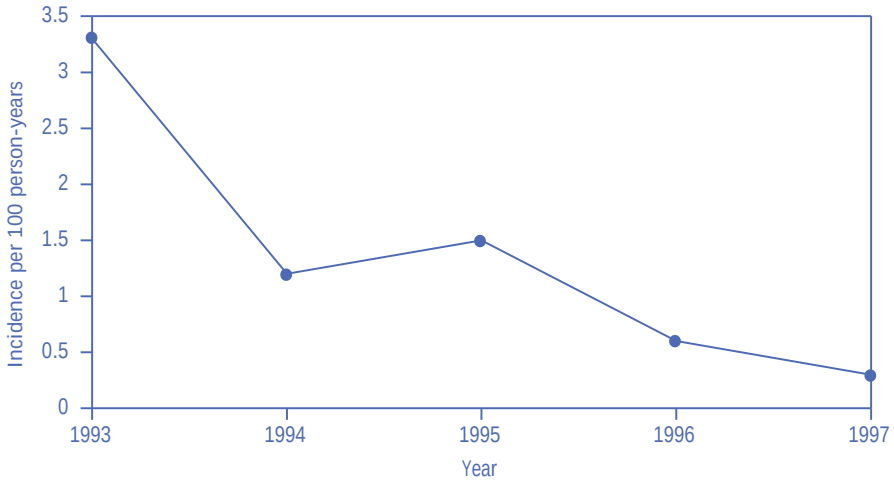
Men with a history of homosexual contact continue to make up the great majority of people diagnosed with AIDS and HIV infection in Australia. Although it is clear that the rate of sexual transmission of HIV between men peaked in the mid 1980s (Figure 5), there is no reliable information on HIV incidence for recent years. However, there is no indication of a recent increase in incidence, either in the surveillance reports of newly acquired HIV infection or estimates of HIV incidence among participants in the Sydney Men and Sexual Health (SMASH) study.

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 slightly higher proportion of diagnoses of newly acquired HIV infection (88%) than total HIV diagnoses (80%) in 1993 to 1997.

Among men participating in the SMASH study, incidence of HIV infection declined from 3.3% per year in 1993, to around 1.5% in 1994 and 1995 and below 1% in 1996 and 1997 (Figure 12). 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 1997, as testing of participants continues during 1998.

Figure 12

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

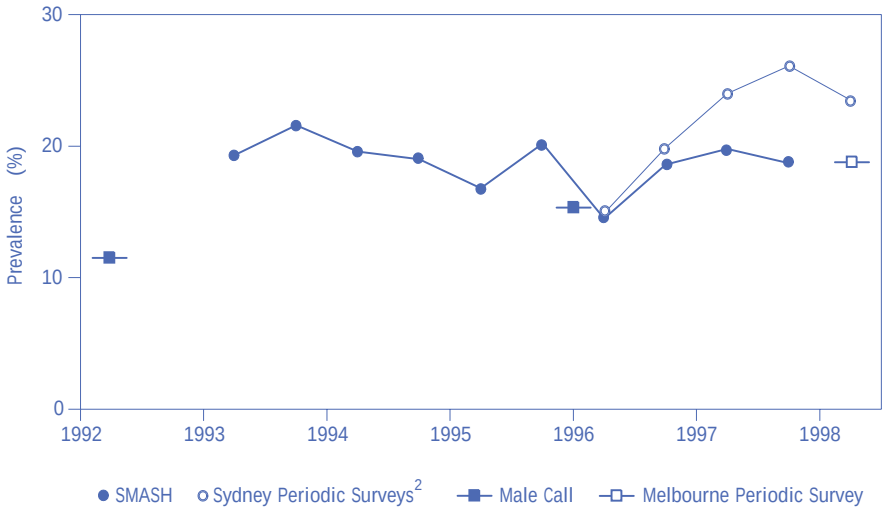


Prevalence of HIV infection among young (< 25 years old) homosexual men seen at selected metropolitan sexual health clinics declined from 2.2% in 1992 to 1.4% in 1997.

Behavioural survey data from SMASH suggest that the proportion of men reporting unprotected anal intercourse with casual partners has remained stable through 1997, 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 homosexual men which commenced in February 1996. The proportion increased from 15% of respondents with casual partners in February 1996 to 26% in August 1997 (Figure 13). Data from Male Call, a national cross sectional anonymous telephone survey of gay and homosexually active men, also showed an increase in the proportion reporting unprotected anal intercourse with casual partners, from 12% in 1992 to 15% in 1996.

Figure 13

Prevalence[1] of unprotected anal intercourse with casual partners reported by homosexually active men by year and survey

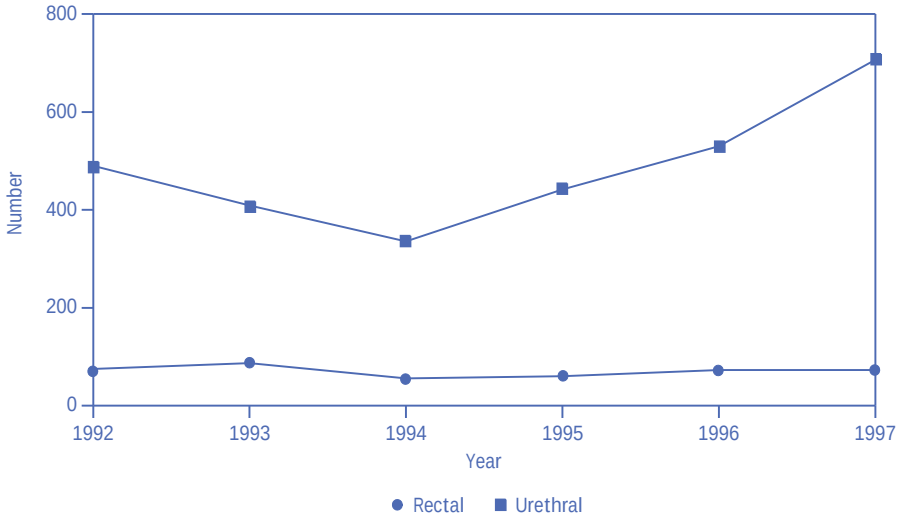


1. Percentage of participants with casual partners who reported any anal intercourse without a condom in previous six months.
2. For sites in Sydney participating in all surveys.

Other disease surveillance data also suggest that there has been limited change in sexual risk among homosexually active men in Australia. The number of rectal gonococcal isolates in men in NSW has been stable at between 60 and 80 cases per year for the last 6 years (Figure 14).

Figure 14

Gonococcal isolates among men in New South Wales



Indigenous Australians

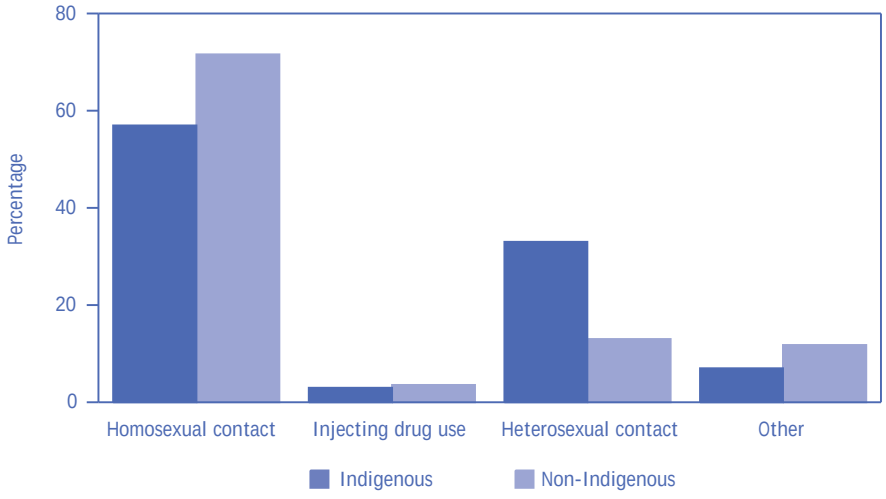
The prevention and treatment of sexually transmissible diseases, including HIV infection, among Indigenous people was emphasised as a priority of the Third National HIV/AIDS Strategy. The endorsement of the Indigenous Australians' Sexual Health Strategy by the Commonwealth in March 1997 represented a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

The overall rates of HIV and AIDS diagnoses *per capita* differed little between Indigenous and non-Indigenous people. While exposure to HIV was attributed to male homosexual contact in the majority of HIV diagnoses for both Indigenous and non-Indigenous people, a higher proportion of heterosexually acquired cases of HIV infection has been reported among Indigenous people. Figure 15 shows the relative proportion of HIV exposure categories in diagnosed cases of HIV infection among Indigenous and non-Indigenous people. Diagnosed HIV infections among Indigenous people also differ from the pattern in non-Indigenous people in that a much higher proportion has occurred in women (25% vs 7% for the non-Indigenous cases).

High rates of sexually transmissible diseases other than HIV infection were recorded in Indigenous people in the three State/Territory health authorities which held information on Indigenous status in more than 50% of diagnoses. Interpretation of national surveillance figures for diagnoses of sexually transmissible diseases in Indigenous people was limited by incomplete information on Indigenous status.

Figure 15

HIV diagnoses, 1992 – 1997, by HIV exposure category and Indigenous status



Injecting drug users

Approximately 8% of HIV diagnoses in Australia have been in people with a history of injecting drug use, of whom just less than half were men who also report 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 1992 to 1997 who identified themselves as injecting drug users (Figure 16). HIV prevalence among injecting drug users attending needle and syringe exchanges has also remained low (less than 3%) except among men who identified themselves as homosexual (31.4%) (Figure 17).

Figure 16

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

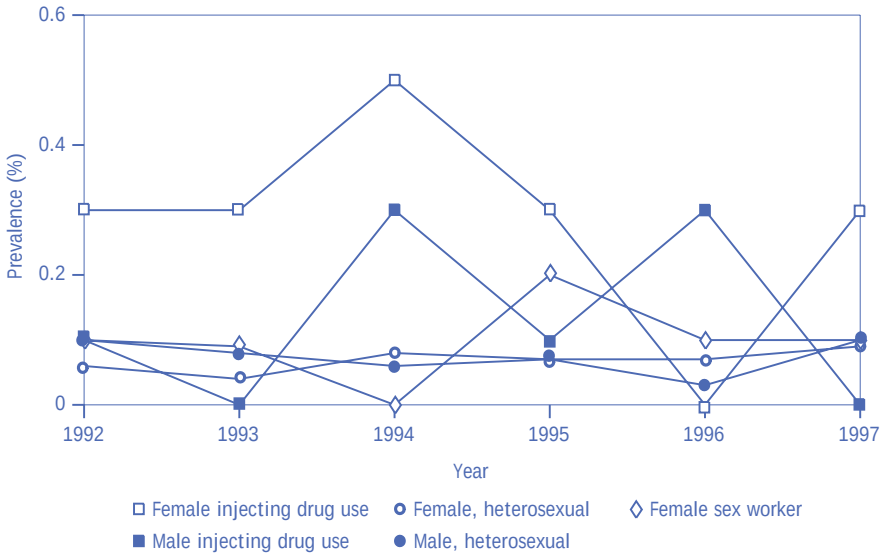
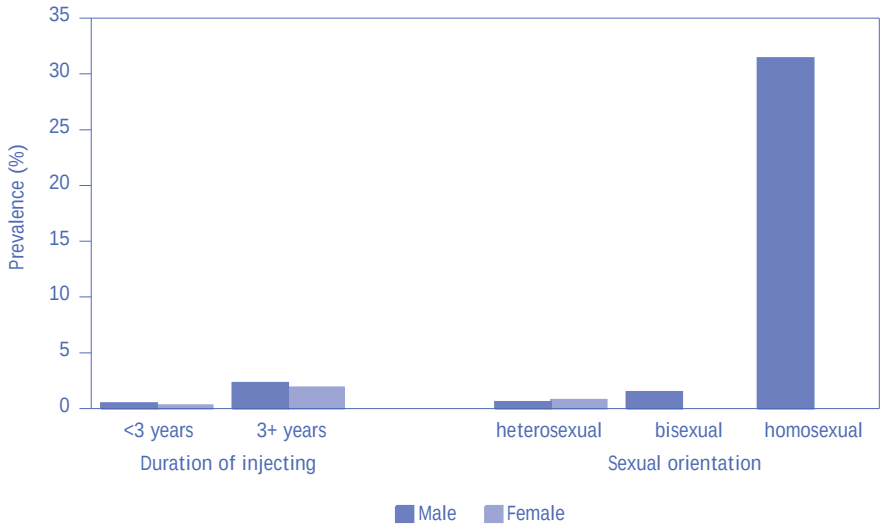


Figure 17

HIV prevalence in people seen at needle and syringe exchanges, 1997, by duration of injecting drugs and sexual orientation



In contrast to the low HIV prevalence, HCV prevalence among injecting drug users attending needle and syringe exchanges remained high in 1997 (Figure 18). However, HCV prevalence has gradually declined from over 60% in 1995 and 1996 to around 50% in 1997. HCV 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). The cumulative effect of duration of exposure to HCV was also seen among injecting drug users tested on entry to methadone treatment programs. HCV prevalence in people seen at methadone clinics increased from 14% among those who had injected for less than three years to 78% in those who had injected for more than 10 years. The proportion of respondents reporting use of a syringe after someone else in the last month, however, had declined from 29% and 26% in 1995 and 1996 to less than 20% in 1997. HCV prevalence appeared to be unrelated to sexual orientation.

Figure 18

HIV and HCV prevalence in needle and syringe exchanges by year and sex

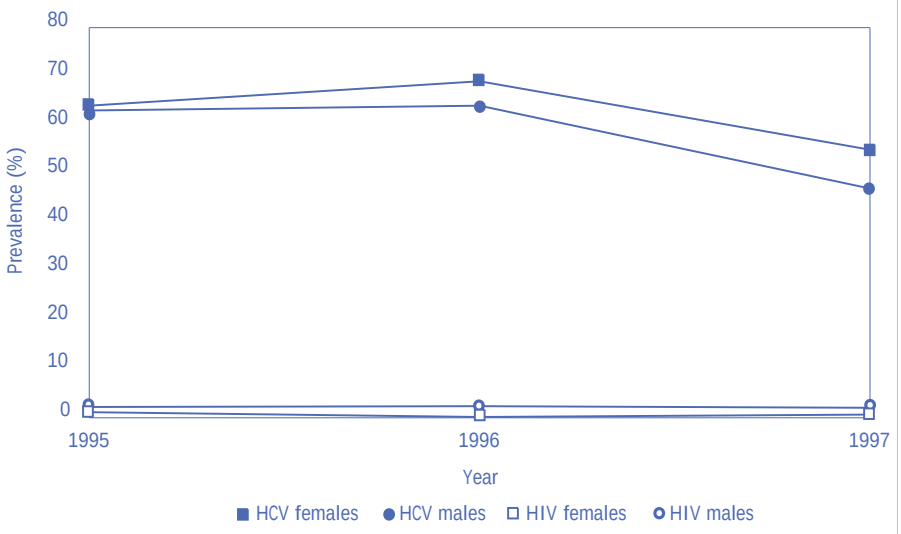
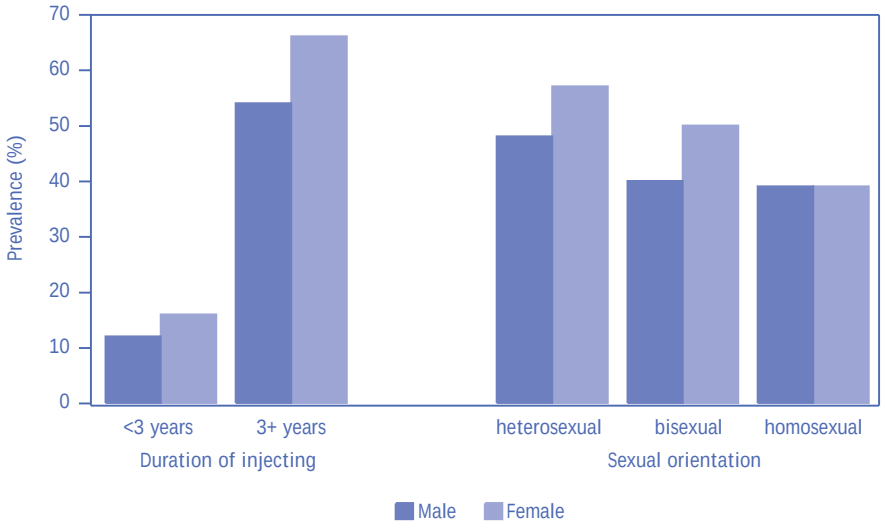


Figure 19

HCV prevalence in people seen at needle and syringe exchanges, 1997, by duration of injecting drugs and sexual orientation

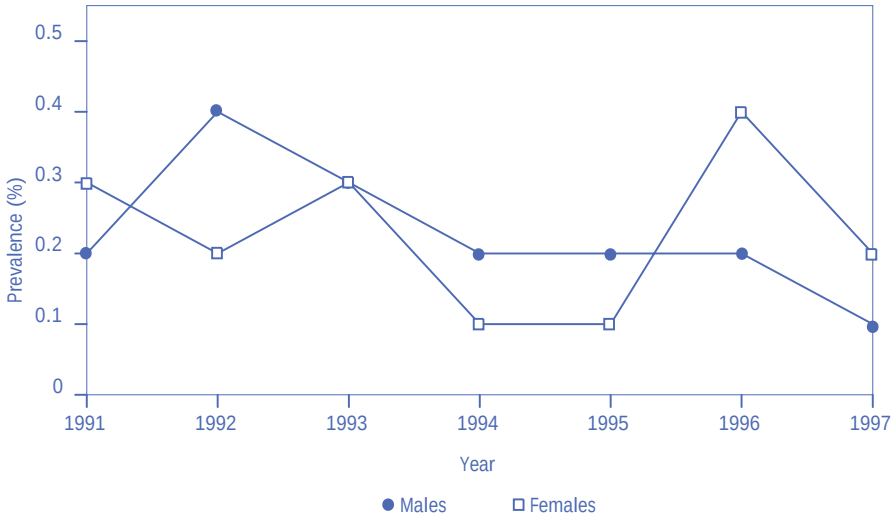


Prisoners

HIV prevalence among people entering Australian prisons in 1991 to 1997 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



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

HIV incidence in women having heterosexual contact was estimated by back-projection to have undergone an increase 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 their validity. HIV diagnoses attributed to heterosexual contact also increased in women in the late 1980s, and plateaued at around 60 diagnoses per year (Figure 21). 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 21) and in the subgroup of women who had perinatally exposed children (Figure 22).

Figure 21

HIV diagnoses in women by year and exposure category

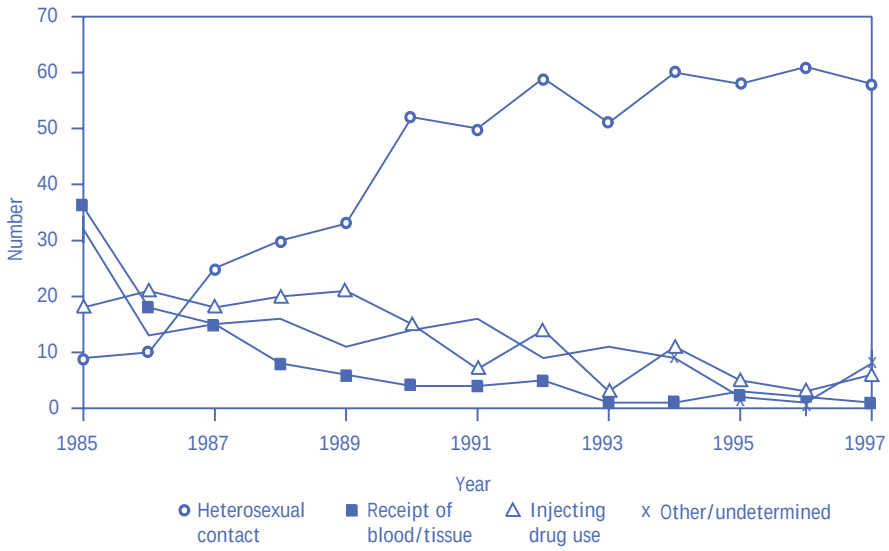
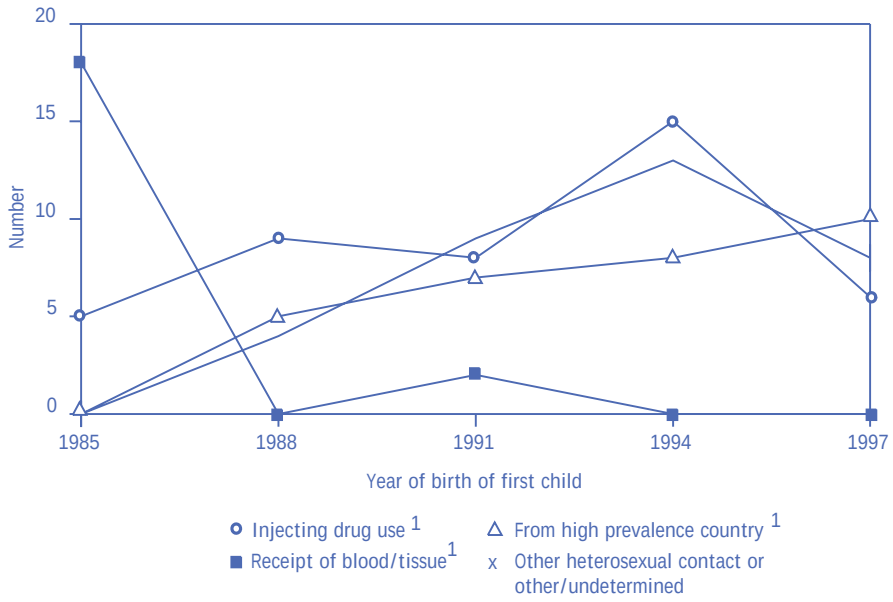


Figure 22

Women with HIV infection who had children by year and HIV exposure category

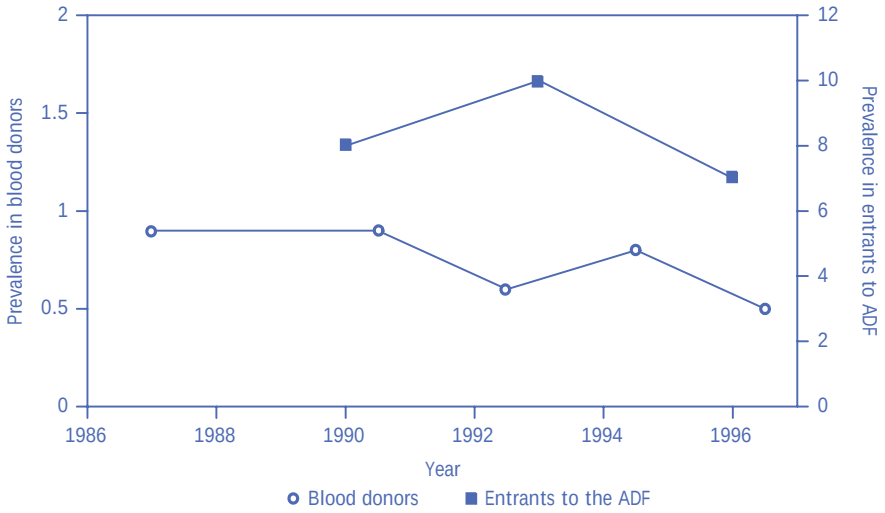


1. Includes women who reported heterosexual contact with men with the specified HIV exposure.

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 23). In blood donors, who undergo a screening interview to exclude people at higher risk of HIV infection, HIV prevalence was below 1 per 100,000 donations throughout 1985 to 1997, 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 1997.

Figure 23

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



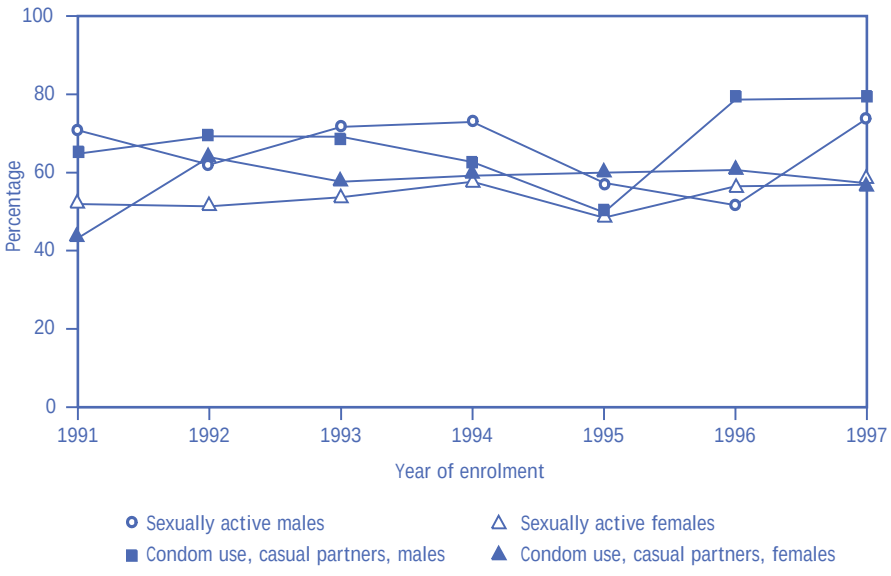
1 HIV prevalence per 100 000 donations in blood donors, per 100 000 entrants to the ADF
2 Prevalence estimates are based on three year intervals for the ADF and two year intervals in 1990 –1997 for blood donors

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 1992 and 1997 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).

Although there is little evidence of substantial heterosexual transmission of HIV in Australia, there is also little evidence of changes in sexual practices among young heterosexual men and women. 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 24).

Figure 24

Sexual activity and condom use by 18 – 19 year old first year university students



In 1996 women in contact with the gay and lesbian community in Sydney were surveyed through the Sydney Gay Community Periodic Survey. Of women who participated in the survey, 7% reported having had sex with a gay or bisexual man in the last six months. Most women who had sex with a casual gay or bisexual partner reported using condoms whereas only half of the women who had sex with a regular gay or bisexual partner reported condom use.

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 gradually declined from around 29 exposures per 100 daily occupied beds in 1995 to approximately 22 in 1997. The decline in the number of exposures occurred for both percutaneous and non-percutaneous injuries (Figure 25). 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 26). At follow up, no cases were reported of HIV, HBV or HCV infection in health care workers.

Figure 25

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

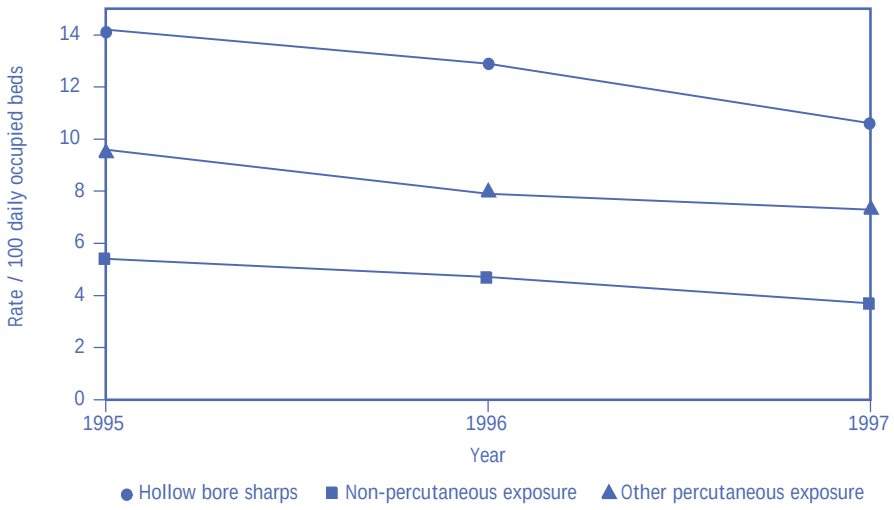
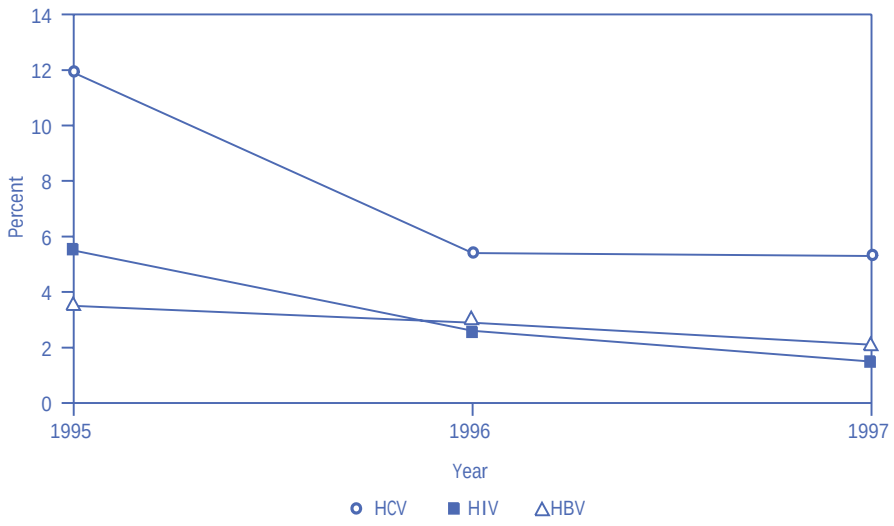


Figure 26

HIV, HCV or HBV prevalence in patients tested following occupational exposure in health care workers



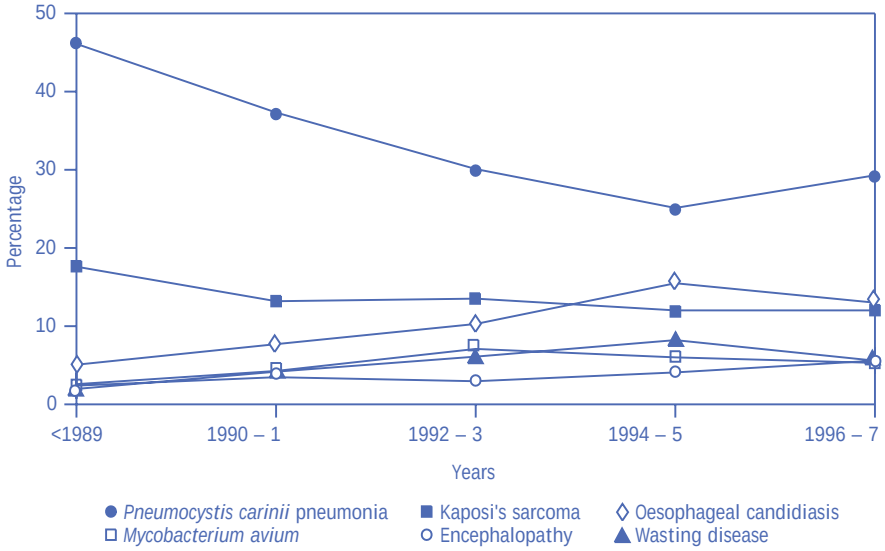
Patterns of illness and mortality in people with HIV infection

With the success reported for combination antiretroviral therapy in clinical trials, there has been great interest in determining whether these benefits have been translated to reductions in illness and mortality at the population level among people with HIV infection. Indicators of progression of HIV infection include the occurrence of AIDS and specific illnesses, and survival following AIDS.

Prior to the introduction of combination antiretroviral therapy, the only illnesses for which a decrease in AIDS incidence had been observed were *Pneumocystis carinii* pneumonia (PCP), due to the introduction of PCP prophylaxis in the late 1980s, and Kaposi's sarcoma (KS), for reasons that remain unknown. Even without improved HIV therapy, a decline in AIDS incidence was expected in Australia around the mid-1990s because of the decline in HIV incidence through the mid-1980s. However, the extent of the decline in AIDS incidence, particularly in 1997, was considerably greater than expected and has occurred for most AIDS defining illnesses (Figure 27). The proportion of AIDS cases with PCP, however, increased in 1996 – 1997.

Figure 27

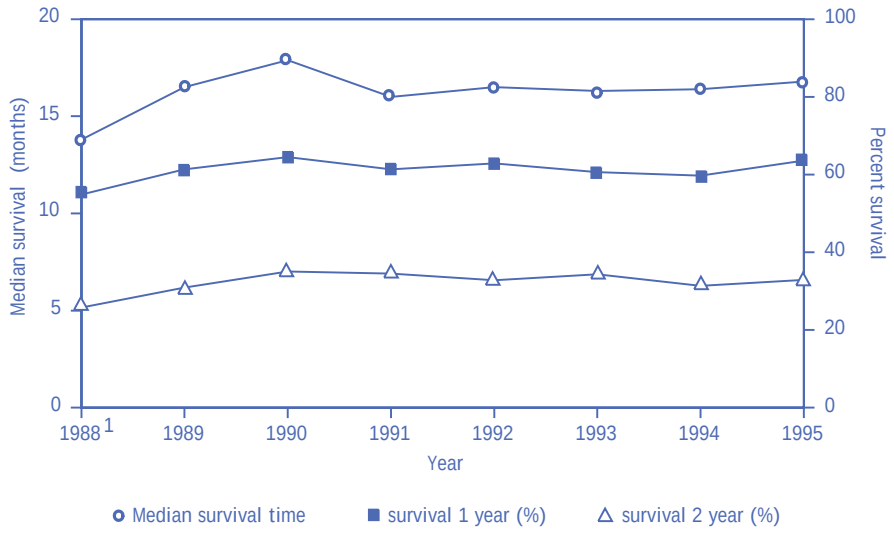
AIDS diagnoses by selected AIDS defining illnesses



Median survival following AIDS improved from 14 months in 1988 to 16 months in 1989 and has remained stable through 1995 (Figure 28). Improvements in survival over this time may have actually have been masked by a delay in AIDS diagnosis due to improved antiretroviral therapy and opportunistic infection prophylaxis. Although one year survival following AIDS had increased for cases diagnosed in 1995 compared with cases diagnosed in earlier years, it is too early to assess whether introduction of combination antiretroviral therapy has resulted in longer survival following AIDS.

Figure 28

Survival following AIDS

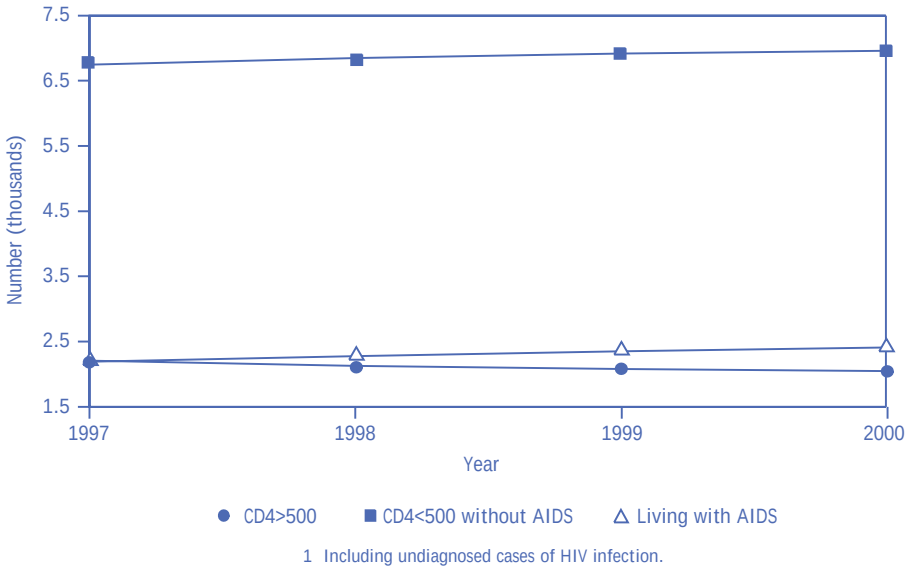


1 1988 includes AIDS diagnoses prior to that year.

The estimated numbers of people living with AIDS and people living with a CD4+ cell count of less than 500/µl and without AIDS is projected to increase through 2000 (Figure 29). The number of people living with a CD4+ cell count of more than 500/µl is expected decline slightly.

Figure 29

Estimated number of people living with HIV by HIV disease stage, 1997 – 2000[1]



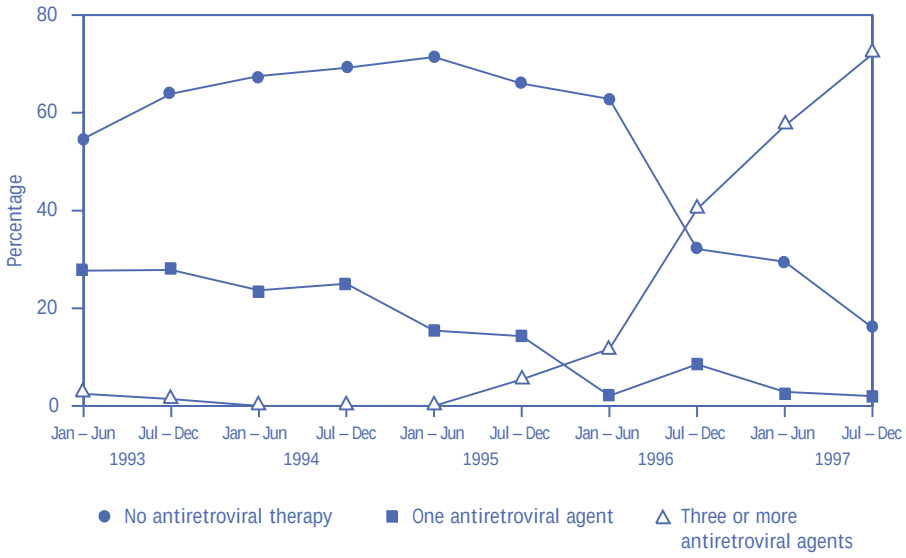
1 Including undiagnosed cases of HIV infection.

Patterns of treatment for HIV related disease

The proportion of homosexually active men with HIV infection enrolled in the SMASH study who reported use of three or more antiretroviral agents increased from 0% in 1994 to 72% in the last half of 1997 (Figure 30). Over the same time period, the proportion of men reporting that they were taking no antiretroviral therapy decreased from 55% to 16%, and the proportion reporting that they received antiretroviral monotherapy decreased from 28% to 2%.

Figure 30

Uptake of antiretroviral therapy by homosexually active men with HIV infection participating in SMASH



In the Sydney Gay Community Periodic Survey, 70-75% of gay 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 they were receiving combination antiretroviral therapy.

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		**≤88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**Total**
Total cases		**1 334**	**614**	**671**	**802**	**786**	**838**	**948**	**786**	**641**	**311**	**7 731**
Males (%)		96.2	97.6	97.2	96.4	95.2	94.6	95.0	95.6	95.0	92.3	95.7
Median age (years)	M	36	37	37	37	38	37	37	37	37	39	37
	F	42	30	33	32	32	38	31	34	34	30	33
Late HIV diagnosis (%)	M	–	–	–	17.1	19.3	16.1	15.9	13.8	18.7	33.2	17.7
	F	–	–	–	11.5	41.7	20.0	30.2	21.9	15.6	44.0	26.5
State/Territory (%)												
ACT		1.0	1.5	1.5	1.0	1.0	1.1	1.4	1.0	1.4	0.0	1.1
NSW		64.4	58.1	62.7	55.1	54.5	57.2	57.9	57.6	54.6	49.8	58.1
NT		0.1	0.2	0.5	0.6	0.6	0.6	0.3	0.4	0.2	1.0	0.4
QLD		7.1	8.1	8.5	10.5	11.5	10.9	10.4	12.9	11.4	18.3	10.3
SA		2.9	4.7	3.7	4.7	4.2	5.4	5.3	3.8	4.8	5.8	4.4
TAS		0.3	1.0	0.6	0.4	1.3	0.1	0.5	0.3	1.1	0.3	0.6
VIC		19.7	21.3	18.3	22.9	21.1	21.0	19.8	20.2	20.6	20.3	20.5
WA		4.6	5.1	4.2	4.7	5.9	3.8	4.3	3.8	5.9	4.5	4.6
HIV exposure category (%)[1]												
Male homosexual contact		87.8	88.8	87.6	83.5	82.2	81.3	83.5	81.8	79.9	72.8	83.8
Male homosexual contact and injecting drug use		3.1	3.3	2.8	3.9	4.9	7.0	4.9	5.2	5.8	4.1	4.5
Injecting drug use[2]		1.2	2.3	2.3	3.9	2.1	3.1	3.1	3.6	4.0	4.5	2.8
Heterosexual contact		1.2	1.5	2.9	4.9	6.6	6.3	5.8	6.3	8.2	16.6	5.1
Haemophilia/coagulation disorder		1.6	2.3	1.8	1.4	1.7	1.4	1.1	1.9	1.0	1.4	1.6
Receipt of blood/tissue		5.0	1.5	2.1	2.1	2.0	1.0	1.0	0.7	1.2	0.3	2.0
Mother with/at risk for HIV infection		0.2	0.2	0.5	0.4	0.5	0.0	0.7	0.5	0.0	0.3	0.3
Other/undetermined		1.5	2.6	2.5	3.1	3.3	3.8	3.7	4.7	5.2	6.8	3.4
AIDS defining condition (%)												
Pneumocystis carini pneumonia (PCP)		40.5	35.2	29.8	31.3	27.0	22.2	22.2	20.1	22.3	27.0	28.5
Kaposi's sarcoma (KS)		16.6	14.0	10.7	12.1	12.3	11.1	9.9	11.1	11.5	10.6	12.4
PCP and other (not KS)		6.7	4.9	7.3	5.4	6.0	3.7	2.5	3.9	4.4	7.4	5.1
Oesophageal candidiasis		5.0	5.4	7.6	7.7	8.8	11.7	14.6	16.4	14.8	9.3	10.0
Mycobacterium avium		3.4	2.6	4.5	5.2	7.1	8.8	5.7	7.6	7.0	3.2	5.6
HIV wasting disease		1.1	3.8	4.8	3.7	5.9	6.2	7.3	8.5	5.0	6.8	5.0
Other conditions		26.7	34.2	35.3	34.5	33.0	36.3	37.9	32.3	35.0	35.7	33.5

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**	**≤88**	**89**	**90**	**91**	**92**	**93**	**94**	**95[1]**	**96[1]**	**97[1]**	**Total[2]**
ACT	M	13	8	10	7	8	9	12	6	8	2	83
	F	0	1	0	1	0	0	1	2	2	0	7
NSW	M	825	351	408	425	405	461	528	454	359	212	4 428
	F	33	4	13	16	21	16	19	12	18	8	160
NT	M	1	1	3	5	5	5	3	3	1	3	30
	F	0	0	0	0	0	0	0	0	0	0	0
QLD	M	90	49	55	82	85	82	96	98	75	63	775
	F	5	1	2	1	5	8	3	5	3	13	46
SA	M	36	28	24	36	30	42	45	30	32	22	325
	F	2	1	1	2	3	3	5	1	1	0	19
TAS	M	3	6	4	3	9	1	5	2	8	1	42
	F	1	0	0	0	1	0	0	0	0	0	2
VIC	M	257	128	120	178	163	163	176	151	134	79	1 549
	F	6	3	1	5	3	11	11	11	6	7	64
WA	M	58	28	28	37	43	30	36	29	39	18	346
	F	3	3	0	1	3	2	4	1	3	4	24
Total[2]		**1 334**	**614**	**671**	**802**	**786**	**838**	**948**	**808**	**690**	**432**	**7 923**

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**	**≤88**	**89**	**90**	**91**	**92**	**93**	**94**	**95[1]**	**96[1]**	**97[1]**	**Total[2]**
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Male homosexual contact		1 153	531	573	649	625	655	762	630	522	294	6 394
Male homosexual contact and injecting drug use		41	20	18	30	37	56	45	40	38	17	342
Injecting drug use[3]	M	9	10	8	18	10	16	19	21	21	12	144
	F	7	4	7	12	6	9	9	7	5	6	72
Heterosexual contact	M	5	4	16	32	29	26	28	29	31	45	245
	F	11	5	3	6	21	25	25	19	23	22	160
Haemophilia/ coagulation disorder	M	18	13	10	10	13	10	10	15	7	6	112
	F	1	1	0	0	0	1	0	0	0	0	3
Receipt of blood/tissue	M	30	6	9	10	8	3	5	3	3	0	77
	F	26	2	5	4	6	5	3	2	4	1	58
Health care setting	M	0	0	0	0	0	1	0	0	0	0	1
	F	0	0	0	0	1	0	1	1	0	0	3
Other/undetermined	M	17	13	14	20	23	26	29	34	33	27	236
	F	2	1	1	2	0	0	1	0	2	1	10
Total adults/adolescents[2]		**1 321**	**612**	**666**	**796**	**781**	**838**	**941**	**804**	**690**	**431**	**7 880**
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for HIV infection	M	0	1	2	2	2	0	3	1	0	0	11
	F	2	0	1	1	2	0	3	3	0	1	13
Haemophilia/ coagulation disorder	M	2	0	2	1	0	0	0	0	0	0	5
	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	8	1	0	1	1	0	0	0	0	0	11
	F	1	0	0	1	0	0	1	0	0	0	3
Total children		**13**	**2**	**5**	**6**	**5**	**0**	**7**	**4**	**0**	**1**	**43**
Total[2]		**1 334**	**614**	**671**	**802**	**786**	**838**	**948**	**808**	**690**	**432**	**7 923**

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

State/Territory	Sex	Year of death following AIDS										
		≤88	89	90	91	92	93	94	95[1]	96[1]	97[1]	Total[2]
ACT	M	7	5	7	6	9	2	11	4	1	0	52
	F	0	0	0	1	1	0	0	0	0	0	2
NSW	M	424	232	309	337	295	357	385	356	293	139	3 127
	F	20	4	9	8	12	12	17	21	6	7	116
NT	M	1	1	1	1	2	8	3	3	2	1	23
	F	0	0	0	0	0	0	0	0	0	0	0
QLD	M	47	32	37	48	56	76	70	74	66	33	539
	F	3	1	1	2	2	5	5	4	4	2	29
SA	M	17	11	16	19	27	27	31	34	28	9	219
	F	1	0	0	0	1	5	4	2	1	0	14
TAS	M	2	1	2	5	3	5	3	1	3	1	26
	F	0	1	0	0	0	0	1	0	0	0	2
VIC	M	104	94	106	121	153	157	156	146	123	88	1 248
	F	2	1	2	1	3	4	7	14	5	7	46
WA	M	25	17	23	34	31	29	30	19	28	18	254
	F	1	2	1	0	1	1	4	1	2	4	17
Total[2]		**654**	**403**	**514**	**586**	**598**	**691**	**732**	**681**	**563**	**310**	**5 732**

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										
HIV exposure category	**Sex**	**≤88**	**89**	**90**	**91**	**92**	**93**	**94**	**95[1]**	**96[1]**	**97[1]**	**Total[2]**
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Male homosexual contact		551	362	449	500	497	568	571	529	435	234	4 696
Male homosexual contact and injecting drug use		20	6	15	21	18	36	42	35	32	23	248
Injecting drug use[3]	M	3	2	6	8	9	11	9	17	15	8	88
	F	1	0	6	3	8	10	5	8	4	6	51
Heterosexual contact	M	1	2	1	11	20	21	24	17	28	9	134
	F	1	6	3	3	7	11	22	27	12	10	102
Haemophilia/ coagulation disorder	M	9	8	10	9	5	5	13	10	12	6	87
	F	1	0	0	0	0	0	2	0	0	0	3
Receipt of blood/tissue	M	23	4	8	8	8	5	4	4	2	1	67
	F	23	3	2	4	2	4	5	4	1	0	48
Health care setting	M	0	0	0	0	0	0	0	1	0	0	1
	F	0	0	0	0	0	0	1	1	0	0	2
Other/undetermined	M	12	8	10	12	18	10	24	23	20	10	147
	F	0	0	1	1	1	1	0	0	1	1	6
Total adults/adolescents[2]		**645**	**402**	**511**	**583**	**595**	**685**	**727**	**678**	**563**	**309**	**5 698**
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for HIV infection	M	0	0	0	0	0	3	2	2	0	0	7
	F	1	0	1	1	1	1	2	0	0	1	8
Haemophilia/ coagulation disorder	M	1	0	2	1	0	1	0	0	0	0	5
	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	7	1	0	1	1	1	0	0	0	0	11
	F	0	0	0	0	1	0	1	1	0	0	3
Total children		**9**	**1**	**3**	**3**	**3**	**6**	**5**	**3**	**0**	**1**	**34**
Total[2]		**654**	**403**	**514**	**586**	**598**	**691**	**732**	**681**	**563**	**310**	**5 732**

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 – 1997, 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	1 259	75.0	3.4
Overseas born	420	25.0	2.8
New Zealand/ Pacific Islands	*80*	*4.8*	*5.2*
United Kingdom and Ireland	*81*	*4.8*	*1.9*
Other Europe	*101*	*6.0*	*2.7*
Middle East/ North Africa	*16*	*1.0*	*1.9*
Other Africa	*24*	*1.4*	*5.6*
Asia	*65*	*3.9*	*2.0*
North America	*27*	*1.6*	*9.1*
South and Central America	*26*	*1.5*	*8.2*
Unknown	59		
Total	**1 738**	**100.0**	**3.3**

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 97[1]	Alive at 1 Jan 97[2]	Left Australia[3]	Other[4]	Median (months)	% Survival 1 year	% Survival 2 year
≤ 88	1 334	1 267	4	20	43	13.8	54.9	25.8
89	614	574	2	5	33	16.5	61.3	30.9
90	671	598	2	6	65	17.9	64.5	35.1
91	802	719	5	9	69	16.0	61.3	34.5
92	786	666	10	13	97	16.5	62.9	32.8
93	838	646	33	2	157	16.3	60.6	34.3
94	948	568	59	3	318	16.4	59.7	31.4
95	786	323	85	0	378	16.8	63.6	32.9
96	641	150	130	0	361	14.4	56.9	–
97	311	29	282	0	–	–	–	–
Total	**7 731**	**5 540**	**612**	**58**	**1 521**	**15.8**	**62.3**	**31.6**

1 Deaths occurring prior to 1 January 1998.
2 Medical contact reported after 1 January 1997.
3 Reported as having permanently left Australia with no subsequent report of status.
4 Reported medical contact prior to 1 January 1997.
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										
	≤ 89		90 – 91		92 – 93		94 – 95		96 – 97		Total[1]
AIDS defining condition	M	F	M	F	M	F	M	F	M	F	
Pneumocystis carinii pneumonia (PCP)	741	14	435	13	384	12	344	24	214	13	2 200
Kaposi's sarcoma (KS)	306	2	166	2	190	0	181	0	106	1	955
KS and PCP alone	24	0	10	0	13	0	11	0	1	0	59
KS and other (not PCP)	35	0	26	0	29	0	27	0	7	0	124
PCP and other (not KS)	111	7	89	2	71	6	52	2	45	6	395
Oesophageal candidiasis	94	6	111	2	156	10	261	6	117	7	771
Toxoplasmosis	74	1	56	3	53	4	44	4	31	0	272
Cryptococcosis	66	0	51	2	64	3	70	3	32	2	295
Non-Hodgkin's lymphoma	66	3	56	1	56	6	64	3	53	1	309
Mycobacterium avium	46	4	60	3	108	6	92	12	46	4	382
Herpes simplex virus	57	5	28	3	36	4	31	1	13	2	180
HIV encephalopathy	44	3	51	0	47	1	69	3	47	5	271
Cytomegalovirus	46	0	65	0	82	2	71	2	32	1	302
HIV wasting disease	33	5	57	5	86	12	130	4	50	3	387
Cryptosporidiosis	27	3	41	0	39	0	55	1	19	1	186
Mycobacterium tuberculosis	7	2	7	1	12	1	7	1	3	1	42
Pulmonary tuberculosis[2]	2	0	1	0	3	0	1	0	1	0	8
Recurrent pneumonia[2]	0	0	0	0	7	1	24	0	6	1	40
Cervical cancer[2]	0	0	0	0	0	0	0	0	0	1	1
Other single diagnoses	20	4	18	0	19	2	25	4	12	1	105
Other multiple diagnoses	83	4	97	6	86	6	93	5	61	6	447
Total[1]	**1 882**	**63**	**1 425**	**43**	**1 541**	**76**	**1 652**	**75**	**896**	**56**	**7 731**

1 Includes 22 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										
Description		**≤88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**Total[2]**
Total cases		**8 196**	**1 640**	**1 426**	**1 414**	**1 247**	**1 111**	**1 033**	**944**	**926**	**787**	**18 743**
Males (%)		94.0	94.3	91.0	92.9	92.1	92.3	90.7	91.5	92.0	88.4	92.8
Median age (years)	M	31	32	31	32	33	32	33	34	34	34	32
	F	29	26	27	29	31	29	28	32	28	30	29
State/Territory (%)												
ACT		1.1	0.8	1.1	0.6	1.2	0.5	1.2	1.7	0.9	1.0	1.1
NSW		62.1	60.1	56.5	57.5	57.5	55.9	50.2	58.1	50.8	51.3	58.6
NT		0.5	0.4	0.6	0.4	0.5	0.9	0.7	0.1	0.6	1.4	0.5
QLD		7.1	9.7	10.3	11.0	12.3	12.4	16.1	12.4	16.8	14.7	10.1
SA		3.1	4.4	4.5	3.2	2.7	5.0	3.5	3.3	4.9	4.4	3.6
TAS		0.2	1.0	0.6	0.4	0.8	0.2	0.2	0.6	0.3	0.0	0.4
VIC		21.0	19.7	21.5	21.8	20.7	20.5	21.2	17.9	20.1	22.9	20.8
WA		4.9	3.9	4.8	5.1	4.3	4.5	6.9	5.9	5.6	4.2	4.9
Exposure category (%)[3]												
Male homosexual contact		82.9	82.1	78.7	78.7	76.4	78.6	75.0	73.6	75.8	73.4	79.6
Male homosexual contact and injecting drug use		2.9	3.1	3.7	3.0	3.7	3.2	5.4	5.0	3.5	3.4	3.4
Injecting drug use[4]		4.3	6.3	6.4	4.8	5.2	3.7	3.4	4.4	3.3	3.3	4.5
Heterosexual contact		2.7	6.4	9.2	11.6	12.8	13.7	14.2	15.6	16.2	18.8	8.6
Haemophilia/ coagulation disorder		4.6	0.2	0.4	0.4	0.4	0.0	0.0	0.2	0.0	0.0	2.0
Receipt of blood/tissue		2.4	1.5	1.5	1.0	1.1	0.3	0.9	0.4	0.4	0.3	1.5
Mother with/at risk of HIV infection		0.1	0.4	0.1	0.5	0.4	0.4	1.0	0.8	0.7	0.8	0.4
Other/undetermined		25.9	21.6	24.1	18.5	12.3	11.1	7.2	9.4	11.6	15.4	20.0

1 Not adjusted for multiple reporting.
2 Total includes 19 cases for which the date of HIV diagnosis was unknown.
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**	**≤88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**Total**
ACT	M	84	10	14	7	12	5	11	14	7	5	168
	F	5	1	1	1	3	1	2	2	1	3	20
NSW	M	3 773	834	708	680	670	588	495	528	424	337	9 032
	F	205	42	45	45	34	38	36	36	33	26	540
NT	M	32	6	8	5	6	10	7	1	6	7	88
	F	1	0	1	1	0	0	0	0	0	4	7
QLD	M	558	148	132	136	131	124	150	108	142	97	1 727
	F	18	7	11	14	15	5	10	11	10	18	119
SA	M	231	63	56	39	31	53	32	29	41	28	604
	F	20	5	4	2	4	3	4	1	3	6	52
TAS	M	23	16	8	6	10	2	1	6	3	0	74
	F	2	0	1	0	0	0	1	0	0	0	4
VIC	M	1 523	285	255	278	213	189	182	147	178	168	3 418
	F	43	16	18	14	23	21	18	11	14	13	191
WA	M	369	59	63	66	45	47	54	44	43	29	822
	F	20	3	4	2	10	3	15	12	8	5	82
Total	M	6 334	1 295	1 163	1 089	1 060	939	818	805	832	646	14 981
	F	314	74	85	79	89	71	86	73	69	75	1 015
Total		**6 665**	**1 371**	**1 250**	**1 171**	**1 151**	**1 017**	**906**	**880**	**902**	**722**	**16 035**

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 – 1997, by year. Total number of cases, median age, and number of cases by State/Territory, HIV exposure category and evidence of newly acquired HIV infection, sex and year

		Year of HIV diagnosis							
Description		**91**	**92**	**93**	**94**	**95**	**96**	**97**	**Total[2]**
Total cases		**87**	**152**	**204**	**214**	**216**	**171**	**148**	**1 192**
Males (%)		90.8	92.1	96.1	92.5	94.9	95.9	94.6	94.1
Median age (years)	M	29	31	29	30	31	31	32	30
	F	29	28	24	27	36	21	32	28
State/Territory									
ACT	M	2	2	1	1	6	3	0	15
	F	0	0	0	1	0	0	0	1
NSW	M	19	94	138	112	121	86	59	629
	F	3	6	4	8	4	1	2	28
NT	M	2	0	2	1	0	0	2	7
	F	0	0	0	0	0	0	1	1
QLD	M	8	4	6	18	26	19	18	99
	F	3	2	0	2	2	2	0	11
SA	M	1	3	21	4	11	6	9	55
	F	0	1	1	0	0	0	2	4
TAS	M	1	2	0	1	0	0	0	4
	F	0	0	0	0	0	0	0	0
VIC	M	40	33	26	58	35	40	46	278
	F	2	3	2	4	3	2	3	19
WA	M	6	2	2	3	6	10	5	34
	F	0	0	0	1	1	2	0	4
HIV exposure category									
Male homosexual contact	M	69	121	172	167	178	147	122	976
Male homosexual contact and injecting drug use	M	3	9	3	14	10	5	7	51
Injecting drug use[3]	M	1	5	4	4	4	2	2	22
	F	3	5	2	2	2	2	0	16
Heterosexual contact	M	3	3	12	9	9	7	8	51
	F	5	6	5	10	8	5	6	45
Health care setting[4]	M	0	0	1	1	0	0	0	2
	F	0	1	0	2	0	0	0	3
Other/undetermined	M	3	2	4	3	4	3	0	19
	F	0	0	0	2	0	0	2	4
Evidence of newly acquired infection									
Negative/indeterminate test only	M	66	94	117	103	91	86	67	624
	F	4	6	6	7	5	5	5	38
HIV seroconversion illness only	M	6	25	24	42	60	27	36	220
	F	2	3	0	6	3	1	1	16
Negative/indeterminate test and HIV seroconversion illness	M	7	21	55	53	54	51	36	277
	F	2	3	1	3	2	1	2	14

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 – 1997, by State/Territory, HIV exposure category, newly acquired infection status, sex and year

Description	Sex	Year of HIV diagnoses					
		1995		1996		1997	
State/Territory							
ACT	M	760	(5)	385	(4)	320	(5)
	F	350	(2)	590	(1)	265	(2)
NSW	M	422	(180)	420	(197)	416	(162)
	F	420	(13)	390	(14)	300	(17)
NT	M	580	(1)	210	(4)	440	(7)
	F	–	(0)	–	(0)	399	(4)
QLD	M	340	(89)	350	(127)	390	(89)
	F	350	(6)	410	(8)	290	(17)
SA	M	500	(24)	421	(34)	350	(29)
	F	810	(1)	689	(3)	600	(6)
TAS	M	285	(4)	100	(3)	–	(0)
	F	–	(0)	–	(0)	–	(0)
VIC	M	449	(120)	380	(151)	352	(140)
	F	290	(8)	360	(13)	222	(12)
WA	M	468	(27)	361	(33)	390	(24)
	F	572	(10)	512	(7)	276	(5)
Exposure category							
Male homosexual contact[1]		450	(397)	420	(460)	430	(373)
Injecting drug use[2]	M	570	(4)	220	(4)	412	(11)
	F	358	(2)	410	(2)	100	(3)
Heterosexual contact	M	206	(36)	220	(56)	290	(49)
	F	400	(34)	410	(41)	300	(51)
Other/undetermined	M	300	(13)	290	(33)	86	(23)
	F	273	(4)	320	(3)	265	(8)
Newly acquired HIV infection status							
Diagnoses of newly acquired HIV infection[3]	M	560	(125)	615	(121)	606	(111)
	F	510	(6)	770	(7)	354	(5)
Other HIV diagnoses	M	312	(325)	310	(432)	330	(345)
	F	360	(34)	360	(39)	290	(58)
Total[4]		**400**	**(492)**	**387**	**(600)**	**379**	**(520)**

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 – 1996, and number diagnosed with AIDS by year of, and number of years following, HIV diagnosis

	Year of HIV diagnosis						
	91	**92**	**93**	**94**	**95**	**96**	**Total**
Number of diagnoses of newly acquired HIV infection	87	152	204	214	216	171	1044
Number of years following HIV diagnosis							
Less than 1	1	5	5	4	7	2	24
1 – 2	1	4	7	8	5	0	25
2 – 3	0	8	7	6	1	–	22
3 – 4	2	5	4	0	–	–	11
4 – 5	4	4	0	–	–	–	8
5 or more	1	0	–	–	–	–	1
Total	**9**	**26**	**23**	**18**	**13**	**2**	**91**

Source: State/Territory health authorities

Table 1.2.6 Number of HIV antibody tests carried out in public health laboratories in Australia, 1988 – 1997, by State/Territory and year of test

State/Territory	Year of HIV antibody test									
	1988	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
ACT	5 326	5 844	6 500	9 855	10 284	10 767	10 300	9 368	7 053	7 044
NSW	177 231	284 620	390 475	351 617	352 391	346 652	344 903	300 944	266 203	286 701
NT	6 049	8 584	10 626	9 322	8 992	10 002	11 283	12 122	13 111	13 424
QLD	62 505	84 752	111 287	128 988	141 896	147 329	137 133	154 992	138 270	156 738
SA	22 545	39 300	57 760	68 666	78 233	82 521	77 628	69 054	54 122	58 363
TAS	6 663	7 931	8 261	10 054	12 617	12 873	14 000	12 628	13 192	11 347
VIC	82 330	109 193	128 402	151 794	163 443	163 497	132 100	108 230	114 292	94 846
WA	27 755	30 679	52 438	70 862	67 257	70 733	76 544	72 317	77 174	73 826
Total	**390 404**	**570 903**	**765 749**	**801 158**	**835 113**	**844 374**	**803 891**	**739 655**	**683 417**	**702 289**

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, 1997 – 2000

	Estimated number of people			
Year	Living with HIV	CD4 > 500 cells/μl	CD4 < 500 cells/μl without AIDS	Living with AIDS[2]
1997	11 150	2 210	6 750	2 190
1998	11 260	2 130	6 850	2 280
1999	11 350	2 080	6 920	2 350
2000	11 420	2 050	6 960	2 410

1 Estimated numbers based on back-projection analyses, including people with diagnosed and undiagnosed HIV infection, and assuming 450 new infections per year since 1997.

2 In 1997, 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 — 1997

Table 1.4.1 Number of cases of newly diagnosed HIV infection included in the assessment of patient reported HIV exposure history, 1994 – 1997, 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

	Number included in the assessment			Number with returned questionnaire			Number with additional information on HIV exposure history		
State/ Territory	**94 – 95**	**96 – 97**	**94 – 97**	**94 – 95**	**96 – 97**	**94 – 97**	**94 – 95**	**96 – 97**	**94 – 97**
ACT	9	6	15	8	6	14	7	6	13
NSW	291	325	616	128	118	246	114	88	202
NT	5	8	13	4	7	11	3	7	10
QLD	54	58	112	52	56	108	45	53	98
SA	12	16	28	12	16	28	12	15	27
TAS	2	1	3	1	1	2	1	0	1
VIC	75	76	151	74	76	150	67	72	139
WA	55	37	92	51	15	66	47	14	61
Total	**503**	**527**	**1 030**	**330**	**295**	**625**	**296**	**255**	**551**

1 Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (52), people whose medical condition limited reporting of an HIV exposure history (6) and people who were reported to have died (16).

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 – 1997, 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

HIV exposure category reported at notification	Number included in the assessment			Number with returned questionnaire			Number with additional information on HIV exposure history		
	94–95	96–97	94–97	94–95	96–97	94–97	94–95	96–97	94–97
Injecting drug use	69	47	116	48	33	81	36	29	65
Heterosexual	*41*	*28*	*69*	*34*	*22*	*56*	*29*	*21*	*50*
Not further specified	*28*	*19*	*47*	*14*	*11*	*25*	*7*	*8*	*15*
Heterosexual contact	270	261	531	216	197	413	207	183	390
Partner with/at risk of HIV infection	*180*	*136*	*316*	*120*	*135*	*255*	*115*	*130*	*245*
Not further specified	*90*	*125*	*215*	*96*	*62*	*158*	*92*	*53*	*145*
Receipt of blood/tissue	14	5	19	11	5	16	11	5	16
Health care setting	4	0	4	4	0	4	4	0	4
Other/undetermined	146	214	360	51	60	111	38	38	76
Total	**503**	**527**	**1 030**	**330**	**295**	**625**	**296**	**255**	**551**

1 Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (52), people whose medical condition limited reporting of an HIV exposure history (6) and people who were reported to have died (16).

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

Source: State/Territory health authorities

Table 1.4.3 Number of cases of newly diagnosed HIV infection, 1994 - 1997, 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									
	Male homo-sexual contact	Injecting drug use			Heterosexual contact			Receipt of blood/tissue	Other/ undetermined	Total
HIV exposure category reported at HIV notification		Hetero–sexual	Not further specified	Total	Partner with/ at risk of HIV infection	Not further specified	Total			
Injecting drug use	2	47	10	57	5	0	5	0	1	65
Heterosexual	*2*	*40*	*3*	*43*	*4*	*0*	*4*	*0*	*1*	*50*
Not further specified	*0*	*7*	*7*	*14*	*1*	*0*	*1*	*0*	*0*	*15*
Heterosexual contact	5	9	0	9	276	88	364	0	12	390
Partner with/at risk for HIV infection	*2*	*6*	*0*	*6*	*214*	*21*	*235*	*0*	*2*	*245*
Not further specified	*3*	*3*	*0*	*3*	*62*	*67*	*129*	*0*	*10*	*145*
Receipt of blood/tissue	0	0	0	0	2	0	2	10	4	16
Other/undetermined	6	0	0	0	9	19	28	0	46	80
Total	**13**	**56**	**10**	**66**	**292**	**107**	**399**	**10**	**63**	**551**

1 Excludes people reported on the returned exposure assessment questionnaire to have been lost to follow up (52), people whose medical condition limited reporting of an HIV exposure history (6) and people who were reported to have died (16).

Source: State/Territory health authorities

1.5 National surveillance for perinatal exposure to HIV, 1982 – 1997

Table 1.5.1 Number of women with perinatally HIV exposed children, cumulative to 31 December 1997, and number and population rate of newly diagnosed HIV infection in women with perinatally HIV exposed children in 1995 – 1997 by State/Territory of the woman's HIV diagnosis

State/Territory	1995 – 1997		Cumulative to 31 Dec 97
	Number	Rate[1]	
ACT	2	2.21	6
NSW	9	0.56	64
NT	0	0.0	0
QLD	4	0.46	17
SA	1	0.27	7
TAS	0	0.0	0
VIC	3	0.25	20
WA	5	1.06	13
Total	**24**	**0.50**	**127**

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 – 1997, by interval of the woman's HIV diagnosis relative to the first exposed child's birth

First exposed child's year of birth	Interval of the woman's HIV diagnosis					
	Before the birth (years)					
	< 1	1 – 2	> 2	Total	At or after the birth	Total[1]
82 – 85	2	0	0	2	21	23
86 – 88	4	0	0	4	14	18
89 – 91	8	4	4	16	10	26
92 – 94	9	3	8	20	15	36
95 – 97	9	1	6	16	8	24
Total[1]	**32**	**8**	**18**	**58**	**68**	**127**

1 Totals include 1 woman whose date of HIV diagnosis was not reported.
Source: Australian Paediatric Surveillance Unit; State/Territory health authorities

Table 1.5.3 Number of women with perinatally HIV exposed children, 1982 – 1997, 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	31	39
Heterosexual contact	77	98
Sex with injecting drug user	*12*	*14*
Sex with bisexual male	*11*	*14*
From high prevalence country	*22*	*27*
Sex with person from a high prevalence country	*8*	*10*
Sex with person with medically acquired HIV	*3*	*4*
Sex with person with HIV infection, other exposure	*9*	*13*
Not further specified	*12*	*16*
Receipt of blood/tissue	17	21
Other/undetermined	2	2
Total	**127**	**160**

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 interval 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[1]	
Child's year of birth	Number exposed	Number with infection	Number exposed	Number with infection	Number exposed	Number with infection
82 – 85	3	0	23	6	26	6
86 – 88	4	0	15	10	19	10
89 – 91	21	7	14	9	35	16
92 – 94	27	6	18	7	46	13
95 – 97	24	6	10	7	34	13
Total	**79**	**19**	**80**	**39**	**160**	**58**

1 Totals include 1 woman whose date of HIV diagnosis was not reported.
Source: Australian Paediatric Surveillance Unit; State/Territory health authorities

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

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

Table 2.1.1 Number[1] and rate[2] of diagnosis of newly acquired hepatitis B infection, 1993 – 1997, by State/Territory and year

	Year of diagnosis									
	1993		1994		1995		1996		1997	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	–	–	–	–	13	4.2	4	1.3	2	0.6
NSW	103	1.7	82	1.3	66	1.1	47	0.8	51	0.8
NT	–	–	26	14.3	15	8.2	5	2.8	19	10.4
QLD	–	–	49	1.5	64	1.9	34	1.0	41	1.2
SA[3]	36	2.4	34	2.3	33	2.2	18	1.2	18	1.2
TAS	2	0.4	2	0.4	7	1.5	8	1.7	1	0.2
VIC	99	2.2	96	2.1	92	2.0	98	2.1	116	2.5
WA	–	–	39	2.2	32	1.8	11	0.6	19	1.1
Total	**240**	**1.3**	**328**	**1.8**	**322**	**1.8**	**225**	**1.2**	**267**	**1.5**

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).

3 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997, Epidemiologic Report No. 11*.

Source: National Notifiable Diseases Surveillance System

Table 2.1.2 Number of diagnoses of newly acquired hepatitis B infection, 1993 – 1997, by age group, year and sex

	Year of diagnosis														
Age group (years)	1993			1994			1995			1996			1997		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	1	0	1	0	1	1	2	0	2	0	0	0	1	1	2
5 – 14	2	1	3	3	7	10	3	3	6	3	4	7	5	2	7
15 – 19	19	12	31	16	36	52	17	18	35	12	20	32	24	24	48
20 – 29	67	33	101	83	41	126	89	61	150	58	28	86	61	38	99
30 – 39	34	19	56	44	29	73	45	21	66	47	10	57	42	18	60
40 – 49	15	7	24	23	6	29	29	8	37	13	5	18	20	4	24
50 – 59	8	2	11	15	5	20	9	1	10	8	3	11	10	5	15
60+	7	6	13	11	0	11	11	3	14	6	8	14	3	8	11
Not known	0	0	0	5	1	6	1	1	2	0	0	0	1	0	1
Total	**153**	**80**	**240**	**200**	**126**	**328**	**206**	**116**	**322**	**147**	**78**	**225**	**167**	**100**	**267**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.3 Number and rate[1] of diagnosis of hepatitis C infection, 1993 - 1997, by State/Territory and year

	Year of diagnosis									
	1993		1994		1995		1996		1997	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	285	92.5	428	138.8	330	107.1	270	87.59096	321	104.1
NSW	6 670	107.5	9 304	149.9	8 319	134.1	8 677	139.845	8 766	141.3
NT	212	116.6	301	165.5	309	169.9	217	119.3337	343	188.6
QLD	3 049	91.3	3 177	95.2	2 920	87.5	2 884	86.38119	2 953	88.4
SA[2]	1 912	129.7	2 285	155.0	1 207	81.9	1 200	81.39716	984	66.7
TAS	161	33.9	53	11.2	268	56.5	291	61.33508	234	49.3
VIC	2 659	58.3	3 523	77.2	4 506	98.8	4 597	100.808	3 954	86.7
WA	1 176	66.6	1 416	80.2	1 268	71.8	1 230	69.67828	1 099	62.3
Total	**16 124**	**88.1**	**20 487**	**111.9**	**19 127**	**104.5**	**19 366**	**105.7811**	**18 654**	**101.9**

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

2 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997, Epidemiologic Report No. 11*.

Source: National Notifiable Diseases Surveillance System

Table 2.1.4 Number of diagnoses of hepatitis C infection, 1993 – 1997, by age group, year and sex

	Year of diagnosis														
Age group	1993			1994			1995			1996			1997		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	70	47	124	65	47	116	68	73	152	66	65	135	66	75	144
5 – 14	39	14	53	43	32	75	38	17	55	45	27	74	31	25	59
15 – 19	147	165	317	178	236	424	217	267	486	342	346	693	426	425	855
20 – 29	2 693	2 005	4 763	3 444	2 419	5 941	3 198	2 133	5 375	3 259	2 088	5 378	3 265	1 942	5 259
30 – 39	4 779	2 750	7 613	6 048	3 365	9 526	5 450	2 940	8 436	5 203	2 776	8 023	4 595	2 497	7 154
40 – 49	1 353	513	1 889	1 980	817	2 838	2 046	944	3 005	2 344	1 026	3 391	2 483	1 040	3 547
50 – 59	291	228	526	364	233	606	338	236	579	358	280	639	373	226	601
60+	366	260	639	431	367	810	505	368	879	485	426	919	479	398	895
Not known	113	66	200	93	48	151	98	48	160	66	34	114	64	36	140
Total	**9 851**	**6 048**	**16 124**	**12 646**	**7 564**	**20 487**	**11 958**	**7 026**	**19 127**	**12 168**	**7 068**	**19 366**	**11 782**	**6 664**	**18 654**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.5 Number of diagnoses of newly acquired hepatitis C infection, 1993 – 1997, by State/Territory and year

	Year of diagnosis[1]				
State/Territory	**1993**	**1994**	**1995**	**1996**	**1997[2]**
ACT	–	6	7	10	2
NSW	26	32	41	22	13
NT	–	–	5	3	1
QLD	–	–	–	–	–
SA[3]	4	4	34	31	51
TAS	–	–	1	6	2
VIC	–	–	–	–	–
WA	–	–	–	–	–
Total	**30**	**42**	**88**	**72**	**69**

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

2 Age groups for diagnoses in 1997 as follows: 0–4: 0; 5–14: 1; 15–19: 7; 20–29: 42; 30–39: 14; 40–49: 4; 50+: 1.

3 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997, Epidemiologic Report No. 11*.

Source: National Notifiable Diseases Surveillance System

Table 2.1.6 Number and rate[1] of diagnosis of gonorrhoea, 1993 – 1997, by State/Territory and year

	Year of diagnosis									
	1993		1994		1995		1996		1997	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	15	4.9	8	2.6	10	3.2	18	5.8	21	6.8
NSW	371	6.0	367	5.9	420	6.8	538	8.7	581	9.4
NT	683	375.6	736	404.7	547	300.8	787	432.8	1 157	636.3
QLD	603	18.0	708	21.2	749	22.4	1 028	30.8	907	27.2
SA[2]	142	9.6	156	10.6	251	17.0	305	20.7	321	21.8
TAS	5	1.1	8	1.7	3	0.6	2	0.4	6	1.3
VIC[3]	199	4.3	154	3.4	243	5.3	366	8.0	–	–
WA	793	44.9	843	47.8	1 036	58.7	1 129	64.0	1 292	73.2
Total	**2 811**	**15.4**	**2 980**	**16.3**	**3 259**	**17.8**	**4 173**	**22.8**	**4 285**	**23.4**

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

2 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997, Epidemiologic Report No. 11*.

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.7 Number of diagnoses of gonorrhoea, 1993 – 1997, by age group, year and sex

	Year of diagnosis														
Age group	1993			1994			1995			1996			1997		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	22	17	43	11	14	25	20	18	38	9	25	34	54	62	117
5 – 14	9	30	40	13	28	52	14	38	52	34	72	106	80	133	213
15 – 19	309	207	520	297	255	554	377	302	685	448	426	874	383	509	893
20 – 29	929	337	1 272	994	393	1 394	1 023	470	1 497	1 151	666	1 821	1 035	727	1 765
30 – 39	478	118	598	407	157	567	547	106	654	677	207	884	622	243	866
40 – 49	168	31	200	179	31	210	160	33	194	241	65	307	214	61	281
50 – 59	61	4	66	63	6	69	56	11	68	76	16	92	72	14	86
60+	12	3	16	25	4	29	22	4	26	28	2	30	25	3	28
Not known	45	11	56	41	39	80	24	16	45	17	7	25	22	11	36
Total	**2 033**	**758**	**2 811**	**2 030**	**927**	**2 980**	**2 243**	**998**	**3 259**	**2 681**	**1 486**	**4 173**	**2 507**	**1 763**	**4 285**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.8 Number and rate[1] of diagnosis of syphilis, 1993 – 1997, by State/Territory and year

	Year of diagnosis									
	1993		1994		1995		1996		1997	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	3	1.0	16	5.2	11	3.6	14	4.5	8	2.6
NSW	782	12.6	1 057	17.0	923	14.9	745	12.0	501	8.1
NT	639	351.42	451	248.0	349	191.9	290	159.5	269	147.9
QLD	636	19.1	549	16.4	367	11.0	301	9.0	309	9.3
SA[2]	57	3.9	43	2.9	32	2.2	39	2.6	31	2.1
TAS	8	1.7	2	0.4	2	0.4	13	2.7	8	1.7
VIC	29	0.6	143	3.1	19	0.4	18	0.4	18	0.4
WA	151	8.5	104	5.9	126	7.1	94	5.3	86	4.8
Total	**2 305**	**12.6**	**2365**	**12.9**	**1 829**	**10.0**	**1 514**	**8.3**	**1 230**	**6.7**

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

2 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997, Epidemiologic Report No. 11*.

Source: National Notifiable Diseases Surveillance System

Table 2.1.9 Number of diagnoses of syphilis, 1993 – 1997, by age group, year and sex

	Year of diagnosis														
Age group	1993			1994			1995			1996			1997		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	15	21	39	18	9	30	11	5	16	9	2	11	8	2	11
5 – 14	14	33	48	11	25	36	6	22	29	7	9	16	4	10	14
15 – 19	172	229	403	116	215	339	113	182	302	81	138	219	48	116	164
20 – 29	409	440	869	318	379	711	252	331	593	225	279	505	163	206	370
30 – 39	224	193	429	262	225	502	187	181	369	161	148	311	147	133	281
40 – 49	151	55	216	233	70	314	140	59	203	143	55	200	90	62	152
50 – 59	77	30	113	126	32	166	97	31	130	71	25	97	92	14	108
60+	94	58	154	143	77	225	114	49	167	97	46	144	90	36	126
Not known	20	12	34	19	20	42	13	6	20	4	3	11	1	2	4
Total	**1 176**	**1 071**	**2 305**	**1 246**	**1 052**	**2 365**	**933**	**866**	**1 829**	**798**	**705**	**1 514**	**643**	**581**	**1 230**

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 diagnosis of chlamydia, 1993 - 1997, by State/Territory and year

	Year of diagnosis									
	1993		1994		1995		1996		1997	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	56	18.2	93	30.2	81	26.3	119	38.6	141	45.7
NSW[2]	–	–	–	–	–	–	–	–	–	–
NT	656	360.6	734	403.7	519	285.4	645	354.7	660	363.0
QLD	2 593	77.6	2 444	73.2	2 413	72.3	3 254	97.5	3 449	103.3
SA[3]	747	50.7	717	48.6	757	51.4	1 094	74.3	1 052	71.4
TAS	227	47.8	300	63.2	277	58.4	277	58.4	260	54.8
VIC	1 396	30.6	1 318	28.9	1 317	28.9	1 614	35.4	2 082	45.6
WA	812	46.0	838	47.8	1 026	58.1	1 417	80.3	1 589	90.0
Total	**6 487**	**35.4**	**6 444**	**35.2**	**6 390**	**34.9**	**8 420**	**46.0**	**9 233**	**50.4**

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 is not notifiable in New South Wales.

3 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997, Epidemiologic Report No. 11*.

Source: National Notifiable Diseases Surveillance System

Table 2.1.11 Number of diagnoses of chlamydia, 1993 – 1997, by age group, year and sex

	Year of diagnosis														
Age group	1993			1994			1995			1996			1997		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	46	38	87	28	44	78	30	37	67	30	40	70	22	37	59
5 – 14	3	33	48	5	43	48	8	46	55	15	65	80	18	69	87
15 – 19	255	1 262	1 534	213	1 249	1 479	248	1 221	1 479	365	1 672	2 043	455	1 763	2 222
20 – 29	1 178	2 401	3 612	1 067	2 523	3 631	1 149	2 499	3 672	1 666	3 053	4 727	1 870	3 297	5 178
30 – 39	342	446	798	341	402	751	361	410	776	532	569	1 104	571	611	1 184
40 – 49	132	112	244	109	117	229	106	91	199	160	122	283	199	152	351
50 – 59	43	21	64	37	20	57	27	17	44	39	15	54	54	28	82
60+	16	13	29	15	14	29	18	9	27	23	7	30	14	11	25
Not known	21	46	71	46	84	142	26	40	71	15	14	29	16	27	45
Total	**2 036**	**4 372**	**6 487**	**1 861**	**4 496**	**6 444**	**1 973**	**4 370**	**6 390**	**2 845**	**5 557**	**8 420**	**3 219**	**5 995**	**9 233**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.12 Number of diagnoses of donovanosis, 1993 – 1997, by State/Territory[1] and year

	Year of diagnosis				
State/Territory	**1993**	**1994**	**1995**	**1996**	**1997**
NT	34	71	43	21	29
QLD	17	28	17	5	2
WA	17	20	24	24	12
Total	**68**	**119**	**84**	**50**	**43**

1 Donovanosis is notifiable only in the Northern Territory, Queensland, Tasmania, Victoria and Western Australia. No cases of donovanosis were notified in Tasmania or Victoria in 1993 – 1997.

Source: National Notifiable Diseases Surveillance System

Table 2.1.13 Number of diagnoses of donovanosis, 1993 – 1997, by age group, year and sex

	Year of diagnosis														
Age group	**1993**			**1994**			**1995**			**1996**			**1997**		
(years)	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
0 – 14	0	1	1	0	5	5	3	1	4	0	1	1	0	2	2
15 – 19	5	9	14	6	14	20	5	21	26	0	6	6	2	6	8
20 – 29	12	16	28	20	25	45	10	20	30	5	7	12	3	14	17
30 – 39	8	7	15	7	23	30	8	8	16	6	8	14	3	4	7
40 – 49	2	0	2	4	6	10	0	2	2	3	7	10	1	3	4
50+	0	5	5	2	3	5	5	1	6	3	4	7	2	2	4
Not known	2	1	3	3	1	4	0	0	0	0	0	0	1	0	1
Total	**29**	**39**	**68**	**42**	**77**	**119**	**31**	**53**	**84**	**17**	**33**	**50**	**12**	**31**	**43**

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

2.2.1 Characteristics of cases of newly diagnosed HIV infection in Indigenous people[1], 1992 – 1997, by year. Number of cases, median age and percent (number) of total cases for each year by sex and HIV exposure category

	Year of HIV diagnosis						
Characteristic	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**Total**
Total cases	**14**	**16**	**18**	**20**	**17**	**15**	**100**
Males (%)	85.7	81.2	72.2	65.0	76.5	73.3	75.0
Median age (years)	28	29	30	27	30	36	30
HIV exposure category (number)							
Male homosexual contact	61.5 (8)	66.7 (10)	35.3 (6)	30.0 (6)	62.5 (10)	61.5 (8)	51.0 (48)
Male homosexual contact and injecting drug use	7.7 (1)	0.0 (0)	17.6 (3)	20.0 (4)	0.0 (0)	7.7 (1)	9.6 (9)
Injecting drug use[2]	0.0 (0)	6.6 (1)	0.0 (0)	0.0 (0)	12.5 (2)	0.0 (0)	3.2 (3)
Heterosexual contact	23.1 (3)	26.7 (4)	47.1 (8)	50.0(10)	25.0 (4)	30.8 (4)	35.1 (33)
Haemophilia/coagulation disorder	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)
Mother with/at risk for HIV infection	7.7 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	1.1 (1)
Other/undetermined[3]	7.1 (1)	6.2 (1)	5.5 (1)	0.0 (0)	5.9 (1)	13.3 (2)	6.0 (6)

1 Information on Indigenous status not available from ACT and VIC at 31 March 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 – 1997, by year. Number of AIDS diagnoses, median age, and percent (number) of total cases by sex and HIV exposure category

	Year of AIDS diagnosis						
Description	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**Total**
Total cases	**5**	**5**	**10**	**7**	**8**	**3**	**38**
Males (%)	80.0	60.0	80.0	85.7	75.0	66.7	76.3
Median age (years)	27	28	31	31	30	43	30
HIV exposure category (number)							
Male homosexual contact	60.0 (3)	40.0 (2)	50.0 (5)	8..3 (5)	37.5 (3)	0.0 (0)	50.0 (18)
Male homosexual contact and injecting drug use	0.0 (0)	20.0 (1)	10.0 (1)	0.0 (0)	25.0 (2)	0.0 (0)	11.1 (4)
Injecting drug use[2]	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Heterosexual contact	40.0 (2)	40.0 (2)	30.0 (3)	16.7 (1)	37.5 (3)	100.0 (2)	36.1 (13)
Haemophilia/coagulation disorder	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)
Mother with/at risk for HIV infection	0.0 (0)	0.0 (0)	10.0 (1)	0.0 (0)	0.0 (0)	0.0 (0)	2.8 (1)
Other/undetermined[3]	0.0 (0)	0.0 (0)	0.0 (0)	14.3 (1)	0.0 (0)	33.3 (1)	5.3 (2)

1 Information on Indigenous status was not available from ACT and VIC at 31 March 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, 1997, by State/Territory and Indigenous status

	Indigenous status					
State/Territory	**Indigenous**		**Non-Indigenous**		**Not reported**		**Total**
ACT	2	(0.6)	41	(12.8)	278	(86.6)	321
NSW[1]	0	(0.0)	0	(0.0)	8 766	(100.0)	8 766
NT	11	(3.2)	206	(60.1)	126	(36.7)	343
QLD	0	(0.0)	45	(1.5)	2 908	(98.5)	2 953
SA[2]	61	(6.2)	863	(87.7)	60	(6.1)	984
TAS	2	(0.9)	2	(0.9)	230	(98.2)	234
VIC[3]	0	(0.0)	0	(0.0)	3 954	(100.0)	3 954
WA	45	(4.1)	951	(86.5)	103	(9.4)	1 099
Total	**121**	**(0.6)**	**2 108**	**(11.3)**	**16 425**	**(88.1)**	**18 654**

1 Information on diagnoses of hepatitis C infection was sought through laboratory notification in New South Wales. Information on Indigenous status was not sought through laboratory notification of diagnoses of hepatitis C infection.
2 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997. Epidemiologic Report No. 11.*
3 Information on Indigenous status was not available from Victoria at 31 March 1998.
Source: National Notifiable Diseases Surveillance System

Table 2.2.4 Number and rate[1] of diagnosis of gonorrhoea, 1992 – 1997, by State/Territory[2], Indigenous status and year

	NT		SA[3]		WA		Total	
	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]
1992								
Number	382	201	82	82	551	263	1 015	546
Rate	771	152	386	6	1 019	15	812	17
1993								
Number	496	187	93	56	608	185	1 184	434
Rate	1 001	141	437	4	1 125	11	948	13
1994								
Number	527	209	915	63	670	173	1 288	445
Rate	1 063	158	447	4	1 239	10	1 031	13
1995								
Number	453	97	189	63	850	198	1 492	358
Rate	914	73	889	4	1 572	12	1 194	11
1996								
Number	620	167	215	74	789	340	1 624	581
Rate	1 251	126	1 010	5	1 460	20	1 300	18
1997								
Number	887	270	217	105	807	485	1 911	860
Rate	1 790	204	1 020	7	1 493	28	1 530	26

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 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997. Epidemiologic Report No. 11.*

4 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, 1997, by State/Territory and Indigenous status

State/Territory	Indigenous status				Total
	Indigenous		Non-Indigenous	Not reported	
ACT	0	(0.0)	8 (38.1)	13 (61.9)	21
NSW	12	(2.1)	45 (7.7)	524 (90.2)	581
NT	887	(76.7)	95 (8.2)	175 (15.1)	1 157
QLD	3	(0.3)	13 (1.4)	891 (98.3)	907
SA[1]	217	(67.4)	105 (32.6)	0 (0.0)	322
TAS	0	(0.0)	3 (50.0)	3 (50.0)	6
VIC[2]	0	(0.0)	147 (40.2)	219 (59.8)	366
WA	807	(62.5)	203 (15.7)	282 (21.8)	366
Total[3]	**1 926**	**(44.9)**	**472 (11.0)**	**1 888 (44.1)**	**4 286**

1 Information on diagnoses in South Australia in 1997 from Sexually Transmitted Diseases in South Australia in 1997. Epidemiologic Report No. 11.

2 Information on diagnoses in Victoria in 1997 was not available at 31 March 1998. Data on diagnoses in 1996 are reported.

3 Totals exclude diagnoses in Victoria.

Source: National Notifiable Diseases Surveillance System

Table 2.2.6 Number and rate[1] of diagnosis of syphilis, 1992 – 1997, by State/Territory[2], Indigenous status and year

	NT		SA[3]		WA		Total	
	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]
1992								
Number	617	42	90	7	221	95	838	137
Rate	1 245	32	423	0.5	409	6	809	7
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	40	4	105	25	480	44
Rate	676	11	188	0.3	194	2	384	1
1996								
Number	260	30	30	9	36	58	326	97
Rate	525	23	141	0.6	67	3	261	3
1997								
Number	246	23	31	0	35	51	312	74
Rate	496	17	146	0.0	65	3	250	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 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997. Epidemiologic Report No. 11.*

4 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 – 1997, by State/Territory[2], Indigenous status and year

	NT		SA[3]		WA		Total	
	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]	Indigenous	Non-Indigenous[4]
1992								
Number	622	594	164	1 636	-	-	786	2 230
Rate	1 255	449	771	113	-	-	1 109	141
1993								
Number	299	353	48	709	164	618	511	1 680
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	919	422	995	997	2 159
Rate	807	185	823	63	781	58	798	65
1997								
Number	390	270	197	853	429	1 160	1 016	2 283
Rate	787	204	926	58	794	68	813	69

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 Information on diagnoses in South Australia in 1997 from *Sexually Transmitted Diseases in South Australia in 1997. Epidemiologic Report No. 11.*

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

Source: National Notifiable Diseases Surveillance System

2.3 Gonococcal isolates

Table 2.3.1 Number of gonococcal isolates referred to the Australian Gonococcal Surveillance Programme in 1997 by State/Territory, sex and site, and antibiotic sensitivity by State/Territory

	State/Territory						
Sex and Site	**NSW**	**NT**	**QLD**	**SA**	**VIC**	**WA**	**Total[1]**
Males							
Urethra	707	95	346	65	255	300	1 778
Rectal	73	0	16	19	50	5	164
Pharynx	51	1	8	10	18	1	89
Other/not specified	3	148	18	0	3	20	192
Total	**834**	**244**	**388**	**94**	**326**	**326**	**2 223**
Females							
Cervix	62	95	196	13	30	108	505
Other/not specified	6	54	11	0	6	11	89
Total	**68**	**149**	**207**	**13**	**36**	**119**	**594**
Antibiotic sensitivity (%)							
PPNG	6.9	2.6	4.6	4.7	10.7	7.4	6.4
RR	27.3	0	3.5	35.5	14.6	0.7	12.8
LS	51.6	95.4	81	51.4	52.4	88.3	69.9
FS	14.2	2	10.9	8.4	22.3	3.6	10.9
Total[1]	**902**	**393**	**595**	**107**	**362**	**445**	**2 817**

1 Total includes gonococcal isolates from ACT and TAS.
PPNG penicillinase-producing *Neisseria gonorrhoea*
RR relatively resistant
LS less sensitive
FS fully sensitive
Source: Australian Gonococcal Surveillance Programme

Table 2.3.2 Number of gonococcal isolates in New South Wales referred to the Australian Gonococcal Surveillance Programme, 1992 – 1997, by sex, site and year

	Year of diagnosis					
Sex and Site	**1992**	**1993[1]**	**1994**	**1995**	**1996**	**1997**
Males						
Urethra	490	409	336	442	530	707
Rectal	75	87	56	60	73	73
Pharynx	32	48	30	38	36	51
Other/not specified	4	14	6	3	6	3
Total	**601**	**558**	**428**	**543**	**645**	**834**
Females						
Cervix	95	53	61	55	82	62
Rectal	0	0	1	0	0	0
Pharynx	7	5	4	5	2	6
Other/not specified	1	0	6	1	2	0
Total	**103**	**58**	**72**	**61**	**86**	**68**
Total	**704**	**618**	**500**	**604**	**731**	**902**

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 – 1997

Year	Number of participants[1]	Number of new HIV infections	Person-years follow-up	Incidence per 100 person years
1993	508	10	303.0	3.3
1994	559	6	492.2	1.2
1995	520	7	462.5	1.5
1996	429	2	314.3	0.6
1997	182	1	75.8	0.3
Total	**638**	**26**	**1647.7**	**1.6**

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, 1992 – 1997

Table 3.2.1 Number of people seen at selected metropolitan sexual health clinics[1] in Australia, 1992 – 1997, 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

Males

		Sexual health clinic						
		Sydney Sexual Health Centre, NSW	Parramatta Sexual Health Clinic, NSW	Clinic 34 Darwin, NT	Brisbane Sexual Health Clinic, QLD	Clinic 275 Adelaide, SA	Melbourne Sexual Health Centre, VIC	Murray Street Clinic, Perth, WA
1992	Seen	4 777	1 214	–	3 209	3 787	4 623	5 142
	Tested	2 353	902	–	2 433	3 005	2 532	3 676
	Newly diagnosed (%)	22 (0.9)	16 (1.8)	–	1 (0.04)	6 (0.2)	16 (0.6)	8 (0.2)
	Previously negative (%)	13 (1.1)	8 (2.5)	–	0 (0.0)	4 (0.3)	9 (2.1)	–
1993	Seen	4 684	1 425	–	3 104	4 319	5 081	3 872
	Tested	2 270	1 040	–	2 330	3 361	3 238	2 153
	Newly diagnosed (%)	14 (0.6)	17 (1.6)	–	9 (0.4)	13 (0.4)	25 (0.8)	5 (0.2)
	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	3 485	6 419	–
	Tested	2 491	–	463	1 214	2 766	4 303	–
	Newly diagnosed (%)	27 (1.1)	–	2 (0.4)	5 (0.4)	8 (0.3)	18 (0.4)	–
	Previously negative (%)	14 (1.0)	–	–	5 (0.7)	6 (0.4)	3 (0.2)	–

Females

		Sexual health clinic						
		Sydney Sexual Health Centre, NSW	Parramatta Sexual Health Clinic, NSW	Clinic 34 Darwin, NT	Brisbane Sexual Health Clinic, QLD	Clinic 275 Adelaide, SA	Melbourne Sexual Health Centre, VIC	Murray Street Clinic, Perth, WA
1992	Seen	2 606	838	–	2 019	1 999	2 596	2 783
	Tested	1 375	605	–	1 462	1 593	1 470	1 993
	Newly diagnosed (%)	2 (0.1)	0 (0.0)	–	0 (0.0)	1 (0.1)	2 (0.1)	3 (0.2)
	Previously negative (%)	0 (0.0)	0 (0.0)	–	0 (0.0)	1 (0.1)	0 (0.0)	–
1993	Seen	2 656	1 161	–	1 918	2 652	3 221	2 373
	Tested	1 274	604	–	1 409	2 047	2 192	1 221
	Newly diagnosed (%)	1 (0.1)	1 (0.2)	–	1 (0.1)	0 (0.0)	1 (0.05)	0 (0.0)
	Previously negative (%)	0 (0.0)	1 (0.3)	–	1 (0.2)	0 (0.0)	1 (0.1)	–
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 (%)	0 (0.0)	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)	0 (0.0)	0 (0.0)	–
1996	Seen	3 081	–	672	1 789	2 357	4 039	–
	Tested	1 569	–	212	653	1 853	3 384	–
	Newly diagnosed (%)	3 (0.2)	–	0 (0.0)	1 (0.2)	0 (0.0)	2 (0.1)	–
	Previously negative (%)	1 (0.1)	–	–	0 (0.0)	0 (0.0)	0 (0.0)	–
1997	Seen	3 177	–	788	1 733	2 321	4 574	–
	Tested	1 668	–	333	644	1 751	3 790	–
	Newly diagnosed (%)	4 (0.2)	–	0 (0.0)	0 (0.0)	1 (0.1)	3 (0.1)	–
	Previously negative (%)	2 (0.2)	–	–	0 (0.0)	0 (0.0)	0 (0.0)	–

1 Data from Parramatta Sexual Health Clinic, Parramatta, NSW, not available for 1995, 1996 or 1997. Data from the Brisbane Sexual Health Clinic, Brisbane, QLD, not available for 1994. Data from the Murray Street Clinic, Perth, WA, available to 30 September 1993; the Murray Street Clinic closed in June 1994. Clinic 34, Darwin, NT, joined the network in 1995.

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], 1992 – 1997, 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

Males

		HIV exposure category					
		Male homosexual contact[2]	Male homosexual contact[2], age < 25 years	Injecting drug use	Heterosexual contact	Other males	Total
1992	Seen	2 518	586	887	12 755	1 450	17 610
	Tested	1 790	448	687	8 135	613	11 225
	Newly diagnosed (%)	51 (2.8)	10 (2.2)	1 (0.1)	7 (0.1)	2 (0.3)	61 (0.5)
	Previously negative (%)	28 (2.9)	5 (2.3)	1 (0.3)	5 (0.2)	0 (0.0)	34 (0.8)
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	3 555	694	894	10 983	1 969	17 401
	Tested	2 398	504	663	6 880	833	10 774
	Newly diagnosed (%)	45(1.9)	7 (1.4)	0 (0.0)	6 (0.1)	7 (0.8)	58 (0.5)
	Previously negative (%)	26(1.6)	6 (2.3)	0 (0.0)	2 (0.1)	0 (0.0)	28 (0.5)

Females

		HIV exposure category				
		Sex worker[3]	Injecting drug use	Heterosexual contact	Other females	Total
1992	Seen	1 123	401	7 485	1 049	10 058
	Tested	960	311	4 730	504	6 505
	Newly diagnosed (%)	1 (0.1)	1 (0.3)	3 (0.06)	0 (0.0)	5 (0.08)
	Previously negative (%)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	1 (0.04)
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)	0 (0.0)	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)	0 (0.0)	1 (0.05)	0 (0.0)	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)	0 (0.0)	1 (0.03)
1996	Seen	1 098	457	8 467	1 244	11 266
	Tested	973	328	5 499	659	7 459
	Newly diagnosed (%)	1 (0.1)	0 (0.0)	4 (0.07)	1 (0.2)	6 (0.08)
	Previously negative (%)	0 (0.0)	0 (0.0)	1 (0.04)	0 (0.0)	1 (0.03)
1997	Seen	991	526	8 662	1 626	11 805
	Tested	893	357	5 692	911	7 853
	Newly diagnosed (%)	1 (0.1)	1 (0.3)	5 (0.09)	1 (0.1)	8 (0.1)
	Previously negative (%)	0 (0.0)	1 (0.4)	1 (0.04)	0 (0.0)	2 (0.05)

1 Sydney Sexual Health Centre, Parramatta Sexual Health Clinic, Brisbane 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], 1992 – 1997, 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

Males

		Age group (years)							
		13 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60+	Unknown	Total
1992	Seen	905	8 392	4 907	2 094	714	354	244	17 610
	Tested	652	5 434	2 935	1 344	485	216	159	11 225
	Newly diagnosed (%)	0 (0.0)	28 (0.5)	17 (0.6)	8 (0.6)	4 (0.8)	1 (0.5)	3 (1.9)	61 (0.5)
	Previously negative (%)	0 (0.0)	16 (0.8)	7 (0.6)	7 (1.3)	2 (1.0)	0 (0.0)	2 (3.5)	34 (0.8)
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	642	7 613	5 376	2 460	907	401	2	17 401
	Tested	437	5 051	3 172	1 395	515	204	0	10 774
	Newly diagnosed (%)	0 (0.0)	24 (0.5)	20 (0.6)	9 (0.6)	5 (1.0)	0 (0.0)	0 (0.0)	58 (0.5)
	Previously negative (%)	0 (0.0)	14 (0.6)	11 (0.6)	2 (0.3)	1 (0.3)	0 (0.0)	0 (0.0)	28 (0.5)

Females

		Age group (years)							
		13 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60+	Unknown	Total
1992	Seen	1 344	5 304	2 177	786	189	73	185	10 058
	Tested	943	3 410	1 384	493	108	33	134	6 505
	Newly diagnosed (%)	0 (0.0)	5 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (0.1)
	Previously negative (%)	0 (0.0)	1 (0.08)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.04)
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)	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)	0 (0.0)	1 (0.03)
1997	Seen	1 388	6 651	2 478	963	259	60	6	11 805
	Tested	830	4 545	1 655	637	159	27	0	7 853
	Newly diagnosed (%)	0 (0.0)	6 (0.1)	1 (0.06)	1 (0.2)	0 (0.0)	0 (0.0)	0 (0.0)	8 (0.1)
	Previously negative (%)	0 (0.0)	1 (0.05)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.05)

1 Sydney Sexual Health Centre, Parramatta Sexual Health Clinic, Brisbane 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, 1991 — 1997

Table 3.3.1 Rate of reception into Australian prisons[1], 1991 – 1997, 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[3]**	**NT**	**QLD[4]**	**SA[5]**	**TAS**	**VIC[6]**	**WA**	**Total**
1991 Reception rate	147.7	127.6	1575.2	372.1	404.4	291.2	129.1	503.9	245.5
Tested for HIV antibody (%)	1.2	99.9	71.1	100.0	57.1	70.7	98.0	25.1	75.8
Number (%) with HIV infection	3 (75.0)	29 (0.5)	0 (0.0)	1 (0.1)	12 (0.4)	0 (0.0)	8 (0.2)	1 (0.1)	54 (0.2)
1992 Reception rate	106.9	173.7	1485.2	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	1300.8	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	1420.3	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	1237.7	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	1025.6	301.0	153.8	306.9	108.0	340.3	207.0
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		1578.5	303.5	300.0	273.7	82.9	325.0	155.9
Tested for HIV antibody (%)	2.8		100.0	100.0	85.6	64.9	64.2	44.7	78.7
Number (%) with HIV infection	0 (0.0)		4 (0.2)	14 (0.2)	2 (0.1)	1 (0.2)	3 (0.2)	0 (0.0)	24 (0.1)

1 Population reception rate per 100 000 population aged 15 years or older at 30 June.
2 The corrections centre in the Australian Capital Territory is a remand centre only. HIV antibody testing is carried out on prisoner request.
3 Data available from New South Wales until 31 December 1996.
4 Data not available from Queensland for the third quarter of 1992.
5 Data not available from South Australia for the first and second quarters of 1996.
6 Data available from Victoria on males only in the interval 1 January – 30 September 1997.
Source: State/Territory Departments of Corrections

3.4 National monitoring of HIV infection in blood donors, 1985 – 1997

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 – 1997, by State/Territory and years of donation

State/ Territory	1985[2] – 1989			1990 – 1991			1992 – 1993		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT	76 951	0	–	42 771	0	–	30 688	1	3.2
NSW	1 373 887	23	1.7	615 837	6	1.0	589 457	3	0.5
NT	39 869	0	–	19 648	0	–	18 854	0	–
QLD	721 587	7	1.0	380 800	2	0.5	383 396	4	0.8
SA	461 807	0	–	198 816	2	1.0	192 325	1	0.5
TAS	116 649	0	–	51 542	0	–	52 411	0	–
VIC	1 241 022	7	0.6	533 090	5	0.9	524 210	2	0.4
WA	346 652	2	0.6	157 045	3	1.9	161 823	1	0.6
Total	**4 378 424**	**39**	**0.9**	**1 999 549**	**18**	**0.9**	**1 953 164**	**12**	**0.6**

State/ Territory	1994 – 1995			1996[3] – 1997			1985 – 1997		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT	31 519	0	–	4 377	0	–	186 306	1	0.5
NSW	553 511	4	0.7	562 880	1	0.2	3 695 572	37	1.0
NT	17 597	1	5.7	15 064	1	6.6	111 032	2	1.8
QLD	348 808	7	2.0	313 840	1	0.3	2 148 431	21	1.0
SA	180 587	0	–	162 406	1	0.6	1 195 941	4	0.3
TAS	50 643	0	–	48 483	1	2.1	319 728	1	0.3
VIC	459 184	2	0.4	410 157	2	0.5	3 167 663	18	0.6
WA	158 655	0	–	169 445	1	0.6	993 620	7	0.7
Total	**1 800 504**	**14**	**0.8**	**1 686 652**	**8**	**0.5**	**11 818 293**	**91**	**0.8**

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.

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

3.4.2 Number of blood donors in Australia with HIV antibody, 1985 – 1997, 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

	1985–1989		1990–1991		1992–1993		1994–1995		1996–1997		All years		
HIV exposure category	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**Total**
Male homosexual contact[1]	10	–	4	–	2	–	1	–	1	–	18	–	18
Injecting drug use	1	0	0	0	0	0	0	0	1	0	2	0	2
Heterosexual contact	12	10	4	3	1	2	3	2	2	0	22	17	39
Person from a high prevalence country	0	0	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	1	1	0	1	0	0	0	0	0	0	1	2	3
Other	0	0	0	0	0	0	1	1	0	0	1	1	2
Undetermined	3	2	6	0	7	0	6	0	2	1	24	3	27
Total	**27**	**13**	**14**	**4**	**10**	**2**	**11**	**3**	**6**	**1**	**68**	**23**	**91**
New HIV infection[2]	**10**	**4**	**3**	**3**	**1**	**0**	**3**	**3**	**1**	**1**	**18**	**11**	**29**

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 – 1997

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	Total
Number of entrants tested	23 569	3 686	1 353	5 002	5 583	5 431	3 897	48 521
Number positive for HIV antibody	2	0	1	0	1	0	0	4
HIV prevalence per 100 000 entrants	8	0	74	0	18	0	0	8

Source: Australian Defence Force

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

	To 30 Jun 88	Jul 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	Total
ADF strength at 31 Dec	–	68 000	66 380	59 904	57 923	–	–	–	–
Number of HIV tests	7 549	51 110	16 520	18 829	20 272	16 061	14 479	14 435	159 255
Number of members newly diagnosed with HIV infection	13	14	6	8	2	1	2	0	46
New diagnoses per 1 000 strength	–	0.21	0.09	0.13	0.03	–	–	–	–
New diagnoses per 1 000 tests	172	27	36	42	10	6	14	0	29

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	7	5	23
Receipt of blood/tissue	0	0	0	1	0	1
Other/undetermined	1	2	7	6	1	17
Total	**1**	**2**	**26**	**15**	**6**	**50**

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 exchanges, 1995 – 1997

Table 4.1.1 Number of participating needle and syringe exchange programs (NSEP), 1995 – 1997, 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 NSEP	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 NSEP	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	322 (48)	169 (54)	496 (48)	11 (3.3)	0 (0.0)	11 (2.2)	266 (80)	139 (82)	409 (82)
QLD	5	355 (68)	125 (67)	485 (68)	7 (2.0)	1 (0.8)	8 (1.6)	157 (44)	64 (51)	224 (46)
VIC	3	128 (44)	61 (47)	190 (45)	3 (2.3)	0 (0.0)	3 (1.6)	87 (68)	44 (72)	132 (69)
Other	8	167 (50)	111 (61)	282 (53)	2 (1.2)	0 (0.0)	2 (0.7)	109 (65)	74 (67)	187 (66)
Total	**20**	**972 (53)**	**466 (58)**	**1 453 (54)**	**23 (2.4)**	**1 (0.2)**	**24 (1.7)**	**619 (64)**	**321 (69)**	**952 (66)**

1997

State/ Territory	Number of NSEP	Number of clients tested (% of clients seen)			Number with HIV antibody (%)[2]			Number with HCV antibody (%)		
		Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
NSW	5	316 (50)	210 (64)	528 (54)	5 (1.6)	1 (0.5)	6 (1.1)	217 (69)	148 (70)	366 (69)
QLD	5	328 (72)	150 (76)	480 (74)	7 (2.1)	2 (1.3)	9 (1.9)	86 (26)	51 (34)	138 (29)
VIC	4	293 (39)	142 (61)	436 (44)	4 (1.4)	1 (0.7)	5 (1.1)	139 (47)	82 (58)	221 (51)
Other	8	182 (69)	76 (65)	260 (64)	7 (3.8)	0 (0.0)	7 (2.7)	84 (46)	35 (46)	120 (46)
Total	**22**	**1 119 (54)**	**578 (67)**	**1 704 (56)**	**23 (2.1)**	**4 (0.7)**	**27 (1.6)**	**526 (47)**	**316 (55)**	**845 (50)**

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 Exchanges

Table 4.1.2 Number of injecting drug users tested for HIV or HCV antibody, 1995 – 1997, 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 or more years	548	272	830	2.6	1.5	2.3	69	71	70
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	30	39	34
3 or more years	775	381	1 167	2.5	0.3	1.7	70	74	72
Not reported	36	11	49	0.0	0.0	0.0	72	82	71
Total	**972**	**466**	**1 453**	**2.4**	**0.2**	**1.7**	**64**	**69**	**66**

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	185	122	308	0.5	0.0	0.3	12	16	13
3 or more years	897	443	1 345	2.3	0.9	1.9	54	66	58
Not reported	37	13	51	2.7	0.0	2.0	46	38	43
Total	**1 119**	**578**	**1 704**	**2.1**	**0.7**	**1.6**	**47**	**55**	**50**

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

Source: Collaboration of Australian Needle Exchanges

Table 4.1.3 Number of injecting drug users tested for HIV or HCV antibody, 1995 – 1997, 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	65	69	66
Bisexual	69	97	166	4.3	0.0	1.8	61	66	64
Homosexual	60	32	92	26.7	0.0	17.4	53	66	58
Not reported	40	16	62	0.0	0.0	0.0	68	81	71
Total	**972**	**466**	**1 453**	**2.4**	**0.2**	**1.7**	**64**	**69**	**66**

1997

	Number tested			Percent with HIV antibody			Percent with HCV antibody		
Sexual orientation	**Male**	**Female**	**Total[1]**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Heterosexual	952	390	1 348	0.6	0.8	0.7	48	57	51
Bisexual	68	120	189	1.5	0.8	1.1	40	50	47
Homosexual	51	54	105	31.4	0.0	15.2	39	39	39
Not reported	48	14	62	0.0	0.0	0.0	42	86	52
Total	**1 119**	**578**	**1 704**	**2.1**	**0.7**	**1.6**	**47**	**55**	**50**

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

Source: Collaboration of Australian Needle Exchanges

4.2 HIV, HBV and HCV seroprevalence among injecting drug users attending methadone clinics, 1996 – 1997

Table 4.2.1 Number of injecting drug users enrolled at participating clinics, 1996 – 1997, number tested for HIV antibody, HCV antibody, HBs or HBc antibody or HBs antigen and number (percent) with HIV antibody, HCV antibody, HBs or HBc antibody or HBs antigen, by history of methadone treatment and sex

History of methadone treatment/ Sex	HIV antibody			HCV antibody		HBs or HBc antibody		HBsAg	
	Number enrolled	Tested	Diagnosed (%)	Tested	Diagnosed (%)	Tested	Past infection or vaccination (%)	Tested	Diagnosed (%)
New to methadone									
Male	265	99	1 (1.0)	100	42 (42)	87	21 (24)	100	6 (6.0)
Female	164	57	0 (0.0)	58	17 (29)	50	9 (18)	56	0 (0.0)
Total[1]	430	156	1 (0.6)	158	59 (37)	137	30 (22)	156	6 (3.9)
Previous methadone									
Male	260	92	2 (2.2)	91	69 (76)	80	38 (48)	83	5 (6.0)
Female	177	67	0 (0.0)	67	47 (70)	59	33 (56)	61	0 (0.0)
Total[1]	439	160	2 (1.3)	159	117 (74)	140	71 (51)	145	5 (3.5)
All clients									
Male	525	191	3 (1.6)	191	111 (58)	167	59 (35)	183	11 (6.0)
Female	341	124	0 (0.0)	125	64 (51)	109	42 (39)	117	0 (0.0)
Total[1]	869	316	3 (0.9)	317	176 (56)	277	101 (36)	301	11 (3.7)

1 Totals include people whose sex was not reported.

Source: Collaborative network of methadone clinics and programmes

Table 4.2.2 Number of injecting drug users enrolled at participating clinics, 1996 – 1997, number tested for HIV antibody, HCV antibody, HBs or HBc antibody or HBs antigen and number (percent) with HIV antibody, HCV antibody, HBs or HBc antibody or HBs antigen, by history of methadone treatment and years of injecting drug use

History of methadone treatment/ Years of injecting drug use	HIV antibody			HCV antibody		HBs or HBc antibody		HBsAg	
	Number enrolled	Tested	Diagnosed (%)	Tested	Diagnosed (%)	Tested	Past infection or vaccination (%)	Tested	Diagnosed (%)
New to methadone									
Less than 3 years	86	28	0 (0.0)	29	4 (14)	26	2 (8)	30	0 (0.0)
3 to 6 years	145	52	0 (0.0)	54	13 (24)	44	8 (18)	50	3 (6.0)
6 to 10 years	84	34	0 (0.0)	34	11 (32)	30	8 (27)	33	0 (0.0)
More than 10 years	104	41	1 (2.4)	40	31 (78)	36	12 (33)	43	3 (7.0)
Not reported	11	1	0 (0.0)	1	0 (0)	1	0 (0)	0	–
Previous methadone									
Less than 3 years	18	4	0 (0.0)	6	1 (17)	4	0 (0)	6	0 (0.0)
3 to 6 years	80	26	0 (0.0)	26	7 (27)	17	5 (29)	23	0 (0.0)
6 to 10 years	79	29	0 (0.0)	28	18 (64)	24	9 (38)	23	2 (8.7)
More than 10 years	248	95	2 (2.1)	95	87 (92)	92	55 (60)	90	3 (3.3)
Not reported	14	6	0 (0.0)	4	4 (100)	3	2 (67)	3	0 (0.0)
All clients									
Less than 3 years	104	32	0 (0.0)	35	5 (14)	30	2 (7)	36	0 (0.0)
3 to 6 years	225	78	0 (0.0)	80	20 (25)	61	13 (21)	73	3 (4.1)
6 to 10 years	163	63	0 (0.0)	62	29 (47)	54	17 (31)	56	2 (3.6)
More than 10 years	352	136	3 (2.2)	135	118 (87)	128	67 (52)	133	6 (4.5)
Not reported	25	7	0 (0.0)	5	4 (80)	4	2 (50)	3	0 (0.0)

Source: Collaborative network of methadone clinics and programmes

5 National monitoring of occupational exposure to blood and body fluids, 1995 — 1997

Table 5.1 Number of cases of occupational exposure to blood or body fluids in health care workers reported by the participating sites, 1995 – 1997, 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)	
Type of exposure	Number of exposures	Exposures per 100 daily occupied beds[1]	Number of exposures	Exposures per 100 daily occupied beds	Number of exposures	Exposures per 100 daily occupied beds
Percutaneous	434	23.8	1 283	20.8	2 565	17.9
Hollow bore needles	*258*	*14.2*	*796*	*12.9*	*1 505*	*10.6*
Other percutaneous	*176*	*9.6*	*487*	*7.9*	*1 060*	*7.3*
Non–percutaneous	98	5.4	289	4.70	527	3.7
Total	**532**	**29.2**	**1 572**	**25.5**	**3 092**	**21.6**

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, 1995 — 1997, 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	
Viral test/ Type of exposure	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)
Other percutaneous	66 (38)	3 (4.5)	229 (47)	6 (2.6)	538 (51)	7 (1.3)
Non–percutaneous	44 (45)	5 (11.4)	125 (43)	2 (1.6)	354 (67)	10 (2.8)
HCV antibody						
Hollow bore needles	89 (35)	5 (5.6)	418 (53)	19 (4.5)	969 (64)	39 (4.0)
Other percutaneous	60 (34)	4 (6.7)	228 (47)	9 (3.9)	551 (52)	23 (4.2)
Non–percutaneous	44 (45)	14 (32)	127 (44)	14 (11.0)	351 (67)	37 (10.5)
HBs antigen						
Hollow bore needles	93 (36)	1 (1.1)	430 (54)	8 (1.9)	963 (64)	10 (1.0)
Other percutaneous	62 (35)	2 (3.2)	235 (48)	7 (3.0)	551 (52)	13 (2.4)
Non–percutaneous	44 (45)	4 (9.1)	126 (43)	8 (6.3)	349 (66)	16 (4.6)

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, 1995 – 1997, with at least three months post exposure follow up, number (percent) tested for specific blood borne viruses at follow up and number with occupationally acquired infection by year, infection status of the source and type of exposure

	Jul–Dec 1995 (13 sites)			1996 (26 sites)			1997 (56 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
HIV infection									
Hollow bore needle	2	1 (50)	0	8	0 (0)	0	10	4 (40)	0
Other percutaneous	2	1 (50)	0	6	2 (33)	0	6	2 (33)	0
Non–percutaneous	2	0 (0)	0	2	1 (50)	0	7	4 (57)	0
Unknown HIV status									
Hollow bore needle	121	31 (26)	0	329	79 (24)	0	444	183 (41)	0
Other percutaneous	83	21 (35)	0	234	75 (32)	0	391	164 (42)	0
Non–percutaneous	39	13 (33)	0	162	40 (25)	0	132	55 (42)	0
HCV antibody									
Hollow bore needle	5	2 (40)	0	15	1 (7)	0	34	28 (83)	0
Other percutaneous	3	1 (33)	0	8	2 (25)	0	18	12 (67)	0
Non–percutaneous	10	6 (60)	0	13	3 (23)	0	30	16 (53)	0
Unknown HCV status									
Hollow bore needle	120	19 (16)	0	335	43 (13)	0	431	181 (41)	0
Other percutaneous	85	14 (17)	0	233	39 (17)	0	379	162 (43)	0
Non–percutaneous	38	8 (21)	0	155	11 (7)	0	136	55 (40)	0
HBs antigen									
Hollow bore needle (%)	2 (100)	0 (0)	0	7 (75)	1 (14)	0	7 (100)	0 (0)	0
Other percutaneous (%)	2 (100)	0 (0)	0	5 (80)	0 (0)	0	11 (100)	0 (0)	0
Non–percutaneous (%)	3 (100)	0 (0)	0	8 (63)	0 (0)	0	11 (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
Other percutaneous (%)	85 (57)	1 (1)	0	229 (84)	20 (9)	0	378 (83)	64 (17)	0
Non–percutaneous (%)	40 (65)	0 (0)	0	158 (86)	4 (3)	0	134 (83)	25 (19)	0

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

6 Patterns of treatment for HIV related disease

6.1 Uptake of antiretroviral treatment for HIV related disease by homosexually active men

6.1.1 Number of homosexually active men with diagnosed HIV infection participating in the Sydney Men and Sexual Health study (SMASH), and proportion reporting use of specific treatments for HIV related disease, 1993 – 1997, by six month interval of interview and specific treatment

	1993		1994		1995		1996		1997	
Six month interval of interview	**Jan–Jun**	**Jul–Dec**	**Jan–Jun**	**Jul–Dec**	**Jan–Jun**	**Jul–Dec**	**Jan–Jun**	**Jul–Dec**	**Jan–Jun**	**Jul–Dec**
Sample size	**119**	**72**	**114**	**52**	**91**	**56**	**94**	**47**	**68**	**50**
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
One antiretroviral agent	27.7	27.8	23.7	25.0	15.4	14.3	2.1	8.5	2.9	2.0
Two antiretroviral agents	15.1	6.9	8.8	5.8	13.2	14.3	23.4	19.1	10.3	10.0
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
Protease inhibitor	0.0	0.0	0.0	0.0	0.0	0.0	10.6	44.7	51.5	68.0

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 homosexually active men with diagnosed HIV infection participating in the Periodic Surveys in Sydney and Melbourne and proportion reporting use of combination antiretroviral therapy for HIV related disease, by six month reporting interval

	August 1997	February 1998	
	Sydney	**Sydney**	**Melbourne**
Sydney			
Sample size	**265**	**400**	**155**
Proportion reporting use of combination therapy			
Yes	74.7	70.8	82.6
No	25.3	29.2	17.4

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 Monitoring behaviour

7.1 Monitoring sexual behaviour in homosexually active men

7.1.1 Prevalence of anal intercourse in the previous six month interval reported by gay men participating in the Sydney Men and Sexual Health study, 1993 – 1997, by six month reporting interval, partner type and condom use (percent)

	1993		1994		1995		1996		1997	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Sample size	**520**	**336**	**537**	**272**	**464**	**297**	**477**	**235**	**386**	**243**
Anal intercourse with regular partners										
No regular partner	46.0	44.0	38.4	39.3	41.6	34.7	38.2	40.4	40.4	35.0
No anal intercourse	10.8	9.2	10.8	9.6	10.3	14.5	13.8	11.5	11.9	7.4
Always with condom	19.8	22.0	20.5	25.0	17.5	21.2	18.2	15.3	18.4	16.5
Any without condom	23.5	24.7	30.4	26.1	30.6	29.6	29.8	32.8	29.3	41.2
Never use condom	*14.2*	*13.4*	*18.1*	*16.9*	*19.6*	*19.5*	*18.7*	*22.1*	*20.5*	*32.9*
Anal intercourse with casual partners										
No casual partners	17.1	21.4	24.0	24.6	22.2	24.9	22.0	24.7	24.1	28.0
No anal intercourse	24.2	19.3	21.6	16.5	21.6	21.9	25.6	26.4	23.3	21.0
Always with condom	42.7	42.3	39.5	44.5	43.1	38.0	41.1	34.9	37.6	36.2
Any without condom	16.0	17.0	14.9	14.3	13.1	15.2	11.3	14.0	15.0	14.8
Mostly or always without condom	*1.3*	*2.1*	*2.0*	*1.5*	*1.7*	*3.4*	*1.7*	*1.3*	*1.3*	*2.5*

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

7.1.2 Prevalence of anal intercourse in the previous six month interval reported by gay men participating in the Periodic Surveys in Sydney and Melbourne, 1996 – 1998, by month and year of survey, site, partner type and condom use (percent)

	1996		1997		1998	
	Feb Sydney	Aug Sydney	Feb Sydney	Aug Sydney	Feb Sydney	Feb Melbourne
Sample size	**1 611**	**627**	**1 609**	**1 021**	**2 201**	**1 891**
Anal intercourse with regular partners						
No regular partner	28.1	35.6	37.4	39.4	37.3	35.7
No anal intercourse	10.6	9.6	7.1	7.8	6.0	8.9
Always with condom	31.7	31.6	25.5	26.9	25.9	26.3
Any without condom	29.7	23.3	30.0	25.9	30.9	29.1
Anal intercourse with casual partners						
No casual partners	18.4	14.4	31.1	22.3	27.0	28.0
No anal intercourse	25.7	18.7	16.7	18.1	18.9	21.0
Always with condom	44.2	47.2	36.3	37.6	37.1	37.7
Any without condom	11.7	19.8	15.9	21.9	17.1	13.4

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)

7.1.3 Prevalence of unprotected anal intercourse with casual partners in the previous six month interval reported by homosexually active men in Australia participating in Male Call in 1992 and 1996, by year and State/Territory

	State/Territory								
	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Total
Male Call 1992									
Sample size	108	862	91	411	192	68	648	171	2 551
Proportion reporting unprotected anal intercourse with casual partners	12.0	12.2	16.5	13.9	9.4	19.1	8.5	8.8	11.5
Male Call 1996									
Sample size	105	922	101	534	312	107	601	310	2 992
Proportion reporting unprotected anal intercourse with casual partners	15.2	15.1	14.9	16.1	14.4	16.8	16.1	11.6	15.3

Source: National Centre in HIV Social Research

7.2 Monitoring sexual behaviour in university students

Table 7.2.1 Sexual practice among 18 – 19 year old[1] first year university students, 1988 – 1997, by year of enrolment

	Year of enrolment									
	88	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**
Total	551	670	843	418	573	553	235	297	377	381
Male	172	209	280	121	158	166	63	57	97	85
Female	379	461	563	297	415	387	172	240	280	296
Number of partners, ever (%)										
0	–	–	45.5	42.7	45.6	41.0	38.4	49.8	44.9	39.3
1	–	–	20.0	22.3	23.9	26.3	26.2	27.1	24.9	26.7
2 – 4	–	–	24.7	24.9	22.6	25.7	23.6	16.5	21.4	27.5
> 4	–	–	9.9	10.1	7.9	7.0	11.8	6.5	8.8	6.4
Ready access to condoms (%)[2]										
Male	–	44.7	47.9	56.2	61.1	62.6	73.8	59.3	52.6	56.0
Female	–	16.6	19.7	21.3	32.4	35.8	52.4	49.4	42.2	30.3
Condom use with regular partner in the last month (%)										
never	–	–	–	14.1	11.4	13.0	12.3	13.7	12.8	14.9
sometimes	–	–	–	5.3	6.0	4.2	6.2	4.5	4.4	4.6
most times	–	–	–	3.8	4.6	6.2	6.2	5.2	4.7	6.2
everytime	–	–	–	11.7	14.7	13.9	13.7	8.2	10.0	18.6
no partner	–	–	–	65.1	63.4	62.7	61.7	68.4	68.1	55.7
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
most times	–	–	–	2.9	1.2	1.6	1.8	1.7	2.8	1.3
sometimes	–	–	–	0.7	0.5	1.8	2.2	1.0	1.1	0.8
everytime	–	–	–	8.9	8.4	11.3	11.4	7.5	11.3	9.4
no partner	–	–	–	83.5	87.4	82.3	81.1	86.6	82.9	86.1
Sexual practice, ever (%)										
Vaginal sex	47.4	44.5	50.0	50.4	47.1	53.2	56.8	43.4	50.4	56.7
regular partner	–	–	46.7	48.2	44.3	50.1	53.7	39.5	47.4	54.2
casual partner	–	–	24.9	24.8	18.3	22.2	28.2	16.3	23.4	21.0
Anal sex	4.0	2.8	5.5	7.7	5.1	6.4	2.3	4.5	3.0	7.6
regular partner	–	–	4.6	6.8	4.7	5.7	2.7	4.0	2.6	6.1
casual partner	–	–	1.6	3.5	1.3	2.4	0.5	1.1	0.3	1.8
Any form of sex (oral, vaginal, anal)	55.8	53.3	57.7	60.4	56.0	61.5	69.4	57.6	60.6	66.4

1 Includes 17 year old students turning 18 in the year.

2 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 seen at needle and syringe exchange programs (NSEP), 1995 – 1997, 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						1996						1997					
	Number seen at NSEP			% using after someone else			Number seen at NSEP			% using after someone else			Number seen at NSEP			% using after someone else		
	M	F	T[1]	M	F	T	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	21	26	24	161	74	237	17	26	20	179	119	299	11	23	16
More than 3 years	548	272	830	27	35	30	775	381	1167	27	28	27	888	443	1 336	17	18	17
Not reported	14	2	18	29	50	33	36	11	49	36	27	33	32	8	40	19	25	20
Last drug injected																		
Heroin/opiates	424	219	649	28	34	30	635	343	987	26	25	26	597	338	937	20	21	20
Stimulants	140	80	224	23	29	26	213	84	300	23	21	22	419	196	619	8	15	10
Combination	57	25	85	33	44	35	90	35	126	38	46	40	77	36	113	31	22	28
Other/not reported	18	3	21	6	0	5	34	4	40	6	50	10	6	0	6	17	–	17
Total[1]	**639**	**327**	**979**	**27**	**33**	**29**	**972**	**466**	**1 453**	**26**	**28**	**26**	**1 099**	**570**	**1 675**	**16**	**19**	**17**

1 Totals include people whose sex was not reported.
Source: Collaboration of Australian Needle Exchanges

Table 7.3.2 Number of injecting drug users seen at needle and syringe exchange programs (NSEP), 1995 – 1997, who reported sexual intercourse in the last month, and percent reporting condom use at last intercourse by year, sex, history of injecting drug use and last drug injected

	1995						1996						1997					
	Number reporting sexual intercourse			% using condoms at last intercourse			Number reporting sexual intercourse			% using condoms at last intercourse			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T[1]	M	F	T	M	F	T[1]	M	F	T	M	F	T[1]	M	F	T
History of injecting drug use																		
Less than 3 years	55	37	93	44	35	41	110	63	174	45	25	38	116	94	210	42	21	33
More than 3 years	397	210	613	31	29	30	549	292	847	31	31	27	557	317	878	31	27	29
Not reported	10	2	13	30	50	39	23	8	32	39	38	38	25	8	33	32	63	39
Last drug injected																		
Heroin/opiates	290	168	460	28	27	28	436	261	703	29	31	30	386	249	636	29	29	29
Stimulants	111	60	175	44	35	41	156	73	229	43	26	38	129	77	208	45	26	38
Combination	47	19	68	23	32	27	62	27	90	32	33	33	48	26	75	38	32	35
Other/not reported	14	2	16	43	50	44	28	2	31	43	0	42	135	67	202	29	16	25
Total[1]	**462**	**249**	**719**	**32**	**30**	**32**	**682**	**363**	**1 053**	**33**	**30**	**32**	**698**	**419**	**1 121**	**32**	**26**	**30**

1 Totals include people whose sex was not reported.

Source: Collaboration of Australian Needle Exchanges

8 Global comparisons

Table 8.1 AIDS incidence and HIV prevalence in selected countries

	AIDS incidence		HIV prevalence	
Country	**1997**	**Rate[1]**	**1997**	**Rate[1]**
Asia Pacific				
Australia	311	1.7	11 150	60
Cambodia	572	5.4	117 000	1 236
China	126	0.01	400 000	3
India[2]	1 210	0.1	2 500 000	427
Japan	250	0.2	6 700	5
Malaysia	526	2.5	65 000	323
New Zealand	26	0.7	700	19
Papua New Guinea	120	2.7	8 600	190
Philippines	23	0.03	22 900	30
Republic of Korea	33	0.07	3 000	6
Thailand[3]	10 303	17.9	800 000	1 318
Vietnam	400	0.5	85 000	110
Europe				
France	2 339	3.9	–	
Germany	876	1.1	–	
Italy	3 380	5.9	–	
Spain	5 066	12.8	–	
United Kingdom	1 381	2.2	–	
North America				
Canada	690	2.4	–	
United States	60 634	22.3	–	

1 Rate per 100 000 population.
2 AIDS incidence in India in 1995.
3 AIDS incidence in Thailand in 1994.

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 1995 to 31 December 1997 and notified by 31 March 1998. It was assumed that AIDS cases were completely reported in three years. The number of AIDS diagnoses in each quarter from the first quarter of 1995 was adjusted for reporting delay using the methods of Kalbfleisch and Lawless (1991) and Cui and Kaldor (1998).

The reporting delay distribution varied between State/Territory health authorities. There was also a tendency toward longer reporting delay over time, 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 1997 and reported to the National AIDS Registry by 31 March 1998. 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 1997, 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 1997.

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 1997**

Year/	1995				1996				1997			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4
Estimated reduction in progression rate (%)	10	12	16	15	18	19	31	39	49	52	54	54

Projections of AIDS incidence from 1998 onwards were made by assuming that the effect of treatments continued to be a 54% overall 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%.

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 1997. The improvement in survival corresponded to a 24% reduction in the death rate in 1995, a 44% reduction in 1996 and a 73% reduction in 1997. Projections of deaths from 1998 onwards were made assuming that the effects of treatments continued to result in a 73% 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, through notifications of diagnoses of HIV infection in women and children, and through follow up of women with newly diagnosed HIV infection. Further details are given in McDonald et al (1997).

2 National monitoring of diagnoses of specific sexually transmissible diseases

2.1 Notifications of specific sexually transmissible diseases to the National Notifiable Diseases Surveillance System

Diagnoses of specific sexually transmissible diseases 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 disease 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 overleaf).

Population rates of diagnosis of specific sexually transmissible diseases 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 diseases to the National Notifiable Diseases Surveillance System by State/Territory**

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

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

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

Information on Indigenous status was routinely sought at diagnosis of HIV infection or AIDS in the Northern Territory, Queensland, South Australia, Tasmania, and Western Australia. In New South Wales, information on Indigenous status was sought for HIV infection and AIDS diagnosed from 1992. Information on Indigenous status was not available for cases of HIV/AIDS diagnosed in the Australian Capital Territory or Victoria by the end of March 1998. 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 – 1997, 88% of HIV notifications from State/Territory health authorities other than the Australian Capital Territory and Victoria 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 which 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 1998.

Population rates of diagnosis of specific sexually transmissible diseases 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 gonorrhoea*, to assist in the effective treatment of gonorrhoea. Information on sex and site of isolation of gonococcal strains was also collected (AGSP 1998).

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 in the specified interval and HIV antibody testing in the 12 months prior to being seen. 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 NCHECR (1996).

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 exchange programs

All clients attending needle and syringe exchange program (NSEP) sites during one week in March 1995 (20 fixed sites and one mobile site), June 1996 (19 fixed sites and one mobile site), and October 1997 (22 fixed sites and one mobile site) were asked to complete a brief, self-administered questionnaire and to provide a finger prick blood spot sample for HIV and HCV antibody testing. NSEP 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).

4.2 HIV, HBV and HCV seroprevalence among injecting drug users attending methadone clinics

A network of methadone clinics throughout Australia participated in a project to collate information routinely collected on HIV, HBV and HCV antibody testing and the prevalence of these three viruses. In 1996, information on the prevalence of specific blood borne viruses in clients seen at methadone clinics was available from 4 clinics in New South Wales, Queensland, South Australia and Western Australia. In 1997, 2 clinics provided information; one in South Australia and the other in Western Australia. Further information is available in MacDonald and Wodak (1996c).

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 related disease

6.1 Monitoring uptake of treatment for HIV related disease in homosexually active men

Self-reported use of antiretroviral therapy for the treatment of HIV related disease was monitored among 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.

7 Monitoring behaviour

7.1 Monitoring sexual behaviour in homosexually active men

Information on sexual behaviour reported by homosexually active men was obtained through the Sydney Men and Sexual Health (SMASH) study, through Periodic Surveys in Sydney and Melbourne and through national telephone surveys. 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 and 1998, 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, and HIV tests and results, and antiretroviral use for respondents with HIV infection.

The Melbourne Gay Community Periodic Survey 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 Melbourne Midsumma Carnivale 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.

Male Call is a national cross-sectional anonymous telephone survey of gay and homosexually active men. The survey was carried out in 1992 and repeated in 1996. On both occasions, gay and homosexually active men were invited to participate by ringing a toll-free number. Recruitment sources included a variety of media, including sections of the organised gay community, relevant health centres and all known pornography outlets. In 1996, public community television advertising and the Internet were also used as recruitment sources. Duration of most interviews was 45 – 60 minutes.

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 18 to 19 year old university students. From 1988 to 1997, 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 and injecting behaviour in injecting drug users

Information on sexual behaviour, history of injecting drug use and drugs injected was obtained by client completion of a questionnaire administered at 21 needle exchanges in 1995, 20 in 1996 and 23 in 1997. 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* 1997;11. WHO Regional Office, Manila, Philippines.

AIDS Epidemiology Group, Department of Preventive Medicine, University of Otago Medical School, New Zealand. *AIDS – New Zealand* 1997; 37.

Monitoring the AIDS Pandemic Network. *The status and trends of the HIV/AIDS/STD epidemics in Asia and the Pacific*. 4th International Conference on AIDS in Asia and the Pacific. Provisional Report of the Official Satellite Symposium. Manila, Philippines. 25 – 29 October 1997.

Europe:

European Centre for the Epidemiological Monitoring of AIDS. *HIV/AIDS Surveillance in Europe*: Quarterly Report no 56, 1997.

PHLS AIDS and STD Centre – Communicable Disease Surveillance Centre, and Scottish Centre for Infection and Environmental Health. Unpublished Quarterly Surveillance Tables No 39: 98/1 April 1998.

North America:

Health Canada. *HIV and AIDS in Canada*. Surveillance report to December 31, 1997. Division of HIV/AIDS Surveillance, Bureau of HIV/AIDS, STD and TB. LCDC, Health Canada, 1998.

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