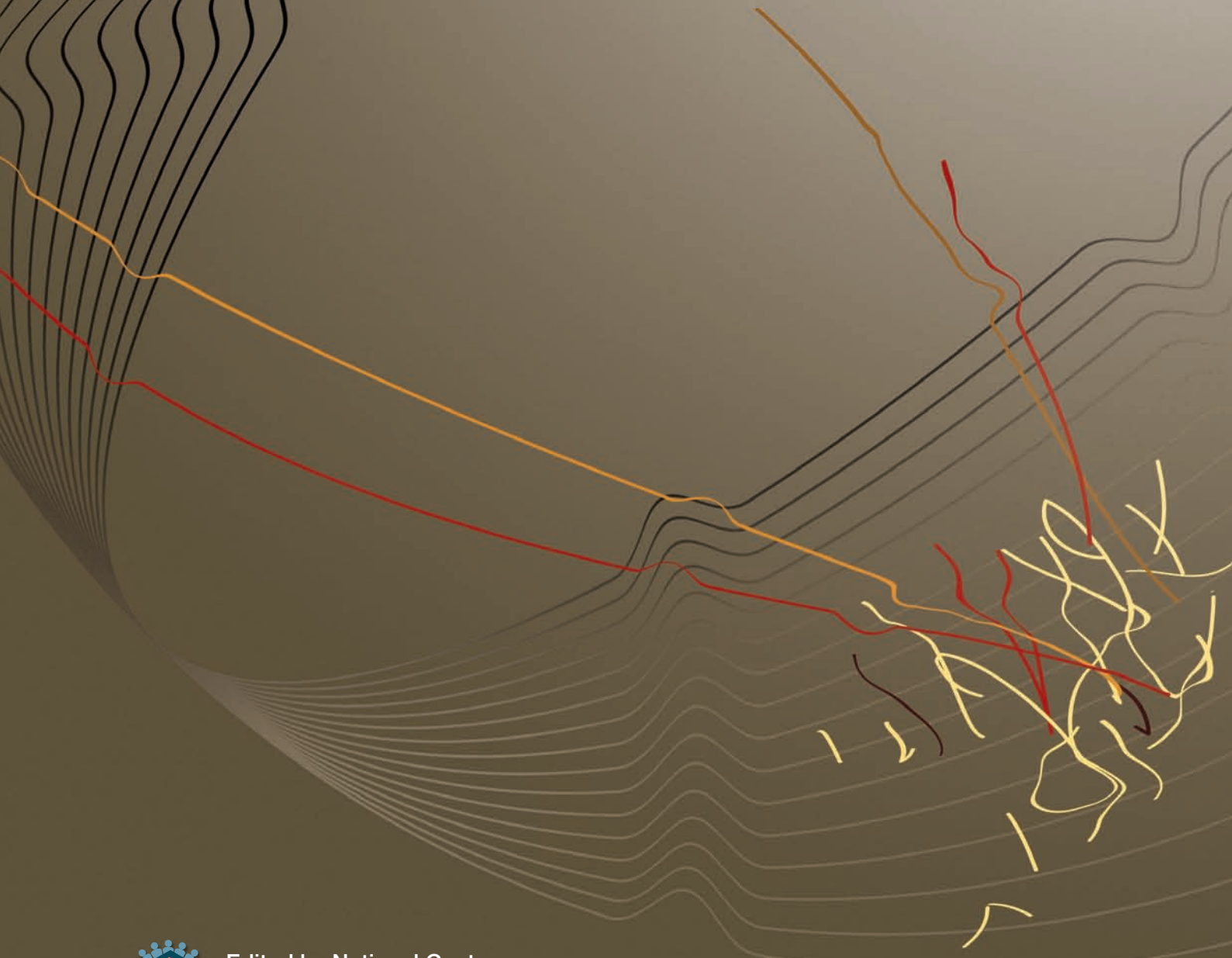
2009
Annual Surveillance Report

HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia



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2009 Annual Surveillance Report

HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia

edited by

Ann McDonald

National Centre in HIV Epidemiology and Clinical Research

in collaboration with

Australian Gonococcal Surveillance Programme

Communicable Diseases Network Australia

National Centre in HIV Social Research

National Serology Reference Laboratory, Australia

and collaborating networks in surveillance for HIV/AIDS, viral hepatitis and sexually transmissible infections

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Contents

Preface 1

Acknowledgments 3

Summary 7

Main Findings 9

HIV/AIDS 9

Viral hepatitis 12

Sexually transmissible infections other than HIV 14

HIV, viral hepatitis and sexually transmissible infections in selected populations 16

Men who have sex with men 16

Aboriginal and Torres Strait Islander people 18

People who have injected drugs 21

Heterosexual transmission of HIV infection 22

A new sentinel surveillance system for monitoring chlamydia 25

Illness and treatment in people with HIV infection and viral hepatitis 27

Tables 31

Methodological notes 131

References 139

Tables

1 National surveillance for HIV/AIDS 33

1.1 National HIV Registry 33

1.2 Monitoring incident HIV infection 40

1.3 National AIDS Registry 42

1.4 National surveillance for newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people 49

1.5 National surveillance for perinatal exposure to HIV 51

1.6 Global comparisons 54

2 National surveillance for viral hepatitis 57

2.1 Notification of viral hepatitis to the National Notifiable Diseases Surveillance System 57

2.2 National surveillance for viral hepatitis in Aboriginal and Torres Strait Islander people 65

2.3 Long term outcomes among people with chronic viral hepatitis 68

3 National surveillance for sexually transmissible infections 71

3.1 Notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System 71

3.2 National surveillance for sexually transmissible infections in Aboriginal and Torres Strait Islander people 75

3.3 Gonococcal isolates 84

4 HIV, viral hepatitis and sexually transmissible infections in selected populations 88

4.1 HIV seroprevalence among people seen at sexual health clinics 88

4.2 HIV and hepatitis C seroprevalence among people who have injected drugs 94

4.3 Incidence of hepatitis C infection among people who have injected drugs 102

4.4 HIV and hepatitis C infection among entrants into Australian prisons 103

4.5 HIV, hepatitis B surface antigen and hepatitis C antibody in blood donors 105

4.6 Chlamydia prevalence among people seen through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) 109

5 Risk behaviour 115

5.1 Sexual, injecting and HIV antibody testing behaviour among men who have sex with men 115

5.2 Sexual and injecting behaviour among people who have injected drugs 116

6 Estimates of the number of people living with HIV infection and hepatitis C infection 122

6.1 Estimates of the number of people living with HIV infection 122

6.2 Estimates of the number of people living with hepatitis C infection 122

7 Uptake of treatment for HIV infection and viral hepatitis 125

7.1 Uptake of antiretroviral treatment for HIV infection 125

7.2 Monitoring prescriptions for HIV treatments 127

7.3 Monitoring prescriptions for treatment of viral hepatitis 128

Preface

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

The Australian AIDS Public Access Dataset and the Australian HIV Public Access Dataset, including information on AIDS and HIV infection, respectively, diagnosed in Australia by 31 December 2008 and reported by 31 March 2009, is available through the website http://www.nchecr.unsw.edu.au

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.

The accompanying report *Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander people: Surveillance and Evaluation Report 2009* presents a detailed analysis of the occurrence of bloodborne viral and sexually transmitted infections in a format designed to be accessible for Aboriginal and Torres Strait Islander health services and communities. The report is available at Internet address http://www.nchecr.unsw.edu.au

Some of the information regarding risk behaviour which appears in this report is also published, along with further behavioural data, in the report *HIV/AIDS, Hepatitis and Sexually Transmissible Infections in Australia Annual Report of Trends in Behaviour 2009,* edited by the National Centre in HIV Social Research. Specifically, data reported in Tables 5.1.1 and 7.1.2 of *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2009* also appears in the report on behavioural data.

Unless specifically stated otherwise, all data provided in the report are to the end of 2008, as reported by 31 March 2009. All data in this report are provisional and subject to future revision.

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, viral hepatitis and sexually transmissible infections is gratefully acknowledged.

Acknowledgments

National organisations

- Association for Prevention and Harm Reduction Programs, VIC
- Australian Injecting and Illicit Drug Users' League
- Australasian Society for HIV Medicine, Sydney, NSW
- Australia and New Zealand Liver Transplant Registry, Sydney, NSW
- Australian Federation of AIDS Organisations, Sydney, NSW
- Australian Government Department of Health and Ageing, Canberra, ACT
- Australian Institute of Health and Welfare, Canberra, ACT
- Australian Red Cross Blood Service, Melbourne, VIC
- Communicable Diseases Network Australia, Canberra, ACT
- Hepatitis Australia, Canberra, ACT
- National Aboriginal Community Controlled Health Organisation, ACT
- National Association of People Living with HIV/AIDS, Sydney, NSW
- National Centre in HIV Social Research, The University of New South Wales, NSW
- National Drug and Alcohol Research Centre, The University of New South Wales, Sydney, NSW
- National Serology Reference Laboratory, Australia, Fitzroy, VIC

State/Territory health departments

- Communicable Disease Control Program, ACT Department of Health and Community Care, Canberra, ACT
- Area Health Services, NSW Health Department, North Sydney, NSW
- AIDS/STD Program, Disease Control, Department of Health, Darwin, NT
- Queensland Health, Brisbane, QLD
- Sexually Transmitted Diseases (STD) Services, Internal Medicine Service, Royal Adelaide Hospital, SA
- Department of Community and Health Services, Hobart, TAS
- STD/Blood-Borne Virus Program, Infectious Diseases Unit, Department of Human Services, Melbourne, VIC; The Macfarlane Burnet Institute for Medical Research and Public Health Limited, Prahran, VIC
- Communicable Diseases Control Branch, Department of Health, Perth, WA

Australian Gonococcal Surveillance Programme

Reference Laboratories:

- Microbiology Department, Canberra Hospital, Woden, ACT
- Department of Microbiology, SEALS, The Prince of Wales Hospital, Randwick, NSW
- Microbiology Laboratory, Royal Darwin Hospital, Casuarina, NT
- Queensland Health Scientific Services, Coopers Plains, QLD
- Infectious Diseases Laboratories, Institute of Medical and Veterinary Science, Adelaide, SA; Microbiology and Infectious Diseases Department, SA Pathology at Women's and Children's Hospital, North Adelaide, SA
- Department of Microbiology and Infectious Diseases, Royal Hobart Hospital, Hobart, TAS
- The Microbiological Diagnostic Unit, University of Melbourne, Parkville, VIC
- Department of Microbiology and Infectious Diseases, PathWest Laboratory Medicine, Royal Perth Hospital, Perth, WA

Collaborative group on sentinel surveillance in sexual health clinics

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

State/Territory Departments of Corrections

- ACT Corrective Services, Woden, ACT
- Justice Health, Matraville, NSW
- Northern Territory Correctional Services, Department of Justice, Darwin, NT
- Department of Corrective Services, Brisbane, QLD
- South Australian Prison Health Services, Adelaide, SA
- Corrective Services Division, Department of Justice, Hobart, TAS
- Department of Human Services, Melbourne, VIC
- Department of Corrective Services, Perth, WA

Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance

- Centre for Population Health, Burnet Institute, Melbourne, VIC
- National Centre in HIV Epidemiology and Clinical Research, The University of New South Wales, Sydney, NSW
- National Serology Reference Laboratory, Australia, Fitzroy, VIC
- Perinatal and Reproductive Epidemiology Research Unit, incorporating the National Perinatal Statistics Unit, The University of New South Wales, Sydney, NSW
- National Aboriginal Community Controlled Health Organisation, ACT
- Australian Government Department of Health and Ageing, Canberra, ACT

Contributing organisations

- Sexual Health and Family Planning, ACT
- Brindabella Family Practice, Queanbeyan; Charlestown Family Medical Services, Charlestown; Coffs Harbour Sexual Health Service, Coffs Harbour; Goulburn River Group Practice, Goulburn; Grafton Sexual Health Clinic, Grafton; Greater Southern Area Health Service; Holden Street Clinic, Gosford; Hunter New England Sexual Health Service; Illawarra Sexual Health, Wollongong; Kirketon Road Centre, Darlinghurst; Lismore/ Tweed Heads Sexual Health & AIDS Services, Lismore; Newcastle FPNSW Centre, Cooks Hill; North Sydney Medical Practice, North Sydney; Northern Sydney Sexual Health Service, St Leonards; Orange Sexual Health Service, Orange; Royal Prince Alfred Hospital Sexual Health, Camperdown; Short Street Sexual Health Clinic; St George Hospital, St George; Sydney Sexual Health Centre, Sydney; Sydney West Area Health Service – Clinical Sexual Health Services; NSW
- NT Sexual Health and BBV Unit; Family Planning NT, Coconut Grove; NT
- Cairns Sexual Health Services, Cairns Base Hospital, Cairns; Chancellor Park Family Medical Practice, Sippy Downs; Family Planning Queensland, Toowoomba; Gold Coast Sexual Health Clinic, Miami; Kewarra Family Practice, Kewarra Beach; Nambour Medical Centre, Nambour; Princess Alexandra Sexual Health, Princess Alexandra Hospital, Woolloongabba; Townsville Sexual Health Service, Townsville; QLD
- O'Brien Street Practice, Adelaide; Shine SA (Sexual Health Information Networking and Education Inc); SA
- Family Planning Tasmania, Hobart; Hobart, Devonport and Launceston Sexual Health Service; TAS
- Brighton Medical Clinic, Brighton; Family Planning Victoria, Box Hill; Footscray Medical Centre, Footscray; Genesis Medical Centre, Brighton; Melbourne Sexual Health Centre, Carlton; Mooroopna Medical Centre, Mooroopna; Wellness Centre Medical Clinic, Malvern East; VIC
- AK medical/dental Clinic, Kelmscott; Duncraig Medical Centre, Duncraig; Fremantle Hospital, Fremantle; Quarry Health Centre for under 25s, Fremantle; WA

Australian HIV Observational Database

- Tamworth Sexual Health Service, Tamworth Blue Mountains Sexual Health Clinic, Katoomba; Holdsworth House Medical Practice, Darlinghurst; Illawarra Sexual Health, Wollongong; Royal Prince Alfred Hospital Sexual Health, Camperdown; Macquarie Sexual Health Centre, Dubbo; Nepean Sexual Health and HIV Clinic, Penrith; Holden Street Clinic, Gosford; Lismore Sexual Health & AIDS Services, Lismore; St Vincent's Hospital, Darlinghurst, Sydney Sexual Health Centre, Sydney, Dr Ellis General Medical Practice, Coffs Harbour; Taylor Square Private Clini0063, Darlinghurst; East Sydney Doctors, Surry Hills; NSW
- Communicable Disease Centre, Royal Darwin Hospital, Darwin, NT
- AIDS Medical Unit, North Quay; Clinic 87, Sunshine Coast & Cooloola HIV Sexual Health Service, Nambour; Gladstone Road Medical Centre, Highgate Hill; Gold Coast Sexual Health Clinic, Miami; Cairns Sexual Health Services, Cairns Base Hospital, Cairns; QLD
- The Care and Prevention Program, Adelaide University, Adelaide, SA
- The Alfred Hospital, Prahran; Melbourne Sexual Health Centre, Carlton; Monash Medical Centre, Clayton; Prahran Market Clinic, South Yarra; The Centre Clinic, St Kilda; The Carlton Clinic, Carlton, VIC; Northside Clinic, Fitzroy North; VIC
- Department of Clinical Immunology, Royal Perth Hospital, Perth

Collaboration of Australian Needle and Syringe Programs

- Directions ACT; Canberra, ACT
- AIDS Council of NSW (Sydney and Hunter); Albury Community Health Centre, Albury; Central Coast NSP Services, Gosford and Long Jetty; First Step Program, Port Kembla and Nowra; Health ConneXions, Harm Reduction Program, Liverpool; Hunter Harm Reduction Services, Newcastle; Indo-Chinese Outreach Network (ICON) Bankstown, Cabramatta and Liverpool; Kirketon Road Centre and K2, Kings Cross; NSW Users and AIDS Association (NUAA), Surry Hills; Northern Rivers Area Health Service, Ballina, Byron Bay, Coffs Harbour, Grafton, Lismore, Murwillumbah, Nimbin, and Tweed Heads; Resource and Education Program for IDUs, Redfern and Canterbury; Responsive User Services in Health (RUSH), Manly, Ryde and St Leonards; St George NSP, Kogarah; South Court Primary Care NSP, Nepean; Sydney West Area Health Service HIV/Hepatitis C Prevention Service, Auburn, Blacktown, Merrylands, Mt Druitt and Parramatta; NSW
- Northern Territory AIDS and Hepatitis C Council, Alice Springs, Darwin and Palmerston, NT
- Biala Community Alcohol and Drug Services, Brisbane; Cairns ATODS NSP, Cairns; Queensland Injectors Health Network (QuIHN), Brisbane, Gold Coast and Sunshine Coast; Kobi House, Toowoomba; West Moreton Sexual Health Service, Ipswich; Townsville ATODS NSP; QLD
- Drug and Alcohol Services South Australia, Adelaide; Hindmarsh Centre, Hindmarsh; Nunkuwarrin Yunti Community Health Centre, Adelaide; South Australia Voice for Intravenous Education (SAVIVE): AIDS Council South Australia, Norwood; Parks Community Health Service, Adelaide; Port Adelaide Community Health Service, Port Adelaide; Noarlunga Community Health Service, Adelaide; Northern Metropolitan Community Health Service NSP and Shopfront, Salisbury; SA
- Clarence Community Health Centre, Clarence; Devonport Community Health Centre, Devonport; Salvation Army Launceston, Launceston; Tasmanian Council on AIDS, Hepatitis & Related Diseases (TasCAHRD), Hobart and Glenorchy; The Link Youth Health Service, Hobart; TAS
- Barwon Health Drug and Alcohol Services, Geelong; Bendigo NSP Services, Bendigo; Darebin Community Health Centre, Northcote; Health Information Exchange, St Kilda; Health Works, Footscray; Inner Space, Collingwood; North Richmond NSP, North Richmond; South East Alcohol and Drug Service, Dandenong; Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Melbourne; VIC
- WA AIDS Council Mobile Exchange, Perth; Western Australia Substance Users Association (WASUA), Perth and Bunbury; WA
- Centre for Immunology, St Vincent's Hospital, Sydney, NSW

Annual Surveillance Report 2009 Advisory Committee

- Dr Russell Waddell, Australasian Chapter of Sexual Health Medicine, Sydney, NSW
- Dr Anne Mijch, Australasian Society for HIV Medicine, NSW
- Phillip Keen, Australian Federation of AIDS Organisations, Sydney, NSW
- Kate Robinson, Australian Government Department of Health and Ageing, Canberra, ACT
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- Helen Tyrrell, Hepatitis Australia Canberra, ACT
- Dr Cindy Shannon, Indigenous Australians' Sexual Health Committee
- Tadgh McMahon, Multicultural HIV/AIDS and Hepatitis C Service, Sydney, NSW
- John Daye, National Association of People Living with HIV/AIDS, Sydney, NSW
- Dr Iryna Zablotska, National Centre in HIV Social Research, The University of New South Wales, Sydney, NSW
- Professor John Kaldor (Chair), Professor Basil Donovan, Professor Andrew Grulich, Associate Professor Lisa Maher, Associate Professor David Wilson, Ann McDonald, Melanie Middleton, Dr Handan Wand, James Ward, Dr Rachel Deacon, National Centre in HIV Epidemiology and Clinical Research

Summary

HIV/AIDS

- By 31 December 2008, 28 330 diagnoses of HIV infection, 10 348 diagnoses of AIDS and 6 765 deaths following AIDS had occurred in Australia. An estimated 17 444 people including 12 053 people aged 15 – 49 years were living with HIV infection in Australia at the end of 2008.
- Over the past 10 years, the number of new HIV diagnoses in Australia increased by 38% from 718 in 1999 to 995 in 2008.
- Trends in newly diagnosed HIV infection differed across State and Territory health jurisdictions. New South Wales recorded a stable population rate at around 5.9 per 100 000 population in 2004 – 2008 whereas the rate steadily increased in Queensland from 3.4 in 1999 to 4.7 in 2008. In Victoria, the rate increased from 2.8 in 1999 to 5.5 in 2006 and was stable at 5.3 in 2007 – 2008.
- Around 11% of cases of HIV infection newly diagnosed in Australia in 2008 had been previously diagnosed overseas.
- The annual number of diagnoses of newly acquired HIV infection increased from 171 in 1999 to 308 in 2006 and declined to 281 in 2008.
- HIV continued to be transmitted primarily through sexual contact between men.
- There was a similar *per capita* rate of HIV diagnosis in the Aboriginal and Torres Strait Islander and non-Indigenous populations. Higher proportions of cases were attributed to heterosexual contact and injecting drug use in the Aboriginal and Torres Strait Islander population.
- The *per capita* rate of HIV diagnosis in Australia in 2006 – 2008 was at more than eight times higher among people born in countries in sub-Saharan Africa than among Australian born people. In the past five years, 59% of cases of HIV infection attributed to heterosexual contact were in people who were from a high HIV prevalence country or whose sexual partner was from a high prevalence country.

Viral hepatitis

- The *per capita* rate of diagnosis of hepatitis C infection in Australia declined by 18% over the past five years to 53.2 per 100 000 population in 2008.
- At the end of 2008, an estimated 211 700 people were living in Australia with chronic hepatitis C infection, including 49 700 with moderate to severe liver disease.
- The reported number of diagnoses of newly acquired hepatitis C infection fluctuated between 456 and 381 in 2004 – 2008.
- Based on reported cases, hepatitis C transmission in Australia continued to occur predominantly among people with a recent history of injecting drug use. Similarly, reported cases of hepatitis B transmission were also attributed predominantly to injecting drug use.
- The proportion of people seen at needle and syringe programs who reported having injected drugs for three years or less was stable in 2004 – 2008 at around 5.3%. Within this group, hepatitis C prevalence ranged from 17% in 2005 to 27% in 2008.
- In 2008, chronic hepatitis B infection and chronic hepatitis C infection were the underlying causes of liver disease in 1.9% and 27.7% of liver transplants, respectively.
- An estimated 3 562 people with chronic hepatitis C infection were prescribed ribavirin and pegylated interferon combination treatment or pegylated interferon only in 2008.

Sexually transmissible infections other than HIV

- Chlamydia was the most frequently reported notifiable condition in Australia in 2008 with 58 456 reported diagnoses. The population rate of diagnosis of chlamydia in 2008 was 270 per 100 000 population, a 10% increase over the rate in 2007, continuing the increase seen over the past ten years.
- Results available through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS), a new surveillance system for monitoring testing and diagnoses of chlamydia, indicated increased testing rates among young heterosexual men and women seen at sexual health services, from 72.3% and 66.6% in 2004 to 80% and 77.4%, respectively, in 2008. The chlamydia positivity rate increased among young heterosexual men and women from 12.4% and 10.4%, respectively, in 2004 to 14.6% and 14.2%, respectively, in 2008.
- The population rate of diagnosis of gonorrhoea was stable in 2004 – 2008 at 36 per 100 000 population. The rate of diagnosis of infectious syphilis doubled from 3.1 in 2004 to 6.8 in 2007 and declined to 6.1 in 2008. These increases largely occurred among men who have sex with men.
- Substantially higher rates of diagnosis of chlamydia, gonorrhoea and infectious syphilis were recorded among Aboriginal and Torres Strait Islander people compared with non-Indigenous people.

Main Findings

HIV/AIDS

The annual number of new HIV diagnoses in Australia has plateaued over the past three years at around 1 000 cases, following a steady increase from 718 cases in 1999 (Figure 1).

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

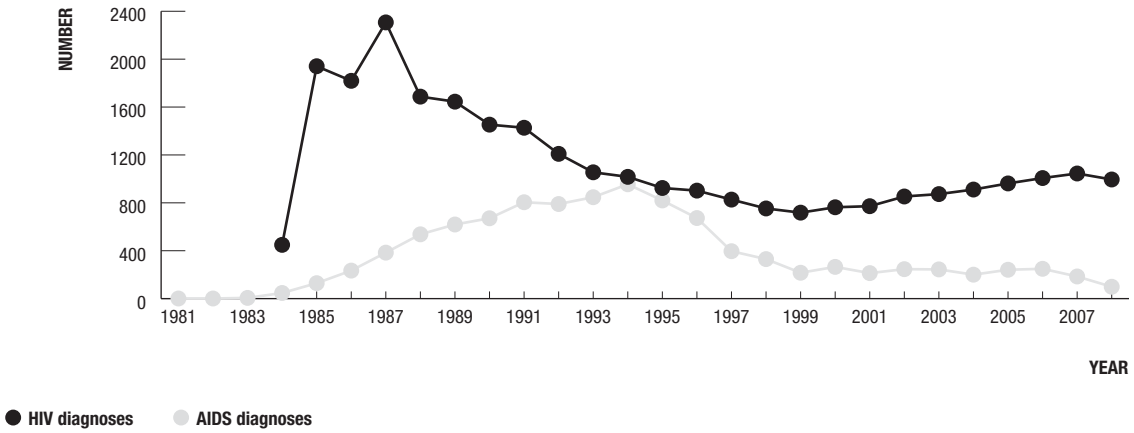
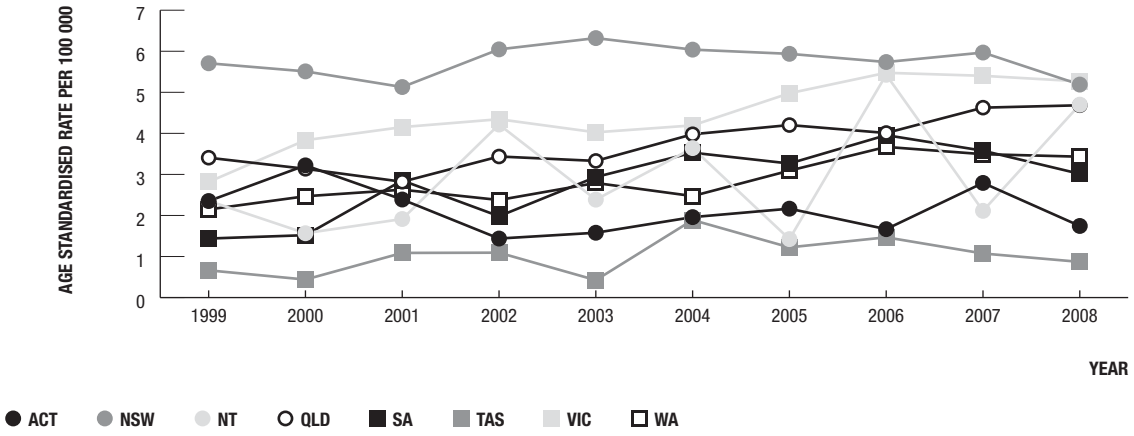


Figure 2 Newly diagnosed HIV infection, 1999 – 2008, by year and State/Territory



Recent trends in the population rate of newly diagnosed HIV infection have differed across Australia. In New South Wales, the rate of diagnosis per 100 000 population has remained relatively stable over the past decade, at around 5.7 in 1999 – 2003 and around 5.9 in 2004 – 2008 (Figure 2). The apparent decline in the rate in New South Wales in 2008 may be partly due to improved completeness of the information sought at notification of newly diagnosed HIV infection.

In Victoria, the population rate of HIV diagnosis almost doubled, from 2.8 in 1999 to around 5.5 in 2006 and remained stable at 5.3 in 2007 – 2008. The rate in Queensland increased steadily from 3.4 in 1999 to 4.7 in 2008. In South Australia and Western Australia, the rate increased from 1.4 and 2.1 in 1999 to 4.0 and 3.7 in 2006, and then declined to 3.0 and 3.4, respectively, in 2008. Of 995 cases of HIV infection newly diagnosed in Australia in 2008, 109 (11%) had been previously diagnosed overseas (Table 1.1.4). These cases have generally been included in past counts and are included in the count for 2008.

Figure 3 **Newly diagnosed HIV infection in Australia, including diagnoses of newly acquired HIV infection, by year**

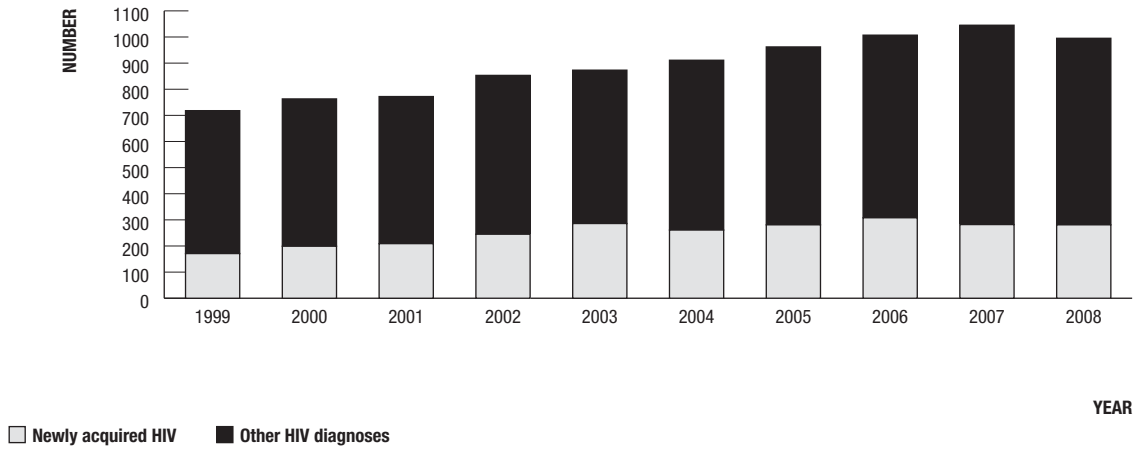
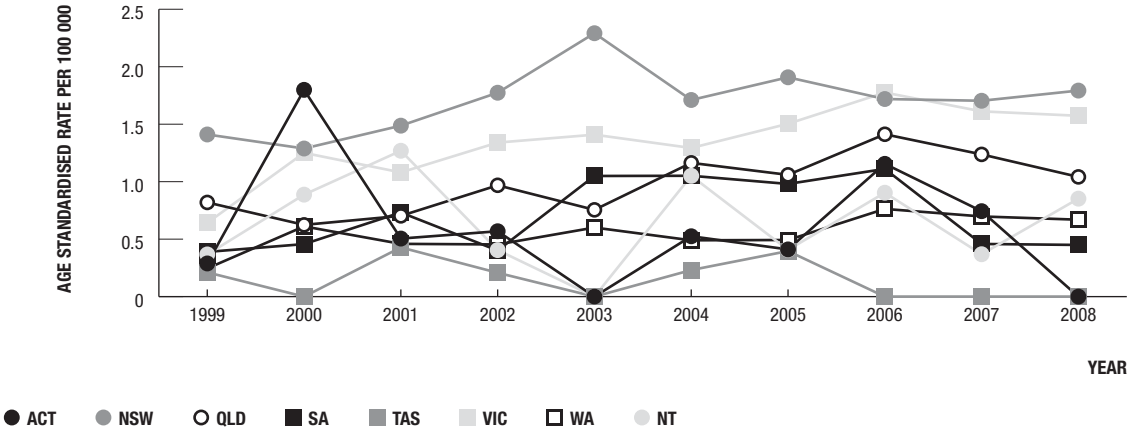


Figure 4 **Newly acquired HIV infection, 1999 – 2008, by year and State/Territory**



Among cases of newly diagnosed HIV infection, an increasing number were in people who had acquired HIV infection within the previous year (Figure 3). The population rate of diagnosis in this subgroup increased from 0.9 in 1999 to 1.5 in 2006 and declined to 1.3 in 2008. In New South Wales, the rate increased from 1.4 per 100 000 in 1999 to 2.3 in 2003 and was stable in 2004 – 2008 at 1.7 (Figure 4). A similar trend, with increasing rates of diagnosis of newly acquired HIV infection until 2006 followed by a stable or declining trend occurred in Queensland, South Australia, Victoria and Western Australia in 1999 – 2008.

The annual number of AIDS diagnoses in Australia has remained relatively stable in 2001 – 2007 at around 240, as a result of the wide availability of effective antiretroviral therapies (Figure 1).

Transmission of HIV in Australia continues to occur primarily through sexual contact between men (Figure 5). In 2004 – 2008, men who have sex with men accounted for 68% of cases of newly diagnosed HIV infection. Among cases of newly acquired HIV infection, exposure to HIV was attributed to sex between men in 86%, 1% was among women and heterosexual men who had injected drugs, a history of heterosexual contact only was reported in 10% and in 3%, exposure to HIV remained undetermined.

People born in Australia accounted for 58% of cases of HIV infection newly diagnosed in Australia in 2004 – 2008 (Table 1.1.5, Figure 6). The rate of HIV diagnosis among Australian born cases remained stable in 2003 – 2005 and in 2006 – 2008 at 4.1 per 100 000 population. Countries in sub-Saharan Africa, South East Asia, and South and Central America and the Caribbean were associated with the highest population rate of HIV diagnosis in Australia in the years from 2003 to 2008. Among cases of HIV infection newly diagnosed in the past five years, 9% were in people who reported speaking a language other than English at home.

In 2008, the estimated number of people living with HIV infection in Australia was 17 444 including 12 053 aged 15 – 49 years. Estimated HIV prevalence in Australia in 2008, of 123 per 100 000 population aged 15 – 49 years, was substantially lower than that in several European countries and in North America. Prevalence estimates among people aged 15 – 49 years were substantially higher in Cambodia, Myanmar, Thailand and Papua New Guinea.

Figure 5 **Newly diagnosed HIV infection and newly acquired HIV infection, 2004 – 2008, by exposure category**

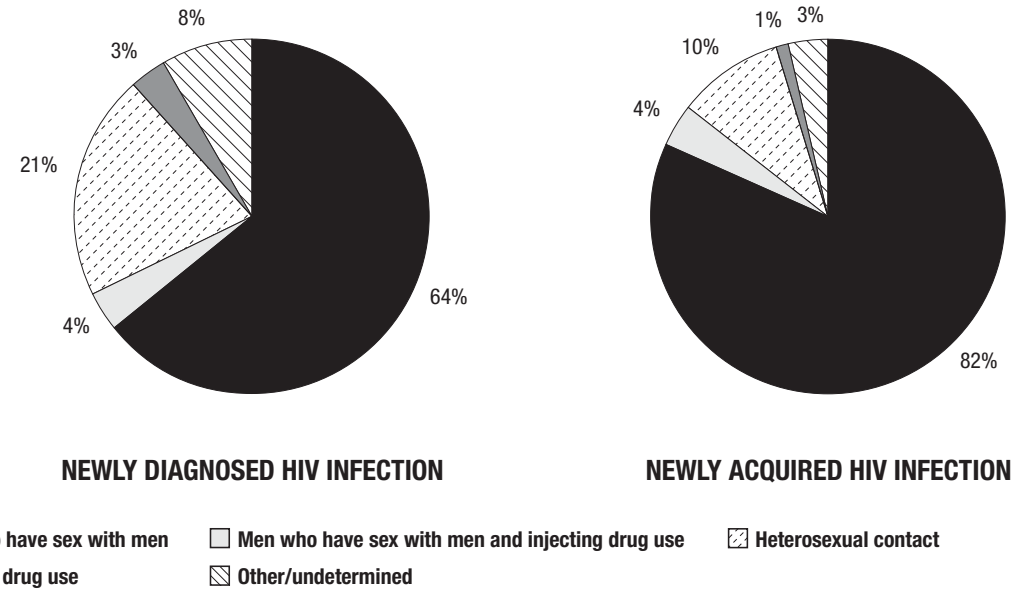


Figure 6 **HIV diagnoses in Australia, 2003 – 2008, by year and region of birth**

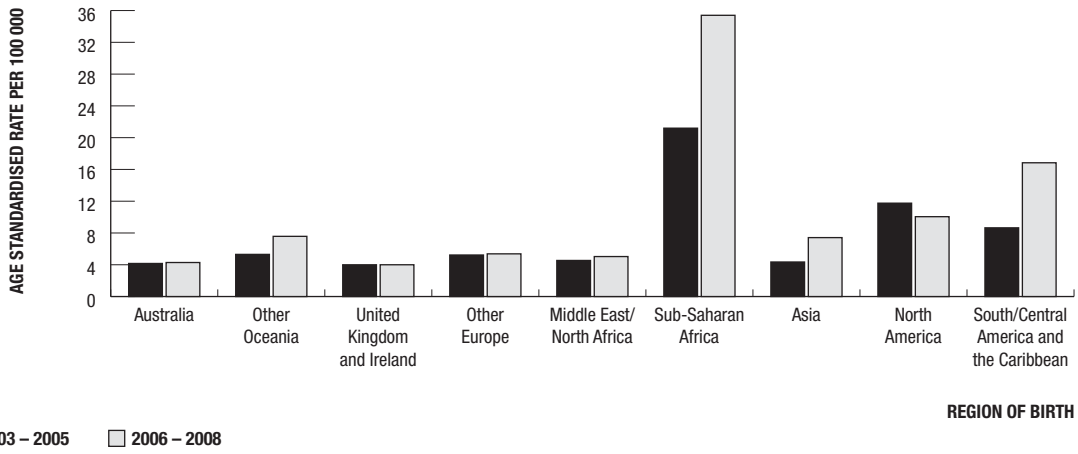
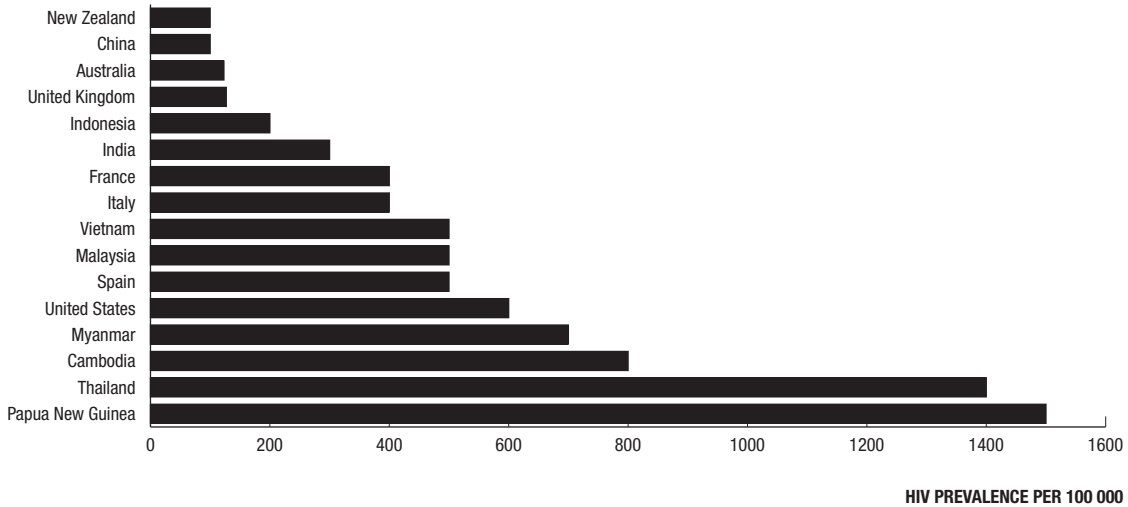


Figure 7 **HIV prevalence in the population aged 15 – 49 years in selected countries**



Viral hepatitis

The population rate of reported diagnoses of hepatitis A infection in Australia remained low over the past five years at 1.6 per 100 000 population or less in 2004 – 2008.

The population rate of diagnosis of newly acquired hepatitis B infection also remained low at 1.4 per 100 000 population or less in 2004 – 2008 (Figure 8). The rate of diagnosis of newly acquired hepatitis B infection declined among people aged 15 – 19 years and 20 – 29 years from 2001 and 2005 (Figure 9). Adolescent "catch up" vaccination programs may have played a role in this reduction by increasing vaccine coverage. The rate of diagnosis of newly acquired hepatitis B infection remained relatively stable among those aged 30 years or older.

Figure 8 **Newly acquired hepatitis B by year and sex**

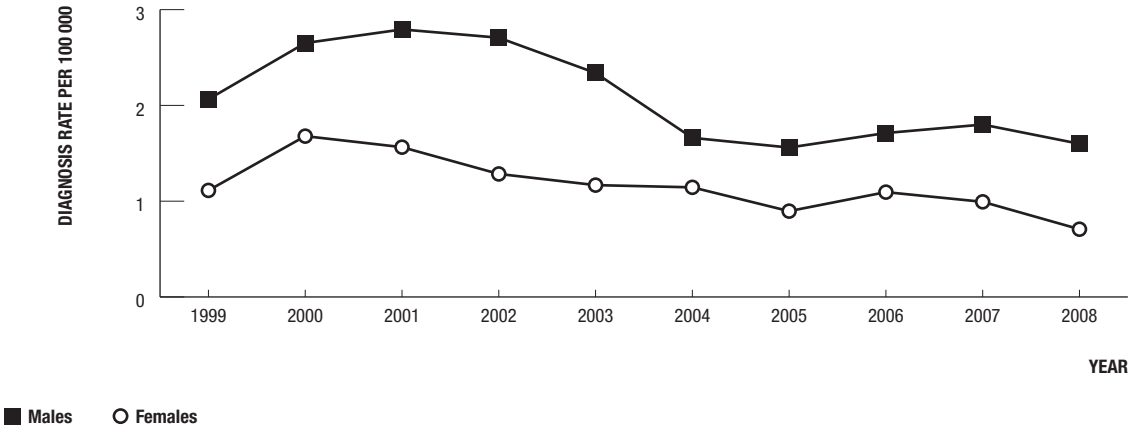
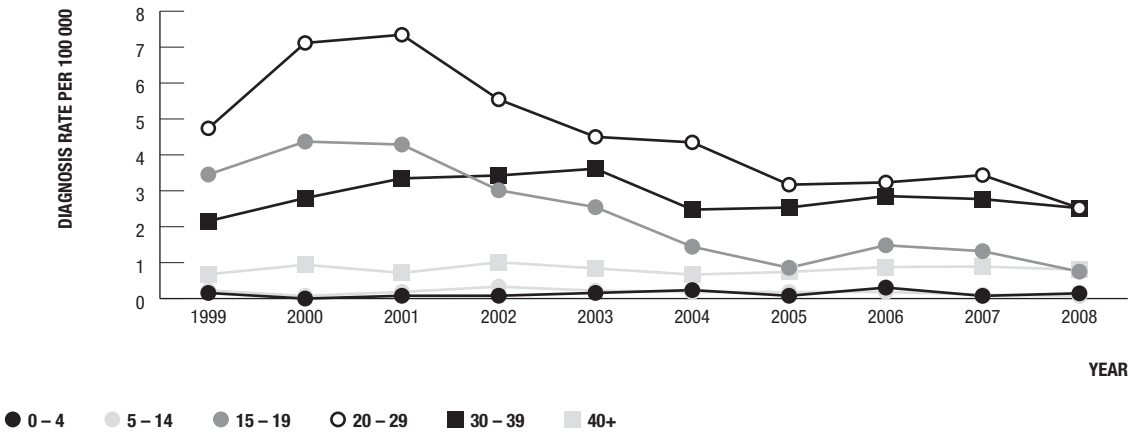


Figure 9 **Newly acquired hepatitis B infection by year and age group**



Information on the source of exposure to hepatitis B infection, reported through health authorities in the Australian Capital Territory, South Australia, Tasmania and Victoria, indicated that around half the cases were associated with injecting drug use, and this proportion remained stable in the years from 2004 to 2008. The proportion of diagnoses attributed to heterosexual contact declined from 21% in 2004 to 18% in 2008 and the source of exposure to hepatitis B was undetermined in around 20% of cases (Table 2.1.5).

The rate of diagnosis of hepatitis C infection per 100 000 population declined from 64.7 in 2004 to 53.2 in 2008. It declined by 62% in the 20 – 29 year age group and by 53% in the 30 – 39 year age group (Figure 10). In the 15 – 19 year age group, the rate of new hepatitis C diagnoses declined by 81% in 2004 – 2008. Mathematical modelling of the hepatitis C virus epidemic in Australia by the Hepatitis C Virus Projections Working Group (Razali *et al* 2007) suggested that the decrease in the rate of diagnosis was largely attributable to reductions in the prevalence of injecting drug use, but the possible contributions of reductions in risk behaviour related to drug injecting among young people or changes in the rates of testing cannot be excluded.

Figure 10 **Hepatitis C infection by year and age group**

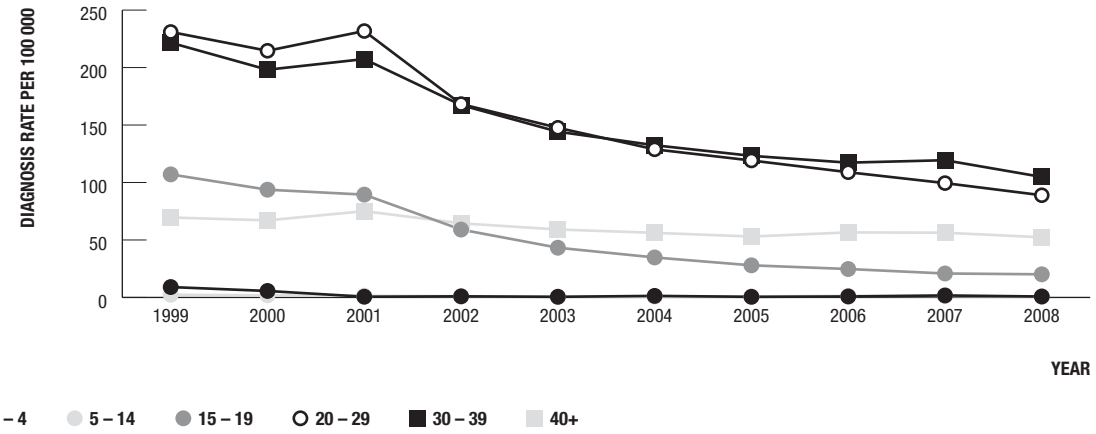


Figure 11 **Newly diagnosed hepatitis C and percent newly acquired by year**

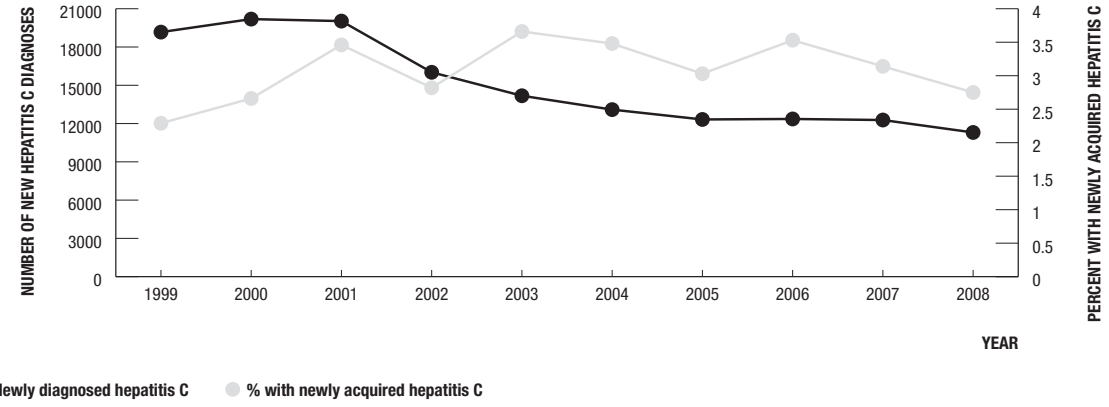
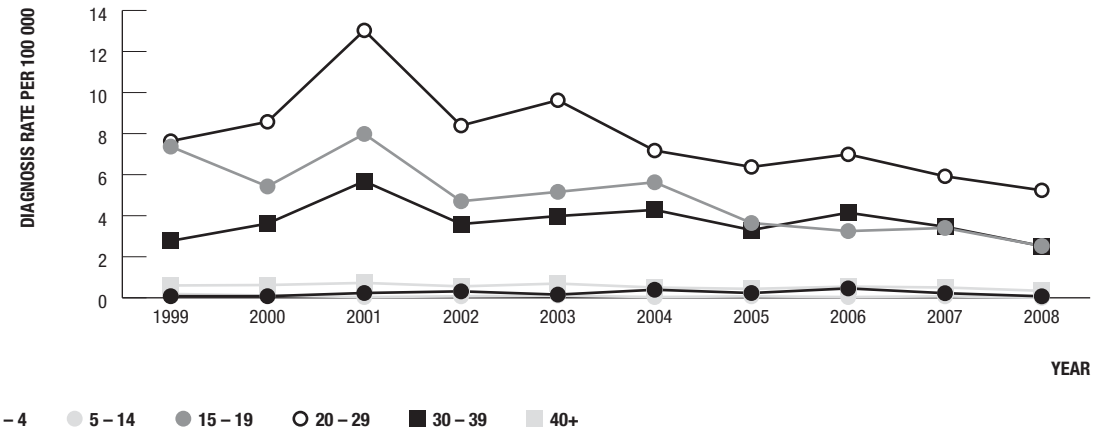


Figure 12 **Newly acquired hepatitis C by year and age group**



Around 3% of cases of hepatitis C infection diagnosed in 2004 – 2008 were documented as having been acquired within the previous two years (Figure 11). Reported hepatitis C transmission continued to occur at the highest rate among adults aged less than 30 years (Figure 12), primarily those with a history of injecting drug use (Table 2.1.11). Among people who inject drugs seen at the Kirketon Road Centre in Sydney, hepatitis C incidence declined from 8.9 per 100 person years in 2004 to 7.9 per 100 person years in 2008 (Table 4.3.1).

The vast majority of diagnoses of newly acquired hepatitis B infection and newly acquired hepatitis C infection occurred among Australian born people. The proportion of diagnoses of newly acquired hepatitis B infection among overseas born people was similar to their proportion of the Australian population whereas the proportion of diagnoses of newly acquired hepatitis C was substantially lower than their proportion in the Australian population (Table 2.1.6 and Table 2.1.12).

In 2008, an estimated 284 000 people living in Australia had been exposed to hepatitis C virus. Of these, 72 100 people were estimated to have cleared their infection, 162 000 had chronic hepatitis C infection and early liver disease (stage F0/1), 44 000 had chronic hepatitis C infection and moderate liver disease (stage F2/3), and 5 700 were living with hepatitis C related cirrhosis.

Hepatitis C prevalence in 2008 was more than 100 times lower among blood donors (0.01%) than the estimated prevalence of hepatitis C infection in the Australian population as a whole (1.1%) (Figure 37).

Sexually transmissible infections other than HIV

Chlamydia was the most frequently reported infection notified in Australia in 2008, with 58 456 newly diagnosed cases. Among males, the population rate of reported diagnoses per 100 000 population more than doubled, from 58.8 in 1999 to 124.8 in 2003 and almost doubled again to 221.9 in 2008. Among females, the rate of chlamydia diagnoses doubled from 89.5 in 1999 to 179.7 in 2003, and almost doubled again to 323.5 in 2008 (Figure 13).

Figure 13 Chlamydia by year and sex

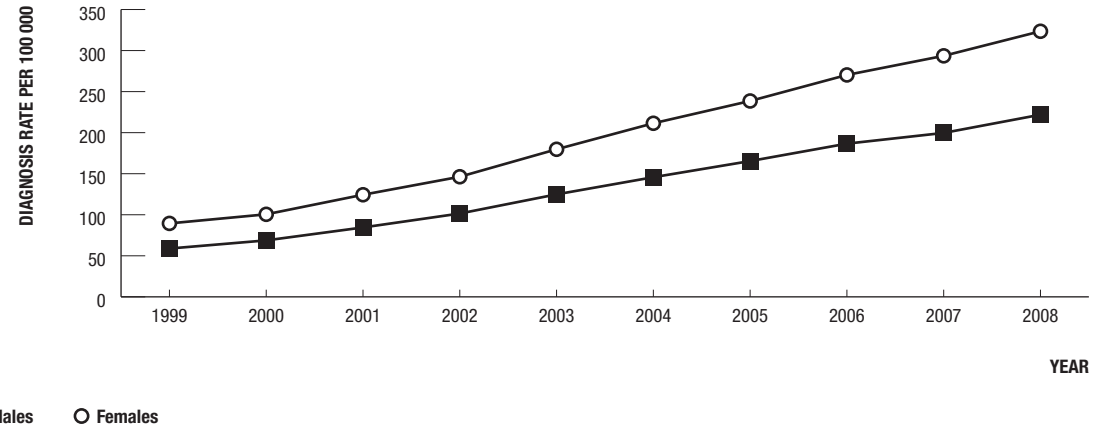
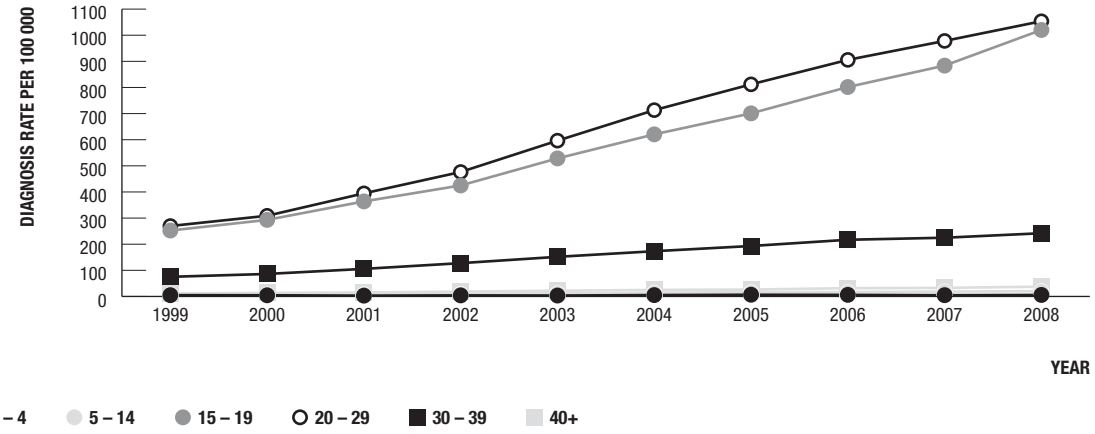


Figure 14 Chlamydia by year and age group



Increasing rates of diagnosis of chlamydia were reported in all States and Territories and were greatest in the 20 – 29 and 15 – 19 year age groups, which accounted for almost 80% of the annual number (Figure 14). In 2004 – 2008, the female to male sex ratio in the 15 – 19 year age group was 3.3:1 whereas in the 20 – 29 year age group it was 1.4:1. Age and sex specific patterns of diagnosis may have been influenced by differential testing rates.

Figure 15 Gonorrhoea by year and sex

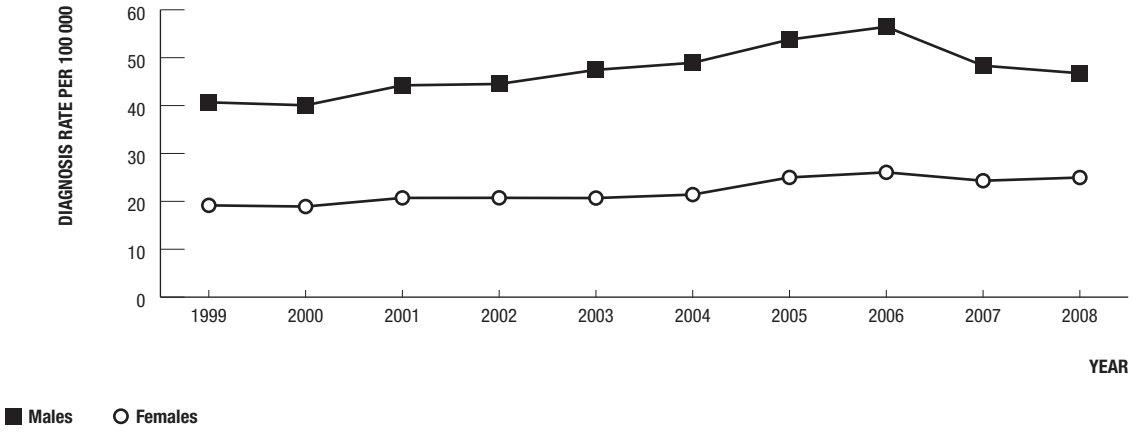
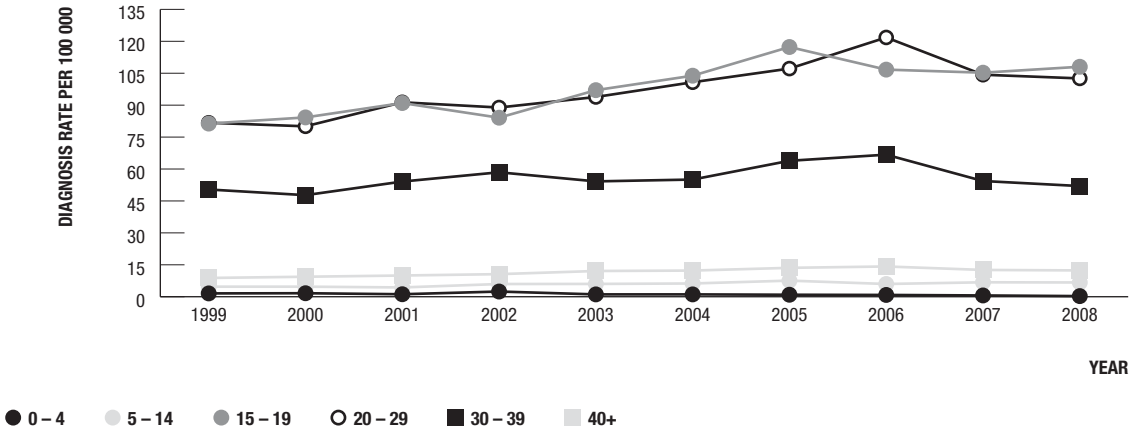


Figure 16 Gonorrhoea by year and age group



The population rate of diagnosis of gonorrhoea among males and females increased from 40.7 and 19.2, respectively, in 1999 to 56.4 (39% increase) and 26.1 (36% increase), respectively, in 2006 and then declined to 46.7 (17% decline) and 25 (4% decline) by 2008 (Figure 15). Substantial declines in the rate of gonorrhoea diagnosis occurred in New South Wales, the Northern Territory and Victoria, from 25.6, 745 and 24.2 in 2006 to 19.2, 623 and 17.5, respectively, in 2008, whereas in Queensland and South Australia the rate remained stable from 2006 to 2008. The decline in the rate of diagnosis occurred first in the age group 15 – 19 years in 2006 and was followed in 2007 by a decline in the 20 – 29 and 30 – 39 year age groups (Figure 16).

Figure 17 Infectious syphilis by year and sex

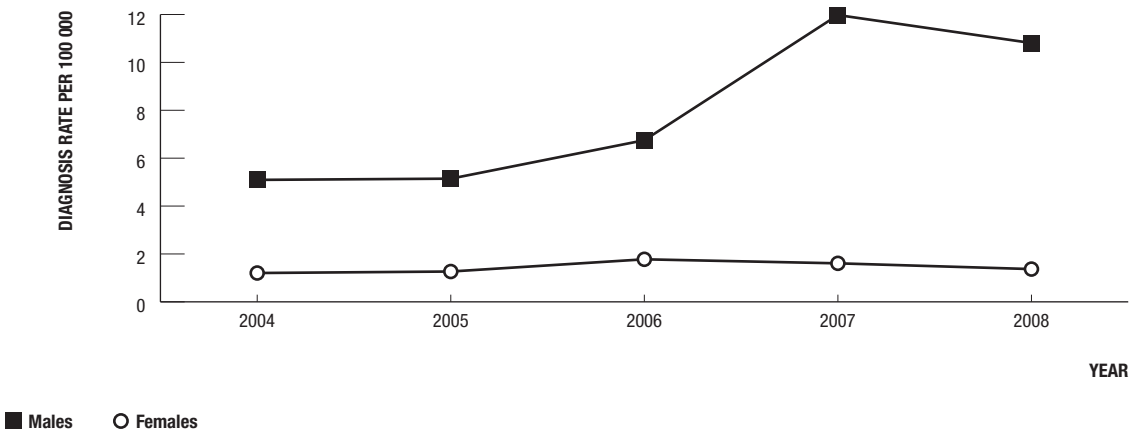
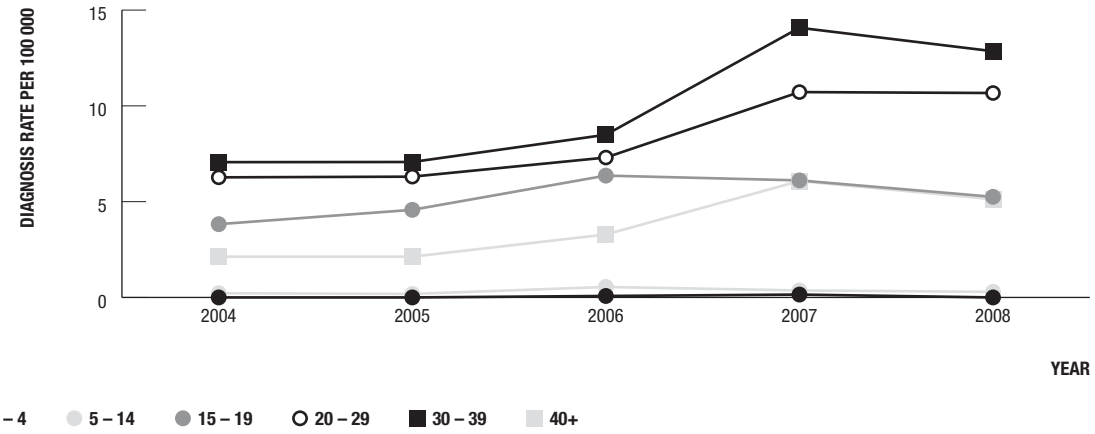


Figure 18 Infectious syphilis by year and age group



The population rate of diagnosis of infectious syphilis reached a peak of 6.8 in 2007 and then declined in 2008 in all jurisdictions other than Western Australia. From 2004 to 2008, the rate of diagnosis of infectious syphilis increased by 37% in the age group 15 – 19 years, by 70% in the 20 – 29 year age group, by 82% in the 30 – 39 year age group and more than doubled in the 40 – 49 year age group (Figure 18). The increases occurred in all jurisdictions and were almost completely confined to men who have sex with men.

The rates of notification of chlamydia, gonorrhoea and infectious syphilis in the Northern Territory continue to be substantially higher than those in other State/Territories. The continuing decline in the number of diagnoses of donovanosis, from 10 in 2004 to 2 in 2008, may be a consequence of improved case ascertainment and treatment.

HIV, viral hepatitis and sexually transmissible infections in selected populations

Population groups regarded as priorities for prevention and health promotion activities under the national strategies for HIV/AIDS, hepatitis C, sexually transmissible infections (STI) and the National Aboriginal and Torres Strait Islander Sexual Health and Blood Borne Virus Strategy, include men who have sex with men, Aboriginal and Torres Strait Islander people and people who have injected drugs. These population groups were identified as priority groups because they are recognised as either experiencing ongoing HIV, hepatitis C or STI transmission or having the potential for increases in transmission.

Men who have sex with men

Men who have sex with men continue to make up the majority of people with diagnosed HIV infection in Australia. The overall number of new HIV diagnoses in this category was 2 719 and 3 302, including 963 (35.4%) and 1 212 (36.7%) diagnoses of newly acquired HIV infection in 1999 – 2003 and 2004 – 2008, respectively. Sexual transmission between men accounted for a higher proportion of diagnoses of newly acquired HIV infection (90%) than total HIV diagnoses (77%) in 2008. This difference may partly reflect higher levels of HIV antibody testing among men who have sex with men.

Among men who have sex with men seen at metropolitan sexual health clinics, the percentage with newly acquired HIV infection was relatively stable, both in those aged less than 25 years and in those aged 25 years or older (Figure 19).

The Gay Community Periodic Survey indicated that the proportion of Sydney respondents who reported unprotected anal intercourse with casual partners peaked in 2001 at 25.7% and then steadily declined to a plateau of 19% by 2007 – 2008 (Figure 20). The same surveys carried out in Brisbane, Melbourne and Perth indicated that the level of unsafe sexual behaviour reported by men who have sex with men had plateaued at around 25%, 20% and 20%, respectively, in 2007 – 2008.

Figure 19 **Newly acquired HIV infection among men who have sex with men seen at sexual health clinics by year and age group**

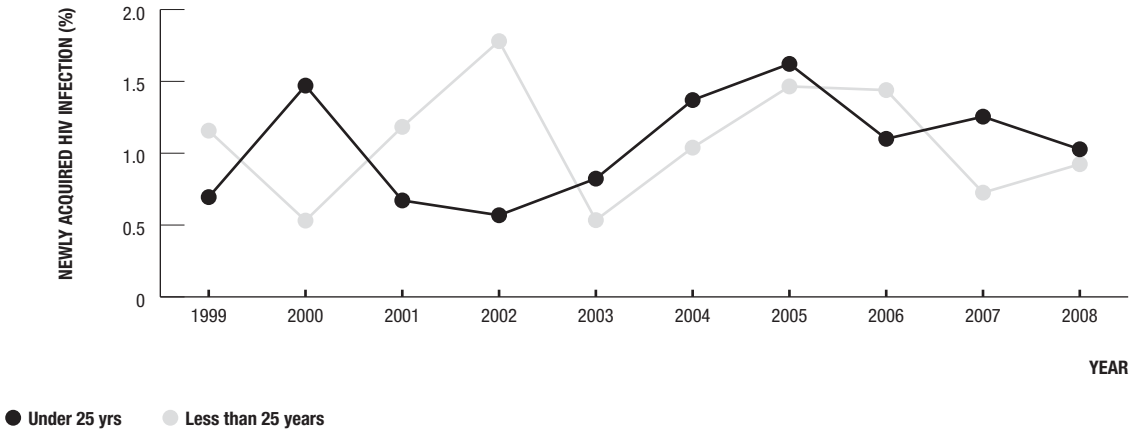


Figure 20 **Prevalence of unprotected anal intercourse with casual partners reported by men in Gay Community Periodic Surveys**

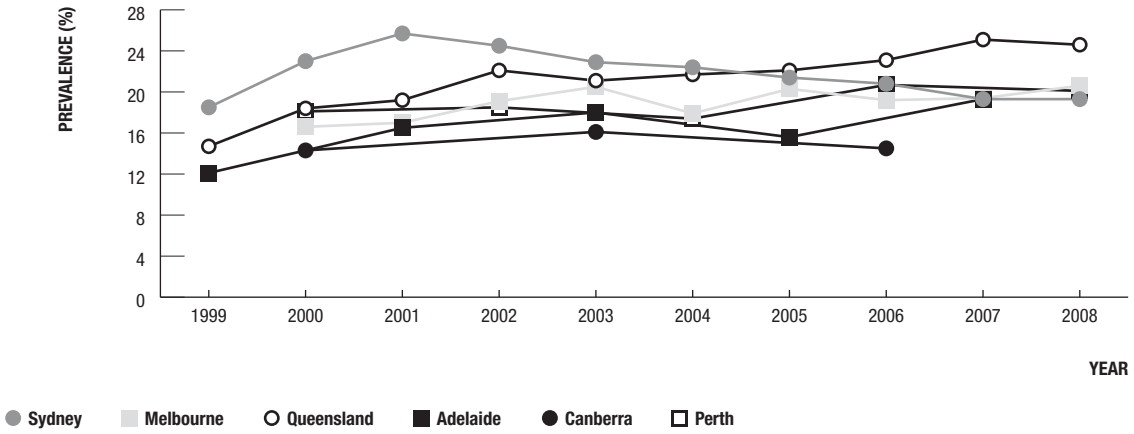
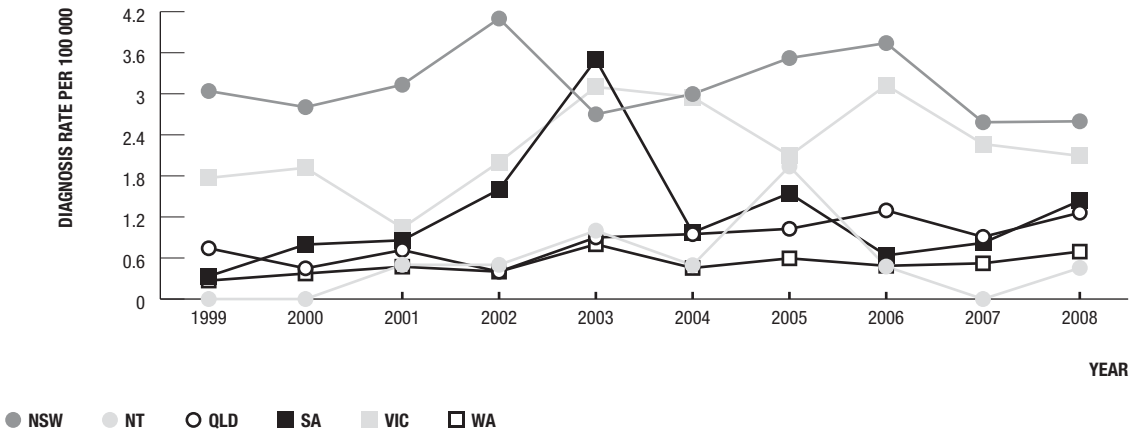


Figure 21 **Gonococcal rectal isolates among men reported to the Australian Gonococcal Surveillance Programme, by State/Territory and year**



Surveillance data for gonorrhoea also provide an indication of unsafe sexual behaviour among men who have sex with men in Australia. The rate of rectal gonococcal isolates among men in New South Wales was relatively stable at around 3.0 per 100 000 population in 1999 – 2004, increased to 3.7 in 2006 and then declined to 2.6 in 2008. In Victoria, the rate peaked in 2003 – 2004 at around 3.0 and then declined to around 2.4 in 2008 (Figure 21).

Aboriginal and Torres Strait Islander people

The rates of HIV diagnosis *per capita* in the Aboriginal and Torres Strait Islander and non-Indigenous populations differed little in 1999 – 2008 (Figure 22). In the Aboriginal and Torres Strait Islander population, the rate of HIV diagnosis increased from 2.2 in 1999 to 6.5 in 2002 and then declined to around 3.7 in 2005 – 2008. In the non-Indigenous population, the rate increased steadily from 3.6 per 100 000 population in 1999 to 5.0 in 2007 and declined to 4.8 in 2008. The recent trends in the rates of HIV diagnoses in the Aboriginal and Torres Strait Islander population are based on small numbers and may reflect localised occurrences rather than national patterns (see Tables 1.4.1 – 1.4.2).

Figure 22 Newly diagnosed HIV infection, 1999 – 2008, by Aboriginal and Torres Strait Islander status and year

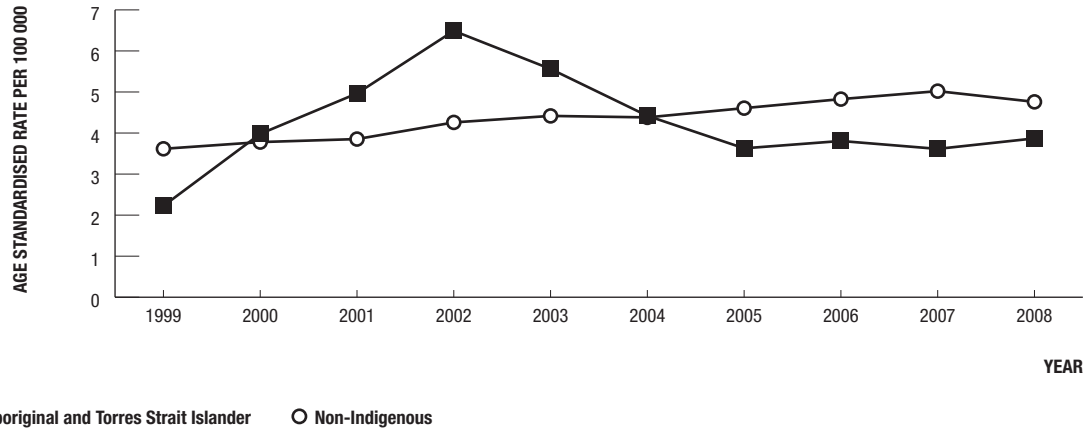
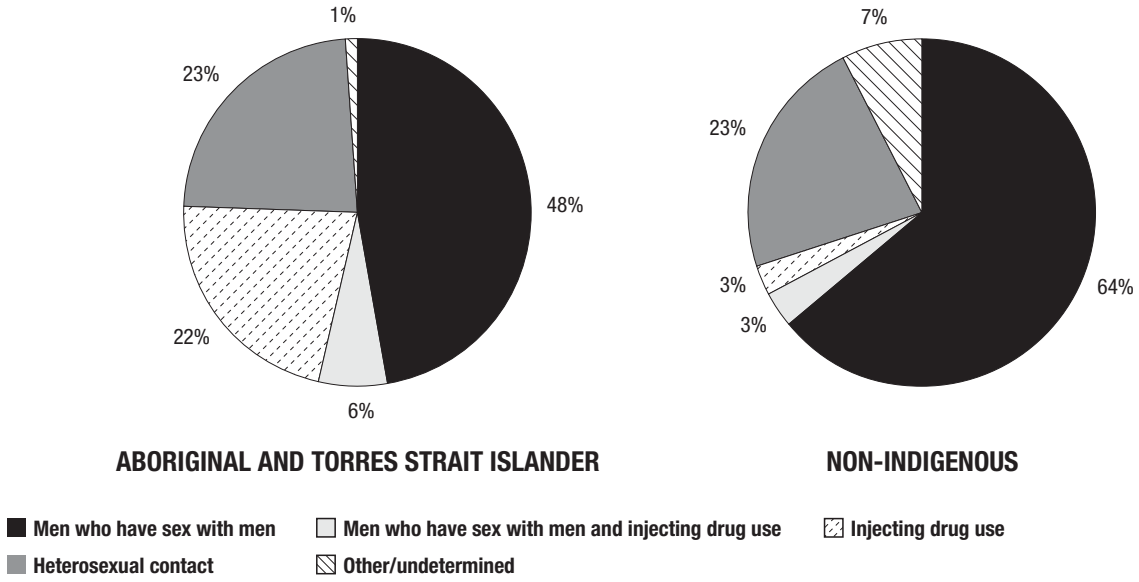


Figure 23 HIV diagnoses, 2004 – 2008, by Aboriginal and Torres Strait Islander status and HIV exposure category



In 2004 – 2008, the most frequently reported route of HIV transmission was sexual contact between men in both the non-Indigenous population (67%) and in the Aboriginal and Torres Strait Islander population (54%). Heterosexual contact was the reported source of exposure to HIV in 23% of cases in both the Aboriginal and Torres Strait Islander population and in the non-Indigenous population (Figure 23). Aboriginal and Torres Strait Islander cases differed from non-Indigenous cases in that a higher proportion of infections were attributed to injecting drug use (22% among Aboriginal and Torres Strait Islander cases vs 3% for non-Indigenous cases), and a higher proportion of infections were among women (26.9% among Aboriginal and Torres Strait Islander cases vs 11.6% for non-Indigenous cases).

The population rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population in the Northern Territory was less than half of that in the non-Indigenous population in 2004 – 2008. In Western Australia, the rate in the Aboriginal and Torres Strait Islander population was between two and four times higher than in the non-Indigenous population. The rate of diagnosis of hepatitis C in the Aboriginal and Torres Strait Islander population in South Australia steadily declined from 385 per 100 000 population in 2004 to 172 in 2008 whereas the rate in the non-Indigenous population remained stable.

Figure 24 Hepatitis C infection by Aboriginal and Torres Strait Islander status, State/Territory and year

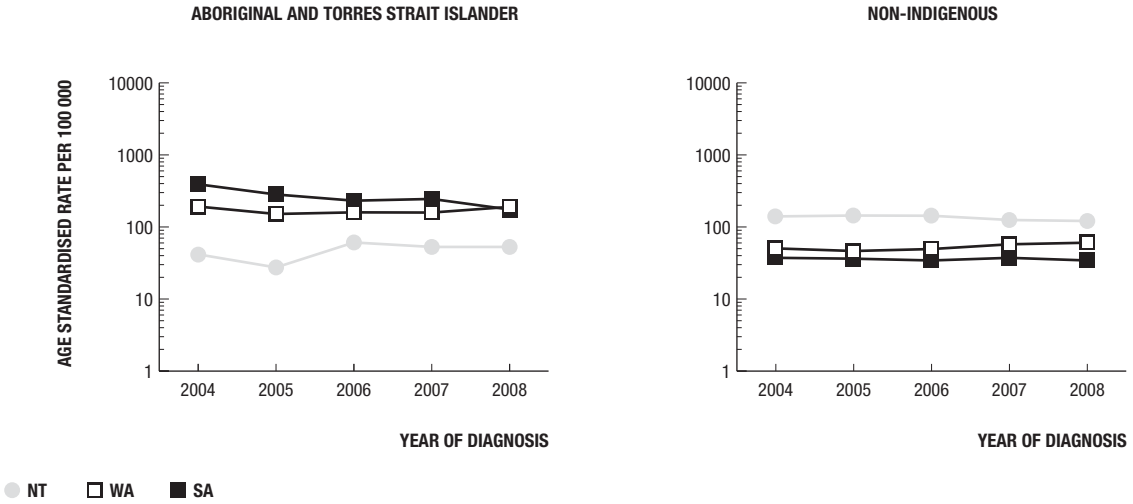
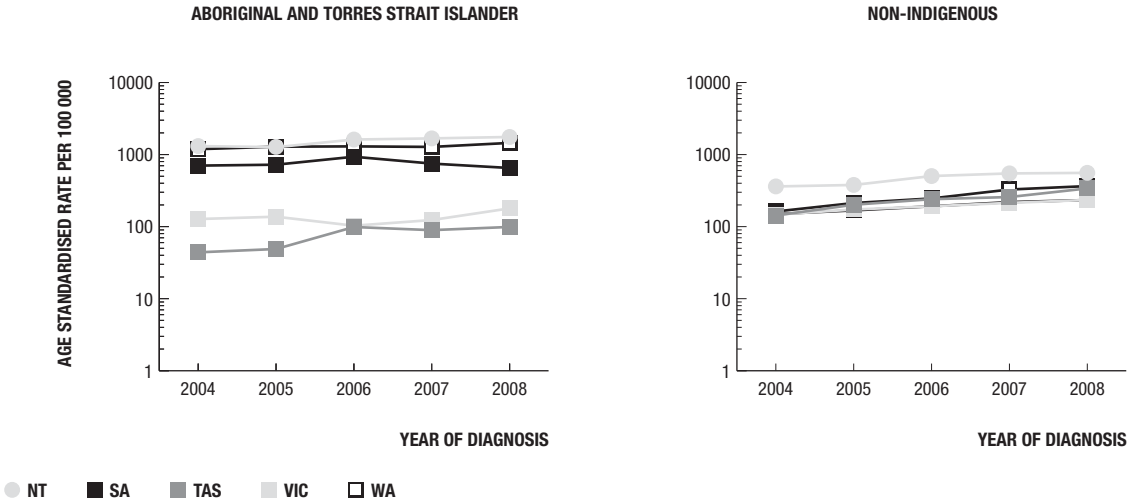


Figure 25 Chlamydia by Aboriginal and Torres Strait Islander status, State/Territory and year



The rate of diagnosis of chlamydia increased in both the Aboriginal and Torres Strait Islander and the non-Indigenous population in 2004 – 2008. In South Australia, the rate in the Aboriginal and Torres Strait Islander population dropped substantially from 932 in 2006 to 646 in 2008 whereas the rate increased in the non-Indigenous population (Figure 25).

The rate of diagnosis of gonorrhoea in the Aboriginal and Torres Strait Islander population resident in State/Territory health jurisdictions other than the Australian Capital Territory and New South Wales increased from 713 in 2004 to 908 in 2006 and then declined to 806 in 2008 (Figures 26).

Figure 26 Gonorrhoea by Aboriginal and Torres Strait Islander status, State/Territory and year

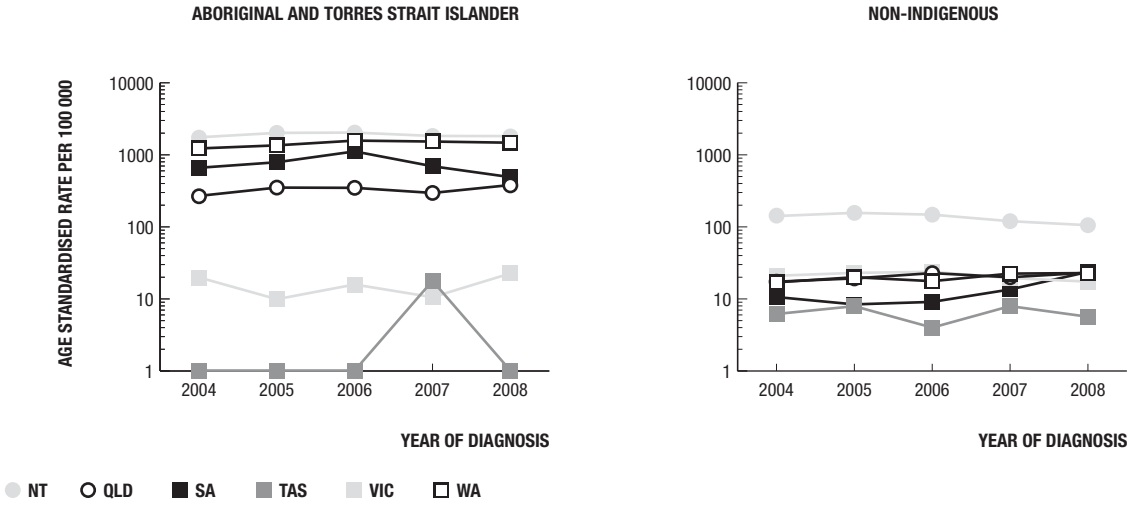
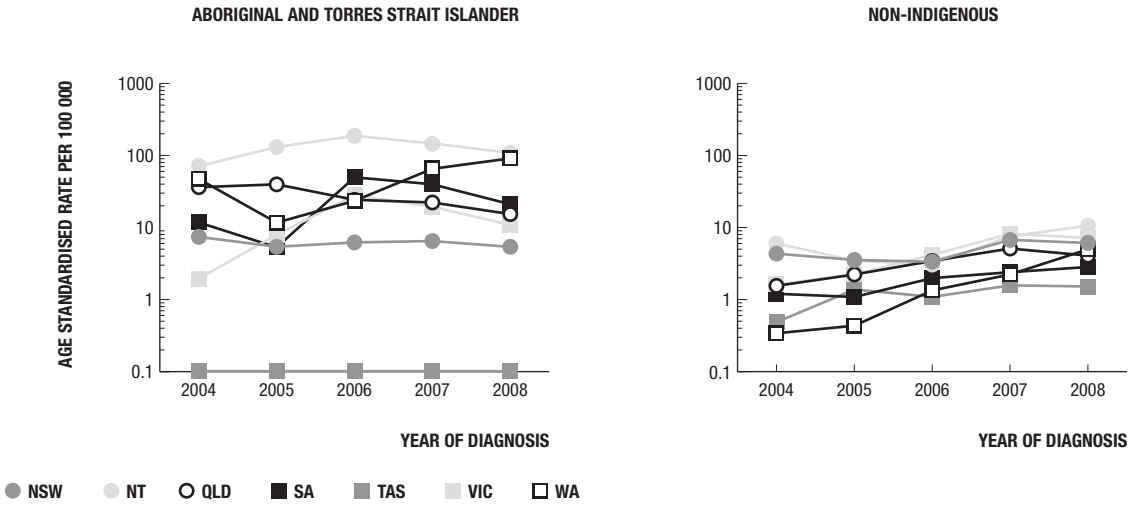


Figure 27 Infectious syphilis by Aboriginal and Torres Strait Islander status, State/Territory and year

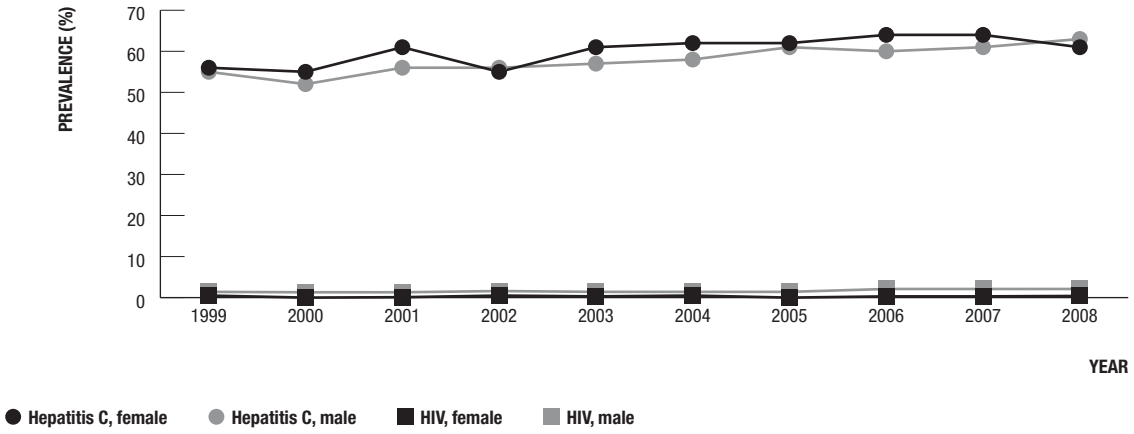


In the Aboriginal and Torres Strait Islander population, the rate of diagnosis of infectious syphilis increased from 29 in 2004 to 40 in 2006 and declined to 31 in 2008 whereas the rate increased in the non-Indigenous population from 2 in 2004 to 6 in 2008 (Figure 27). The pattern of a peak in diagnoses of infectious syphilis in 2006 followed by a decline occurred in the Northern Territory, South Australia and Victoria. In New South Wales and Queensland, the rate of infectious syphilis in the Aboriginal and Torres Strait Islander population declined steadily in 2004 – 2008. The rate of diagnosis of infectious syphilis increased in the Aboriginal and Torres Strait Islander population in Western Australia, from 12 in 2005 to 90 in 2008 and in the non-Indigenous population, from 0 in 2005 to 5 in 2008.

People who have injected drugs

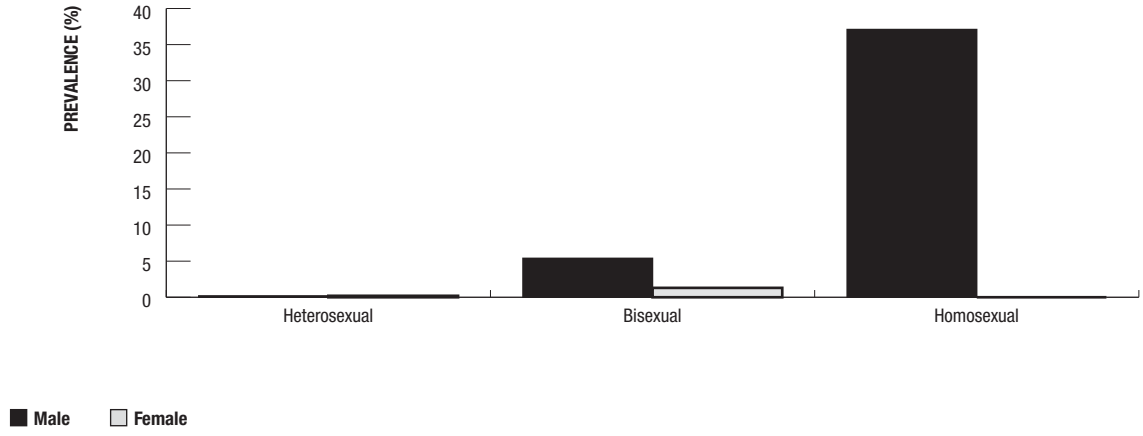
In 1999 – 2008, approximately 8% of HIV diagnoses in Australia were in people with a history of injecting drug use, of whom more than half were men who have sex with men.

Figure 28 HIV and hepatitis C prevalence in needle and syringe programs by year and sex



HIV prevalence among people attending needle and syringe programs has remained low (around 1% in 1999 – 2008) (Figure 28) but in the subgroup of men who identified as homosexual, it was 37% in 2008 (Figure 29). Of 670 men and 475 women with a history of injecting drug use who were tested for HIV antibody at metropolitan sexual health centres in 2007 – 2008, one male (0.1%) and two women (0.4%) were diagnosed with HIV infection (Figures 35 and 36).

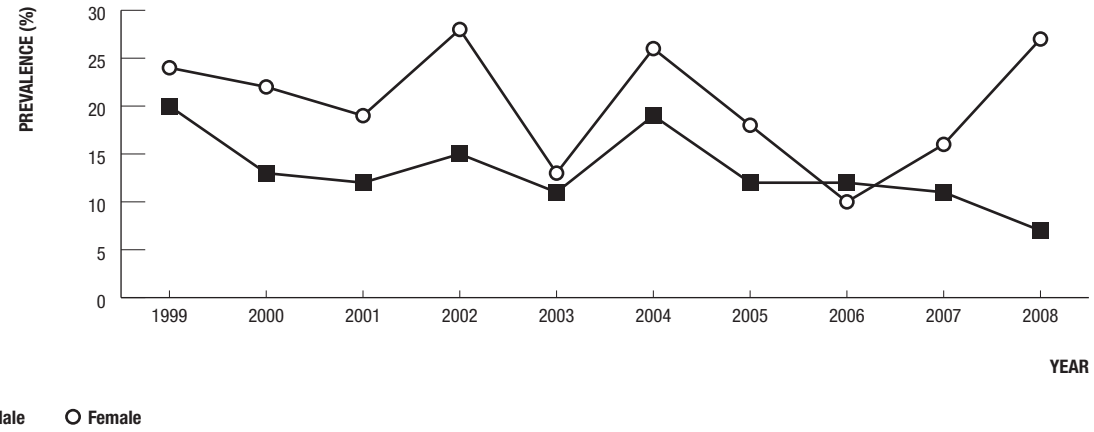
Figure 29 HIV prevalence in people seen at needle and syringe programs, 2008, by sexual identity



In contrast to the low HIV prevalence, hepatitis C prevalence among people attending needle and syringe programs remained at high levels in 1999 – 2008 (Figure 28).

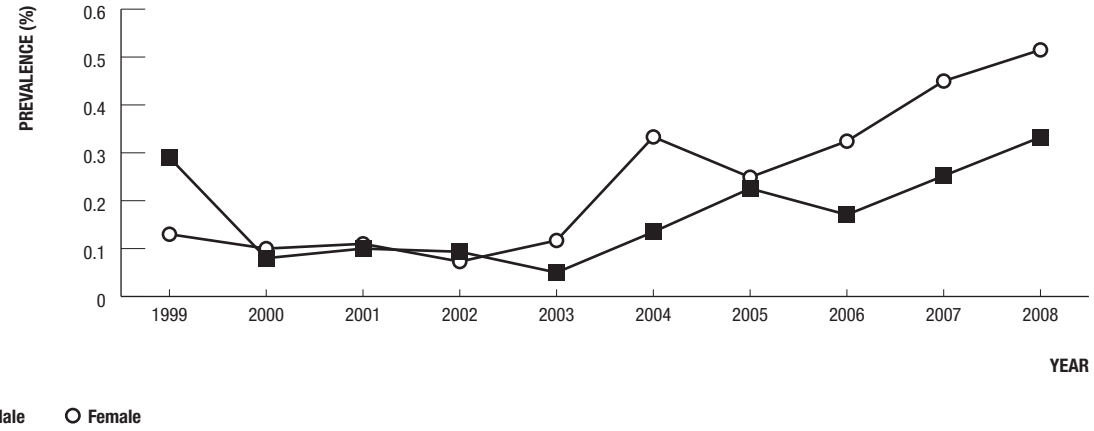
The number (percent) of people attending needle and syringe programs who reported having injected drugs for three years or less declined from 135 (7.4%) in 2004 to 112 (5.2%) in 2008; hepatitis C prevalence among these people remained stable at around 25%. The fluctuations in the prevalence of reported sharing of injecting equipment among women with a history of injecting drug use of less than three years may be attributable to the relatively small number of women with a short duration of injecting drug use (Figure 30). The decline in the number of people in the survey who reported having injected drugs for three years or less and the decline in the number of survey respondents aged less than 20 years (from 64 in 2004 to 37 in 2008), suggests that there has been a fall in the prevalence of injecting drug use among young people.

Figure 30 Prevalence of sharing among people[1] seen at needle and syringe programs, by year and sex



1 With a history of injecting drug use of less than 3 years.

Figure 31 HIV prevalence in prison entrants by year and sex



HIV prevalence among people entering Australian prisons in 1999 – 2008 has remained low, at levels of less than 0.5% (Figure 31). Prevalence increased in 2004 – 2008 in both males and females, due primarily to increases in the number of HIV diagnoses in prison entrants in New South Wales.

Heterosexual transmission of HIV infection

The number of new HIV diagnoses for which exposure to HIV was attributed to heterosexual contact increased from 781 in 1999 – 2003 to 1 104 in 2004 – 2008, accounting for 19.6% and 22.4% of total HIV diagnoses in 1999 – 2003 and in 2004 – 2008, respectively.

Men and women who came from a country with high HIV prevalence accounted for 36% and 40% of HIV diagnoses attributed to heterosexual contact in 1999 – 2003 and 2004 – 2008, respectively. In both five year intervals, the majority of cases came from high HIV prevalence countries in sub-Saharan Africa (63% and 60%) and South East Asia (33% and 27%). The proportion of cases from high prevalence countries that were among women increased from 56% in 1999 – 2003 to 62% in 2004 – 2008. The increasing number of diagnoses among women from high prevalence countries resulted in a 70% increase in women in this category in New South Wales, a 90% increase in Queensland, a 71% increase in South Australia, a 59% increase in Victoria, a 95% increase in Western Australia and a 75% increase in Australia in 2004 – 2008 over the numbers in the previous five years.

Figure 32 **Newly diagnosed HIV infection among men who report an exposure other than sex with men, by year and exposure category**

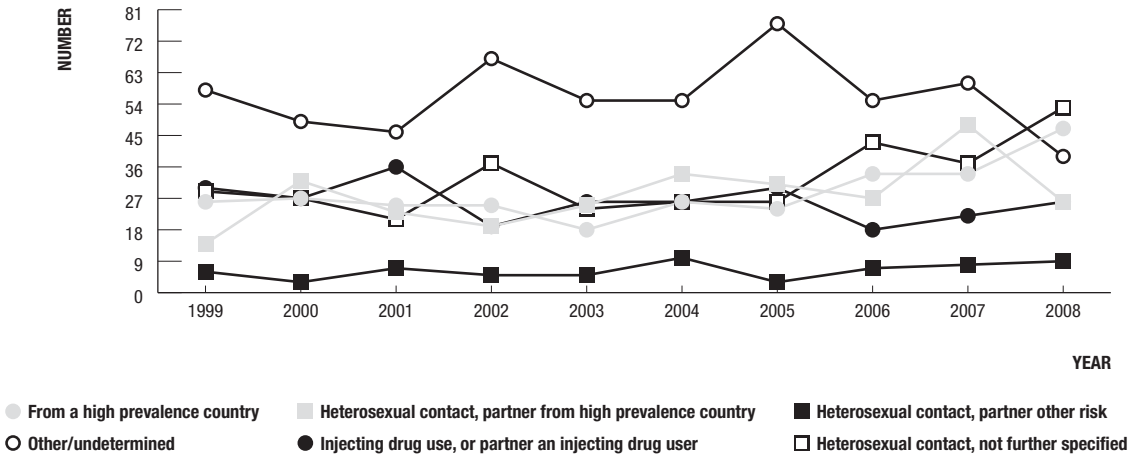
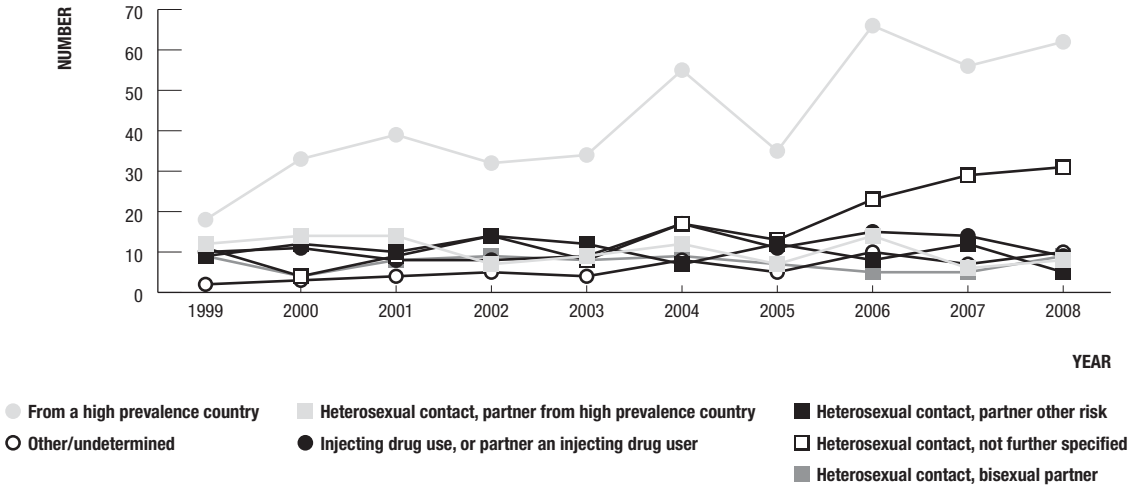


Figure 33 **Newly diagnosed HIV infection among women, by year and HIV exposure category**



Excluding cases from a high prevalence country, there was a 32% increase in the number of new HIV diagnoses attributed to heterosexual contact in 2004 – 2008 over the numbers diagnosed in 1999 – 2003, including a 39% increase among men and a 22% increase among women. Men with HIV infection who reported a partner from a high prevalence country accounted for 41% and 40% of new HIV diagnoses, and women accounted for 18% and 26% of new diagnoses, in 1999 – 2003 and 2004 – 2008, respectively. Of new HIV diagnoses in 2004 – 2008 for which the country of birth of the heterosexual partner was reported (66%), 64% and 30% of partners were from South East Asia and sub-Saharan Africa, respectively. Heterosexual contact, not further specified, was reported in 36% of cases attributed to heterosexual contact in 1999 – 2003 and 45% in 2004 – 2008. Among men whose exposure to HIV was attributed to heterosexual contact, a partner at risk of HIV infection was not reported in 48% of diagnoses in 1999 – 2003 and 46% of diagnoses in 2004 – 2008. The source of exposure to HIV remained undetermined for substantial numbers of men in 1999 – 2008 (Figure 32).

Among cases of HIV infection diagnosed in Australia in 2004 – 2008 and attributed to heterosexual contact, country of birth was reported as Australia in 35%, sub-Saharan Africa in 27% and South East Asia in 20% (Figure 34).

Figure 34 **HIV infection attributed to heterosexual contact, 2004 – 2008, by region of birth**

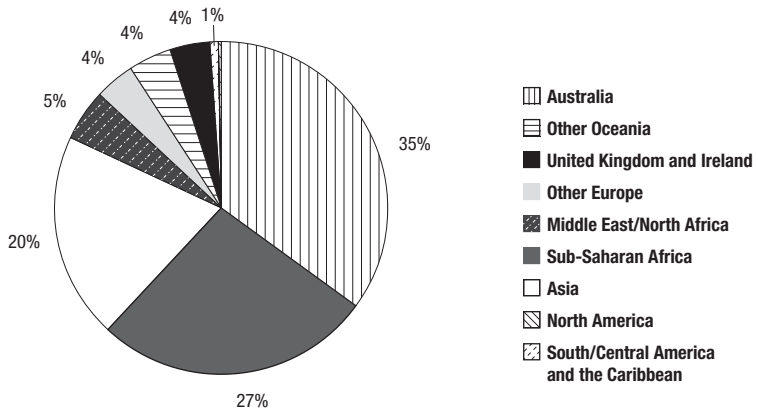


Figure 35 **HIV prevalence among heterosexually active men seen at sexual health clinics by year and HIV exposure category**

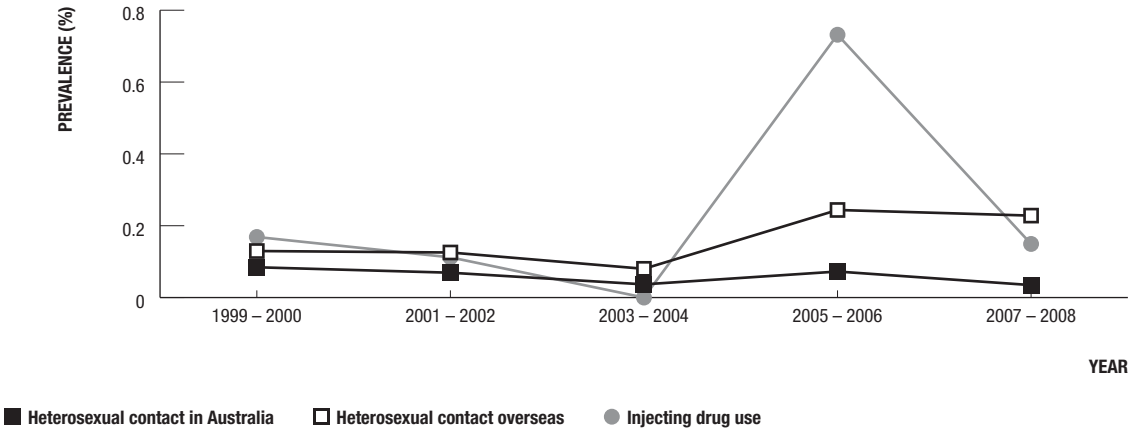
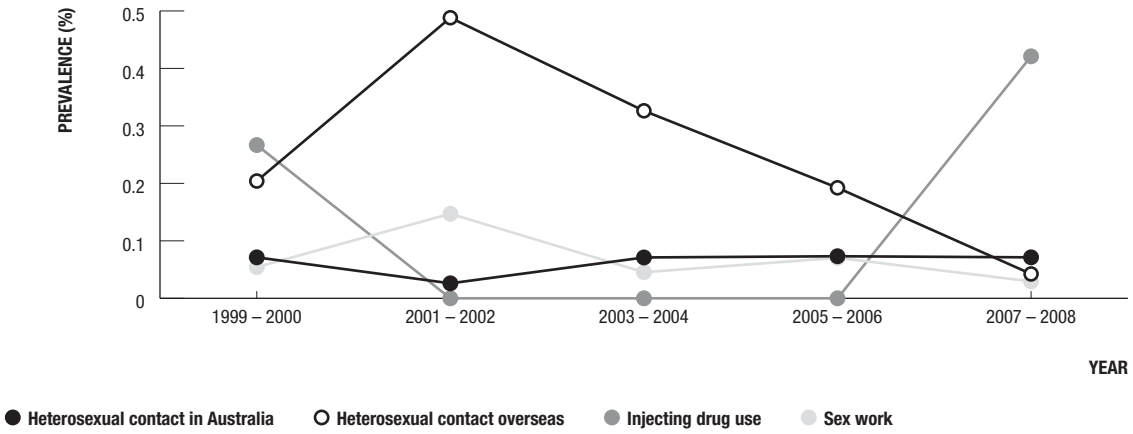
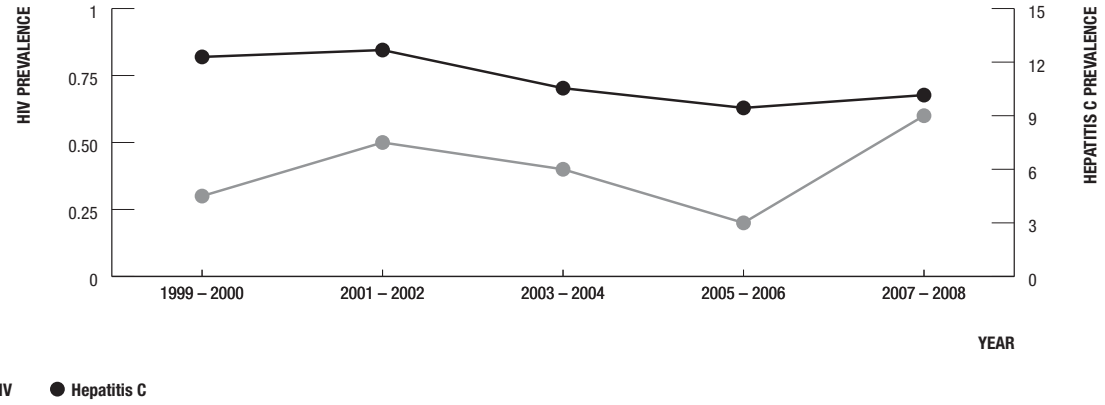


Figure 36 **HIV prevalence among heterosexually active women seen at sexual health clinics by year and HIV exposure category**



HIV prevalence has remained less than 0.5% among heterosexually active men and women seen through metropolitan sexual health clinics. In 1999 – 2008, HIV prevalence was less than 0.2% among men and women who reported a history of heterosexual contact in Australia (Figures 35 and 36). Among men who reported heterosexual contact overseas, HIV prevalence was 0.2% in 2005 – 2008. HIV prevalence has remained low among women self-identifying as sex workers, with or without a history of injecting drug use (Figure 36).

Figure 37 HIV and hepatitis C prevalence[1] in blood donors by year



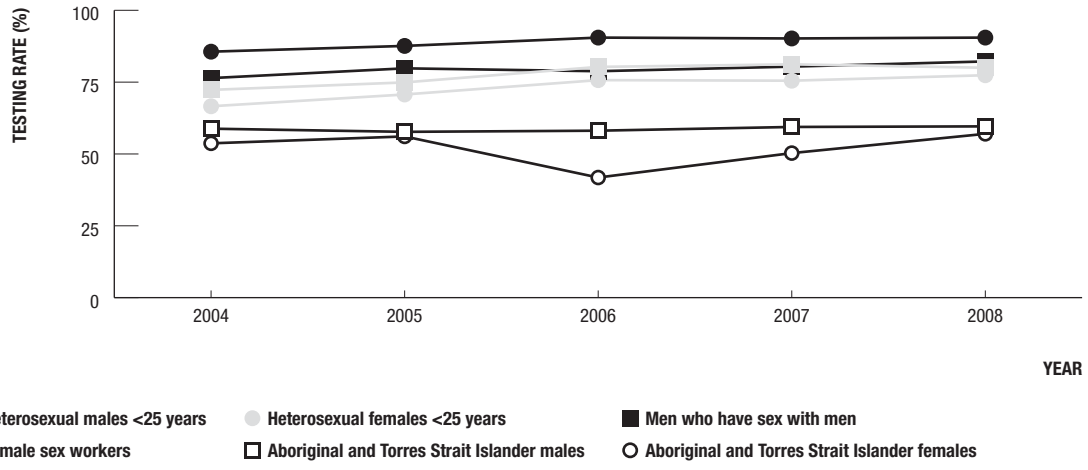
1 Prevalence per 100 000 donations

Levels of HIV infection in blood donors, who undergo a screening interview to exclude those with recognised risk factors for HIV infection, have been below 1 per 100 000 donations since 1985 (Figure 37, Table 4.5.1). HIV prevalence among blood donors had recently increased from 0.2 in 2005 – 2006 to 0.6 per 100 000 population in 2007 – 2008.

A new sentinel surveillance system for monitoring chlamydia

The Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) is a new surveillance program for monitoring the uptake and outcome of chlamydia testing in Australia. The pattern of testing and diagnosis of chlamydia is monitored through a network of sexual health services, family planning clinics, general practices, antenatal clinics, Aboriginal community controlled health services and a laboratory network. Trends in testing for and diagnosis of chlamydia are available through the sexual health services network and chlamydia positivity rates are available for a 1 year period through the antenatal clinics, family planning clinics, general practices and the laboratory network. This is the first time ACCESS data have been presented.

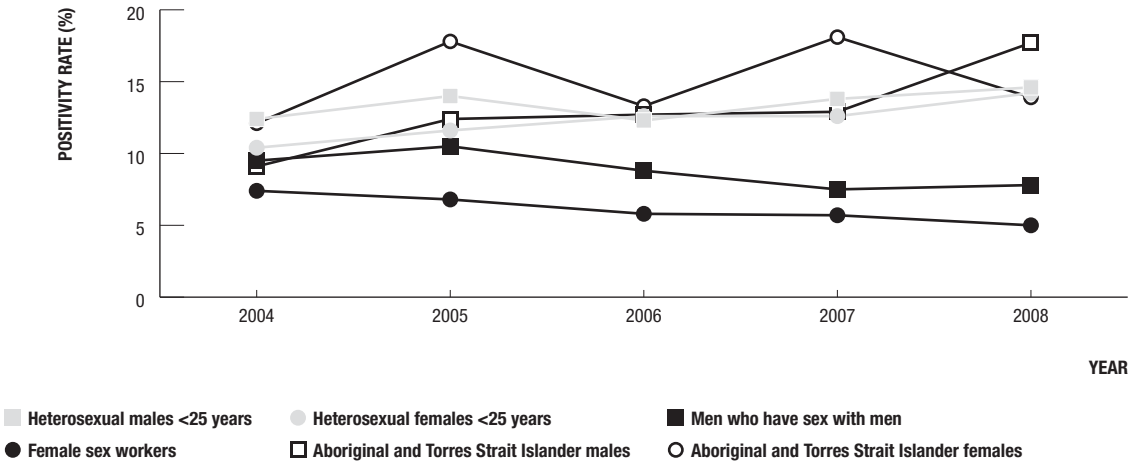
Figure 38 Chlamydia testing rates among people seen at sexual health services in ACCESS, 2004 – 2008, by priority population[1]



1 Five years of testing data was provided by 14 sexual health services

Among the priority populations seen through sexual health services, chlamydia testing rates increased among young (aged less than 25 years) heterosexually active men, from 72.3% in 2004 to 80% in 2008, and from 66.6% to 77.4% in 2008 among young heterosexual women. Testing among Aboriginal and Torres Strait Islander men increased from 58.6% in 2004 to 59.6% in 2008, and from 53.7% in 2004 to 57% in 2008 among Aboriginal and Torres Strait Islander women (Figure 38). Chlamydia testing rates also increased among men who have sex with men, from 76.4% in 2004 to 82.2% in 2008 and among female sex workers, from 85.6% in 2004 to 90.5% in 2008. In the 12 months from October 2007 to September 2008, 3.7% of men and 6.9% of women aged 16 – 24 years seen at general practices were tested for chlamydia. The testing rate was 23.2% and 34.5% among men and women seen at family planning clinics.

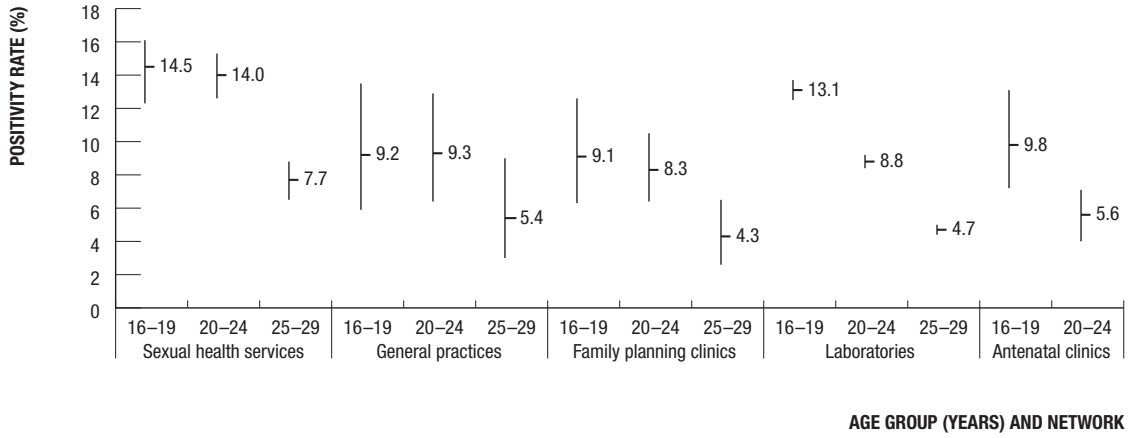
Figure 39 **Chlamydia positivity rate among people seen at sexual health services in ACCESS, 2004 – 2008, by priority population[1]**



1 Five years of positivity data was provided by 14 sexual health services

The chlamydia positivity rate among young heterosexual men and women seen at sexual health services increased from 12.4 and 10.4, respectively, in 2004 to 14.6 and 14.2, respectively, in 2008 (Figure 39). The chlamydia positivity rate declined among female sex workers from 7.4% in 2004 to 5.0% in 2008, and among men who have sex with men, from 9.5% to 7.8% in 2008. Chlamydia positivity rates increased among young Aboriginal and Torres Strait Islander men and women, from 9.1% and 12.1%, respectively, in 2004, to 17.7% and 13.9%, respectively, in 2008.

Figure 40 **Chlamydia positivity rates among women, October 2007 – September 2008, by ACCESS network and age group**

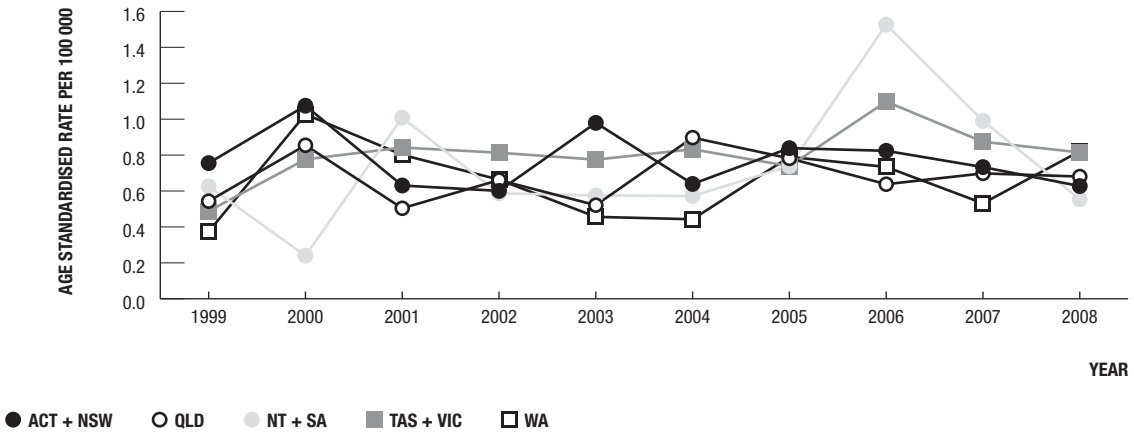


The chlamydia positivity rate among men and women aged 16 – 24 years seen through general practices was 15.7% and 9.3%, respectively. In family planning clinics and sexual health services, the positivity rate was 16.7% and 14.6%, respectively, among men and was 8.5% and 14.2% among women.

Illness and treatment in people with HIV infection and viral hepatitis

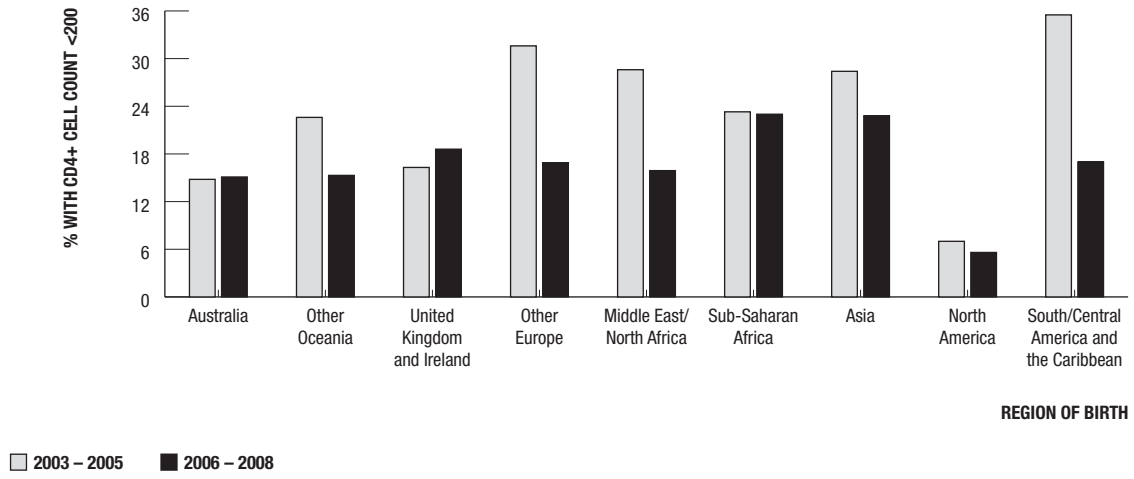
The population rate of late HIV diagnosis in Australia, measured by the CD4+ cell count of less than 200 cells/µl at diagnosis, was stable at around 0.7 per 100 000 population in 1999 – 2008. The rate of late HIV diagnosis was similar across State/Territory jurisdictions (Figure 41).

Figure 41 CD4+ cell count less than 200 cells/µl at HIV diagnosis, by year and State/Territory



The extent of late HIV diagnosis changed over time with a substantial drop among people born overseas who were diagnosed in Australia in 2006 – 2008 compared to the previous three years. Cases born in high HIV prevalence countries in sub-Saharan Africa and South East Asia had a relatively high rate of late HIV diagnosis in both the years 2003 – 2005 and 2006 – 2008 (Figure 42).

Figure 42 Late HIV diagnosis, 2003 – 2008, by year and region of birth



Cases whose exposure to HIV was attributed to heterosexual contact or injecting drug use had a higher rate of late HIV diagnosis compared with men who have sex with men (Figure 43).

There is no comprehensive registry of advanced illness related to hepatitis B and C in Australia. One indicator of the extent of illness caused by hepatitis C is the number of liver transplants due to chronic infection. Of 155 people who had a liver transplant in 2008, 43 (27.7%) had hepatitis C infection whereas hepatitis B was the primary cause of liver failure for 3 (1.9%) people having liver transplants (Table 2.3.1).

Figure 43 Late HIV diagnosis, 1999 – 2008, by year and exposure category

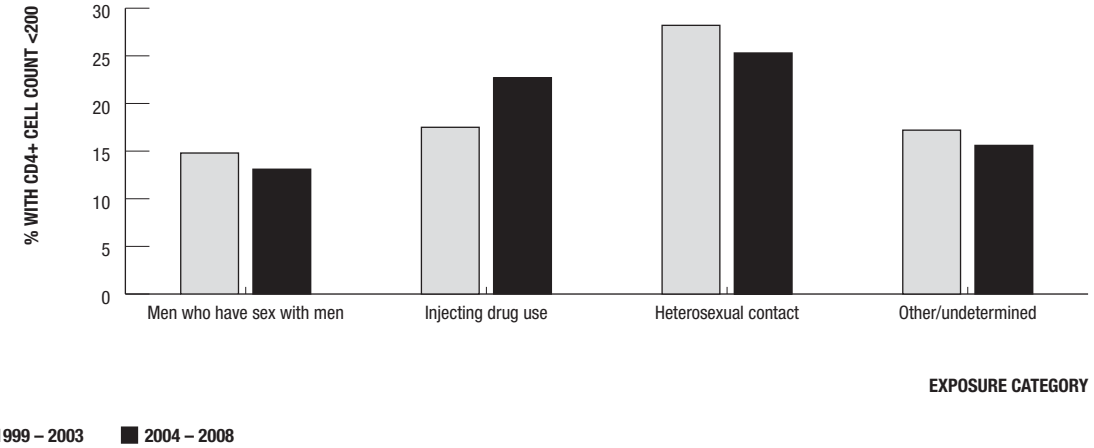
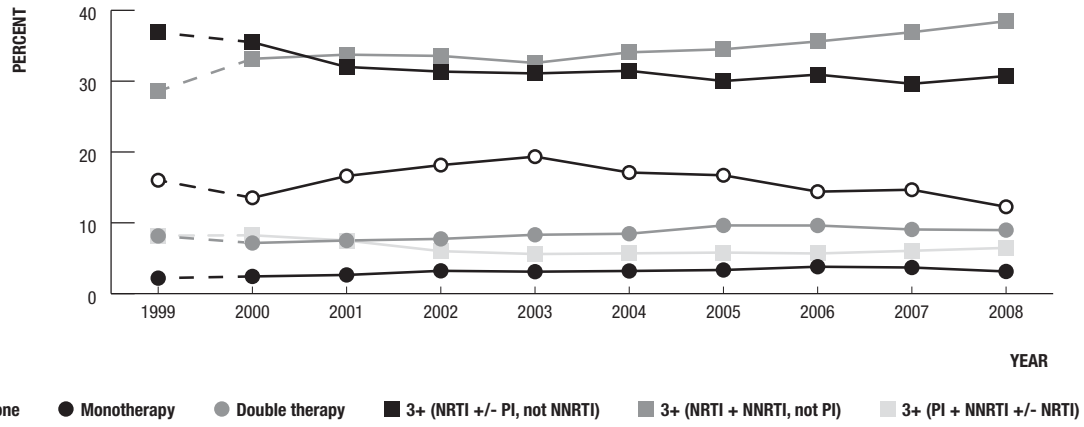
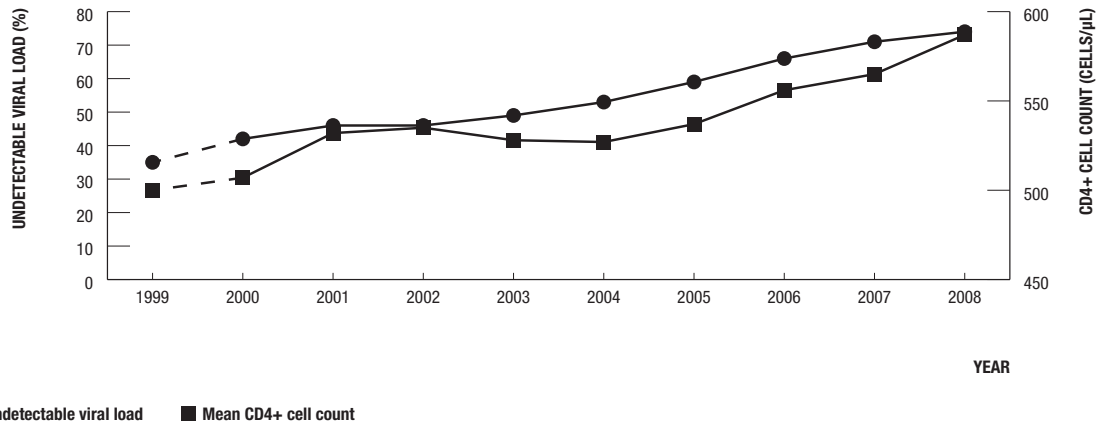


Figure 44 Treatment uptake among people enrolled on the Australian HIV Observational Database by year[1]



1 Dashed lines indicate the years of retrospective data collection

Figure 45 HIV viral load and CD4+cell count among people enrolled on the Australian HIV Observational Database by year[1]



1 Dashed lines indicate the years of retrospective data collection

The Australian HIV Observational Database indicated that 75% of 1 950 people under follow up in 2008 were receiving triple combination antiretroviral treatment for HIV infection (Figure 44). The proportion of people with an undetectable viral load increased from 30% in 1999 to over 70% in 2008. Similarly, CD4+ cell count has increased from 480 cells/µl in 1999 to over 580 cells/µl in 2008 (Figure 45). Of people enrolled in the Australian HIV Observational Database in 2008, 10.0% had been diagnosed with both HIV and hepatitis C antibody.

Use of combination antiretroviral therapy by men who have sex with men participating in the Gay Community Periodic Surveys in Sydney remained stable at around 66% in 2004 – 2007 and increased to 73.5% in 2008. The percentage of men in Melbourne who reported use of antiretroviral therapy increased from 60% in 2004 – 2006 to 65% in 2008. In Queensland, increased uptake of combination antiretroviral therapy was also reported, from 63.9% in 2004 to 70.2% in 2008 and relatively high rates of uptake were maintained in Perth in 2008.

Figure 46 People prescribed reverse transcriptase inhibitors through the Highly Specialised Drugs Program

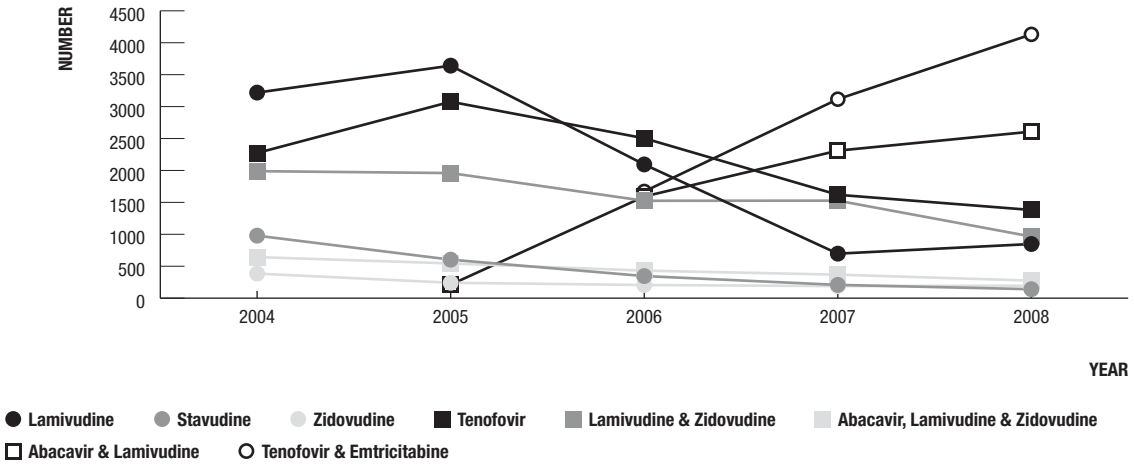
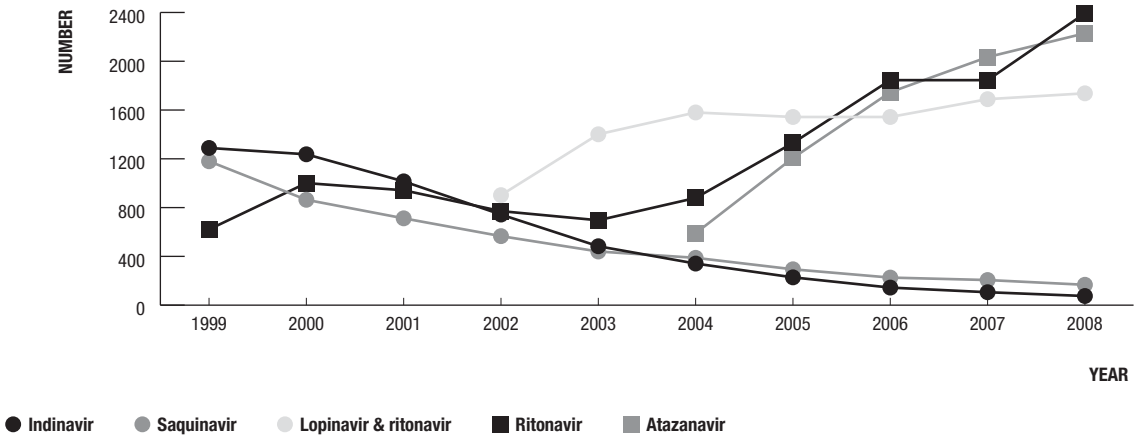
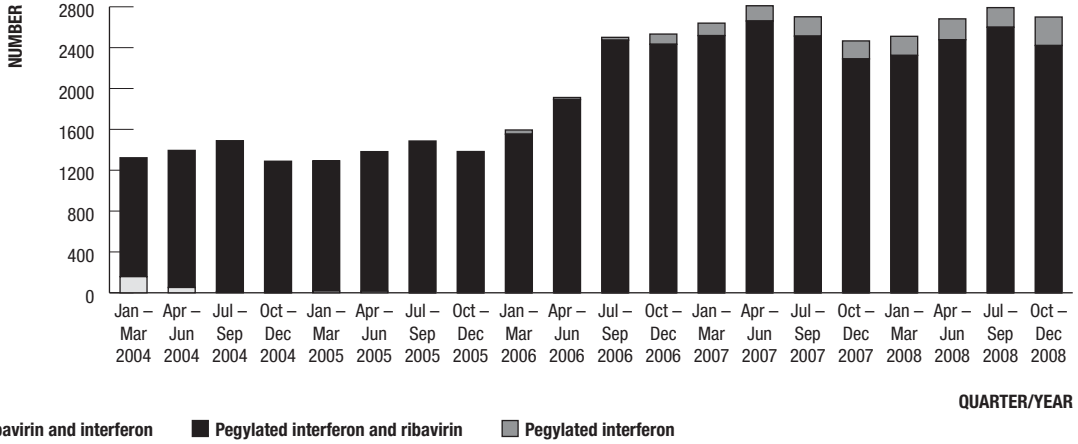


Figure 47 People prescribed protease inhibitors through the Highly Specialised Drugs Program



Based on data collated through the Highly Specialised Drugs Program, it is estimated that the total number of people prescribed antiretroviral treatment for HIV infection increased from 7 598 in 2004 to 10 596 during 2008. Tenofovir and emtricitabine were the most frequently prescribed reverse transcriptase inhibitors in 2008 (Figure 46). The most commonly prescribed protease inhibitors in 2008 were ritonavir (2 393 people), and atazanavir (2 229 people) (Figure 47).

Figure 48 People prescribed drugs for treatment of hepatitis C infection through the Highly Specialised Drugs Program



Treatment for hepatitis C infection has changed, away from interferon and ribavirin treatment prior to 2004, to pegylated interferon and ribavirin combination treatment in 2004 (Figure 48). Pegylated interferon only became available for treatment of hepatitis C infection in 2006. An estimated 3 562 people were receiving treatment for hepatitis C infection in 2008. The increase in the number of people dispensed drugs for treatment of hepatitis C infection between the first and the second quarters of 2006 was attributable to a removal in April 2006 of the requirement for biopsy proven liver damage prior to treatment.

Tables

1 National surveillance for HIV/AIDS

1.1 National HIV Registry

1.1.1 Characteristics of cases of newly diagnosed HIV infection by year. Number of cases, median age, language spoken at home, percent with late HIV diagnosis, and percent of total cases by sex, State/Territory and HIV exposure category 33

1.1.2 Estimated number of cases of newly diagnosed HIV infection adjusted for multiple reporting by State/Territory, sex and year 34

1.1.3 Number of new diagnoses of HIV infection, cumulative to 31 December 2008, by age group, sex and year 35

1.1.4 Number of new diagnoses of HIV infection in Australia in 2008, by State/Territory and whether or not HIV infection was newly diagnosed in Australia 36

1.1.5 Number (percent) of new HIV diagnoses in Australia, 2004 – 2008, and age standardised rate per 100 000 population by year of HIV diagnosis and region of birth 37

1.1.6 Median CD4+ cell count at diagnosis of HIV infection (number of HIV diagnoses with CD4+ cell count), 2004 – 2008, by State/Territory, HIV exposure category, newly acquired infection status, sex and year 38

1.1.7 Number of specimens tested for HIV antibody in public health laboratories, 1998 – 2007, by State/Territory and year of test 39

1.2 Monitoring incident HIV infection

1.2.1 Characteristics of diagnoses of newly acquired HIV infection, 1999 – 2008, by year. Total number of cases, median age, and number of cases by State/Territory, HIV exposure category, evidence of newly acquired HIV infection, sex and year 40

1.2.2 Number and percentage of isolates with resistance at one or more loci, by drug class against which resistance was detected and year 41

1.3 National AIDS Registry

1.3.1 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 42

1.3.2 Number of AIDS diagnoses by State/Territory, sex and year 43

1.3.3 Number of AIDS diagnoses by HIV exposure category, sex and year 44

1.3.4 Number of deaths following AIDS by State/Territory, sex and year of death 45

1.3.5 Number of deaths following AIDS by HIV exposure category, sex and year 46

1.3.6 Number (percent) of AIDS diagnoses in Australia, 1999 – 2008, and age standardised annual incidence per 100 000 population by year of AIDS diagnosis and region of birth 47

1.3.7 Number of AIDS diagnoses by AIDS-defining condition, year of diagnosis and sex 48

1.4 National surveillance for newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people

1.4.1 Characteristics of cases of newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people, 1999 – 2008, by year. Number of cases, median age and percent of total cases by sex, newly acquired infection, late HIV diagnosis, State/Territory and HIV exposure category 49

1.4.2 Rate of diagnosis of HIV infection, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence 50

1.5 National surveillance for perinatal exposure to HIV

1.5.1 Number and population rate of perinatal exposure to HIV among children born in Australia, 1999 – 2008, by State/Territory and year of birth 51

1.5.2 Number of women whose perinatally HIV exposed children were born in Australia, 1999 – 2008, by time of the woman's HIV diagnosis relative to the first exposed child's birth 51

1.5.3 Number of women whose perinatally HIV exposed children were born in Australia, 1999 – 2008, and number of perinatally exposed children, by year of birth of the first exposed child and the woman's HIV exposure category 52

1.5.4 Number of perinatally exposed children born in Australia, 1999 – 2008, and number with diagnosed HIV infection by year of the child's birth and time of the woman's HIV diagnosis relative to the child's birth 52

1.5.5 Number of perinatally exposed children, born in 1999 – 2008 to women whose HIV infection was diagnosed antenatally, and number with diagnosed HIV infection by year of the child's birth and proportion of mothers reporting use of interventions to reduce the risk of mother-to-child transmission 53

1.6 Global comparisons

1.6.1 Estimated HIV prevalence in selected countries 54

1 National surveillance for HIV/AIDS

1.1 National HIV Registry

Table 1.1.1 Characteristics of cases of newly diagnosed HIV infection by year. Number of cases, median age, language spoken at home[2], percent with late HIV diagnosis, and percent of total cases by sex, State/Territory and HIV exposure category

	Year of HIV diagnosis										
Characteristic	**≤ 99[1]**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total[1,2]**
Total cases	**20 148**	**763**	**772**	**853**	**873**	**911**	**962**	**1 007**	**1 046**	**995**	**28 330**
Males (%)	92.7	88.7	87.4	88.9	89.8	86.0	90.2	85.3	87.0	86.3	91.3
Median age (years)											
Males	32	35	35	35	36	37	37	38	38	37	33
Females	29	29	29	32	31	31	32	31	32	32	30
Language spoken at home[3]											
English	–	–	–	–	–	445	553	595	773	733	3 099
Other language	–	–	–	–	–	41	45	67	80	64	297
Not reported	–	–	–	–	–	425	364	345	193	198	1 525
Late HIV diagnosis[4]											
% CD4+ cell count <200	15.7	22.1	18.1	15.6	17.2	15.9	16.7	18.8	15.4	15.1	17.0
% CD4+ cell count ≥200	53.2	56.0	56.2	59.2	58.5	63.9	63.6	63.5	63.4	67.3	61.0
CD4+ cell count not reported	31.1	21.9	25.6	25.2	24.3	20.2	19.6	17.8	21.2	17.6	22.0
State/Territory (%)											
ACT	1.2	1.4	1.0	0.6	0.6	0.8	0.7	0.6	0.9	0.7	1.1
NSW	58.7	48.9	45.3	47.9	49.1	45.1	42.2	39.1	39.7	36.6	54.3
NT	0.6	0.4	0.5	0.9	0.6	0.9	0.3	1.1	0.5	1.1	0.6
QLD	10.1	15.1	13.5	15.3	14.7	17.2	17.6	16.4	18.7	20.2	12.0
SA	3.6	3.0	5.6	3.5	5.1	5.9	5.3	6.1	5.4	4.7	4.0
TAS	0.4	0.3	0.6	0.6	0.2	1.0	0.6	0.7	0.5	0.4	0.4
VIC	20.3	24.8	26.8	25.7	23.4	23.6	26.7	28.4	27.3	28.6	22.0
WA	5.1	6.2	6.6	5.4	6.3	5.5	6.6	7.6	7.2	7.6	5.6
HIV exposure category (%)[5]											
Men who have sex with men	78.7	68.0	66.3	71.0	73.2	67.5	72.3	67.6	68.4	66.0	75.7
Men who have sex with men, and injecting drug use	4.4	4.1	5.3	4.2	4.6	4.0	4.3	3.9	2.8	3.2	4.3
Injecting drug use[6]	4.2	4.4	5.7	2.6	3.5	4.4	3.4	2.8	2.9	3.1	4.0
Heterosexual contact	9.1	23.1	22.1	21.8	18.5	23.8	19.3	25.0	24.9	27.1	13.5
Partner with/at risk of HIV infection	*58.0*	*81.0*	*81.1*	*69.8*	*78.7*	*78.7*	*77.1*	*71.9*	*73.0*	*67.6*	*67.0*
Not further specified	*42.0*	*19.0*	*18.9*	*30.2*	*21.3*	*21.3*	*22.9*	*28.1*	*27.0*	*32.4*	*33.0*
Haemophilia/coagulation disorder	1.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Receipt of blood/tissue	1.4	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	1.0
Mother with/at risk of HIV infection	0.4	0.4	0.6	0.3	0.2	0.1	0.6	0.6	0.9	0.6	0.4
Health care setting	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Other/undetermined	16.8	7.3	6.6	8.9	7.1	6.9	8.5	6.8	6.4	4.8	13.9

1 Late HIV diagnosis for diagnoses in 1999 only. Total percentage with late HIV diagnosis in 1999 – 2008 only.

2 Not adjusted for multiple reporting.

3 Language spoken at home was sought for cases of HIV infection newly diagnosed from 1 January 2004.

4 Late HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of <200 cells/μl.

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

6 Excludes males who also reported a history of sex with men.

Source: State/Territory health authorities

Table 1.1.2 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**	**≤ 99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total**
ACT	M	201	10	7	3	4	5	7	3	2	5	247
	F	26	1	1	0	1	1	0	2	0	2	34
NSW	M	9 740	316	306	363	361	337	363	325	358	315	12 784
	F	600	34	32	30	33	61	31	56	46	42	965
NT	M	100	2	3	4	3	5	2	4	5	9	137
	F	9	1	0	4	1	3	0	5	0	2	25
QLD	M	1 852	94	85	114	108	132	149	130	152	168	2 984
	F	149	14	18	13	18	22	13	25	27	30	329
SA	M	652	20	32	23	39	44	48	51	45	42	996
	F	60	2	9	6	3	7	4	9	11	5	116
TAS	M	72	0	5	3	0	4	5	6	3	3	101
	F	5	1	0	2	0	2	0	0	2	1	13
VIC	M	3 645	165	179	192	183	188	218	249	254	238	5 511
	F	206	20	23	22	17	23	30	27	33	35	436
WA	M	905	36	37	31	38	35	46	52	60	57	1 297
	F	115	9	12	13	13	7	15	21	16	19	240
Total	M	16 482	572	593	731	728	724	820	806	840	837	23 133
	F	1 170	82	95	90	86	126	93	145	135	136	2 158
Total		**17 700**	**658**	**690**	**825**	**813**	**851**	**913**	**954**	**981**	**973**	**25 358**

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 1.1.3 Number of new diagnoses of HIV infection[1], cumulative to 31 December 2008, by age group, sex and year

		Year of HIV diagnosis										
Age group (years)		**≤ 99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total[2]**
0 – 1	M	43	1	1	0	0	0	0	1	1	1	48
	F	19	1	2	0	0	1	1	3	1	1	29
2 – 12	M	88	1	0	1	0	0	2	2	4	4	102
	F	20	0	1	1	2	0	2	1	5	1	33
13 – 19	M	412	7	13	2	5	8	9	9	8	7	480
	F	79	3	4	5	4	6	3	6	2	6	118
20 – 29	M	6 454	162	160	181	164	161	181	169	195	212	8 039
	F	482	37	41	26	29	51	25	54	39	47	831
30 – 39	M	6 885	278	276	322	318	309	321	298	308	275	9 590
	F	316	29	29	41	30	30	42	46	53	53	669
40 – 49	M	3 245	134	146	156	164	190	215	242	250	233	4 975
	F	120	7	13	10	11	22	15	24	19	20	261
50 – 59	M	1 073	68	59	69	99	85	98	100	97	88	1 836
	F	49	0	3	3	5	12	4	9	12	6	103
60+	M	353	20	17	27	34	30	41	38	46	39	645
	F	55	4	1	4	5	4	1	2	4	2	82
Not reported	M	127	6	3	0	0	0	1	0	1	0	138
	F	30	1	1	0	0	0	0	0	0	0	32
Total	M	18 680	677	675	758	784	783	868	859	909	858	25 851
	F	1 170	82	95	90	86	126	93	145	135	136	2 158
Total[2]		**20 148**	**763**	**772**	**853**	**873**	**911**	**962**	**1 007**	**1 046**	**995**	**28 330**

1 Not adjusted for multiple reporting.

2 Totals include 69 people whose sex was reported as transgender and 250 people whose sex was not reported.

Source: State/Territory health authorities

Table 1.1.4 Number of new diagnoses of HIV infection in Australia in 2008, by State/Territory and whether or not HIV infection was newly diagnosed in Australia

	Place of first diagnosis of HIV infection		
State/ Territory	**Newly diagnosed in Australia**	**Newly diagnosed overseas**	**Total**
ACT	7	0	7
NSW	322	42	364
NT	10	1	11
QLD	176	25	201
SA	39	8	47
TAS	4	0	4
VIC	261	24	284
WA	67	9	76
Total	**886**	**109**	**995**

Source: State/Territory health authorities

Table 1.1.5 Number (percent) of new HIV diagnoses in Australia, 2004 – 2008, and age standardised rate per 100 000 population[1] by year of HIV diagnosis and region of birth

	2004			2005			2006			2007			2008		
Region/ Country of birth	**Number**	**%**	**Age standardised rate**	**Number**	**%**	**Age standardised rate**	**Number**	**%**	**Age standardised rate**	**Number**	**%**	**Age standardised rate**	**Number**	**%**	**Age standardised rate**
Australia	558	61.3	4.1	585	60.8	4.4	576	57.2	4.3	595	56.9	4.5	547	55.0	4.1
Overseas born	280	30.7	4.4	282	29.3	4.6	349	34.7	5.7	377	36.0	6.3	384	38.6	6.4
Other Oceania	*31*	*3.4*	*4.8*	*36*	*3.7*	*5.9*	*46*	*4.6*	*6.9*	*34*	*3.3*	*5.2*	*57*	*5.7*	*10.7*
United Kingdom and Ireland	*40*	*4.4*	*3.3*	*50*	*5.2*	*4.2*	*39*	*3.9*	*3.5*	*45*	*4.3*	*4.1*	*45*	*4.5*	*4.4*
Other Europe	*36*	*4.0*	*5.0*	*39*	*4.1*	*4.9*	*43*	*4.3*	*5.4*	*36*	*3.4*	*5.9*	*35*	*3.5*	*4.7*
Middle East/North Africa	*15*	*1.6*	*5.2*	*12*	*1.2*	*5.7*	*20*	*2.0*	*7.1*	*18*	*1.7*	*5.8*	*6*	*0.6*	*2.2*
Sub-Saharan Africa	*58*	*6.4*	*24.0*	*47*	*4.9*	*20.0*	*64*	*6.4*	*28.3*	*71*	*6.8*	*36.3*	*95*	*9.5*	*41.6*
Asia	*69*	*7.6*	*4.2*	*74*	*7.7*	*4.4*	*119*	*11.8*	*7.6*	*131*	*12.5*	*8.2*	*111*	*11.2*	*6.7*
North America	*17*	*1.9*	*13.9*	*15*	*1.6*	*12.3*	*11*	*1.1*	*9.6*	*14*	*1.3*	*11.5*	*11*	*1.1*	*9.1*
South/Central America and the Caribbean	*14*	*1.5*	*11.3*	*9*	*0.9*	*7.4*	*7*	*0.7*	*5.8*	*28*	*2.7*	*24.8*	*24*	*2.4*	*20.0*
Total with a reported country of birth	**838**	**92.0**	**4.2**	**867**	**90.1**	**4.4**	**925**	**91.9**	**4.7**	**972**	**92.9**	**4.9**	**931**	**93.5**	**4.7**
Not reported	73	8.0		95	9.9		82	8.1		74	7.1		64	6.5	
Total	**911**	**100.0**		**962**	**100.0**		**1 007**	**100.0**		**1 046**	**100.0**		**995**	**100.0**	

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

Source: State/Territory health authorities

Table 1.1.6 Median CD4+ cell count at diagnosis of HIV infection (number of HIV diagnoses with CD4+ cell count), 2004 – 2008, by State/Territory, HIV exposure category, newly acquired infection status, sex and year

		Year of HIV diagnosis				
Characteristic	**Sex**	**2004**	**2005**	**2006**	**2007**	**2008**
State/Territory						
ACT	M	560 (5)	403 (6)	570 (3)	355 (4)	272 (4)
	F	– (1)	– (0)	– (1)	– (1)	– (1)
NSW	M	470 (227)	463 (244)	441 (238)	443 (244)	440 (257)
	F	460 (37)	243 (20)	389 (38)	300 (23)	450 (37)
NT	M	266 (5)	509 (3)	419 (6)	650 (5)	407 (7)
	F	342 (3)	– (0)	65 (5)	– (0)	– (1)
QLD	M	450 (129)	455 (146)	410 (130)	445 (146)	410 (124)
	F	220 (20)	480 (12)	380 (25)	360 (25)	360 (23)
SA	M	454 (41)	393 (43)	362 (50)	435 (44)	418 (41)
	F	619 (7)	421 (3)	494 (8)	336 (10)	314 (5)
TAS	M	506 (4)	430 (6)	234 (5)	422 (3)	– (1)
	F	– (1)	– (0)	– (0)	677 (2)	– (1)
VIC	M	436 (177)	510 (205)	397 (229)	440 (214)	428 (212)
	F	290 (21)	392 (24)	490 (23)	363 (31)	315 (30)
WA	M	410 (42)	325 (45)	396 (47)	450 (57)	400 (57)
	F	494 (6)	560 (15)	456 (18)	408 (15)	322 (19)
Exposure category						
Men who have sex with men[1]	M	468 (501)	490 (568)	450 (572)	466 (570)	453 (545)
Injecting drug use[2]	M	370 (21)	256 (22)	255 (14)	390 (14)	426 (18)
	F	680 (9)	1 050 (4)	730 (5)	355 (7)	450 (5)
Heterosexual contact	M	340 (81)	335 (68)	237 (92)	320 (105)	294 (114)
	F	396 (84)	375 (65)	380 (105)	360 (91)	340 (105)
Other/undetermined	M	470 (27)	360 (40)	217 (30)	450 (27)	376 (26)
	F	190 (3)	390 (5)	429 (8)	596 (9)	500 (7)
Newly acquired HIV infection status						
Diagnoses of newly acquired HIV infection[3]	M	566 (220)	574 (234)	530 (254)	565 (215)	540 (217)
	F	866 (14)	799 (7)	617 (15)	510 (9)	709 (12)
Other HIV diagnoses	M	400 (410)	379 (464)	320 (454)	390 (502)	382 (486)
	F	339 (82)	368 (67)	364 (103)	357 (97)	320 (105)
Total[4]		**446 (727)**	**450 (773)**	**410 (828)**	**422 (824)**	**420 (820)**

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

2 Excludes males who also reported a history of sex with men.

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 primary HIV infection within one year of HIV diagnosis.

4 Totals include 6 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.7 Number of specimens tested for HIV antibody in public health laboratories, 1998 – 2007, by State/Territory and year of test

	Year of HIV antibody test									
State/Territory	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
ACT	6 976	5 762	5 446	5 712	7 978	14 388	15 551	16 565	17 602	18 855
NSW	324 126	311 904	328 295	357 526	358 063	347 064	356 046	322 569	251 724	124 078
NT	15 149	14 835	15 158	15 710	16 407	15 323	15 217	7 247	6 686	6 606
QLD	179 336	183 533	185 028	184 994	188 403	206 322	222 558	238 509	251 430	148 666
SA	76 987	76 275	77 219	75 360	79 409	83 970	88 158	88 552	80 664	73 558
TAS	12 243	13 152	12 714	12 574	12 967	12 754	13 041	12 573	12 248	10 187
VIC	161 600	160 611	177 949	202 682	204 561	152 284	165 461	183 508	253 145	196 026
WA	82 040	89 426	100 225	93 271	100 483	102 694	114 203	101 277	104 540	112 561
Total	**858 457**	**855 498**	**902 034**	**947 829**	**968 271**	**934 799**	**990 235**	**970 800**	**978 039**	**690 537**

1 Estimated number of specimens tested for HIV antibody, adjusted for incomplete reporting.

Source: National Serology Reference Laboratory, Australia

1.2 Monitoring incident HIV infection

Table 1.2.1 Characteristics of diagnoses of newly acquired HIV infection[1], 1999 – 2008, by year. Total number of cases, median age, and number of cases by State/Territory, HIV exposure category, evidence of newly acquired HIV infection, sex and year

		Year of HIV diagnosis										
Characteristic	**Sex**	**99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total[2]**
Total cases		**171**	**199**	**209**	**245**	**286**	**261**	**281**	**308**	**279**	**281**	**2 523**
Males (%)		94.2	94.0	92.3	95.1	96.2	94.3	96.8	93.5	96.1	95.0	94.8
Median age (years)	M	32	32	34	34	33	35	35	36	35	35	34
	F	27	25	34	37	34	23	27	35	35	31	31
State/Territory												
ACT	M	1	6	2	2	0	2	1	3	2	0	19
	F	0	0	0	0	0	0	0	1	0	0	1
NSW	M	92	84	95	118	153	112	128	110	115	120	1 127
	F	2	3	7	2	4	5	3	7	4	6	43
NT	M	1	1	3	1	0	2	1	2	1	2	14
	F	0	1	0	0	0	0	0	0	0	0	1
QLD	M	27	21	23	34	26	43	42	57	48	43	364
	F	3	2	3	3	3	3	1	1	4	2	25
SA	M	6	6	10	6	15	15	15	17	7	6	103
	F	0	1	1	0	1	1	0	0	0	1	5
TAS	M	1	0	2	1	0	1	2	0	0	0	7
	F	0	0	0	0	0	0	0	0	0	0	0
VIC	M	30	59	51	67	69	62	74	85	83	81	661
	F	3	3	3	0	3	4	4	8	3	5	36
WA	M	3	10	7	4	12	9	9	14	14	18	97
	F	1	1	2	5	0	1	1	2	1	0	14
HIV exposure category												
Men who have sex with men	M	130	160	165	212	243	209	234	247	235	233	2 070
Men who have sex with men, and injecting drug use	M	16	7	10	9	12	11	15	13	5	10	107
Injecting drug use[3]	M	5	6	5	0	5	2	2	2	2	0	29
	F	2	3	2	0	2	4	1	2	1	2	19
Heterosexual contact	M	9	12	8	8	13	16	9	16	20	18	129
	F	6	8	13	9	9	10	8	16	10	12	101
Health care setting[4]	M	0	0	0	0	0	1	0	0	0	0	1
	F	0	0	0	1	0	0	0	0	0	0	1
Other/ undetermined	M	2	2	5	4	2	6	12	10	8	6	57
	F	0	0	1	0	0	0	0	1	1	0	3
Evidence of newly acquired infection												
Testing history only	M	80	77	91	98	139	105	128	150	126	121	1 115
	F	2	5	9	1	5	10	5	7	5	7	56
Illness only	M	35	61	46	51	44	46	49	44	61	58	495
	F	6	3	1	2	0	3	2	9	5	5	36
Testing history and illness	M	46	49	56	84	92	95	95	94	83	88	782
	F	1	3	6	7	6	1	2	3	2	2	33

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 primary HIV infection within one year of HIV diagnosis.

2 Totals include 6 people whose sex was reported as transgender.

3 Excludes males who also reported a history of sex with men.

4 'Health care setting' includes 1 case of occupationally acquired HIV infection.

Source: State/Territory health authorities

Table 1.2.2 Number and percentage of isolates with resistance at one or more loci, by drug class against which resistance was detected and year

			Drug class against which resistance was detected		
Year of diagnosis	Total	% non-B subtypes	PI[1] Number (%)	NRTI[1] Number (%)	NNRTI[1] Number (%)
2004	45	0.0	2 (4.4)	3 (6.7)	2 (4.4)
2005	42	2.4	0 (0.0)	6 (14.3)	0 (0.0)
2006	46	2.2	3 (6.5)	4 (8.7)	3 (6.5)
2007	81	8.6	0 (0.0)	3 (3.7)	5 (6.2)
2008	90	6.7	1 (1.1)	3 (3.3)	5 (5.6)

1 **PI:** protease inhibitor; **NRTI:** Nucleoside reverse transcriptase inhibitor; **NNRTI:** Non-nucleoside reverse transcriptase inhibitor.

Source: NSW State Reference Laboratory for HIV/AIDS; Victorian Infectious Diseases Reference Laboratory (from 2006)

1.3 National AIDS Registry

Table 1.3.1 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										
Characteristic		**≤ 99[1]**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[2]**	**Total[1,3]**
Total cases		**8 464**	**265**	**213**	**246**	**245**	**202**	**232**	**221**	**161**	**99**	**10 348**
Males (%)		95.3	90.9	88.7	91.1	92.7	88.1	87.9	89.6	89.4	91.9	94.3
Median age (years)	Male	37	40	40	41	42	43	42	43	44	42	38
	Female	33	32.5	36	33	35	44.5	39	34	42	33	34
Late HIV diagnosis (%)[1]	Male	36.4	38.6	37.0	35.7	40.5	37.1	43.6	51.0	54.2	58.2	41.9
	Female	27.3	45.8	60.9	50.0	47.1	63.6	53.6	60.0	43.8	62.5	49.0
State/Territory (%)												
ACT		1.1	1.1	0.0	0.8	1.6	0.5	0.4	0.0	0.6	1.0	1.0
NSW[2]		58.1	49.4	46.9	45.9	59.6	49.5	47.8	46.2	46.0	–	56.4
NT		0.4	0.0	0.5	0.4	1.6	1.5	0.4	0.9	1.2	2.0	0.5
QLD		10.3	15.8	13.6	20.7	9.8	15.8	15.9	10.4	13.7	21.2	11.2
SA		4.4	3.0	4.2	6.1	2.0	5.4	3.9	5.9	1.9	6.1	4.3
TAS		0.6	0.4	0.5	0.8	0.0	0.5	0.9	1.4	1.2	0.0	0.6
VIC		20.6	24.5	24.9	19.5	19.6	21.8	27.2	30.8	31.1	53.5	21.3
WA		4.5	5.7	9.4	5.7	5.7	5.0	3.4	4.5	4.3	16.2	4.7
HIV exposure category (%)[4]												
Men who have sex with men		82.5	68.7	68.6	71.9	65.8	63.0	62.2	59.0	67.6	60.4	80.3
Men who have sex with men, and injecting drug use		4.7	6.4	4.4	6.8	7.5	9.5	9.2	7.8	6.9	1.1	5.2
Injecting drug use[5]		3.1	6.0	4.4	3.8	6.6	6.3	6.9	5.4	1.4	1.1	3.5
Heterosexual contact		6.0	16.9	19.6	16.2	18.9	19.6	20.3	27.3	22.1	33.0	8.7
Haemophilia/coagulation disorder		1.5	1.2	1.0	0.9	0.4	0.5	0.0	0.0	0.7	1.1	1.3
Receipt of blood/tissue		1.9	0.4	0.5	0.4	0.4	1.1	0.9	0.5	1.4	0.0	1.7
Mother with/at risk for HIV infection		0.3	0.4	1.5	0.0	0.4	0.0	0.5	0.0	0.0	3.3	0.4
Other/undetermined		3.2	6.4	4.4	4.7	7.5	6.9	6.9	7.8	11.0	8.8	3.9
AIDS defining condition (%)												
Pneumocystis jirovecii pneumonia (PCP)		27.6	27.2	27.7	29.3	23.7	28.2	24.1	28.1	32.9	28.3	27.5
Kaposi's sarcoma (KS)		11.9	8.7	9.9	5.3	8.6	6.4	10.3	9.0	10.6	11.1	11.3
PCP and other (not KS)		5.6	6.8	8.0	7.3	8.6	6.4	9.1	5.0	6.8	14.1	5.9
Oesophageal candidiasis		10.1	12.1	7.0	12.6	8.6	6.9	10.3	12.7	9.3	9.1	10.1
Mycobacterium avium		4.8	3.0	2.3	1.6	2.0	2.0	1.3	1.8	1.2	1.0	4.3
HIV wasting disease		5.3	6.0	3.8	4.9	6.9	3.0	2.2	4.1	4.3	3.0	5.2
Other conditions		34.7	36.2	41.3	39.0	41.6	47.0	42.7	39.4	34.8	33.3	35.7

1 Late HIV diagnosis defined as HIV infection newly diagnosed within 3 months of AIDS diagnosis. Percentage with late HIV diagnosis for 1999 only. Total percentage with late HIV diagnosis in 1999 – 2008 only.

2 AIDS diagnoses in NSW in 2008 not included.

3 Not adjusted for reporting delay.

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

5 Excludes males who also reported a history of sex with men.

Source: State/Territory health authorities

Table 1.3.2 Number of AIDS diagnoses by State/Territory, sex and year

		Year of AIDS diagnosis										
State/Territory	**Sex**	**≤ 99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[1]**	**Total[1,2]**
ACT	M	84	2	0	2	3	0	1	0	1	1	94
	F	7	1	0	0	1	1	0	0	0	0	10
NSW[1]	M	4 715	115	91	105	140	91	97	96	64	–	5 514
	F	191	16	9	6	5	8	14	5	10	–	264
NT	M	35	0	1	1	3	1	0	2	2	2	47
	F	0	0	0	0	1	2	1	0	0	0	4
QLD	M	825	39	28	47	20	27	33	19	21	21	1 080
	F	47	3	1	4	4	5	4	4	1	0	73
SA	M	347	8	6	13	5	9	9	12	3	6	418
	F	25	0	3	2	0	1	0	1	0	0	32
TAS	M	44	1	1	1	0	1	2	3	2	0	55
	F	3	0	0	1	0	0	0	0	0	0	4
VIC	M	1 661	62	45	45	44	39	55	60	44	48	2 103
	F	75	3	7	3	4	5	8	6	5	5	121
WA	M	352	14	17	10	12	10	7	6	7	13	448
	F	27	1	3	4	2	0	1	4	0	3	45
Total		**8 464**	**265**	**213**	**246**	**245**	**202**	**232**	**221**	**161**	**99**	**10 348**

1 AIDS diagnoses in NSW in 2008 not included.

2 Includes 36 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.3.3 Number of AIDS diagnoses by HIV exposure category, sex and year

		Year of AIDS diagnoses										
HIV exposure category	**Sex**	**≤ 99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total**
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Men who have sex with men	M	6 751	171	140	168	150	118	135	118	98	55	7 904
Men who have sex with men, and injecting drug use	M	379	16	9	15	16	18	20	16	10	1	500
Injecting drug use[1]	M	167	11	5	8	12	10	10	11	1	1	236
	F	85	4	3	1	3	2	5	0	1	0	104
Heterosexual contact	M	300	25	24	22	31	19	22	39	17	23	522
	F	192	17	16	16	12	18	22	17	15	7	332
Haemophilia/coagulation disorder	M	111	3	2	2	1	1	0	0	1	1	122
	F	3	0	0	0	0	0	0	0	0	0	3
Receipt of blood/tissue	M	78	0	0	0	1	2	1	1	2	0	85
	F	62	1	1	1	0	0	1	0	0	0	66
Health care setting	M	1	0	0	0	0	0	0	0	0	0	1
	F	3	0	0	0	0	0	0	0	0	0	3
Other/undetermined	M	246	15	8	9	16	10	15	13	15	8	355
	F	13	1	1	2	1	2	0	3	0	0	23
Total Adults/Adolescents[2]		8 417	264	210	246	244	202	231	221	161	96	10 293
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for HIV infection	M	13	0	1	0	0	0	1	0	0	1	16
	F	14	1	2	0	1	0	0	0	0	2	20
Haemophilia/coagulation disorder	M	6	0	0	0	0	0	0	0	0	0	6
	F	0	0	0	0	0	0	0	0	0	0	0
Receipt blood/tissue	M	11	0	0	0	0	0	0	0	0	0	11
	F	3	0	0	0	0	0	0	0	0	0	3
Other/undetermined	M	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0
Total children		47	1	3	0	1	0	1	0	0	3	56
Total[2]		**8 464**	**265**	**213**	**246**	**245**	**202**	**232**	**221**	**161**	**99**	**10 348**

1 Excludes males who also reported a history of sex with men.

2 Includes 36 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.3.4 Number of deaths following AIDS by State/Territory, sex and year of death

		Year of death following AIDS										
State/Territory	**Sex**	**≤ 99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[1]**	**Total[2]**
ACT	M	64	3	2	0	1	0	2	1	0	0	73
	F	3	1	0	1	1	0	1	0	0	0	7
NSW	M	3 250	79	60	49	44	43	30	27	15	–	3 597
	F	115	4	3	5	2	2	4	1	2	–	138
NT	M	24	0	1	1	0	0	0	1	3	2	32
	F	0	0	0	0	0	1	0	0	0	0	1
QLD	M	568	16	17	16	11	11	13	13	11	3	679
	F	31	2	3	1	2	2	0	2	0	0	43
SA	M	233	5	8	10	5	11	2	5	1	0	280
	F	15	1	0	2	2	0	0	0	0	0	20
TAS	M	30	0	1	1	0	0	0	1	0	0	33
	F	2	0	0	0	0	0	0	0	0	0	2
VIC	M	1 287	29	21	14	17	12	13	23	10	19	1 445
	F	50	1	6	0	1	1	0	2	3	0	64
WA	M	261	7	5	3	4	7	4	3	5	0	299
	F	18	1	2	1	1	1	0	2	3	0	29
Total		**5 971**	**149**	**130**	**104**	**91**	**91**	**69**	**83**	**53**	**24**	**6 765**

1 Deaths following AIDS in NSW in 2008 not included.

2 Includes 23 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.3.5 Number of deaths following AIDS by HIV exposure category, sex and year

		Year of death following AIDS										
Exposure category	**Sex**	**≤ 99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total[2]**
Adults/adolescents (13 years and older at death following AIDS)												
Men who have sex with men	M	4 875	104	85	73	55	58	37	52	20	19	5 378
Men who have sex with men, and injecting drug use	M	257	7	11	6	9	8	7	4	5	1	315
Injecting drug use[1]	M	102	7	7	3	6	6	5	1	2	1	140
	F	49	2	1	4	3	0	3	0	2	0	64
Heterosexual contact	M	147	10	5	7	7	6	8	12	8	0	210
	F	107	7	9	5	5	6	1	5	5	0	150
Haemophilia/coagulation disorder	M	88	3	3	1	0	0	2	1	3	1	102
	F	3	0	0	0	0	0	0	0	0	0	3
Receipt of blood/tissue	M	69	0	0	0	0	2	0	2	2	0	75
	F	51	0	3	1	0	1	1	0	1	0	58
Health care setting	M	1	0	0	0	0	0	0	0	0	0	1
	F	2	0	0	0	0	0	0	0	0	0	2
Other/undetermined	M	157	8	3	4	5	4	4	2	5	1	193
	F	10	1	0	0	1	0	0	2	0	0	14
Total Adults/Adolescents[2]		5 938	149	128	104	91	91	68	83	53	23	6 728
Children (less than 13 years at death following AIDS)												
Mother with/at risk for HIV infection	M	7	0	1	0	0	0	1	0	0	1	10
	F	9	0	1	0	0	0	0	0	0	0	10
Haemophilia/coagulation disorder	M	3	0	0	0	0	0	0	0	0	0	3
	F	0	0	0	0	0	0	0	0	0	0	0
Receipt of blood/tissue	M	11	0	0	0	0	0	0	0	0	0	11
	F	3	0	0	0	0	0	0	0	0	0	3
Total children		33	0	2	0	0	0	1	0	0	1	37
Total[2]		**5 971**	**149**	**130**	**104**	**91**	**91**	**69**	**83**	**53**	**24**	**6 765**

1 Excludes males who also reported a history of sex with men.

2 Includes 23 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.3.6 Number (percent) of AIDS diagnoses in Australia, 1999 – 2008, and age standardised annual incidence per 100 000 population[1] by year of AIDS diagnosis and region of birth

	1999 – 2003			2004 – 2008		
Region/ Country of birth	**Number**	**Percent**	**Age standardised incidence**	**Number**	**Percent**	**Age standardised incidence**
Australia	801	67.5	1.2	579	63.3	0.8
Overseas born	359	30.2	1.1	300	32.8	0.9
Other Oceania	*60*	*5.1*	*1.8*	*39*	*4.3*	*2.0*
United Kingdom and Ireland	*49*	*4.1*	*0.9*	*52*	*5.7*	*2.1*
Other Europe	*68*	*5.7*	*1.4*	*40*	*4.4*	*1.4*
Middle East/North Africa	*10*	*0.8*	*0.6*	*12*	*1.3*	*1.4*
Sub-Saharan Africa	*47*	*4.0*	*3.8*	*46*	*5.0*	*4.9*
Asia	*92*	*7.8*	*1.1*	*95*	*10.4*	*1.3*
North America	*14*	*1.2*	*2.3*	*6*	*0.7*	*1.2*
South/Central America and the Caribbean	*19*	*1.6*	*3.1*	*10*	*1.1*	*2.7*
Total with a reported country of birth	**1 160**	**97.7**	**1.2**	**879**	**96.1**	**0.9**
Not reported	27	2.3		36	3.9	
Total	**1 187**	**100.0**		**915**	**100.0**	

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

Source: State/Territory health authorities

Table 1.3.7 Number of AIDS diagnoses by AIDS-defining condition, year of diagnosis and sex

	Year of AIDS diagnosis											
	≤ 99		00 – 02		03 – 05		06 – 08[1]		Cumulative to 31 Dec 08			
AIDS defining condition	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**Total[1,2]**	**%**
Pneumocystis jirovecii pneumonia (PCP)	2 249	79	183	19	154	15	132	10	2 718	123	2 851	27.6
Kaposi's sarcoma (KS)	1 003	5	57	0	58	0	48	0	1 166	5	1 172	11.3
KS and PCP alone	61	0	1	0	2	0	6	0	70	0	70	0.7
KS and other (not PCP)	138	0	8	0	7	0	3	0	156	0	156	1.5
PCP and other (not KS)	434	31	45	8	50	5	29	7	558	51	614	5.9
Oesophageal candidiasis	816	40	70	8	52	7	49	3	987	58	1 047	10.1
Toxoplasmosis	265	11	24	1	12	3	8	0	309	15	328	3.2
Cryptococcosis	303	13	21	0	26	5	15	0	365	18	385	3.7
Non-Hodgkin's lymphoma	331	15	40	2	62	0	36	3	469	20	489	4.7
Mycobacterium avium	372	30	16	1	11	1	6	1	405	33	439	4.2
Herpes simplex virus	174	16	7	1	10	0	0	0	191	17	209	2.0
HIV encephalopathy	284	16	41	2	43	5	15	0	383	23	406	3.9
Cytomegalovirus	304	6	12	2	10	1	12	1	338	10	351	3.4
HIV wasting disease	412	38	35	1	24	4	18	1	489	44	535	5.2
Cryptosporidiosis	186	6	8	0	11	0	6	0	211	6	217	2.1
Mycobacterium tuberculosis	42	6	8	4	9	2	4	5	63	17	80	0.8
Pulmonary tuberculosis[3]	45	8	15	6	17	7	11	4	88	25	114	1.1
Recurrent pneumonia[3]	53	3	5	2	7	4	8	1	73	10	85	0.8
Cervical cancer[3]	–	4	–	1	–	1	–	0	–	6	6	0.1
Other single diagnoses	99	10	17	1	11	1	6	1	133	13	146	1.4
Other multiple diagnoses	492	38	41	8	33	6	21	7	587	59	648	6.3
Total[2]	**8 063**	**375**	**654**	**67**	**609**	**67**	**433**	**44**	**9 759**	**553**	**10 348**	**100.0**

1 AIDS diagnoses in NSW in 2008 not included.

2 Includes 36 people whose sex was reported as transgender.

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

Source: State/Territory health authorities

1.4 National surveillance for newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people

Table 1.4.1 Characteristics of cases of newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people[1], 1999 – 2008, by year. Number of cases, median age and percent[2] of total cases by sex, newly acquired infection, late HIV diagnosis, State/Territory and HIV exposure category

	Year of HIV diagnosis										
Characteristic	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**Total**
Total cases	**11**	**16**	**14**	**27**	**23**	**22**	**18**	**19**	**17**	**19**	**186**
Males (%)	72.7	87.5	57.1	55.6	73.9	72.7	83.3	73.7	82.4	79.0	73.1
Median age (years)	28	30	29	36	34	29	33	31	33	35	33
Newly acquired infection	27.3 (3)	18.7 (3)	14.3 (2)	22.2 (6)	17.4 (4)	31.8 (7)	22.2 (4)	31.6 (6)	23.5 (4)	36.8 (7)	24.7(46)
Late HIV diagnosis[3]											
% CD4+ cell count <200 cells/µl	36.4	37.5	14.3	18.5	26.1	31.8	11.1	10.5	5.9	15.8	24.4
% CD4+ cell count ≥200 cells/µl	9.1	25.0	64.3	77.8	56.5	59.1	66.7	63.2	70.6	63.2	58.6
CD4+ cell count not reported	54.5	37.5	21.4	3.7	17.4	9.1	22.2	26.3	23.5	21.0	21.0
State/Territory											
ACT	–	–	–	–	–	–	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
NSW	54.5 (6)	37.5 (6)	28.6 (4)	29.6 (8)	17.4 (4)	18.2 (4)	11.1 (2)	42.1 (8)	41.2 (7)	36.8 (7)	30.1(56)
NT	0.0 (0)	6.2 (1)	7.1 (1)	7.4 (2)	4.3 (1)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.3 (1)	3.8 (7)
QLD	9.1 (1)	18.7 (3)	21.4 (3)	18.5 (5)	26.1 (6)	22.7 (5)	44.4 (8)	15.8 (3)	23.5 (4)	15.8 (3)	22.0(41)
SA	9.1 (1)	6.2 (1)	7.1 (1)	7.4 (2)	8.7 (2)	9.1 (2)	0.0 (0)	0.0 (0)	5.9 (1)	21.1 (4)	7.5(14)
TAS	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.5 (1)
VIC	9.1 (1)	0.0 (0)	14.3 (2)	3.7 (1)	21.7 (5)	18.2 (4)	11.1 (2)	10.5 (2)	17.6 (3)	0.0 (0)	10.8(20)
WA	18.2 (2)	31.3 (5)	21.4 (3)	33.3 (9)	21.7 (5)	22.7 (5)	33.3 (6)	31.6 (6)	11.8 (2)	21.1 (4)	25.3(47)
HIV exposure category											
Men who have sex with men	40.0 (4)	50.0 (8)	42.9 (6)	25.9 (7)	31.8 (7)	52.4(11)	33.3 (6)	52.6(10)	47.1 (8)	52.6(10)	42.1(77)
Men who have sex with men, and injecting drug use	10.0 (1)	6.2 (1)	0.0 (0)	3.7 (1)	13.6 (3)	0.0 (0)	22.2 (4)	0.0 (0)	11.8 (2)	0.0 (0)	6.5(12)
Injecting drug use[4]	20.0 (2)	25.0 (4)	28.6 (4)	14.8 (4)	13.6 (3)	19.0 (4)	16.7 (3)	26.3 (5)	17.6 (3)	31.6 (6)	20.8(38)
Heterosexual contact	30.0 (3)	18.7 (3)	21.4 (3)	55.6(15)	40.9 (9)	28.6 (6)	27.8 (5)	21.1 (4)	23.5 (4)	15.8 (3)	30.1(55)
Haemophilia/coagulation disorder	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Receipt of blood/tissue	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Mother with/at risk for HIV infection	0.0 (0)	0.0 (0)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.5 (1)
Other/undetermined[5]	9.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	4.3 (1)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	1.6 (3)

1 Information on Indigenous status was available in ACT from 1 January 2005.

2 Number of cases in brackets.

3 Late HIV diagnosis was defined as defined as newly diagnosed HIV infection with a CD4+ cell count of <200 cells/µl.

4 Excludes males who also reported a history of sex with men.

5 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 1.4.2 Rate[1] of diagnosis of HIV infection, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
Major cities	Aboriginal and Torres Strait Islander	9	5	8	8	9
	Non-Indigenous[2]	6	6	6	6	6
Inner regional	Aboriginal and Torres Strait Islander	2	4	2	3	2
	Non-Indigenous[2]	1	1	2	2	2
Outer regional	Aboriginal and Torres Strait Islander	5	2	1	2	1
	Non-Indigenous[2]	3	2	2	3	4
Remote	Aboriginal and Torres Strait Islander	5	3	5	0	3
	Non-Indigenous[2]	2	1	4	4	1
Very remote	Aboriginal and Torres Strait Islander	0	1	1	0	0
	Non-Indigenous[2]	4	0	5	0	0
Total	**Aboriginal and Torres Strait Islander**	**5**	**4**	**4**	**4**	**4**
	Non-Indigenous[2]	**5**	**5**	**5**	**5**	**5**

1 Rate per 100 000 population. Population estimates from *2006 Census of Population and Housing* (Australian Bureau of Statistics).

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

1.5 National surveillance for perinatal exposure to HIV

Table 1.5.1 Number and population rate[1] of perinatal exposure to HIV among children born in Australia, 1999 – 2008, by State/Territory and year of birth

State/ Territory	1999 – 2000		2001 – 2002		2003 – 2004		2005 – 2006		2007 – 2008	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	3	36.1	0	0.0	1	12.0	0	0.0	0	0.0
NSW	21	12.1	23	13.4	23	13.4	17	9.8	29	16.2
NT	1	13.8	0	0.0	0	0.0	0	0.0	0	0.0
QLD	4	4.3	9	9.4	13	13.2	8	7.7	9	7.3
SA	0	0.0	3	8.6	0	0.0	3	8.3	4	10.2
TAS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
VIC	9	7.6	5	4.2	8	6.5	9	7.0	24	17.1
WA	10	20.0	16	33.6	5	10.1	2	3.7	0	0.0
Total	**48**	**9.6**	**56**	**11.3**	**50**	**9.9**	**39**	**7.4**	**66**	**11.6**

1 Average annual rate of perinatal HIV exposure per 100 000 livebirths. Number of livebirths by State/Territory and year from *Births, Australia* (Australian Bureau of Statistics).

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

Table 1.5.2 Number of women whose perinatally HIV exposed children were born in Australia, 1999 – 2008, by time of the woman's HIV diagnosis relative to the first exposed child's birth

First exposed child's year of birth	Interval of the woman's HIV diagnosis					
	Before the birth (years)				At or after the birth	Total
	< 1	1–2	> 2	Total		
1999 – 2000	17	4	16	37	5	42
2001 – 2002[1]	16	2	19	37	2	40
2003 – 2004[1]	16	2	19	37	0	38
2005 – 2006	12	4	7	23	3	26
2007 – 2008	16	9	16	41	2	43
Total[1]	**77**	**21**	**77**	**175**	**12**	**189**

1 Total includes 1 woman whose first exposed child was born in 2001 – 2002 and 1 woman who first exposed child was born in 2003 – 2004, whose date of HIV diagnosis was not reported.

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

Table 1.5.3 Number of women whose perinatally HIV exposed children were born in Australia, 1999 – 2008, and number of perinatally exposed children, by year of birth of the first exposed child and the woman's HIV exposure category

Year of the first exposed child's birth/ HIV exposure category	1999 – 2003		2004 – 2008		1999 – 2008	
	Number of women	Number of exposed children	Number of women	Number of exposed children	Number of women	Number of exposed children
Injecting drug use	6	11	10	13	16	24
Heterosexual contact	89	108	75	116	164	224
Sex with injecting drug user	*12*	*14*	*7*	*16*	*19*	*30*
Sex with bisexual male	*5*	*7*	*3*	*4*	*8*	*11*
From high prevalence country	*27*	*32*	*32*	*46*	*59*	*78*
Sex with person from a high prevalence country	*15*	*17*	*11*	*22*	*26*	*39*
Sex with person with medically acquired HIV	*1*	*1*	*0*	*0*	*1*	*1*
Sex with person with HIV infection, other exposure	*10*	*17*	*4*	*6*	*14*	*23*
Not further specified	*19*	*20*	*18*	*22*	*37*	*42*
Receipt of blood/tissue	1	1	0	0	1	1
Other/undetermined	2	3	6	7	8	10
Total	**98**	**123**	**91**	**136**	**189**	**259**

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

Table 1.5.4 Number of perinatally exposed children born in Australia, 1999 – 2008, and number with diagnosed HIV infection by year of the child's birth and time of the woman's HIV diagnosis relative to the child's birth

Child's year of birth	Interval of the woman's HIV diagnosis					
	Before or at the birth		After the birth		Total	
	Number exposed	Number with HIV	Number exposed	Number with HIV	Number exposed[1]	Number with HIV
1999 – 2000	43	0	5	4	48	4
2001 – 2002[1]	53	1	2	1	56	2
2003 – 2004[1]	49	2	0	0	50	2
2005 – 2006	35	2	4	2	39	4
2007 – 2008	64	0	2	2	66	2
Total	**244**	**5**	**13**	**9**	**259**	**14**

1 Includes 1 woman whose exposed child was born in 2001 – 2002 and 1 woman whose exposed child was born in 2003 – 2004, for whom the date of HIV diagnosis was not reported.

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

Table 1.5.5 Number of perinatally exposed children, born in 1999 – 2008 to women whose HIV infection was diagnosed antenatally, and number with diagnosed HIV infection by year of the child's birth and proportion of mothers reporting use of interventions to reduce the risk of mother-to-child transmission

Child's year of birth/ Reported use of interventions	Proportion of mothers reporting use of interventions	Number of children with HIV infection
1999 – 2000	43	0
No reported use of interventions	*2.3*	*0*
Use of 1 intervention	*18.6*	*0*
Use of antiretroviral therapy in pregnancy and avoidance of breastfeeding	*60.5*	*0*
Use of antiretroviral therapy in pregnancy, elective caesarean delivery and avoidance of breastfeeding	*18.6*	*0*
2001 – 2002	53	1
No reported use of interventions	*5.7*	*0*
Use of 1 intervention	*17.0*	*1*
Use of antiretroviral therapy in pregnancy and avoidance of breastfeeding	*60.4*	*0*
Use of antiretroviral therapy in pregnancy, elective caesarean delivery and avoidance of breastfeeding	*17.0*	*0*
2003 – 2004	49	2
No reported use of interventions	*2.0*	*1*
Use of 1 intervention	*4.1*	*0*
Use of antiretroviral therapy in pregnancy and avoidance of breastfeeding	*34.7*	*0*
Use of antiretroviral therapy in pregnancy, elective caesarean delivery and avoidance of breastfeeding	*59.2*	*1*
2005 – 2006	35	2
No reported use of interventions	*5.7*	*1*
Use of 1 intervention	*2.9*	*0*
Use of antiretroviral therapy in pregnancy and avoidance of breastfeeding only	*37.1*	*0*
Use of antiretroviral therapy in pregnancy, elective caesarean delivery and avoidance of breastfeeding	*51.4*	*1*
2007 – 2008	64	0
No reported use of interventions	*4.7*	*0*
Use of 1 intervention	*4.7*	*0*
Use of antiretroviral therapy in pregnancy and avoidance of breastfeeding	*39.1*	*0*
Use of antiretroviral therapy in pregnancy, elective caesarean delivery and avoidance of breastfeeding	*48.4*	*0*
Total	**244**	**5**

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

1.6 Global comparisons

Table 1.6.1 Estimated HIV prevalence in selected countries

	HIV prevalence	
Country	**2008[1]**	**Rate[2]**
Asia Pacific		
Australia	17 444	123
Cambodia[3]	75 000	800
China[3]	700 000	100
India[3]	2 400 000	300
Indonesia[3]	270 000	200
Japan[3]	9 600	<100
Malaysia[3]	80 000	500
Myanmar[3]	240 000	700
New Zealand[3]	1 400	100
Papua New Guinea[3]	54 000	1 500
Philippines[3]	8 300	<100
Republic of Korea[3]	13 000	<100
Thailand[3]	610 000	1 400
Vietnam[3]	290 000	500
Europe		
France[3]	140 000	400
Germany[3]	53 000	100
Italy[3]	150 000	400
Spain[3]	140 000	500
United Kingdom[3,4]	77 400	127
North America		
Canada[3]	73 000	400
United States[3]	1 200 000	600

1 Estimated number of people living with HIV/AIDS.

2 Rate per 100 000 population aged 15 – 49 years.

3 Estimated HIV prevalence in 2007.

4 Rate per 100 000 population in 2007.

Tables

2 National surveillance for viral hepatitis

2.1 Notification of viral hepatitis to the National Notifiable Diseases Surveillance System

2.1.1 Number and rate of diagnosis of hepatitis A infection, 2004 – 2008, by State/Territory and year 57

2.1.2 Number of diagnoses of hepatitis A infection, 2004 – 2008, by age group, year and sex 57

2.1.3 Number and rate of diagnosis of newly acquired hepatitis B infection, 2004 – 2008, by State/Territory and year 58

2.1.4 Number of diagnoses of newly acquired hepatitis B infection, 2004 – 2008, by age group, year and sex 58

2.1.5 Number of diagnoses of newly acquired hepatitis B infection, 2004 – 2008, by exposure category, year and sex 59

2.1.6 Number and percentage of diagnoses of newly acquired hepatitis B infection, 2004 – 2008, and the Australian population, by region/country of birth and year 60

2.1.7 Number and rate of diagnosis of hepatitis C infection, 2004 – 2008, by State/Territory and year 61

2.1.8 Number of diagnoses of hepatitis C infection, 2004 – 2008, by age group, year and sex 61

2.1.9 Number of diagnoses of newly acquired hepatitis C infection, 2004 – 2008, by State/Territory and year 61

2.1.10 Number of diagnoses of newly acquired hepatitis C infection, 2004 – 2008, by age group, year and sex 62

2.1.11 Number of diagnoses of newly acquired hepatitis C infection, 2004 – 2008, by exposure category, year and sex 62

2.1.12 Number and percentage of diagnoses of newly acquired hepatitis C infection, 2004 – 2008, and the Australian population, by region/country of birth and year 63

2.1.13 Number of diagnoses of hepatitis D infection, 2004 – 2008, by State/Territory and year 64

2.1.14 Number of diagnoses of hepatitis D infection, 2004 – 2008, by age group, year and sex 64

2.2 National surveillance for viral hepatitis in Aboriginal and Torres Strait Islander people

2.2.1 Number and rate of diagnosis of newly acquired hepatitis B infection, 2004 – 2008, by State/Territory, Aboriginal and Torres Strait Islander status and year 65

2.2.2 Number (percent) of diagnoses of newly acquired hepatitis B infection, 2008, by State/Territory and Aboriginal and Torres Strait Islander status 65

2.2.3 Number and rate of diagnosis of hepatitis C infection, 2004 – 2008, by State/Territory, Aboriginal and Torres Strait Islander status and year 66

2.2.4 Number (percent) of diagnoses of hepatitis C infection, 2008, by State/Territory and Aboriginal and Torres Strait Islander status 66

2.2.5 Number (percent) of diagnoses of hepatitis D infection, 2008, by State/Territory and Aboriginal and Torres Strait Islander status 67

2.3 Long term outcomes among people with chronic viral hepatitis

2.3.1 Number (percent) of liver transplants, 1985 – 2008, by year and primary cause of liver disease, and hepatitis status for cases where the primary diagnosis was hepatocellular carcinoma 68

2 National surveillance for viral hepatitis

2.1 Notification of viral hepatitis to the National Notifiable Diseases Surveillance System

Table 2.1.1 Number and rate[1] of diagnosis of hepatitis A infection, 2004 – 2008, by State/Territory and year

	Year of diagnosis									
	2004		2005		2006		2007		2008	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	1	0.3	3	0.8	1	0.3	2	0.5	5	1.5
NSW	137	2.0	83	1.2	95	1.4	65	0.9	69	1.0
NT	14	5.6	65	27.6	30	12.0	5	1.9	3	2.3
QLD	27	0.7	51	1.3	31	0.8	28	0.7	71	1.6
SA	11	0.7	10	0.7	8	0.5	5	0.3	20	1.3
TAS	1	0.2	2	0.4	4	0.9	3	0.6	1	0.2
VIC	71	1.4	59	1.2	44	0.9	36	0.7	85	1.6
WA	57	2.8	53	2.6	68	3.3	21	1.0	22	1.0
Total	**319**	**1.6**	**326**	**1.6**	**281**	**1.4**	**165**	**0.8**	**276**	**1.3**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory and year from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.2 Number of diagnoses of hepatitis A infection, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T	M	F	T[1]	M	F	T	M	F	T	M	F	T
0 – 4	19	6	25	21	11	32	15	10	25	5	8	13	9	6	15
5 – 14	42	32	74	34	34	68	35	33	68	10	19	29	35	25	60
15 – 19	11	7	18	12	14	26	9	10	19	4	4	8	12	7	19
20 – 29	30	24	54	32	37	69	32	20	52	24	17	41	41	33	74
30 – 39	31	26	57	25	17	43	16	20	36	15	9	24	22	10	32
40 – 49	26	9	35	23	13	36	21	15	36	14	8	22	15	15	30
50 – 59	11	9	20	13	14	27	14	9	23	7	3	10	15	8	23
60 +	17	19	36	13	12	25	13	9	22	8	10	18	10	13	23
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**187**	**132**	**319**	**173**	**152**	**326**	**155**	**126**	**281**	**87**	**78**	**165**	**159**	**117**	**276**

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 newly acquired hepatitis B infection, 2004 – 2008, by State/Territory and year

	Year of diagnosis									
	2004		2005		2006		2007		2008	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	5	1.4	3	0.9	6	1.7	13	3.4	1	0.3
NSW	53	0.8	56	0.8	53	0.8	56	0.8	46	0.7
NT	7	3.1	5	2.2	11	4.9	12	4.9	8	4.5
QLD	54	1.4	64	1.6	50	1.2	66	1.6	46	1.1
SA	8	0.5	8	0.5	7	0.5	12	0.8	11	0.7
TAS	17	3.9	3	0.7	9	2.0	9	2.0	12	2.7
VIC	110	2.2	79	1.5	106	2.0	84	1.6	88	1.7
WA	28	1.4	33	1.6	49	2.3	41	1.9	34	1.6
Total	**282**	**1.4**	**251**	**1.2**	**291**	**1.4**	**293**	**1.4**	**246**	**1.2**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory and year from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.4 Number of diagnoses of newly acquired hepatitis B infection, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T	M	F	T[1]	M	F	T[1]	M	F	T	M	F	T
0 – 4	2	1	3	1	0	1	3	1	4	0	1	1	1	1	2
5 – 14	4	1	5	3	1	5	2	3	5	1	2	3	1	1	2
15 – 19	8	12	20	3	9	12	8	13	21	9	10	19	6	5	11
20 – 29	58	62	120	48	41	89	61	32	93	61	40	101	48	28	76
30 – 39	52	22	74	57	19	76	49	36	86	55	29	84	50	27	77
40 – 49	21	11	32	28	11	39	32	19	51	28	14	42	36	8	44
50 – 59	13	5	18	9	8	17	16	6	22	20	5	25	13	3	16
60 +	8	2	10	9	3	12	5	4	9	14	4	18	15	3	18
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**166**	**116**	**282**	**158**	**92**	**251**	**176**	**114**	**291**	**188**	**105**	**293**	**170**	**76**	**246**

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 B infection[1], 2004 – 2008, by exposure category, year and sex

	Year of diagnosis														
	2004			2005			2006			2007			2008		
Exposure category	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Injecting drug use	49	27	76	30	14	44	43	25	68	32	18	50	33	9	42
Sexual contact	18	14	32	17	17	34	10	9	19	9	11	20	16	8	24
Men who have sex with men	*1*	–	*1*	*7*	–	*7*	*3*	–	*3*	*3*	–	*3*	*1*	–	*1*
Heterosexual contact	*17*	*13*	*30*	*9*	*13*	*22*	*6*	*9*	*15*	*6*	*11*	*17*	*13*	*7*	*20*
Not further specified	*0*	*1*	*1*	*1*	*4*	*5*	*1*	*0*	*1*	*0*	*0*	*0*	*2*	*1*	*3*
Blood/tissue recipient	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Skin penetration procedure	0	0	0	0	0	0	1	0	1	4	0	4	6	4	10
Healthcare exposure	1	0	1	0	0	0	0	0	0	1	0	1	4	1	5
Household contact	1	0	1	3	1	4	4	0	4	4	3	7	3	2	5
Other	0	0	0	0	0	0	3	2	5	15	5	20	3	1	4
Undetermined	17	18	35	16	4	20	23	12	35	1	3	4	15	5	20
Total	**86**	**59**	**145**	**66**	**36**	**102**	**84**	**48**	**132**	**66**	**40**	**106**	**82**	**30**	**112**

1 Includes diagnoses in SA, TAS and VIC in 2004 – 2008 and diagnoses in ACT in 2004 – 2006 only.

Source: State/Territory health authorities

Table 2.1.6 Number and percentage of diagnoses of newly acquired hepatitis B infection[1], 2004 – 2008, and the Australian population, by region/country of birth and year

Region/ country of birth	Year of diagnosis 2004 Number	2004 Percent	2005 Number	2005 Percent	2006 Number	2006 Percent	2007 Number	2007 Percent	2008 Number	2008 Percent	Australian population[2]
Total with a reported country of birth	**137**	**90.7**	**90**	**67.2**	**155**	**88.6**	**162**	**82.2**	**91**	**81.3**	**19 855 288**
Australia	102	67.5	74	55.2	123	70.3	133	67.5	66	58.9	70.9
Overseas born	35	23.1	16	11.9	32	18.3	29	14.7	25	22.3	22.2
Other Oceania	*4*	*2.6*	*1*	*0.7*	*9*	*5.1*	*4*	*2.0*	*3*	*2.7*	*2.5*
United Kingdom and Ireland	*4*	*2.6*	*2*	*1.5*	*5*	*2.9*	*6*	*3.0*	*2*	*1.8*	*5.5*
Other Europe	*12*	*7.9*	*2*	*1.5*	*5*	*2.9*	*8*	*4.1*	*4*	*3.6*	*5.0*
Middle East/North Africa	*2*	*1.3*	*1*	*0.7*	*0*	*0.0*	*2*	*1.0*	*1*	*0.9*	*1.3*
Sub-Saharan Africa	*1*	*0.7*	*5*	*3.7*	*5*	*2.9*	*1*	*0.5*	*2*	*1.8*	*1.0*
Asia	*11*	*7.3*	*5*	*3.7*	*8*	*4.6*	*7*	*3.6*	*12*	*10.7*	*6.1*
North America	*1*	*0.7*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0.5*
South/Central America and the Caribbean	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*1*	*0.5*	*1*	*0.9*	*0.4*
Not reported	14	9.3	44	32.8	20	11.4	35	17.8	21	18.8	6.9
Total	**151**	**100.0**	**134**	**100.0**	**175**	**100.0**	**197**	**100.0**	**112**	**100.0**	

1 Includes diagnoses in SA, TAS and VIC in 2004 – 2008 and diagnoses in WA in 2004 – 2007 only.

2 Population estimates by region/country of birth from 2006 Census by the Australian Bureau of Statistics.

Source: State/Territory health authorities

Table 2.1.7 Number and rate[1] of diagnosis of hepatitis C infection, 2004 – 2008, by State/Territory and year

	Year of diagnosis									
	2004		2005		2006		2007		2008	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	216	60.5	174	49.0	191	53.2	200	55.2	200	55.5
NSW	4 889	72.8	4 352	64.5	4 380	64.5	4 192	61.3	3 567	51.7
NT	260	120.5	258	118.1	269	123.6	230	105.8	225	101.2
QLD	2 583	66.1	2 664	66.7	2 812	68.9	2 711	65.1	2 634	62.0
SA	667	44.2	618	40.8	583	38.0	624	40.3	581	37.2
TAS	311	68.6	240	52.8	269	58.4	275	59.7	348	75.7
VIC	3 020	60.0	2 960	58.1	2 738	53.0	2 772	53.0	2 405	46.1
WA	1 147	57.1	1 055	51.7	1 118	53.7	1 273	60.1	1 343	61.7
Total	**13 093**	**64.7**	**12 321**	**60.2**	**12 360**	**59.6**	**12 277**	**58.5**	**11 303**	**53.2**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory and year from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 2.1.8 Number of diagnoses of hepatitis C infection, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	10	7	17	3	4	7	5	6	11	11	12	23	4	8	12
5 – 14	6	11	18	7	17	24	22	16	38	17	16	33	13	9	22
15 – 19	205	277	482	183	206	391	148	200	350	122	177	300	126	169	295
20 – 29	2 087	1 453	3 556	1 990	1 337	3 345	1 878	1 236	3 133	1 738	1 173	2 923	1 574	1 096	2 682
30 – 39	2 502	1 432	3 956	2 380	1 306	3 694	2 204	1 312	3 535	2 310	1 295	3 621	2 051	1 144	3 206
40 – 49	2 259	1 155	3 424	2 116	1 136	3 254	2 246	1 094	3 354	2 164	1 084	3 257	1 913	967	2 885
50 – 59	756	364	1 124	777	351	1 132	961	419	1 383	1 065	513	1 582	1 185	523	1 713
60 +	256	243	503	222	247	471	281	266	548	291	232	526	264	219	486
Not reported	11	2	13	0	2	3	5	3	8	5	3	12	0	0	2
Total	**8 092**	**4 944**	**13 093**	**7 678**	**4 606**	**12 321**	**7 750**	**4 552**	**12 360**	**7 723**	**4 505**	**12 277**	**7 129**	**4 135**	**11 303**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.9 Number of diagnoses of newly acquired hepatitis C infection, 2004 – 2008, by State/Territory and year

	Year of diagnosis[1]				
State/Territory	2004	2005	2006	2007	2008
ACT	7	15	15	9	5
NSW	59	43	55	65	24
NT	–	3	3	4	6
QLD	–	–	–	–	–
SA	63	51	55	48	65
TAS	26	27	10	20	24
VIC	163	129	192	160	154
WA	138	105	106	79	103
Total	**456**	**373**	**436**	**385**	**381**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.10 Number of diagnoses of newly acquired hepatitis C infection, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0 – 4	3	2	5	0	3	3	4	2	6	2	1	3	0	1	1
5 – 14	0	1	1	1	1	2	0	1	1	0	2	2	0	0	0
15 – 19	38	40	78	19	32	51	25	21	46	23	26	49	20	21	41
20 – 29	120	78	198	104	75	179	127	74	201	117	57	174	123	71	194
30 – 39	80	48	128	60	39	99	85	40	125	69	36	105	58	40	98
40 – 49	21	14	35	22	12	34	29	16	45	26	15	41	22	13	35
50 – 59	5	5	10	3	2	5	5	1	6	4	3	7	3	3	6
60 +	1	0	1	0	0	0	3	3	6	0	4	4	3	2	5
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	**268**	**188**	**456**	**209**	**164**	**373**	**278**	**158**	**436**	**241**	**144**	**385**	**229**	**151**	**381**

Source: National Notifiable Diseases Surveillance System

Table 2.1.11 Number of diagnoses of newly acquired hepatitis C infection[1], 2004 – 2008, by exposure category, year and sex

	Year of diagnosis														
	2004			2005			2006			2007			2008		
Exposure category	M	F	T	M	F	T	M	F	T	M	F	T[2]	M	F	T[2]
Injecting drug use[2]	204	122	326	159	132	291	187	108	295	135	71	207	81	48	129
Sexual contact	3	9	12	8	9	17	11	15	26	4	3	7	10	14	24
Blood/tissue recipient	0	1	1	2	1	3	1	1	2	1	2	3	0	0	0
Skin penetration procedure	5	7	12	6	4	10	26	11	37	2	2	4	21	16	37
Healthcare exposure	5	12	17	4	3	7	5	7	12	1	1	2	3	0	3
Household contact	1	1	2	3	0	3	1	1	2	0	0	0	2	2	4
Other[3]	9	5	14	18	1	19	22	8	30	9	5	14	27	5	32
Undetermined	36	29	65	43	42	85	42	28	70	17	13	30	84	69	154
Total	**263**	**186**	**449**	**243**	**192**	**435**	**295**	**179**	**474**	**169**	**97**	**267**	**228**	**154**	**383**

1 Includes diagnoses in NSW, SA, TAS, VIC and WA in 2004 – 2008, diagnoses in ACT in 2004 – 2006 and 2008 only, and diagnoses in NT in 2005, 2006 and 2008 only.

2 Totals include diagnoses in people whose sex was reported as transgender, or not reported.

3 Includes cases for which the only reported risk factor was having been born to a woman with hepatitis C infection.

Source: State/Territory health authorities

Table 2.1.12 Number and percentage of diagnoses[1] of newly acquired hepatitis C infection, 2004 – 2008, and the Australian population, by region/country of birth and year

Region/ Country of birth population[2]	Year of diagnosis 2004 Number	2004 Percent	2005 Number	2005 Percent	2006 Number	2006 Percent	2007 Number	2007 Percent	2008 Number	2008 Percent	Australian
Total with a reported country of birth	**302**	**68.2**	**347**	**82.4**	**394**	**86.4**	**317**	**82.8**	**312**	**88.1**	**19 855 288**
Australia	272	61.4	313	74.3	361	79.2	285	74.4	280	79.1	70.9
Overseas born	30	6.8	34	8.1	33	7.2	32	8.4	32	9.0	22.2
Other Oceania	*6*	*1.4*	*7*	*1.7*	*5*	*1.1*	*4*	*1.0*	*3*	*0.8*	*2.5*
United Kingdom and Ireland	*7*	*1.6*	*7*	*1.7*	*5*	*1.1*	*6*	*1.6*	*10*	*2.8*	*5.5*
Other Europe	*5*	*1.1*	*7*	*1.7*	*6*	*1.3*	*6*	*1.6*	*2*	*0.6*	*5.0*
Middle East/North Africa	*1*	*0.2*	*1*	*0.2*	*2*	*0.4*	*3*	*0.8*	*2*	*0.6*	*1.3*
Sub-Saharan Africa	*2*	*0.5*	*2*	*0.5*	*1*	*0.2*	*2*	*0.5*	*1*	*0.3*	*1.0*
Asia	*8*	*1.8*	*9*	*2.1*	*12*	*2.6*	*10*	*2.6*	*13*	*3.7*	*6.1*
North America	*1*	*0.2*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*1*	*0.3*	*0.5*
South/Central America and the Caribbean	*0*	*0.0*	*1*	*0.2*	*2*	*0.4*	*1*	*0.3*	*0*	*0.0*	*0.4*
Not reported	141	31.8	74	17.6	62	13.6	66	17.2	42	11.9	6.9
Total	**443**	**100.0**	**421**	**100.0**	**456**	**100.0**	**383**	**100.0**	**354**	**100.0**	

1 Includes diagnoses in NSW, SA, TAS, VIC and WA only in 2004 – 2008, and diagnoses in NT in 2008 only.

2 Population estimates by region/country of birth from the 2006 Census of the Australian Bureau of Statistics.

Source: State/Territory health authorities

Table 2.1.13 Number of diagnoses of hepatitis D infection, 2004 – 2008, by State/Territory and year

	Year of diagnosis				
State/Territory	**2004**	**2005**	**2006**	**2007**	**2008**
ACT	0	0	0	0	0
NSW	14	15	15	11	14
NT	0	0	0	0	1
QLD	12	11	7	9	7
SA	0	0	0	0	0
TAS	0	0	0	0	0
VIC	3	4	7	10	14
WA	0	2	1	4	6
Total	**29**	**32**	**30**	**34**	**42**

Source: National Notifiable Diseases Surveillance System

Table 2.1.14 Number of diagnoses of hepatitis D infection, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	**2004**			**2005**			**2006**			**2007**			**2008**		
(years)	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
0 – 4	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
5 – 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	2	0	2	2	0	2	0	0	0	1	0	1	3	1	4
20 – 29	2	3	5	7	1	8	5	3	8	6	2	8	6	0	6
30 – 39	3	0	3	2	2	4	6	3	9	6	4	10	11	1	12
40 – 49	10	4	14	8	2	10	5	0	5	9	3	12	7	4	11
50 – 59	3	0	3	4	1	5	5	2	7	2	0	2	4	1	5
60 +	1	1	2	2	0	2	0	1	1	0	1	1	3	1	4
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**21**	**8**	**29**	**25**	**7**	**32**	**21**	**9**	**30**	**24**	**10**	**34**	**34**	**8**	**42**

Source: National Notifiable Diseases Surveillance System

2.2 National surveillance for viral hepatitis in Aboriginal and Torres Strait Islander people

Table 2.2.1 Number and rate[1] of diagnosis of newly acquired hepatitis B infection, 2004 – 2008, by State/Territory[2], Aboriginal and Torres Strait Islander status and year

State/ Territory	Aboriginal and Torres Strait Islander status	Year of diagnosis 2004 Number	2004 Rate	2005 Number	2005 Rate	2006 Number	2006 Rate	2007 Number	2007 Rate	2008 Number	2008 Rate
NSW	Aboriginal and Torres Strait Islander	1	1	2	1	6	4	1	1	5	3
	Non-Indigenous[3]	52	1	54	1	47	1	55	1	41	1
NT	Aboriginal and Torres Strait Islander	5	6	4	6	6	10	4	5	4	12
	Non-Indigenous[3]	2	1	1	1	5	3	8	5	4	3
QLD	Aboriginal and Torres Strait Islander	13	9	6	4	3	2	6	4	9	6
	Non-Indigenous[3]	41	1	58	1	47	1	60	1	37	1
SA	Aboriginal and Torres Strait Islander	0	0	0	0	2	5	1	3	0	0
	Non-Indigenous[3]	8	1	8	1	5	0.3	11	1	11	1
VIC	Aboriginal and Torres Strait Islander	1	3	1	3	3	11	1	3	1	3
	Non-Indigenous[3]	109	2	78	2	103	2	83	2	87	2
WA	Aboriginal and Torres Strait Islander	2	3	5	9	6	9	3	4	1	3
	Non-Indigenous[3]	26	1	28	1	43	2	38	2	33	2
Total	**Aboriginal and Torres Strait Islander**	**22**	**4**	**18**	**4**	**26**	**6**	**16**	**3**	**20**	**5**
	Non-Indigenous[3]	**238**	**1**	**227**	**1**	**250**	**1**	**255**	**1**	**213**	**1**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory, year and Aboriginal and Torres Strait Islander status from *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, 2006* (Australian Bureau of Statistics).

2 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

3 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.2.2 Number (percent) of diagnoses of newly acquired hepatitis B infection, 2008, by State/Territory and Aboriginal and Torres Strait Islander status

State/ Territory	Aboriginal and Torres Strait Islander status: Aboriginal and Torres Strait Islander	Non-Indigenous	Not reported	Total
ACT	–	–	1 (100.0)	1
NSW	5 (10.9)	29 (63.0)	12 (26.1)	46
NT	4 (50.0)	3 (37.5)	1 (12.5)	8
QLD	9 (19.6)	16 (34.8)	21 (45.7)	46
SA	0 (0.0)	11 (100.0)	0 (0.0)	11
TAS	0 (0.0)	11 (91.7)	1 (8.3)	12
VIC	1 (1.1)	77 (87.5)	10 (11.4)	88
WA	1 (2.9)	33 (97.1)	0 (0.0)	34
Total	**20 (8.1)**	**180 (73.2)**	**46 (18.7)**	**246**

Source: National Notifiable Diseases Surveillance System

Table 2.2.3 Number and rate[1] of diagnosis of hepatitis C infection, 2004 – 2008, by State/Territory[2], Aboriginal and Torres Strait Islander status and year

State/ Territory	Aboriginal and Torres Strait Islander status	Year of diagnosis 2004 Number	2004 Rate	2005 Number	2005 Rate	2006 Number	2006 Rate	2007 Number	2007 Rate	2008 Number	2008 Rate
NT	Aboriginal and Torres Strait Islander	25	41	17	27	35	60	27	52	29	52
	Non-Indigenous[3]	235	139	241	143	234	142	203	124	196	120
SA	Aboriginal and Torres Strait Islander	99	385	75	278	59	228	62	241	47	172
	Non-Indigenous[3]	568	37	543	36	524	34	562	37	534	34
WA	Aboriginal and Torres Strait Islander	137	189	110	149	111	157	109	156	128	187
	Non-Indigenous[3]	1 010	50	945	46	1 007	49	1 164	57	1 215	60
Total	**Aboriginal and Torres Strait Islander**	**261**	**162**	**202**	**121**	**205**	**130**	**198**	**128**	**204**	**130**
	Non-Indigenous[3]	**1 813**	**49**	**1 729**	**46**	**1 765**	**47**	**1 929**	**51**	**1 945**	**52**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory, year and Aboriginal and Torres Strait Islander status from *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, 2006* (Australian Bureau of Statistics).

2 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

3 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 2.2.4 Number (percent) of diagnoses of hepatitis C infection, 2008, by State/Territory and Aboriginal and Torres Strait Islander status

State/Territory	Aboriginal and Torres Strait Islander status: Aboriginal and Torres Strait Islander	Non-Indigenous	Not reported	Total
ACT	–	–	198 (99.0)	200
NSW	–	–	2 821 (79.1)	3 567
NT	29 (12.9)	145 (64.4)	51 (22.7)	225
QLD	–	–	1 575 (59.8)	2 634
SA	47 (8.1)	487 (83.8)	47 (8.1)	581
TAS	21 (6.0)	223 (64.1)	104 (29.9)	348
VIC	–	–	1 629 (67.7)	2 405
WA	128 (9.5)	1 079 (80.3)	136 (10.1)	1 343
Total	**627 (5.5)**	**4 115 (36.4)**	**6 561 (58.0)**	**11 303**

Source: National Notifiable Diseases Surveillance System

Table 2.2.5 Number (percent) of diagnoses of hepatitis D infection, 2008, by State/Territory and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander status			
State/Territory	**Aboriginal and Torres Strait Islander**	**Non-Indigenous**	**Not reported**	**Total**
ACT	–	–	–	0
NSW	4 (28.6)	2 (14.3)	8 (57.1)	14
NT	1(100.0)	0 (0.0)	0 (0.0)	1
QLD	1 (14.3)	2 (28.6)	4 (57.1)	7
SA	–	–	–	0
TAS	–	–	–	0
VIC	0 (0.0)	7 (50.0)	7 (50.0)	14
WA	0 (0.0)	6 (100.0)	0 (0.0)	6
Total	**6 (14.2)**	**17 (40.5)**	**19 (45.2)**	**42**

Source: National Notifiable Diseases Surveillance System

2.3 Long term outcomes among people with chronic viral hepatitis

Table 2.3.1 Number (percent) of liver transplants, 1985 – 2008, by year and primary cause of liver disease, and hepatitis status for cases where the primary diagnosis was hepatocellular carcinoma

	Year											
Diagnosis	**1985 – 1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008[2]**	**Total**
Hepatitis B	71 (7.1)	10 (11.1)	12 (10.0)	9 (9.7)	7 (5.8)	6 (5.4)	8 (5.4)	8 (6.1)	3 (2.3)	3 (2.5)	3 (1.9)	140
Hepatitis C	124 (12.4)	19 (21.1)	31 (25.8)	16 (17.2)	30 (24.8)	30 (26.8)	43 (29.3)	45 (34.1)	31 (23.8)	30 (25.2)	43 (27.7)	442
Hepatitis B/C/D	7 (0.7)	0 (0.0)	1 (0.8)	1 (1.1)	3 (2.5)	3 (2.7)	0 (0.0)	2 (1.5)	2 (1.5)	2 (1.7)	5 (3.2)	26
Hepatocellular carcinoma	26 (2.6)	2 (2.2)	5 (4.2)	5 (5.4)	6 (5.0)	6 (5.4)	11 (7.5)	10 (7.6)	10 (7.7)	19 (16.0)	21 (13.5)	121
Hepatitis B	7 (0.7)	2 (2.2)	2 (1.7)	3 (3.2)	1 (0.8)	1 (0.9)	2 (1.4)	4 (3.0)	3 (2.3)	6 (5.0)	6 (3.9)	37
Hepatitis C	9 (0.9)	0 (0.0)	2 (1.7)	2 (2.2)	5 (4.1)	4 (3.6)	6 (4.1)	3 (2.3)	5 (3.8)	11 (9.2)	9 (5.8)	56
Hepatitis B/C/D	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.7)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.6)	3
Hepatitis negative	9 (0.9)	0 (0.0)	1 (0.8)	0 (0.0)	0 (0.0)	1 (0.9)	2 (1.4)	3 (2.3)	2 (1.5)	2 (1.7)	5 (3.2)	25
Other[1]	773 (77.2)	59 (65.6)	71 (59.2)	62 (66.7)	75 (62.0)	67 (59.8)	85 (57.8)	67 (50.8)	84 (64.6)	65 (54.6)	83 (53.5)	1 491
Total	**1001 (100.0)**	**90 (100.0)**	**120 (100.0)**	**93 (100.0)**	**121 (100.0)**	**112 (100.0)**	**147 (100.0)**	**132 (100.0)**	**130 (100.0)**	**119 (100.0)**	**155 (100.0)**	**2 220**

1 Includes other causes of chronic liver disease and fulminant hepatitis.

2 Data available to 31 December 2008.

Source: Australia and New Zealand Liver Transplant Registry

Tables

3 National surveillance for sexually transmissible infections

3.1 Notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System

3.1.1	Number and rate of diagnosis of chlamydia, 2004 – 2008, by State/Territory and year	71
3.1.2	Number of diagnoses of chlamydia, 2004 – 2008, by age group, year and sex	71
3.1.3	Number of diagnoses of donovanosis, 2004 – 2008, by State/Territory and year	71
3.1.4	Number of diagnoses of donovanosis, 2004 – 2008, by age group, year and sex	72
3.1.5	Number and rate of diagnosis of gonorrhoea, 2004 – 2008, by State/Territory and year	72
3.1.6	Number of diagnoses of gonorrhoea, 2004 – 2008, by age group, year and sex	72
3.1.7	Number and rate of diagnosis of infectious syphilis, 2004 – 2008, by State/Territory and year	73
3.1.8	Number of diagnoses of infectious syphilis, 2004 – 2008, by age group, year and sex	73
3.1.9	Number of diagnoses of infectious syphilis, 2007 – 2008, by sexual exposure, sex worker history, facility of diagnosis and sex	74

3.2 National surveillance for sexually transmissible infections in Aboriginal and Torres Strait Islander people

3.2.1	Number and rate of diagnosis of chlamydia, 2004 – 2008, by year, State/Territory and Aboriginal and Torres Strait Islander status	75
3.2.2	Number of diagnoses of chlamydia, 2004 – 2008, by age group, Aboriginal and Torres Strait Islander status and year	76
3.2.3	Number of diagnoses of chlamydia, 2008, by Aboriginal and Torres Strait Islander status, sex and age group	76
3.2.4	Number (percent) of diagnoses of chlamydia, 2008, by State/Territory and Aboriginal and Torres Strait Islander status	77
3.2.5	Rate of diagnosis of chlamydia, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence	77
3.2.6	Number and rate of diagnosis of gonorrhoea, 2004 – 2008, by year, State/Territory and Aboriginal and Torres Strait Islander status	78
3.2.7	Number of diagnoses of gonorrhoea, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and age group	79
3.2.8	Number of diagnoses of gonorrhoea, 2008, by Aboriginal and Torres Strait Islander status, sex and age group	79
3.2.9	Number (percent) of diagnoses of gonorrhoea, 2008, by State/Territory and Aboriginal and Torres Strait Islander status	80
3.2.10	Rate of diagnosis of gonorrhoea, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence	80
3.2.11	Number and rate of diagnosis of infectious syphilis, 2004 – 2008, by year, State/Territory and Aboriginal and Torres Strait Islander status	81
3.2.12	Number of diagnoses of infectious syphilis, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and age group	82
3.2.13	Number of diagnoses of infectious syphilis, 2008, by Aboriginal and Torres Strait Islander status, sex and age group	82
3.2.14	Number (percent) of diagnoses of infectious syphilis, 2008, by State/Territory and Aboriginal and Torres Strait Islander status	83
3.2.15	Rate of diagnosis of infectious syphilis, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence	83

3.3 Gonococcal isolates

3.3.1 Number of gonococcal isolates referred to the Australian Gonococcal Surveillance Programme in 2008 by State/Territory, sex and site and antibiotic sensitivity 84

3.3.2 Number of gonococcal isolates in New South Wales referred to the Australian Gonococcal Surveillance Programme, 2004 – 2008, by sex, site and year 84

3 National surveillance for sexually transmissible infections

3.1 Notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System

Table 3.1.1 Number and rate[1] of diagnosis of chlamydia, 2004 – 2008, by State/Territory and year

	Year of diagnosis									
State/	2004		2005		2006		2007		2008	
Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	625	166.3	701	183.3	822	213.6	904	230.2	987	250.2
NSW	10 017	150.2	11 272	168.0	12 056	177.8	12 455	181.6	14 016	201.3
NT	1 613	699.8	1 625	686.8	2 057	858.8	2 201	894.6	2 294	904.8
QLD	8 873	225.9	9 715	241.8	12 224	296.2	12 958	305.9	15 161	347.8
SA	2 430	166.0	2 705	182.9	3 125	208.2	3 466	227.6	3 651	236.1
TAS	618	138.9	870	195.0	1 049	232.8	1 129	247.7	1 485	321.4
VIC	7 674	151.9	9 006	176.4	9 973	191.4	11 144	210.0	12 224	230.4
WA	4 332	214.0	5 441	264.3	6 140	292.2	7 743	359.7	8 638	389.3
Total	**36 182**	**179.3**	**41 335**	**202.3**	**47 446**	**228.2**	**52 000**	**245.8**	**58 456**	**270.6**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory and year from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 3.1.2 Number of diagnoses of chlamydia, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	28	36	66	45	37	85	41	39	80	32	32	65	36	42	79
5 – 14	42	341	387	58	390	448	65	398	464	70	443	513	50	502	553
15 – 19	1 858	6 697	8 599	2 226	7 565	9 809	2 588	8 736	11 346	2 984	9 720	12 728	3 699	11 220	14 957
20 – 29	8 177	11 419	19 683	9 452	13 298	22 795	10 794	15 194	26 044	11 969	16 720	28 744	13 282	18 457	31 788
30 – 39	2 895	2 249	5 174	3 250	2 529	5 791	3 612	2 910	6 541	3 663	3 141	6 818	3 985	3 404	7 400
40 – 49	1 069	533	1 611	1 244	550	1 801	1 385	683	2 073	1 407	750	2 167	1 726	861	2 595
50 – 59	382	110	496	385	114	500	548	156	705	543	189	733	589	219	810
60 +	107	30	139	91	12	104	148	35	183	183	32	216	207	41	248
Not reported	4	12	27	0	0	2	6	2	10	5	5	16	10	11	26
Total	**14 562**	**21 427**	**36 182**	**16 751**	**24 495**	**41 335**	**19 187**	**28 153**	**47 446**	**20 856**	**31 032**	**52 000**	**23 584**	**34 757**	**58 456**

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

Source: National Notifiable Diseases Surveillance System

Table 3.1.3 Number of diagnoses of donovanosis, 2004 – 2008, by State/Territory[1] and year

	Year of diagnosis				
State/Territory	2004	2005	2006	2007	2008
NT	6	4	2	1	1
QLD	3	8	4	2	1
WA	1	2	0	0	0
Total	**10**	**14**	**6**	**3**	**2**

1 State/Territory with reported cases of donovanosis.

Source: National Notifiable Diseases Surveillance System

Table 3.1.4 Number of diagnoses of donovanosis, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T[1]	M	F	T	M	F	T	M	F	T	M	F	T
0 – 14	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0
15 – 19	1	1	2	1	2	3	0	0	0	0	0	0	0	0	0
20 – 29	1	1	2	0	2	2	1	1	2	0	1	1	1	0	1
30 – 39	3	1	4	1	3	4	2	1	3	0	0	0	0	0	0
40 – 49	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0
50 +	1	0	2	2	0	2	1	0	1	1	0	1	1	0	1
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**6**	**3**	**10**	**5**	**9**	**14**	**4**	**2**	**6**	**2**	**1**	**3**	**2**	**0**	**2**

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

Source: National Notifiable Diseases Surveillance System

Table 3.1.5 Number and rate[1] of diagnosis of gonorrhoea, 2004 – 2008, by State/Territory and year

	Year of diagnosis									
	2004		2005		2006		2007		2008	
State/Territory	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	35	9.5	34	9.1	33	8.5	45	12.0	21	5.6
NSW	1 439	21.4	1 573	23.3	1 736	25.6	1 381	20.2	1 330	19.2
NT	1 574	692.7	1 804	772.6	1 777	744.6	1 610	657.5	1 560	623.1
QLD	1 175	29.9	1 399	34.8	1 539	37.4	1 336	31.6	1 587	36.6
SA	376	25.3	399	26.6	497	33.1	429	28.1	520	33.7
TAS	28	6.1	35	7.7	18	3.9	38	8.4	25	5.4
VIC	1 109	22.0	1 211	23.7	1 257	24.2	1 029	19.5	926	17.5
WA	1 418	69.7	1 574	76.3	1 672	79.6	1 757	81.9	1 693	76.7
Total	**7 154**	**35.4**	**8 029**	**39.2**	**8 529**	**41.1**	**7 625**	**36.2**	**7 662**	**35.7**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory and year from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 3.1.6 Number of diagnoses of gonorrhoea, 2004 – 2008, by age group, year and sex

	Year of diagnosis														
Age group	2004			2005			2006			2007			2008		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	6	8	14	2	9	12	1	10	11	2	5	8	2	2	4
5 – 14	27	141	170	40	167	207	24	140	164	46	140	186	29	155	184
15 – 19	671	738	1 439	783	859	1 642	688	822	1 510	735	781	1 516	739	844	1 584
20 – 29	1 911	839	2 781	2 018	988	3 009	2 392	1 106	3 503	1 971	1 093	3 065	2 039	1 051	3 095
30 – 39	1 308	316	1 645	1 534	377	1 915	1 558	452	2 012	1 250	394	1 649	1 172	416	1 590
40 – 49	674	89	767	745	123	874	775	143	922	682	120	803	639	149	789
50 – 59	235	35	274	247	36	285	286	31	317	275	28	303	264	45	309
60 +	57	4	63	78	7	85	79	10	89	86	7	93	84	18	103
Not reported	1	0	1	0	0	0	1	0	1	1	1	2	1	3	4
Total	**4 890**	**2 170**	**7 154**	**5 447**	**2 566**	**8 029**	**5 804**	**2 714**	**8 529**	**5 048**	**2 569**	**7 625**	**4 969**	**2 683**	**7 662**

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

Source: National Notifiable Diseases Surveillance System

Table 3.1.7 Number and rate[1] of diagnosis of infectious syphilis, 2004 – 2008, by State/Territory and year

State/ Territory	Year of diagnosis									
	2004		2005		2006		2007		2008	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	4	1.1	4	1.1	2	0.6	9	2.4	4	1.1
NSW	301	4.5	244	3.6	234	3.4	460	6.7	416	6.0
NT	57	25.2	94	43.0	150	62.9	120	49.4	83	35.1
QLD	114	2.9	149	3.7	169	4.1	237	5.7	186	4.4
SA	21	1.4	18	1.2	45	3.0	49	3.2	49	3.2
TAS	2	0.5	6	1.3	5	1.1	8	1.6	7	1.5
VIC	85	1.7	119	2.3	226	4.4	435	8.3	373	7.1
WA	50	2.4	19	0.9	49	2.4	105	4.9	180	8.2
Total	**634**	**3.1**	**653**	**3.2**	**880**	**4.2**	**1 423**	**6.8**	**1 298**	**6.1**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory and year from *Australian Demographic Statistics* (Australian Bureau of Statistics).

Source: National Notifiable Diseases Surveillance System

Table 3.1.8 Number of diagnoses of infectious syphilis, 2004 – 2008, by age group, year and sex

Age group (years)	Year of diagnosis														
	2004			2005			2006			2007			2008		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	0	0	0	0	0	0	1	0	1	1	1	2	0	0	0
5 – 14	0	5	6	2	3	5	2	13	15	5	5	10	0	8	8
15 – 19	29	23	53	28	35	64	36	54	90	48	40	88	40	37	77
20 – 29	118	54	173	127	50	177	149	61	210	257	58	315	273	49	322
30 – 39	191	20	211	190	22	212	225	30	256	391	36	427	365	28	393
40 – 49	117	13	130	117	9	127	188	17	205	346	18	364	321	12	335
50 – 59	38	5	43	42	6	48	67	8	75	144	8	152	110	11	121
60 +	16	2	18	15	5	20	25	2	27	59	4	63	40	2	42
Not reported	0	0	0	0	0	0	1	0	1	0	0	2	0	0	0
Total	**509**	**122**	**634**	**521**	**130**	**653**	**694**	**185**	**880**	**1 251**	**170**	**1 423**	**1 149**	**147**	**1 298**

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

Source: National Notifiable Diseases Surveillance System

Table 3.1.9 Number of diagnoses of infectious syphilis, 2007 – 2008, by sexual exposure, sex worker history, facility of diagnosis and sex

	Year of diagnosis					
	2007[1]			2008[2]		
Characteristic	Male	Female	Total[3]	Male	Female	Total[3]
Sexual exposure						
Heterosexual contact	77	47	124	84	68	152
Men who have sex with men	489	–	489	492	–	492
Undetermined[4]	91	34	127	33	2	37
Not reported[4]	75	14	89	76	17	93
Sex work in the past 12 months						
Current sex work	8	6	14	4	2	6
Not sex work	151	34	185	177	45	222
Undetermined[4]	61	19	80	342	17	361
Not reported[4]	512	36	550	162	23	185
Place of diagnosis						
Public hospital	22	8	30	32	16	48
Sexual health clinic	80	19	99	88	7	95
Family planning clinic	0	1	1	0	0	0
General practice	25	8	33	61	3	64
Other	53	19	72	46	31	77
Undetermined[4]	188	24	212	207	13	222
Not reported[4]	364	16	382	251	17	268
Total	**732**	**95**	**829**	**685**	**87**	**774**

1 Includes diagnoses in QLD, SA, TAS, VIC and WA.

2 Includes diagnoses in ACT, QLD, SA, VIC and WA.

3 Total includes diagnoses in people whose sex was not reported.

4 A characteristic was recorded as "undetermined" when the information was sought in the State/Territory health jurisdiction but not reported, and as "not reported" when the information was not sought.

Source: National Notifiable Diseases Surveillance System

3.2 National surveillance for sexually transmissible infections in Aboriginal and Torres Strait Islander people

Table 3.2.1 Number and rate[1] of diagnosis of chlamydia, 2004 – 2008, by year, State/Territory[2] and Aboriginal and Torres Strait Islander status

State/ Territory	Aboriginal and Torres Strait Islander status	Year of diagnosis 2004 Number	2004 Rate	2005 Number	2005 Rate	2006 Number	2006 Rate	2007 Number	2007 Rate	2008 Number	2008 Rate
NT	Aboriginal and Torres Strait Islander	1 042	1 311	1 019	1 263	1 259	1 615	1 330	1 674	1 405	1 753
	Non-Indigenous[3]	571	361	606	379	798	503	871	547	889	557
SA	Aboriginal and Torres Strait Islander	239	702	246	723	310	932	271	749	220	646
	Non-Indigenous[3]	2 191	149	2 459	168	2 815	192	3 195	218	3 431	234
TAS	Aboriginal and Torres Strait Islander	10	44	13	49	22	99	23	90	26	99
	Non-Indigenous[3]	608	142	857	201	1 027	240	1 106	258	1 459	339
VIC	Aboriginal and Torres Strait Islander	56	130	57	137	45	102	52	122	73	181
	Non-Indigenous[3]	7 618	147	8 949	173	9 928	192	11 092	214	12 151	234
WA	Aboriginal and Torres Strait Islander	1 063	1189	1 180	1 284	1 200	1 295	1 170	1 281	1 294	1 449
	Non-Indigenous[3]	3 269	162	4 261	212	4 940	245	6 573	326	7 344	365
Total	**Aboriginal and Torres Strait Islander**	**2 410**	**907**	**2 515**	**928**	**2 836**	**1 065**	**2 846**	**1 057**	**3 018**	**1 131**
	Non-Indigenous[3]	**14 257**	**154**	**17 132**	**185**	**19 508**	**211**	**22 837**	**247**	**25 274**	**273**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory, year and Aboriginal and Torres Strait Islander status from *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, 2006* (Australian Bureau of Statistics).

2 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

3 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.2 Number of diagnoses of chlamydia[1], 2004 – 2008, by age group, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Age group (years)	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
0 – 4	Aboriginal and Torres Strait Islander	4	3	2	1	5
	Non-Indigenous[2]	23	34	20	22	25
5 – 14	Aboriginal and Torres Strait Islander	102	165	132	136	141
	Non-Indigenous[2]	87	87	96	114	119
15 – 19	Aboriginal and Torres Strait Islander	835	949	1 026	1 082	1 126
	Non-Indigenous[2]	3 077	3 683	4 221	4 996	5 932
20 – 29	Aboriginal and Torres Strait Islander	1 003	980	1 177	1 157	1 235
	Non-Indigenous[2]	8 129	9 926	11 195	13 253	14 365
30 – 39	Aboriginal and Torres Strait Islander	359	311	369	364	358
	Non-Indigenous[2]	2 022	2 417	2 743	3 025	3 194
40 – 49	Aboriginal and Torres Strait Islander	91	89	96	75	119
	Non-Indigenous[2]	614	716	868	985	1 155
50 – 59	Aboriginal and Torres Strait Islander	15	13	27	24	25
	Non-Indigenous[2]	216	225	282	333	349
60 +	Aboriginal and Torres Strait Islander	1	5	6	7	9
	Non-Indigenous[2]	64	44	76	96	113
Total[3]	**Aboriginal and Torres Strait Islander**	**2 410**	**2 515**	**2 836**	**2 846**	**3 018**
	Non-Indigenous[2]	**14 257**	**17 132**	**19 508**	**22 837**	**25 274**

1 In State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

3 Includes diagnoses in people whose age was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.3 Number of diagnoses of chlamydia[1], 2008, by Aboriginal and Torres Strait Islander status, sex and age group

		Age group (years)								
Aboriginal and Torres Strait Islander Status	**Sex**	**0 – 4**	**5 – 14**	**15 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60 +**	**Total[4]**
Aboriginal and Torres Strait Islander	Male	0	19	377	481	168	63	16	8	1 132
	Female	5	122	749	754	190	56	9	1	1 886
	Total	5	141	1 126	1 235	358	119	25	9	3 018
Non-Indigenous[2]	Male	14	5	1 415	6 147	1 714	766	258	96	10 423
	Female	10	113	4 498	8 185	1 473	382	89	17	14 777
	Total[3]	25	119	5 932	14 365	3 194	1 155	349	113	25 274
Total	Male	14	24	1 792	6 628	1 882	829	274	104	11 555
	Female	15	235	5 247	8 939	1 663	438	98	18	16 663
	Total[3]	**30**	**260**	**7 058**	**15 600**	**3 552**	**1 274**	**374**	**122**	**28 292**

1 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

3 Includes diagnoses in people whose sex was not reported.

4 Includes diagnoses in people whose age was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.4 Number (percent) of diagnoses of chlamydia, 2008, by State/Territory[1] and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander status			
State/Territory	**Aboriginal and Torres Strait Islander**	**Non-Indigenous**	**Not reported**	**Total**
ACT	–	–	982 (99.5)	987
NSW	–	–	12 767 (91.1)	14 016
NT	1 405 (61.2)	666 (29.0)	223 (9.7)	2 294
QLD	2 296 (15.1)	5 308 (35.0)	7 557 (49.8)	15 161
SA	220 (6.0)	3 315 (90.8)	116 (3.2)	3 651
TAS	26 (1.8)	1 121 (75.5)	338 (22.8)	1 485
VIC	73 (0.6)	6 567 (53.7)	5 584 (45.7)	12 224
WA	1 294 (15.0)	4 595 (53.2)	2 749 (31.8)	8 638
Total	**5 533 (9.5)**	**22 607 (38.7)**	**30 316 (51.9)**	**58 456**

1 Data not shown for State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was not reported for more than 50% of diagnoses.

Source: National Notifiable Diseases Surveillance System

Table 3.2.5 Rate[1] of diagnosis of chlamydia, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
Major cities	Aboriginal and Torres Strait Islander	552	676	795	776	831
	Non-Indigenous[2]	163	197	221	258	282
Inner regional	Aboriginal and Torres Strait Islander	142	150	210	217	300
	Non-Indigenous[2]	122	152	181	211	251
Outer regional	Aboriginal and Torres Strait Islander	683	680	859	894	940
	Non-Indigenous[2]	146	176	207	254	274
Remote	Aboriginal and Torres Strait Islander	2 808	2 965	2 969	2 541	2 869
	Non-Indigenous[2]	208	212	296	349	369
Very remote	Aboriginal and Torres Strait Islander	2 380	2 420	2 795	2 985	3 053
	Non-Indigenous[2]	202	289	338	361	408
Total	**Aboriginal and Torres Strait Islander**	**1 304**	**1 361**	**1 534**	**1 540**	**1 633**
	Non-Indigenous[2]	**160**	**193**	**219**	**257**	**284**

1 Rate per 100 000 population. Population estimates from *2006 Census of Population and Housing* (Australian Bureau of Statistics).

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.6 Number and rate[1] of diagnosis of gonorrhoea, 2004 – 2008, by year, State/Territory[2] and Aboriginal and Torres Strait Islander status

State/ Territory	Aboriginal and Torres Strait Islander status	Year of diagnosis 2004 Number	2004 Rate	2005 Number	2005 Rate	2006 Number	2006 Rate	2007 Number	2007 Rate	2008 Number	2008 Rate
NT	Aboriginal and Torres Strait Islander	1 348	1 707	1 550	1 984	1 533	2 008	1 419	1 802	1 389	1 774
	Non-Indigenous[2]	226	143	254	158	244	150	191	121	171	107
QLD	Aboriginal and Torres Strait Islander	479	263	624	346	621	343	534	292	657	372
	Non-Indigenous[2]	696	18	775	19	918	23	802	20	930	23
SA	Aboriginal and Torres Strait Islander	216	644	272	778	360	1 100	224	685	159	478
	Non-Indigenous[2]	160	11	127	9	137	9	205	14	361	24
TAS	Aboriginal and Torres Strait Islander	0	0	0	0	0	0	3	18	0	0
	Non-Indigenous[2]	28	6	35	8	18	4	35	8	25	6
VIC	Aboriginal and Torres Strait Islander	7	19	4	10	6	16	4	10	10	22
	Non-Indigenous[2]	1 102	21	1 207	23	1 251	24	1 025	20	916	18
WA	Aboriginal and Torres Strait Islander	1 070	1 202	1 162	1 335	1 310	1 554	1 295	1527	1 224	1 460
	Non-Indigenous[2]	348	17	412	20	362	18	462	23	469	23
Total	**Aboriginal and Torres Strait Islander**	**3 120**	**713**	**3 612**	**834**	**3 830**	**908**	**3 479**	**811**	**3 439**	**806**
	Non-Indigenous[2]	**2 560**	**19**	**2 810**	**21**	**2 930**	**22**	**2 720**	**20**	**2 872**	**22**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory, year and Aboriginal and Torres Strait Islander status from *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, 2006* (Australian Bureau of Statistics).State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.7 Number of diagnoses of gonorrhoea[1], 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and age group

		Year of diagnosis				
Age group (years)	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
0 – 4	Aboriginal and Torres Strait Islander	13	9	8	5	3
	Non-Indigenous[2]	0	3	1	3	0
5 – 14	Aboriginal and Torres Strait Islander	150	188	148	162	172
	Non-Indigenous[2]	15	16	13	20	10
15 – 19	Aboriginal and Torres Strait Islander	1 091	1 202	1 112	1 105	1 136
	Non-Indigenous[2]	244	302	281	312	356
20 – 29	Aboriginal and Torres Strait Islander	1 248	1 454	1 681	1 437	1 382
	Non-Indigenous[2]	986	985	1 130	1 108	1 171
30 – 39	Aboriginal and Torres Strait Islander	465	569	651	579	522
	Non-Indigenous[2]	690	798	806	642	679
40 – 49	Aboriginal and Torres Strait Islander	128	151	182	156	169
	Non-Indigenous[2]	392	465	460	395	418
50 – 59	Aboriginal and Torres Strait Islander	21	31	36	28	43
	Non-Indigenous[2]	195	181	182	182	179
60 +	Aboriginal and Torres Strait Islander	4	8	12	7	12
	Non-Indigenous[2]	37	60	56	56	56
Total[3]	**Aboriginal and Torres Strait Islander**	**3 120**	**3 612**	**3 830**	**3 479**	**3 439**
	Non-Indigenous[2]	**2 560**	**2 810**	**2 930**	**2 720**	**2 872**

1 In State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

3 Includes diagnoses in people whose age was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.8 Number of diagnoses of gonorrhoea[1], 2008, by Aboriginal and Torres Strait Islander status, sex and age group

		Age group (years)								
Aboriginal and Torres Strait Islander Status	**Sex**	**0 – 4**	**5 – 14**	**15 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60 +**	**Total[4]**
Aboriginal and	Male	1	28	487	699	290	98	29	9	1 641
Torres Strait Islander	Female	2	144	649	683	231	71	14	3	1 797
	Total	**3**	**172**	**1 136**	**1 382**	**522**	**169**	**43**	**12**	**3 439**
Non-Indigenous[2]	Male	0	1	201	904	549	365	156	47	2 224
	Female	0	9	154	262	130	53	23	8	641
	Total[3]	**0**	**10**	**356**	**1 171**	**679**	**418**	**179**	**56**	**2 872**
Total	Male	1	29	688	1 603	839	463	185	56	3 865
	Female	2	153	803	945	361	124	37	11	2 438
	Total[3]	**3**	**182**	**1 492**	**2 553**	**1 201**	**587**	**222**	**68**	**6 311**

1 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

3 Includes diagnoses in people whose sex was not reported.

4 Includes diagnoses in people whose age was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.9 Number (percent) of diagnoses of gonorrhoea, 2008, by State/Territory[1] and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander status						
State/Territory	**Aboriginal and Torres Strait Islander**		**Non-Indigenous**		**Not reported**		**Total**
ACT	–		–		12	(57.1)	21
NSW	–		–		1 176	(88.4)	1 330
NT	1 389	(89.0)	125	(8.0)	46	(2.9)	1 560
QLD	657	(41.4)	324	(20.4)	606	(38.2)	1 587
SA	159	(30.6)	357	(68.7)	4	(0.8)	520
TAS	0	(0.0)	25	(100.0)	0	(0.0)	25
VIC	10	(1.1)	585	(63.2)	331	(35.7)	926
WA	1 224	(72.3)	466	(27.5)	3	(0.2)	1 693
Total	**3 459**	**(45.1)**	**2 025**	**(26.4)**	**2 178**	**(28.4)**	**7 662**

1 Data not shown for State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was not reported for more than 50% of diagnoses.

Source: National Notifiable Diseases Surveillance System

Table 3.2.10 Rate[1] of diagnosis of gonorrhoea, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
Major cities	Aboriginal and Torres Strait Islander	213	265	232	215	183
	Non-Indigenous[2]	21	23	23	23	24
Inner regional	Aboriginal and Torres Strait Islander	70	100	74	36	43
	Non-Indigenous[2]	6	7	7	7	7
Outer regional	Aboriginal and Torres Strait Islander	675	751	796	709	848
	Non-Indigenous[2]	18	24	28	23	26
Remote	Aboriginal and Torres Strait Islander	2 497	2 748	2 674	2 214	2 330
	Non-Indigenous[2]	32	39	37	47	34
Very remote	Aboriginal and Torres Strait Islander	2 311	2 747	3 105	2 978	2 734
	Non-Indigenous[2]	94	103	102	87	72
Total	**Aboriginal and Torres Strait Islander**	**999**	**1 156**	**1 226**	**1 114**	**1 101**
	Non-Indigenous[2]	**20**	**22**	**23**	**21**	**23**

1 Rate per 100 000 population. Population estimates from *2006 Census of Population and Housing* (Australian Bureau of Statistics).

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.11 Number and rate[1] of diagnosis of infectious syphilis, 2004 – 2008, by year, State/Territory[2] and Aboriginal and Torres Strait Islander status

State/ Territory	Aboriginal and Torres Strait Islander status	Year of diagnosis 2004 Number	2004 Rate	2005 Number	2005 Rate	2006 Number	2006 Rate	2007 Number	2007 Rate	2008 Number	2008 Rate
NSW	Aboriginal and Torres Strait Islander	11	7	7	5	9	6	9	6	7	5
	Non-Indigenous[3]	290	4	237	4	225	3	451	7	409	6
NT	Aboriginal and Torres Strait Islander	47	70	88	129	145	185	107	145	66	107
	Non-Indigenous[3]	10	6	6	3	5	3	13	8	17	11
QLD	Aboriginal and Torres Strait Islander	52	36	60	39	33	24	33	22	24	15
	Non-Indigenous[3]	62	2	89	2	136	3	204	5	162	4
SA	Aboriginal and Torres Strait Islander	3	12	2	5	15	49	13	39	5	21
	Non-Indigenous[3]	18	1	16	1	30	2	36	2	44	3
TAS	Aboriginal and Torres Strait Islander	0	0	0	0	0	0	0	0	0	0
	Non-Indigenous[3]	2	0	6	1	5	1	8	2	7	2
VIC	Aboriginal and Torres Strait Islander	1	2	3	8	9	28	6	19	3	11
	Non-Indigenous[3]	84	2	116	2	217	4	429	8	370	7
WA	Aboriginal and Torres Strait Islander	43	47	10	12	21	23	60	64	78	90
	Non-Indigenous[3]	7	0	9	0	28	1	45	2	102	5
Total	**Aboriginal and Torres Strait Islander**	**157**	**29**	**170**	**32**	**232**	**40**	**228**	**39**	**183**	**34**
	Non-Indigenous[3]	**473**	**2**	**479**	**2**	**646**	**3**	**1 186**	**6**	**1 111**	**6**

1 Age standardised rate per 100 000 population. Population estimates by State/Territory, year and Aboriginal and Torres Strait Islander status from *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, 2006* (Australian Bureau of Statistics).

2 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

3 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.12 Number of diagnoses of infectious syphilis[1], 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and age group

		Year of diagnosis				
Age group (years)	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
0 – 4	Aboriginal and Torres Strait Islander	0	0	0	2	0
	Non-Indigenous	0	0	1	0	0
5 – 14	Aboriginal and Torres Strait Islander	5	2	12	9	8
	Non-Indigenous	1	3	3	1	0
15 – 19	Aboriginal and Torres Strait Islander	40	51	69	66	52
	Non-Indigenous	13	12	20	18	25
20 – 29	Aboriginal and Torres Strait Islander	63	62	85	88	57
	Non-Indigenous	108	113	125	224	263
30 – 39	Aboriginal and Torres Strait Islander	28	35	39	39	30
	Non-Indigenous	181	177	216	387	363
40 – 49	Aboriginal and Torres Strait Islander	15	9	20	19	27
	Non-Indigenous	115	117	185	344	307
50 – 59	Aboriginal and Torres Strait Islander	5	7	7	5	8
	Non-Indigenous	38	41	68	147	112
60 +	Aboriginal and Torres Strait Islander	1	4	0	0	1
	Non-Indigenous	17	16	27	63	41
Total[3]	**Aboriginal and Torres Strait Islander**	**157**	**170**	**232**	**228**	**183**
	Non-Indigenous	**473**	**479**	**646**	**1 186**	**1 111**

1 In State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

3 Includes diagnoses in people whose age was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.13 Number of diagnoses of infectious syphilis[1], 2008, by Aboriginal and Torres Strait Islander status, sex and age group

		Age group (years)								
Aboriginal and Torres Strait Islander status	**Sex**	**0 – 4**	**5 – 14**	**15 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60 +**	**Total[3]**
Aboriginal and Torres Strait Islander	Male	0	0	23	29	20	20	2	1	95
	Female	0	8	29	28	10	7	6	0	88
	Total	**0**	**8**	**52**	**57**	**30**	**27**	**8**	**1**	**183**
Non-Indigenous[2]	Male	0	0	17	242	345	300	107	39	1 050
	Female	0	0	8	21	18	5	5	2	59
	Total	**0**	**0**	**25**	**263**	**363**	**307**	**112**	**41**	**1 111**
Total	Male	0	0	40	271	365	320	109	40	1 145
	Female	0	8	37	49	28	12	11	2	147
	Total	**0**	**8**	**77**	**320**	**393**	**334**	**120**	**42**	**1 294**

1 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in each year.

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

3 Includes diagnoses in people whose age was not reported.

Source: National Notifiable Diseases Surveillance System

Table 3.2.14 Number (percent) of diagnoses of infectious syphilis, 2008, by State/Territory[1] and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander status						
State/Territory	**Aboriginal and Torres Strait Islander**		**Non-Indigenous**		**Not reported**		**Total**
ACT	0	(0.0)	4	(100.0)	0	(0.0)	4
NSW	7	(1.7)	376	(90.4)	33	(7.9)	416
NT	66	(79.5)	16	(19.3)	1	(1.2)	83
QLD	24	(12.9)	151	(81.2)	11	(5.9)	186
SA	5	(10.2)	44	(89.8)	0	(0.0)	49
TAS	0	(0.0)	7	(100.0)	0	(0.0)	7
VIC	3	(0.8)	358	(96.0)	12	(3.2)	373
WA	78	(43.3)	101	(56.1)	1	(0.6)	180
Total	**183**	**(14.1)**	**1 057**	**(81.4)**	**58**	**(4.5)**	**1 298**

1 Data not shown for State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was not reported for more than 50% of diagnoses.

Source: National Notifiable Diseases Surveillance System

Table 3.2.15 Rate[1] of diagnosis of infectious syphilis, 2004 – 2008, by year, Aboriginal and Torres Strait Islander status and area of residence

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2004**	**2005**	**2006**	**2007**	**2008**
Major cities	Aboriginal and Torres Strait Islander	8	3	13	24	10
	Non-Indigenous[2]	3	3	4	8	7
Inner regional	Aboriginal and Torres Strait Islander	9	14	8	9	8
	Non-Indigenous[2]	1	1	1	2	1
Outer regional	Aboriginal and Torres Strait Islander	45	45	22	26	18
	Non-Indigenous[2]	1	1	1	1	3
Remote	Aboriginal and Torres Strait Islander	71	91	147	114	101
	Non-Indigenous[2]	0	0	1	0	1
Very remote	Aboriginal and Torres Strait Islander	93	102	179	163	148
	Non-Indigenous[2]	6	5	4	1	6
Total	**Aboriginal and Torres Strait Islander**	**35**	**38**	**51**	**51**	**41**
	Non-Indigenous[2]	**2**	**3**	**3**	**6**	**6**

1 Rate per 100 000 population. Population estimates from *2006 Census of Population and Housing* (Australian Bureau of Statistics).

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

Source: National Notifiable Diseases Surveillance System

3.3 Gonococcal isolates

Table 3.3.1 Number of gonococcal isolates referred to the Australian Gonococcal Surveillance Programme in 2008 by State/Territory, sex and site and antibiotic sensitivity

	State/Territory						
Sex and site	**NSW**	**NT**	**QLD**	**SA[2]**	**VIC**	**WA**	**Total[1]**
Male							
Urethra	457	257	317	215	308	270	1 835
Rectal	181	1	54	23	110	15	386
Pharynx	99	0	20	31	69	9	229
Other/not specified	3	8	12	17	6	10	59
Total	**740**	**266**	**403**	**286**	**493**	**304**	**2 509**
Female							
Cervix	102	131	126	73	62	101	600
Other/not specified	15	6	13	31	12	5	82
Total	**117**	**137**	**139**	**104**	**74**	**106**	**682**
Antibiotic sensitivity (%)							
PPNG	15.8	2.8	13.4	7.7	13.9	11.7	12.0
RR	43.7	1.0	11.6	65.6	43.0	15.4	32.0
LS	39.6	95.4	73.7	25.9	41.9	72.1	54.9
FS	0.8	0.8	1.3	0.8	1.2	0.8	1.1
Total[1,2]	**857**	**403**	**542**	**391**	**567**	**410**	**3 192**

1 Total includes gonococcal isolates from ACT (9) and TAS (13).

2 Total includes 1 case whose sex and/or site of isolation was not reported.

PPNG penicillinase producing *N. gonorrhoeae,* **RR** relatively resistant, **LS** less sensitive, **FS** fully sensitive

Source: Australian Gonococcal Surveillance Programme

Table 3.3.2 Number of gonococcal isolates in New South Wales referred to the Australian Gonococcal Surveillance Programme, 2004 – 2008, by sex, site and year

	Year of diagnosis				
Sex and site	**2004**	**2005[1]**	**2006**	**2007**	**2008**
Males					
Urethra	695	665	698	572	457
Rectal	201	238	255	178	181
Pharynx	118	171	149	106	99
Other/not specified	21	48	8	17	3
Total	**1 035**	**1 122**	**1 110**	**873**	**740**
Females					
Cervix	73	90	79	82	102
Rectal	0	1	3	2	1
Pharynx	3	3	2	14	11
Other/not specified	2	1	4	2	3
Total	**78**	**95**	**88**	**100**	**117**
Total	**1 113**	**1 218**	**1 198**	**973**	**857**

1 Total includes 1 case whose sex and site of isolation was not reported.

Source: Australian Gonococcal Surveillance Programme

Tables

4 HIV, viral hepatitis and sexually transmissible infections in selected populations

4.1 HIV seroprevalence among people seen at sexual health clinics

4.1.1 Number of people seen at selected metropolitan sexual health clinics in Australia, 2004 – 2008, 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 88

4.1.2 Number of people seen at selected metropolitan sexual health clinics in Australia, 2004 – 2008, 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 90

4.1.3 Number of people seen at selected metropolitan sexual health clinics in Australia, 2004 – 2008, 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 92

4.2 HIV and hepatitis C seroprevalence among people who have injected drugs

4.2.1 Number of participating needle and syringe programs (NSP), 2004 – 2008, number of injecting drug users tested for HIV or hepatitis C antibody (percent of clients seen) and number (percent) with HIV or hepatitis C antibody by year, State/Territory and sex 94

4.2.2 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, and percent with HIV or hepatitis C antibody by year, age group, history of injecting drug use, type of drug last injected among those reporting less than three years of drug injection, and sex 96

4.2.3 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, and percent with HIV or hepatitis C antibody by year, sexual identity, sex work last month, region of birth, main language spoken at home by parents and sex 99

4.3 Incidence of hepatitis C infection among people who have injected drugs

4.3.1 Incidence of hepatitis C infection among injecting drug users seen at the Kirketon Road Centre, Sydney, 2004 – 2008 102

4.4 HIV and hepatitis C infection among entrants into Australian prisons

4.4.1 Number of receptions into Australian prisons, 2004 – 2008, percentage tested for HIV antibody at reception and number (%) with diagnosed HIV infection by year and Corrections jurisdiction of reception 103

4.4.2 Number of people received into Australian prisons, number (percent) who were tested for hepatitis C antibody and number (percent) with hepatitis C antibody, by year and Corrections jurisdiction of reception 104

4.5 HIV, hepatitis B surface antigen and hepatitis C antibody in blood donors

4.5.1 Number of donations tested for HIV antibody at blood services, number of donations positive for HIV antibody and prevalence of HIV antibody, 1985 – 2008, by State/Territory and years of donation 105

4.5.2 Number of blood donors in Australia with HIV antibody, 1985 – 2008, 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 106

4.5.3 Number of donations tested for hepatitis B surface antigen at blood services, 2004 – 2008, number of donations positive for hepatitis B surface antigen and prevalence of hepatitis B surface antigen, by State/Territory and year of donation 107

4.5.4 Number of donations tested for hepatitis C antibody at blood services, 2004 – 2008, number of donations positive for hepatitis C antibody and prevalence of hepatitis C antibody, by State/Territory and year of donation 108

4.6 Chlamydia prevalence among people seen through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS)

4.6.1 Number of new patients seen at sexual health services participating in ACCESS, 2004 – 2008, number (percent) tested for chlamydia and number (percent) newly diagnosed with chlamydia by State/Territory, sex and year 109

4.6.2 Number of new patients seen at sexual health services participating in ACCESS, 2004 – 2008, number tested for chlamydia and number (percent) newly diagnosed with chlamydia, by priority population and year 110

4.6.3 Number of new patients seen at sexual health services participating in ACCESS, 2004 – 2008, number tested for chlamydia and number (percent) newly diagnosed with chlamydia by sex, year and age group 111

4.6.4 Number of people seen at ACCESS networks of antenatal clinics, family planning clinics, general practice clinics and the laboratory network, October 2007 – September 2008, number tested for chlamydia and number (percent) newly diagnosed with chlamydia, by ACCESS network, sex and age group 112

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4 HIV, viral hepatitis and sexually transmissible infections in selected populations

4.1 HIV seroprevalence among people seen at sexual health clinics

Table 4.1.1 Number of people seen at selected metropolitan sexual health clinics in Australia, 2004 – 2008, number tested for HIV antibody, number (percent) newly diagnosed with HIV infection and number (percent) newly diagnosed with HIV infection following a previous negative test by sex, clinic and year

		Sexual Health Clinic						
Males		**Sydney Sexual Health Centre, NSW**	**Livingstone Road Sexual Health Centre, NSW[1]**	**Brisbane Sexual Health Clinic, QLD**	**Gold Coast Sexual Health Clinic, QLD**	**Clinic 275 Adelaide, SA**	**Melbourne Sexual Health Centre, VIC**	**Total**
2004	Seen	4 312	1 183	2 798	1 087	3 664	6 067	19 111
	Tested	2 451	670	1 174	430	2 928	2 603	10 256
	Newly diagnosed (%)	19 (0.8)	4 (0.6)	5 (0.4)	5 (1.2)	11 (0.4)	7 (0.3)	51 (0.5)
	Previously negative (%)	15 (0.9)	2 (1.3)	4 (1.2)	1 (0.8)	11 (0.6)	5 (0.3)	38 (0.7)
2005	Seen	4 501	1 066	3 043	1 466	3 892	5 216	19 184
	Tested	2 616	570	1 073	632	3 134	2 735	10 760
	Newly diagnosed (%)	27 (1.0)	6 (1.1)	8 (0.7)	14 (2.2)	8 (0.3)	13 (0.5)	76 (0.7)
	Previously negative (%)	20 (1.2)	1 (0.6)	6 (0.8)	1 (0.6)	4 (0.6)	12 (0.3)	44 (0.7)
2006	Seen	4 509	1 102	3 043	1 539	4 026	5 902	20 121
	Tested	2 587	353	1 196	566	3 266	3 207	11 175
	Newly diagnosed (%)	22 (0.9)	3 (0.8)	5 (0.4)	10 (1.8)	10 (0.3)	32 (1.0)	82 (0.7)
	Previously negative (%)	16 (0.9)	0 (0.0)	5 (0.6)	4 (2.5)	10 (0.5)	29 (1.2)	64 (0.9)
2007	Seen	4 735	921	3 413	1 682	4 084	6 596	21 431
	Tested	2 458	463	2 124	750	3 350	3 842	12 987
	Newly diagnosed (%)	24 (1.0)	1 (0.2)	8 (0.4)	9 (1.2)	7 (0.2)	40 (1.0)	89 (0.7)
	Previously negative (%)	21 (1.1)	0 (0.0)	6 (0.7)	1 (0.5)	6 (0.3)	30 (1.1)	64 (0.8)
2008	Seen	4 615	–	3 795	1 799	4 086	8 335	22 630
	Tested	2 297	–	1 582	767	3 420	3 738	11 804
	Newly diagnosed (%)	25 (1.1)	–	7 (0.4)	7 (0.9)	9 (0.3)	47 (1.3)	95 (0.8)
	Previously negative (%)	20 (1.1)	–	5 (0.5)	0 (0.0)	7 (0.3)	42 (1.7)	74 (1.0)

		Sexual Health Clinic						
Females		Sydney Sexual Health Centre, NSW	Livingstone Road Sexual Health Centre, NSW[1]	Brisbane Sexual Health Clinic, QLD	Gold Coast Sexual Health Clinic, QLD	Clinic 275 Adelaide, SA	Melbourne Sexual Health Centre, VIC	Total
2004	Seen	2 680	1 016	2 471	1 257	2 492	4 068	13 984
	Tested	1 354	356	805	506	1 925	1 586	6 532
	Newly diagnosed (%)	4 (0.3)	1 (0.3)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	7 (0.1)
	Previously negative (%)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.1)	2 (0.1)
2005	Seen	2 477	781	2 496	1 405	2 491	3 899	13 549
	Tested	1 248	226	522	562	1 881	1 746	6 185
	Newly diagnosed (%)	5 (0.4)	1 (0.4)	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)	7 (0.1)
	Previously negative (%)	2 (0.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)
2006	Seen	2 447	713	2 410	1 252	2 517	4 491	13 830
	Tested	1 216	152	626	435	1 897	2 036	6 362
	Newly diagnosed (%)	0 (0.0)	1 (0.7)	0 (0.0)	2 (0.5)	0 (0.0)	1 (0.05)	4 (0.1)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.5)	0 (0.0)	1 (0.07)	2 (0.05)
2007	Seen	2 643	452	2 407	1 268	2 497	4 307	13 574
	Tested	1 232	137	1 228	533	1 964	2 161	7 255
	Newly diagnosed (%)	1 (0.1)	1 (0.7)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	4 (0.1)
	Previously negative (%)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.07)	2 (0.05)
2008	Seen	2 761	–	2 490	1 375	2 407	6 683	15 716
	Tested	1 193	–	669	496	1 947	2 187	6 492
	Newly diagnosed (%)	3 (0.3)	–	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	5 (0.08)
	Previously negative (%)	1 (0.1)	–	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.07)	2 (0.05)

1 Livingstone Road Sexual Health Centre, NSW, closed in 2007.

Source: Collaborative group on sentinel surveillance in sexual health clinics

Table 4.1.2 Number of people seen at selected metropolitan sexual health clinics in Australia, 2004 – 2008, number tested for HIV antibody, number (percent) newly diagnosed with HIV infection and number (percent) newly diagnosed with HIV infection following a previous negative test by sex, HIV exposure category and year

		HIV exposure category						
Males		**Male homosexual contact[1]**	**Male homosexual contact[1], age < 25 years**	**Injecting drug use**	**Heterosexual contact overseas**	**Heterosexual contact in Australia**	**Other males**	**Total**
2004	Seen	5 664	1 172	710	2 260	9 687	790	19 111
	Tested	3 815	888	453	1 425	4 389	174	10 256
	Newly diagnosed (%)	46 (1.2)	6 (0.7)	0 (0.0)	2 (0.1)	3 (0.1)	0 (0.0)	51 (0.5)
	Previously negative (%)	35 (1.4)	3 (0.6)	0 (0.0)	2 (0.3)	1 (0.1)	0 (0.0)	38 (0.7)
2005	Seen	6 174	1 268	697	2 741	8 820	752	19 184
	Tested	4 232	980	452	1 668	4 265	143	10 760
	Newly diagnosed (%)	68 (1.8)	11 (1.1)	3 (0.7)	1 (0.1)	2 (0.1)	2 (1.1)	76 (0.7)
	Previously negative (%)	43 (1.4)	6 (1.1)	1 (0.3)	0 (0.0)	0 (0.0)	0 (0.0)	44 (0.7)
2006	Seen	7 313	1 539	613	2 819	8 387	989	20 121
	Tested	5 003	1 189	368	1 613	4 015	176	11 175
	Newly diagnosed (%)	66 (1.3)	10 (0.8)	3 (0.8)	7 (0.4)	4 (0.1)	2 (1.1)	82 (0.7)
	Previously negative (%)	55 (1.4)	9 (1.1)	2 (0.7)	3 (0.4)	4 (0.2)	0 (0.0)	64 (0.9)
2007	Seen	7 972	1 707	550	3 324	8 648	937	21 431
	Tested	6 100	1 402	356	1 964	4 388	179	12 987
	Newly diagnosed (%)	81(1.3)	17 (1.2)	0 (0.0)	3 (0.2)	1 (0.02)	4 (2.2)	89 (0.7)
	Previously negative (%)	62 (1.4)	12 (1.4)	0 (0.0)	2 (0.2)	0 (0.0)	0 (0.0)	64 (0.8)
2008	Seen	8 410	1 845	507	3 632	9 306	775	22 630
	Tested	5 153	1 228	314	1 981	4 259	97	11 804
	Newly diagnosed (%)	85 (1.6)	14 (1.2)	1 (0.3)	6 (0.3)	2 (0.05)	1 (1.0)	95 (0.8)
	Previously negative (%)	70 (1.8)	13 (1.4)	1 (0.4)	2 (0.2)	1 (0.04)	0 (0.0)	74 (1.0)

Females		HIV exposure category					
		Sex worker[2]	Injecting drug use	Heterosexual contact overseas	Heterosexual contact in Australia	Other females	Total
2004	Seen	1 897	517	1 824	8 848	898	13 984
	Tested	1 297	303	1 027	3 708	197	6 532
	Newly diagnosed (%)	0 (0.0)	0 (0.0)	4 (0.4)	2 (0.1)	1 (0.5)	7 (0.1)
	Previously negative (%)	0 (0.0)	0 (0.0)	2 (0.5)	0 (0.0)	0 (0.0)	2 (0.1)
2005	Seen	1 981	378	1 987	8 337	866	13 549
	Tested	1 268	192	1 044	3 483	198	6 185
	Newly diagnosed (%)	2 (0.1)	0 (0.0)	3 (0.3)	2 (0.1)	0 (0.0)	7 (0.1)
	Previously negative (%)	1 (0.4)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	2 (0.1)
2006	Seen	2 493	371	2 021	7 994	951	13 830
	Tested	1 572	188	1 036	3 349	217	6 362
	Newly diagnosed (%)	0 (0.0)	0 (0.0)	1 (0.1)	3 (0.1)	0 (0.0)	4 (0.1)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	0 (0.0)	2 (0.1)
2007	Seen	2 058	373	2 308	7 970	865	13 574
	Tested	1 740	268	1 233	3 739	275	7 255
	Newly diagnosed (%)	0 (0.0)	2 (0.7)	0 (0.0)	2 (0.03)	0 (0.0)	4 (0.06)
	Previously negative (%)	0 (0.0)	1 (0.6)	0 (0.0)	1 (0.05)	0 (0.0)	2 (0.05)
2008	Seen	3 783	360	2 447	8 278	848	15 716
	Tested	1 656	207	1 125	3 274	230	6 492
	Newly diagnosed (%)	1 (0.06)	0 (0.0)	1 (0.09)	3 (0.09)	0 (0.0)	5 (0.08)
	Previously negative (%)	0 (0.0)	0 (0.0)	1 (0.2)	1 (0.06)	0 (0.0)	2 (0.05)

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

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

Source: Collaborative group on sentinel surveillance in sexual health clinics

Table 4.1.3 Number of people seen at selected metropolitan sexual health clinics in Australia, 2004 – 2008, number tested for HIV antibody, number (percent) newly diagnosed with HIV infection and number (percent) newly diagnosed with HIV infection following a previous negative test by sex, age group and year

		Age group (years)						
Males		**13 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60+**	**Total**
2004	Seen	659	7 727	5 875	2 999	1 288	563	19 111
	Tested	411	4 547	3 096	1 367	615	220	10 256
	Newly diagnosed (%)	0 (0.0)	18 (0.4)	14 (0.5)	14 (1.0)	2 (0.3)	3 (1.4)	51 (0.5)
	Previously negative (%)	0 (0.0)	14 (0.6)	11 (0.5)	9 (1.0)	1 (0.3)	3 (2.5)	38 (0.7)
2005	Seen	741	8 121	5 734	2 877	1 184	527	19 184
	Tested	426	4 800	3 171	1 509	608	246	10 760
	Newly diagnosed (%)	2 (0.5)	18 (0.4)	29 (0.9)	19 (1.3)	6 (1.0)	2 (0.8)	76 (0.7)
	Previously negative (%)	1 (0.8)	11 (0.5)	17 (0.8)	10 (1.1)	3 (0.8)	2 (1.7)	44 (0.7)
2006	Seen	704	8 642	5 739	3 069	1 405	562	20 121
	Tested	405	5 021	3 172	1 546	736	295	11 175
	Newly diagnosed (%)	3 (0.7)	23 (0.5)	31 (1.0)	16 (1.0)	6 (0.8)	3 (1.0)	82 (0.7)
	Previously negative (%)	2 (1.4)	18 (0.6)	24 (1.0)	14 (1.2)	4 (0.8)	2 (1.0)	64 (0.9)
2007	Seen	853	9 487	5 911	3 143	1 362	675	21 431
	Tested	472	5 811	3 657	1 847	820	380	12 987
	Newly diagnosed (%)	2 (0.4)	33 (0.6)	26 (0.7)	20 (1.1)	7 (0.9)	1 (0.3)	89 (0.7)
	Previously negative (%)	0 (0.0)	26 (0.8)	19 (0.8)	13 (1.0)	5 (0.9)	1 (0.4)	64 (0.8)
2008	Seen	846	10 483	6 130	3 054	1 394	723	22 630
	Tested	464	5 554	3 188	1 511	707	380	11 804
	Newly diagnosed (%)	0 (0.0)	31 (0.6)	35 (1.1)	20 (1.3)	4 (0.6)	5 (1.3)	95 (0.8)
	Previously negative (%)	0 (0.0)	27 (0.8)	25 (1.0)	16 (1.4)	3 (0.6)	3 (1.1)	74 (1.0)

		Age group (years)						
Females		**13 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60+**	**Total**
2004	Seen	1 624	7 298	3 385	1 211	366	100	13 984
	Tested	665	3 499	1 610	578	151	29	6 532
	Newly diagnosed (%)	0 (0.0)	3 (0.1)	3 (0.2)	1 (0.2)	0 (0.0)	0 (0.0)	7 (0.1)
	Previously negative (%)	0 (0.0)	0 (0.0)	1 (0.1)	1 (0.3)	0 (0.0)	0 (0.0)	2 (0.1)
2005	Seen	1 484	7 241	3 184	1 202	356	82	13 549
	Tested	543	3 374	1 492	590	158	28	6 185
	Newly diagnosed (%)	0 (0.0)	2 (0.1)	4 (0.3)	1 (0.2)	0 (0.0)	0 (0.0)	7 (0.1)
	Previously negative (%)	0 (0.0)	1 (0.1)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)
2006	Seen	1 481	7 289	3 276	1 344	379	61	13 830
	Tested	521	3 368	1 626	671	160	16	6 362
	Newly diagnosed (%)	0 (0.0)	1 (0.03)	1 (0.1)	1 (0.1)	1 (0.6)	0 (0.0)	4 (0.1)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)	1 (1.0)	0 (0.0)	2 (0.1)
2007	Seen	1 481	7 456	3 057	1 153	340	87	13 574
	Tested	579	3 927	1 812	706	192	39	7 255
	Newly diagnosed (%)	1 (0.2)	1 (0.03)	0 (0.0)	2 (0.3)	0 (0.0)	0 (0.0)	4 (0.1)
	Previously negative (%)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.4)	0 (0.0)	0 (0.0)	2 (0.05)
2008	Seen	1 520	8 379	3 804	1 507	415	91	15 716
	Tested	548	3 475	1 650	630	162	27	6 492
	Newly diagnosed (%)	0 (0.0)	2 (0.06)	1 (0.06)	1 (0.2)	0 (0.0)	1 (3.8)	5 (0.08)
	Previously negative (%)	0 (0.0)	1 (0.05)	1 (0.08)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.05)

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

4.2 HIV and hepatitis C seroprevalence among people who have injected drugs

Table 4.2.1 Number of participating needle and syringe programs (NSP), 2004 – 2008, number of injecting drug users tested for HIV or hepatitis C antibody (percent of clients seen) and number (percent) with HIV or hepatitis C antibody by year, State/Territory and sex

2004

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT	1	18	5	23 (58)	0 (0.0)	0 (0.0)	0 (0.0)	12 (67)	4 (80)	16 (70)
NSW	17	407	194	606 (39)	6 (1.5)	1 (0.5)	7 (1.2)	288 (70)	141(72)	433 (71)
NT	1	11	4	16 (78)	0 (0.0)	0 (0.0)	0 (0.0)	6 (55)	3 (75)	9 (56)
QLD	7	379	165	544 (50)	10 (2.6)	1 (0.6)	11(2.0)	188 (50)	94 (57)	282 (52)
SA	6	145	80	229 (50)	0 (0.0)	1 (1.3)	1 (0.4)	67 (46)	39 (49)	108 (47)
TAS	4	65	39	105 (32)	0 (0.0)	0 (0.0)	0 (0.0)	30 (45)	20 (51)	50 (47)
VIC	5	122	65	189 (25)	1 (0.8)	0 (0.0)	1 (0.5)	82 (67)	48 (74)	130 (69)
WA	3	69	43	113 (65)	0 (0.0)	0 (0.0)	0 (0.0)	42 (61)	22 (51)	65 (58)
Total	**44**	**1 216**	**595**	**1 825 (50)**	**17 (1.4)**	**3 (0.5)**	**20 (1.1)**	**715 (59)**	**371 (62)**	**1 093 (60)**

2005

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT	1	24	7	31 (57)	0 (0.0)	0 (0.0)	0 (0.0)	16 (67)	7 (100)	23 (74)
NSW	23	446	246	698 (45)	6 (1.3)	0 (0.0)	6 (0.9)	302 (68)	168 (68)	474 (68)
NT	3	16	9	25 (30)	0 (0.0)	0 (0.0)	0 (0.0)	6 (38)	6 (67)	12 (48)
QLD	7	194	89	285 (36)	4 (2.1)	0 (0.0)	4 (1.4)	105 (54)	40 (45)	146 (51)
SA	7	126	83	210 (51)	1 (0.8)	0 (0.0)	1 (0.5)	54 (43)	40 (48)	95 (45)
TAS	3	86	51	137 (67)	0 (0.0)	0 (0.0)	0 (0.0)	51 (59)	30 (59)	81 (59)
VIC	5	112	76	188 (65)	1 (0.9)	0 (0.0)	1 (0.5)	64 (57)	55 (72)	119 (63)
WA	3	109	57	166 (47)	3 (2.8)	0 (0.0)	3 (1.8)	59 (54)	31 (54)	90 (54)
Total	**52**	**1 113**	**618**	**1 740 (46)**	**15 (1.3)**	**0 (0.0)**	**15 (0.9)**	**657 (59)**	**377 (61)**	**1 040 (60)**

2006

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT[3]	1	30	18	49 (–)	0 (0.0)	0 (0.0)	0 (0.0)	23 (79)	10 (63)	33 (72)
NSW	21	424	232	663 (46)	12 (2.8)	1 (0.4)	14 (2.1)	292 (69)	173 (75)	468 (71)
NT	1	9	11	20 (61)	0 (0.0)	0 (0.0)	0 (0.0)	4 (57)	1 (10)	5 (29)
QLD	7	350	142	495 (39)	11 (3.1)	1 (0.7)	12 (2.4)	185 (53)	88 (62)	276 (56)
SA	6	112	85	197 (71)	1 (0.9)	0 (0.0)	1 (0.5)	49 (44)	35 (41)	84 (43)
TAS	2	94	56	150 (52)	0 (0.0)	0 (0.0)	0 (0.0)	53 (57)	32 (58)	85 (57)
VIC	4	122	68	191 (55)	1 (0.8)	0 (0.0)	1 (0.5)	84 (69)	50 (75)	135 (71)
WA	3	82	49	132 (46)	1 (1.2)	0 (0.0)	1 (0.8)	46 (56)	30 (61)	76 (58)
Total	**45**	**1 223**	**661**	**1 897 (48)**	**26 (2.1)**	**2 (0.3)**	**29 (1.5)**	**736 (60)**	**419 (63)**	**1 162 (61)**

2007

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT[3]	1	10	8	18 (–)	0 (0.0)	0 (0.0)	0 (0.0)	10 (100)	6 (75)	18 (89)
NSW	21	439	240	683 (40)	12 (2.7)	2 (0.8)	15 (2.2)	289 (68)	169 (73)	460 (69)
NT	3	20	9	29 (39)	0 (0.0)	0 (0.0)	0 (0.0)	13 (65)	5 (56)	18 (62)
QLD	7	279	130	413 (40)	10 (3.6)	0 (0.0)	10 (2.4)	158 (57)	85 (66)	247 (60)
SA	7	120	89	211 (72)	2 (1.7)	0 (0.0)	2 (1.0)	50 (42)	31 (35)	82 (39)
TAS	5	110	56	166 (57)	0 (0.0)	0 (0.0)	0 (0.0)	52 (57)	30 (70)	82 (61)
VIC[3]	7	163	76	240 (–)	0 (0.0)	0 (0.0)	0 (0.0)	100 (72)	48 (74)	149 (73)
WA	2	54	31	85 (39)	1 (1.9)	0 (0.0)	1 (1.2)	23 (43)	14 (45)	37 (44)
Total	**53**	**1 195**	**639**	**1 845 (51)**	**25 (2.1)**	**2 (0.3)**	**28 (1.5)**	**695 (58)**	**388 (61)**	**1 091 (59)**

2008

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT[3]	1	18	8	26 (–)	0 (0.0)	0 (0.0)	0 (0.0)	12 (67)	6 (75)	18 (69)
NSW	22	563	297	867 (33)	15 (2.7)	3 (1.0)	19 (2.2)	379 (70)	208 (74)	591 (71)
NT	2	46	27	73 (40)	1 (2.2)	0 (0.0)	1 (1.4)	23 (50)	15 (58)	38 (53)
QLD	8	335	161	498 (35)	9 (2.7)	0 (0.0)	9 (1.8)	182 (55)	91 (57)	275 (56)
SA	7	96	92	189 (45)	0 (0.0)	0 (0.0)	0 (0.0)	30 (32)	24 (27)	54 (29)
TAS	4	33	24	57 (25)	0 (0.0)	0 (0.0)	0 (0.0)	26 (81)	19 (79)	45 (80)
VIC	6	199	93	292 (36)	2 (1.0)	0 (0.0)	2 (0.7)	141 (75)	58 (64)	199 (72)
WA	2	106	62	168 (73)	2 (1.9)	0 (0.0)	1 (1.2)	59 (58)	32 (54)	91 (57)
Total	**52**	**1 396**	**764**	**2 170 (36)**	**29 (2.1)**	**3 (0.4)**	**33 (1.5)**	**852 (63)**	**453 (61)**	**1 311 (62)**

1 At first attendance during the survey week. The number of clients tested for hepatitis C antibody was less than the reported number, due to insufficient specimen following HIV antibody testing.

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

3 The number of clients seen was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

Table 4.2.2 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, and percent with HIV or hepatitis C antibody by year, age group, history of injecting drug use, type of drug last injected among those reporting less than three years of drug injection, and sex

2004

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Age group									
Less than 20 years	30	33	64	0.0	0.0	0.0	20	36	28
20 to 24 years	176	103	279	1.1	1.0	1.1	37	54	43
25 to 29 years	239	125	366	0.4	0.0	0.3	50	46	49
30 to 34 years	266	94	360	1.5	0.0	1.1	55	63	57
35+ years	502	240	748	1.8	0.8	1.5	74	77	75
Not reported	3	0	8	33.3	–	12.5	67	–	38
History of injecting drug use									
Less than 3 years	84	51	135	2.4	0.0	1.5	27	22	25
3 to 5 years	138	84	224	1.5	0.0	0.9	31	38	33
6 to 10 years	312	161	474	1.0	0.0	0.6	53	60	56
10+ years	656	290	949	1.4	1.0	1.3	71	77	73
Not reported	26	9	43	3.9	0.0	2.3	54	67	53
Total	**1 216**	**595**	**1 825**	**1.4**	**0.5**	**1.1**	**59**	**62**	**60**
Last drug injected among those reporting less than 3 years of drug injection									
Amphetamines	35	27	62	5.7	0.0	3.2	31	11	23
Heroin/opiates	27	17	44	0.0	0.0	0.0	41	29	36
Combination	4	4	8	0.0	0.0	0.0	0	75	38
Other/not reported	18	3	21	0.0	0.0	0.0	6	0	5
Total	**84**	**51**	**135**	**2.4**	**0.0**	**1.5**	**27**	**22**	**25**

2005

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Age group									
Less than 20 years	17	24	41	0.0	0.0	0.0	18	45	33
20 to 24 years	111	92	203	0.9	0.0	0.5	31	51	40
25 to 29 years	186	139	326	0.0	0.0	0.0	52	54	53
30 to 34 years	236	121	357	1.3	0.0	0.9	53	54	54
35+ years	551	240	798	2.1	0.0	1.4	75	76	75
Not reported	12	2	15	0.0	0.0	0.0	75	100	80
History of injecting drug use									
Less than 3 years	57	30	88	3.7	0.0	2.4	7	34	17
3 to 5 years	101	75	177	2.0	0.0	1.1	32	34	33
6 to 10 years	103	109	213	0.0	0.0	0.0	47	55	51
10+ years	805	374	1 185	1.2	0.0	0.8	70	72	71
Not reported	47	30	77	4.4	0.0	2.6	60	63	61
Total	**1 113**	**618**	**1 740**	**1.3**	**0.0**	**0.9**	**59**	**61**	**60**
Last drug injected among those reporting less than 3 years of drug injection									
Amphetamines	28	15	43	7.4	0.0	4.8	4	0	2
Heroin/opiates	17	12	30	0.0	0.0	0.0	18	82	41
Combination	0	0	0	0.0	0.0	0.0	0	0	0
Other/not reported	12	3	15	0.0	0.0	0.0	0	33	8
Total	**57**	**30**	**88**	**3.7**	**0.0**	**2.4**	**7**	**34**	**17**

2006

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Age group									
Less than 20 years	19	24	43	0.0	0.0	0.0	6	26	17
20 to 24 years	101	81	182	2.0	0.0	1.1	42	54	48
25 to 29 years	230	124	357	0.0	0.0	0.3	51	62	55
30 to 34 years	262	141	407	1.9	0.7	1.5	50	57	53
35+ years	606	289	901	3.1	0.4	2.2	73	74	73
Not reported	5	2	7	0.0	0.0	0.0	80	100	86
History of injecting drug use									
Less than 3 years	59	42	102	1.7	0.0	1.0	16	22	18
3 to 5 years	81	67	148	2.5	0.0	1.4	32	28	30
6 to 10 years	227	159	390	1.8	0.6	1.5	49	65	55
10+ years	799	378	1 185	1.3	0.3	1.6	70	75	72
Not reported	57	15	72	1.8	0.0	1.4	59	60	59
Total	**1 223**	**661**	**1 897**	**2.1**	**0.3**	**1.5**	**60**	**63**	**61**
Last drug injected among those reporting less than 3 years of drug injection									
Amphetamines	33	21	54	3.0	0.0	1.9	9	5	8
Heroin/opiates	11	15	27	0.0	0.0	0.0	55	36	42
Combination	1	2	3	0.0	0.0	0.0	0	100	67
Other/not reported	14	4	18	0.0	0.0	0.0	0	25	6
Total	**59**	**42**	**102**	**1.7**	**0.0**	**1.0**	**16**	**22**	**18**

2007

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Age group									
Less than 20 years	18	15	33	0.0	0.0	0.0	22	36	28
20 to 24 years	72	69	142	0.0	0.0	0.0	34	51	43
25 to 29 years	202	131	334	1.5	0.0	0.9	51	60	55
30 to 34 years	251	105	359	1.2	0.0	0.8	57	59	58
35+ years	650	318	974	2.9	0.6	2.3	69	72	70
Not reported	2	1	3	0.0	0.0	0.0	100	0	67
History of injecting drug use									
Less than 3 years	61	37	98	1.6	0.0	1.0	14	30	20
3 to 5 years	67	58	126	3.0	0.0	1.6	33	53	42
6 to 10 years	210	132	345	1.0	0.0	0.6	43	55	48
10+ years	826	394	1 227	2.4	0.5	1.8	71	72	71
Not reported	31	18	49	3.2	0.0	2.0	71	76	73
Total	**1 195**	**639**	**1 845**	**2.1**	**0.3**	**1.5**	**58**	**61**	**59**
Last drug injected among those reporting less than 3 years of drug injection									
Amphetamines	35	19	54	2.9	0.0	1.9	15	28	19
Heroin/opiates	13	13	26	0.0	0.0	0.0	8	38	24
Combination	2	0	2	0.0	0.0	0.0	0	0	0
Other/Not reported	11	5	16	0.0	0.0	0.0	18	17	18
Total	**61**	**37**	**98**	**1.6**	**0.0**	**1.0**	**14**	**30**	**20**

2008

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Age group									
Less than 20 years	21	16	37	0.0	0.0	0.0	29	44	35
20 to 24 years	86	73	159	0.0	0.0	0.0	30	47	38
25 to 29 years	187	142	331	0.5	1.4	1.2	53	58	55
30 to 34 years	281	155	436	2.1	0.6	1.6	57	61	58
35+ years	816	377	1 201	2.7	0.0	1.8	72	67	70
Not reported	5	1	6	0.0	0.0	0.0	60	0	50
History of injecting drug use									
Less than 3 years	68	44	112	7.4	0.0	4.5	19	40	27
3 to 5 years	114	50	164	2.6	0.0	1.8	29	38	31
6 to 10 years	194	152	347	0.5	0.0	0.3	50	53	51
10+ years	986	508	1 502	1.9	0.6	1.5	73	69	72
Not reported	34	10	45	2.9	0.0	2.2	56	22	50
Total	**1 396**	**764**	**2 170**	**2.1**	**0.4**	**1.5**	**63**	**61**	**62**
Last drug injected among those reporting less than 3 years of drug injection									
Amphetamines	28	15	43	14.3	0.0	9.3	14	27	19
Heroin/opiates	13	15	28	7.7	0.0	3.6	23	50	37
Combination	1	1	2	0.0	0.0	0.0	100	100	100
Other/Not reported	26	13	39	0.0	0.0	0.0	20	38	26
Total	**68**	**44**	**112**	**7.4**	**0.0**	**4.5**	**19**	**40**	**27**

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

Source: Collaboration of Australian Needle and Syringe Program

Table 4.2.3 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, and percent with HIV or hepatitis C antibody by year, sexual identity, sex work last month, region of birth, main language spoken at home by parents and sex

2004

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total	Male	Female	Total
Sexual identity									
Heterosexual	1 058	435	1 496	0.1	0.5	0.2	58	62	59
Bisexual	45	108	155	2.2	0.9	1.3	62	61	61
Homosexual	45	30	75	28.9	0.0	17.3	56	63	59
Not reported	68	22	99	2.9	0.0	2.0	63	64	63
Sex work last month									
No	1 123	487	1 615	1.3	0.4	1.0	58	58	58
Yes	64	93	161	3.1	1.1	1.9	59	81	72
Not reported	29	15	49	3.5	0.0	2.0	59	63	56
Country/region of birth									
Australia	941	498	1 450	1.5	0.6	1.2	56	62	58
Overseas born	252	90	344	0.8	0.0	0.6	66	64	65
Other Oceania	29	27	56	0.0	0.0	0.0	55	67	61
Asia	119	19	138	0.0	0.0	0.0	73	53	71
United Kingdom and Ireland	58	23	81	3.5	0.0	2.5	63	65	63
Other	46	21	69	0.0	0.0	0.0	57	68	60
Not reported	23	7	31	4.4	0.0	3.2	70	57	68
Main language spoken at home by parents									
English	755	454	1 219	1.5	0.4	1.1	57	62	58
Other language	162	43	205	0.0	0.0	0.0	67	57	65
Not reported	299	98	401	2.0	1.0	1.8	58	66	60
Total	**1 216**	**595**	**1 825**	**1.4**	**0.5**	**1.1**	**59**	**62**	**60**

2005

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total	Male	Female	Total
Sexual identity									
Heterosexual	974	444	1 419	0.4	0.0	0.3	61	61	61
Bisexual	37	107	145	0.0	0.0	0.0	54	60	59
Homosexual	57	33	95	20.8	0.0	12.2	57	75	65
Not reported	45	34	81	0.0	0.0	0.0	67	65	65
Sex work last month									
No	1 061	532	1 600	1.4	0.0	0.9	61	59	61
Yes	28	73	103	3.7	0.0	1.0	67	78	75
Not reported	24	13	37	0.0	0.0	0.0	58	69	62
Country/region of birth									
Australia	946	547	1 500	1.4	0.0	0.9	60	61	61
Overseas born	160	66	228	1.2	0.0	0.9	65	66	65
Other Oceania	33	14	49	3.2	0.0	2.1	45	64	51
Asia	10	4	14	0.0	0.0	0.0	40	25	36
United Kingdom and Ireland	62	32	94	1.6	0.0	1.1	75	69	73
Other	55	16	71	0.0	0.0	0.0	70	67	69
Not reported	7	5	12	0.0	0.0	0.0	71	80	75
Main language spoken at home by parents									
English	921	552	1 480	1.7	0.0	1.0	62	61	61
Other language	76	26	104	0.0	0.0	0.0	58	64	59
Not reported	116	40	156	0.0	0.0	0.0	61	70	64
Total	**1 113**	**618**	**1 740**	**1.3**	**0.0**	**0.9**	**59**	**62**	**61**

2006

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total	Male	Female	Total
Sexual identity									
Heterosexual	1 070	484	1 557	0.3	0.2	0.3	63	64	63
Bisexual	55	110	171	7.3	0.9	3.5	45	70	60
Homosexual	59	46	107	32.2	0.0	17.8	44	51	48
Not reported	39	21	62	0.0	0.0	0.0	42	57	49
Sex work last month									
No	1 123	548	1 678	2.1	0.4	1.6	60	63	61
Yes	34	81	121	5.9	0.0	2.5	56	69	64
Not reported	66	32	98	0.0	0.0	0.0	77	58	71
Country/region of birth									
Australia	1 026	577	1 611	2.1	0.4	1.5	60	64	61
Overseas born	171	78	252	2.3	0.0	2.0	60	60	60
Other Oceania	38	23	62	2.8	0.0	1.6	53	74	60
Asia	11	4	15	0.0	0.0	0.0	55	50	53
United Kingdom and Ireland	73	30	104	2.7	0.0	1.9	67	63	65
Other	49	21	71	2.0	0.0	1.4	58	45	54
Not reported	26	6	34	0.0	0.0	0.0	79	88	82
Main language spoken at home by parents									
English	1 063	610	1 683	2.3	0.3	1.6	61	64	62
Other language	84	28	114	2.4	0.0	1.8	54	52	54
Not reported	76	23	100	0.0	0.0	0.0	63	64	64
Total	**1 223**	**661**	**1 897**	**2.1**	**0.3**	**1.5**	**60**	**63**	**61**

2007

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total	Male	Female	Total
Sexual identity									
Heterosexual	1 055	458	1 514	0.5	0.4	0.5	62	65	63
Bisexual	47	120	170	4.3	0.0	1.8	56	66	64
Homosexual	69	42	114	26.1	0.0	15.8	48	51	50
Not reported	24	19	47	0.0	0.0	0.0	57	71	63
Sex work last month									
No	1 108	541	1 656	2.1	0.4	1.5	62	64	62
Yes	34	76	114	2.9	0.0	1.8	58	63	58
Not reported	53	22	75	1.9	0.0	1.3	47	73	55
Country/region of birth									
Australia	1 023	557	1 590	2.2	0.4	1.6	61	64	62
Overseas born	145	75	221	2.1	0.0	1.4	64	68	65
Other Oceania	25	19	45	4.0	0.0	2.2	67	53	60
Asia	13	9	22	0.0	0.0	0.0	75	75	75
United Kingdom and Ireland	56	28	84	3.6	0.0	2.4	62	71	65
Other	51	19	70	0.0	0.0	0.0	62	74	65
Not reported	27	7	34	0.0	0.0	0.0	54	71	58
Main language spoken at home by parents									
English	1 100	609	1 719	2.2	0.3	1.6	61	64	62
Other language	70	27	98	1.4	0.0	1.0	60	65	62
Not reported	25	3	28	0.0	0.0	0.0	50	67	52
Total	**1 195**	**639**	**1 845**	**2.1**	**0.3**	**1.5**	**58**	**61**	**59**

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

2008

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	**Female**	**Total[1]**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Sexual identity									
Heterosexual	1 228	537	1 767	0.2	0.2	0.2	64	61	63
Bisexual	56	152	209	5.4	1.3	2.9	59	63	62
Homosexual	62	48	112	37.1	0.0	20.6	43	62	51
Not reported	50	27	82	0.0	0.0	0.0	73	54	67
Sex work last month									
No	1 264	633	1 905	2.1	0.5	1.6	63	60	62
Yes	39	91	131	5.1	0.0	2.3	73	66	67
Not reported	93	40	134	0.0	0.0	0.0	55	81	63
Country/region of birth									
Australia	1 181	650	1 836	2.0	0.5	1.5	63	60	62
Overseas born	194	102	300	2.6	0.0	2.0	63	65	63
Other Oceania	34	27	63	8.8	0.0	6.4	41	50	44
Asia	21	7	28	4.8	0.0	3.6	89	50	80
United Kingdom and Ireland	68	43	113	0.0	0.0	0.0	61	72	65
Other	71	25	96	1.4	0.0	1.0	68	72	69
Not reported	21	12	34	0.0	0.0	0.0	70	91	78
Main language spoken at home by parents									
English	1 299	728	2 037	2.2	0.4	1.6	62	62	62
Other language	73	28	101	1.4	0.0	1.0	75	54	69
Not reported	24	8	32	0.0	0.0	0.0	59	86	66
Total	**1 396**	**764**	**2 170**	**2.1**	**0.4**	**1.5**	**63**	**61**	**62**

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

Source: Collaboration of Australian Needle and Syringe Programs

4.3 Incidence of hepatitis C infection among people who have injected drugs

Table 4.3.1 Incidence of hepatitis C infection among injecting drug users seen at the Kirketon Road Centre, Sydney, 2004 – 2008

Year/Age group	Person years at risk	Number newly diagnosed	Incidence per 100 person years
2004			
less than 20 years	2.8	0	–
20 – 29 years	33.6	4	11.9
30+ years	30.8	2	6.4
Total	**67.2**	**6**	**8.9**
2005			
less than 20 years	8.0	2	25.0
20 – 29 years	29.9	2	6.7
30+ years	31.1	3	9.6
Total	**69.0**	**7**	**10.1**
2006			
less than 20 years	4.0	1	25.0
20 – 29 years	25.7	2	7.8
30+ years	33.8	1	3.0
Total	**63.5**	**4**	**6.3**
2007			
less than 20 years	4.2	0	–
20 – 29 years	18.2	2	11.0
30+ years	24.4	3	12.3
Total	**46.8**	**5**	**10.7**
2008			
less than 20 years	1.9	0	–
20 – 29 years	9.6	1	10.4
30+ years	13.9	1	7.2
Total	**25.4**	**2**	**7.9**

Source: Kirketon Road Centre

4.4 HIV and hepatitis C infection among entrants into Australian prisons

Table 4.4.1 Number of receptions into Australian prisons, 2004 – 2008, percentage 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	**NSW**	**NT**	**QLD**	**SA**	**TAS**	**VIC[1]**	**WA**	**Total**
2004								
Number of receptions	14 504	2 180	7 277	3 449	1 514	4 955	6 836	40 715
Number (%) male	12 750 (88)	2 063 (95)	6 481 (89)	3 076 (89)	1 319 (87)	4 331 (87)	5 827 (85)	35 847 (88)
Tested for HIV antibody (%)	53.1	100.0	100.0	29.3	17.6	10.9	40.9	54.4
% males tested	57.5	100.0	100.0	29.4	17.4	8.6	39.5	55.9
Number (%) with HIV	21 (0.3)	3 (0.1)	6 (0.08)	1 (0.1)	0 (0.0)	1 (0.2)	2 (0.07)	34 (0.2)
Number (%) male	20 (0.3)	3 (0.1)	2 (0.03)	0 (0.0)	0 (0.0)	1 (0.3)	1 (0.04)	27 (0.1)
2005								
Number of receptions	14 753	2 436	7 433	3 203	1 793	4 832	6 634	41 084
Number (%) male	12 999 (88)	2 308 (95)	6 660 (90)	2 877 (90)	1 578 (88)	4 267 (88)	5 735 (86)	36 424 (88)
Tested for HIV antibody (%)	31.5	100.0	100.0	41.9	16.4	26.0	39.5	49.2
% males tested	33.1	100.0	100.0	40.8	17.3	26.9	37.6	49.9
Number (%) with HIV	26 (0.6)	2 (0.08)	3 (0.04)	10 (0.7)	0 (0.0)	1 (0.08)	4 (0.2)	46 (0.2)
Number (%) male	24 (0.6)	2 (0.08)	3 (0.05)	7 (0.6)	0 (0.0)	1 (0.09)	4 (0.2)	41 (0.2)
2006								
Number of receptions	14 720	2 648	7 335	3 504	1 704	5 249	5 375	40 535
Number (%) male	12 920 (88)	2 484 (94)	6 511 (89)	3 141 (90)	1 494 (88)	4 439 (85)	4 722 (88)	35 711 (88)
Tested for HIV antibody (%)	28.0	100.0	100.0	29.1	20.1	20.1	43.2	48.5
% males tested	30.7	100.0	100.0	27.5	21.2	19.4	42.1	49.7
Number (%) with HIV	27 (0.7)	0 (0.0)	4 (0.05)	3 (0.3)	0 (0.0)	0 (0.0)	1 (0.04)	35 (0.2)
Number (%) male	23 (0.6)	0 (0.0)	4 (0.06)	1 (0.1)	0 (0.0)	0 (0.0)	1 (0.05)	29 (0.2)
2007								
Number of receptions	15 112	2 797	8 085	3 244	1 794	5 788	7 000	43 820
Number (%) male	13 216 (87)	2 623 (94)	7 194 (89)	2 892 (89)	1 582 (88)	5 231 (90)	6 036 (86)	38 774 (88)
Tested for HIV antibody (%)	29.0	100.0	100.0	25.6	21.2	27.5	46.8	48.7
% males tested	30.0	100.0	100.0	24.9	17.2	27.9	46.8	49.1
Number (%) with HIV	37 (0.8)	0 (0.0)	13 (0.2)	3 (0.4)	1 (0.3)	2 (0.1)	2 (0.06)	58 (0.3)
Number (%) male	29 (0.7)	0 (0.0)	12 (0.2)	2 (0.3)	1 (0.4)	2 (0.1)	2 (0.07)	48 (0.3)
2008								
Number of receptions	15 891	–	–	4 316	1 552	6 061	6 961	34 781
Number (%) male	13 989 (88)	–	–	3 810 (90)	1 372 (88)	5 113 (84)	6 064 (87)	30 348 (87)
Tested for HIV antibody (%)	23.4	–	–	10.9	52.1	15.1	50.8	27.2
% males tested	24.2	–	–	10.9	53.5	15.0	51.3	27.7
Number (%) with HIV	30 (0.8)	–	–	3 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	33 (0.3)
Number (%) male	26 (0.8)	–	–	1 (1.7)	0 (0.0)	0 (0.0)	0 (0.0)	27 (0.3)

1 For Victoria, 2005-2008 data are based on the number of tests at the reception prison.

Source: State/Territory Departments of Corrections

Table 4.4.2 Number of people received into Australian prisons, number (percent) who were tested for hepatitis C antibody and number (percent) with hepatitis C antibody, by year and Corrections jurisdiction of reception

	State/Territory Corrections jurisdiction							
Characteristic	**ACT[1]**	**NSW**	**QLD**	**SA[1]**	**TAS[1]**	**VIC[1]**	**WA[1]**	**Total[1]**
2004								
Number of receptions	–	359	157	–	77	–	146	739
Number (%) male	–	304 (85)	157 (100)	–	65 (84)	–	116 (79)	642 (87)
Tested for hepatitis C antibody (%)	–	56.8	81.5	–	35.1	–	62.3	60.9
% males tested	–	60.2	81.5	–	38.5	–	68.1	64.6
% reporting injecting drug use	–	60.8	57.8	–	66.7	–	52.7	58.6
Number (%) with hepatitis C antibody	–	87 (42.6)	38 (29.7)	–	13 (48.1)	–	18 (19.8)	156 (34.7)
Number (%) male	–	74 (40.4)	38 (29.7)	–	11 (44.0)	–	14 (17.7)	137 (33.0)
Number (%) reporting injecting drug use	–	85 (68.5)	36 (48.6)	–	12 (66.7)	–	16 (33.3)	149 (56.4)
2007								
Number of receptions	4	333	167	72	70	195	168	1 009
Number (%) male	4 (100)	270 (81)	167 (100)	–	–	179 (92)	–	–
Tested for hepatitis C antibody (%)	75.0	59.2	80.8	29.2	45.7	61.0	48.8	58.4
% males tested	75.0	59.3	80.8	–	–	60.3	–	–
% reporting injecting drug use	66.7	56.9	57.0	57.1	46.9	55.5	52.4	55.5
Number (%) with hepatitis C antibody	1 (33.3)	83 (42.1)	43 (31.9)	7 (33.3)	8 (25.0)	49 (41.2)	17 (20.7)	208 (35.3)
Number (%) male	1 (33.3)	59 (36.9)	43 (31.9)	7 (33.3)	8 (25.0)	42 (38.9)	15 (20.0)	175 (32.8)
Number (%) reporting injecting drug use	1 (50.0)	80 (71.4)	41 (53.2)	6 (50.0)	7 (46.7)	46 (69.7)	16 (37.2)	197 (60.2)

1 Dashes indicate that data were not available

Source: National Drug Research Institute; National Centre in HIV Epidemiology and Clinical Research

4.5 HIV, hepatitis B surface antigen and hepatitis C antibody in blood donors

Table 4.5.1 Number of donations tested for HIV antibody at blood services, number of donations positive for HIV antibody and prevalence of HIV antibody[1], 1985 – 2008, by State/Territory and years of donation

State/Territory	1985[2] – 1998			1999 – 2000			2001 – 2002		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT[3]	195 633	1	0.5	–	–	–	–	–	–
NSW	3 967 624	37	0.9	577 431	0	0.0	619 587	3	0.5
NT	120 196	1	0.8	18 429	0	0.0	14 966	0	0.0
QLD	2 341 786	26	1.1	385 192	2	0.5	395 241	3	0.8
SA	1 283 346	6	0.5	176 357	0	0.0	182 080	0	0.0
TAS	345 963	1	0.3	13 013	0	0.0	49 719	0	0.0
VIC	3 404 333	16	0.5	499 954	1	0.2	502 444	0	0.0
WA	1 086 119	8	0.7	200 097	2	1.0	200 276	3	1.5
Total	**12 745 000**	**96**	**0.8**	**1 870 473**	**5**	**0.3**	**1 964 313**	**9**	**0.5**

Territory	2003 – 2004			2005 – 2006			2007 – 2008			All years		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	State/Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT[3]	–	–	–	–	–	–	–	–	–	195 633	1	0.5
NSW	660 010	5	0.8	731 741	2	0.3	777 269	3	0.4	7 333 662	50	0.7
NT	20 039	0	0.0	19 322	0	0.0	22 954	0	0.0	215 906	1	0.5
QLD	462 505	3	0.6	476 755	1	0.2	494 355	5	1.0	4 555 834	40	0.9
SA	189 913	1	0.5	222 315	1	0.4	259 888	1	0.4	2 313 899	9	0.4
TAS	50 328	0	0.0	59 686	0	0.0	67 926	0	0.0	586 635	1	0.2
VIC	536 706	0	0.0	505 378	1	0.2	564 850	5	0.9	6 013 665	23	0.4
WA	233 840	0	0.0	220 642	0	0.0	245 298	1	0.4	2 186 272	14	0.6
Total	**2 153 341**	**9**	**0.4**	**2 235 839**	**5**	**0.2**	**2 432 540**	**15**	**0.6**	**23 401 506**	**139**	**0.6**

1 Prevalence per 100 000 donations.

2 From 1 May 1985.

3 HIV antibody testing of blood donors in the ACT carried out in NSW from 1 July 1998.

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

Table 4.5.2 Number of blood donors in Australia with HIV antibody, 1985 – 2008, 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 – 1998		1999 – 2000		2001 – 2002		2003 – 2004		2005 – 2006		2007 – 2008		All years		
HIV exposure category	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**Total**
Men who have sex with men	19	–	1	–	0	–	4	–	1	–	5	–	30	–	30
Injecting drug use	3	0	0	0	1	0	1	0	0	0	1	0	6	0	6
Heterosexual contact	21	19	0	2	3	4	1	1	1	3	4	2	30	31	61
Person from a high prevalence country	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Receipt of blood/tissue	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Other	0	4	0	1	0	0	0	0	0	0	0	0	0	5	5
Undetermined	25	2	0	1	1	0	2	0	0	0	3	0	31	3	34
Total	**69**	**27**	**1**	**4**	**5**	**4**	**8**	**1**	**2**	**3**	**13**	**2**	**98**	**41**	**139**
New HIV infection[2]	**26**	**13**	**1**	**2**	**3**	**1**	**5**	**2**	**1**	**2**	**4**	**0**	**40**	**20**	**60**

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

2 Year of HIV infection was estimated as the midpoint between the date of last HIV negative donation and the date of HIV positive donation.

Source: Australian Red Cross Blood Service

Table 4.5.3 Number of donations tested for hepatitis B surface antigen at blood services, 2004 – 2008, number of donations positive for hepatitis B surface antigen and prevalence of hepatitis B surface antigen[1], by State/Territory and year of donation

State/Territory	2004 Tests	2004 Positive	2004 Prevalence	2005 Tests	2005 Positive	2005 Prevalence	2006 Tests	2006 Positive	2006 Prevalence
NSW/ACT	331 775	38	11.5	353 992	52	14.7	377 749	37	9.8
NT	10 936	2	18.3	10 003	0	0.0	9 319	1	10.7
QLD	240 667	28	11.6	232 386	19	8.2	244 369	21	8.6
SA	101 254	2	2.0	102 924	8	7.8	119 391	5	4.2
TAS	24 744	0	0.0	28 061	0	0.0	31 625	0	0.0
VIC	278 021	41	14.7	244 678	25	10.2	260 700	30	11.5
WA	122 199	14	11.5	110 150	6	5.4	110 492	7	6.3
Total	**1 109 596**	**125**	**11.3**	**1 082 194**	**110**	**10.2**	**1 153 645**	**101**	**8.8**

State/Territory	2007 Tests	2007 Positive	2007 Prevalence	2008 Tests	2008 Positive	2008 Prevalence
NSW/ACT	389 600	40	10.3	387 669	46	11.9
NT	10 973	3	27.3	11 981	0	0.0
QLD	238 131	20	8.4	256 224	16	6.2
SA	125 504	9	7.2	134 384	9	6.7
TAS	30 669	0	0.0	37 257	1	2.7
VIC	275 512	43	15.6	289 338	44	15.2
WA	120 717	8	6.6	124 581	8	6.4
Total	**1 191 106**	**123**	**10.3**	**1 241 434**	**124**	**10.0**

1 Prevalence per 100 000 donations.

Source: Australian Red Cross Blood Service

Table 4.5.4 Number of donations tested for hepatitis C antibody at blood services, 2004 – 2008, number of donations positive for hepatitis C antibody and prevalence of hepatitis C antibody[1], by State/Territory and year of donation

State/Territory	2004 Tests	2004 Positive	2004 Prevalence	2005 Tests	2005 Positive	2005 Prevalence	2006 Tests	2006 Positive	2006 Prevalence
NSW/ACT	331 775	48	14.5	353 992	49	13.8	377 749	36	9.5
NT	10 936	3	27.4	10 003	1	10.0	9 319	3	32.2
QLD	240 667	32	13.3	232 386	37	15.9	244 369	27	11.0
SA	101 254	7	6.9	102 924	4	3.9	119 391	8	6.7
TAS	24 744	6	24.2	28 061	4	14.3	31 625	2	6.3
VIC	278 021	38	13.7	244 678	16	6.5	260 700	25	9.6
WA	122 199	14	11.5	110 150	16	14.5	110 492	6	5.4
Total	**1 109 596**	**148**	**13.3**	**1 082 194**	**127**	**11.7**	**1 153 645**	**107**	**9.3**

State/Territory	2007 Tests	2007 Positive	2007 Prevalence	2008 Tests	2008 Positive	2008 Prevalence
NSW/ACT	389 600	41	10.5	387 669	61	15.7
NT	10 973	0	0.0	11 981	0	0.0
QLD	238 131	34	14.3	256 224	31	12.1
SA	125 504	7	5.6	134 384	9	6.7
TAS	30 669	2	6.5	37 257	4	10.7
VIC	275 512	28	10.2	289 338	20	6.9
WA	120 717	9	7.5	124 581	5	4.0
Total	**1 191 106**	**121**	**10.2**	**1 241 434**	**130**	**10.5**

1 Prevalence per 100 000 donations.

Source: Australian Red Cross Blood Service

4.6 Chlamydia prevalence among people seen through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS)

Table 4.6.1 Number of new patients seen at sexual health services participating in ACCESS, 2004 – 2008, number (percent) tested for chlamydia and number (percent) newly diagnosed with chlamydia by State/Territory, sex and year

		State/Territory location of sexual health services						
		NSW[1]	NT[2]	QLD[3]	TAS[4]	VIC[5]	WA[6]	Total
Males								
2004	Seen	7 060	604	1 013	–	–	423	9 100
	Tested (%)	4 741 (67.2)	382 (63.2)	760 (75.0)	–	–	252 (59.6)	6 135 (67.4)
	Newly diagnosed (%)	397 (8.4)	64 (16.8)	78 (10.3)	–	–	30 (11.9)	569 (9.3)
2005	Seen	7 407	836	1 274	–	–	476	9 993
	Tested (%)	5 050 (68.7)	433 (53.0)	933 (73.2)	–	–	327 (68.7)	6 753 (67.6)
	Newly diagnosed (%)	487 (9.6)	80 (18.1)	92 (9.9)	–	–	35 (10.7)	694 (10.3)
2006	Seen	7 037	786	1 319	–	4 120	467	13 729
	Tested (%)	4 916 (69.9)	392 (49.9)	1 008 (76.4)	–	3 244 (78.7)	352 (75.4)	9 912 (72.2)
	Newly diagnosed (%)	439 (8.9)	87 (22.2)	108 (10.7)	–	283 (8.7)	27 (7.7)	944 (9.5)
2007	Seen	7 306	835	1 400	676	4 098	592	14 907
	Tested (%)	5 293 (72.4)	362 (43.4)	1 111 (79.4)	371 (54.9)	3 273 (79.9)	452 (76.4)	10 862 (72.9)
	Newly diagnosed (%)	440 (8.3)	57 (15.7)	111 (10.0)	42 (11.3)	267 (8.2)	49 (10.8)	966 (8.9)
2008	Seen	7 364	1 130	1 484	663	4 561	680	15 882
	Tested (%)	5 044 (68.5)	806 (71.3)	1 201 (80.9)	366 (55.2)	3 919 (85.9)	461 (67.8)	11 797 (74.3)
	Newly diagnosed (%)	437 (8.7)	96 (11.9)	147 (12.2)	53 (14.5)	357 (9.1)	59 (12.8)	1 149 (9.7)

		State/Territory location of sexual health services						
		NSW[1]	NT[2]	QLD[3]	TAS[4]	VIC[5]	WA[6]	Total
Females								
2004	Seen	6 800	596	1 172	–	–	307	8 875
	Tested (%)	3 956 (58.2)	402 (67.4)	808 (68.9)	–	–	163 (53.1)	5 329 (60.0)
	Newly diagnosed (%)	248 (6.3)	91 (22.6)	61 (7.5)	–	–	21 (12.9)	421 (7.9)
2005	Seen	6 531	746	1 259	–	–	329	8 865
	Tested (%)	4 082 (62.5)	397 (53.2)	871 (69.2)	–	–	201 (61.1)	5 551 (62.6)
	Newly diagnosed (%)	308 (7.5)	72 (18.1)	76 (8.7)	–	–	24 (11.9)	480 (8.6)
2006	Seen	5 957	687	1 241	–	2 670	304	10 859
	Tested (%)	4 004 (67.2)	336 (48.9)	881 (71.0)	–	2 283 (85.5)	194 (63.8)	7 698 (70.9)
	Newly diagnosed (%)	309 (7.7)	75 (22.3)	94 (10.7)	–	194 (8.5)	20 (10.3)	692 (9.0)
2007	Seen	6 118	735	1 414	934	2 848	321	12 368
	Tested (%)	4 244 (69.4)	313 (42.6)	1 055 (74.6)	499 (53.5)	2 419 (84.9)	210 (65.4)	8 740 (70.7)
	Newly diagnosed (%)	324 (7.6)	69 (22.0)	84 (8.0)	38 (7.6)	189 (7.8)	30 (14.3)	734 (8.4)
2008	Seen	6 233	1 212	1 598	777	3 067	361	13 248
	Tested (%)	4 135 (66.3)	810 (66.8)	1 218 (76.2)	396 (51.0)	2 719 (88.7)	245 (67.9)	9 523 (71.9)
	Newly diagnosed (%)	341 (8.2)	109 (13.5)	118 (9.7)	55 (13.9)	226 (8.3)	31 (12.7)	880 (9.2)

1 2004 – 2007: 10 Services contributed data. 2008: 11 Services contributed data.

2 2004 – 2007: 1 Service contributed data. 2008: 2 Services contributed data.

3 Two Services contributed data.

4 One Service contributed data.

5 One Service contributed data.

6 One Service contributed data.

Source: Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance – Sexual Health Services Network

Table 4.6.2 Number of new patients seen at sexual health services participating in ACCESS, 2004 – 2008, number tested for chlamydia and number (percent) newly diagnosed with chlamydia, by priority population and year

Chlamydia priority population		Heterosexual males <25 years	Heterosexual females <25 years	Men who have sex with men	Female sex workers	Aboriginal and Torres Strait Islanders males	Aboriginal and Torres Strait Islanders females	Total
2004[1]	Seen	1 801	3 119	2 155	792	336	432	8 635
	Tested (%)	1 303 (72.3)	2 078 (66.6)	1 647 (76.4)	678 (85.6)	197 (58.6)	232 (53.7)	6 135 (71.0)
	Newly diagnosed (%)	161 (12.4)	216 (10.4)	156 (9.5)	50 (7.4)	18 (9.1)	28 (12.1)	629 (10.3)
2005[1]	Seen	1 979	2 930	2 170	775	378	431	8 663
	Tested (%)	1 483 (74.9)	2 071 (70.7)	1 732 (79.8)	679 (87.6)	218 (57.7)	242 (56.1)	6 425 (74.2)
	Newly diagnosed (%)	208 (14.0)	241 (11.6)	181 (10.5)	46 (6.8)	27 (12.4)	43 (17.8)	746 (11.6)
2006[2]	Seen	2 614	3 686	3 302	986	461	613	11 662
	Tested (%)	2 099 (80.3)	2 792 (75.7)	2 601 (78.8)	892 (90.5)	268 (58.1)	256 (41.8)	8 908 (76.4)
	Newly diagnosed (%)	259 (12.3)	352 (12.6)	230 (8.8)	52 (5.8)	34 (12.7)	34 (13.3)	961 (10.8)
2007[3]	Seen	2 956	4 182	3 548	1 271	458	648	13 063
	Tested (%)	2 399 (81.2)	3 157 (75.5)	2 853 (80.4)	1 146 (90.2)	272 (59.4)	326 (50.3)	10 153 (77.7)
	Newly diagnosed (%)	331 (13.8)	397 (12.6)	214 (7.5)	65 (5.7)	35 (12.9)	59 (18.1)	1 101 (10.8)
2008[4]	Seen	3 366	4 570	3 742	1 466	550	730	14 424
	Tested (%)	2 694 (80.0)	3 538 (77.4)	3 077 (82.2)	1 327 (90.5)	328 (59.6)	416 (57.0)	11 380 (78.9)
	Newly diagnosed (%)	393 (14.6)	502 (14.2)	241 (7.8)	67 (5.0)	58 (17.7)	58 (13.9)	1 319 (11.6)

1 Data from 14 services: NSW, NT, QLD, WA

2 Data from 15 services: NSW, NT, QLD, VIC, WA

3 Data from 16 services: NSW, NT, QLD, TAS, VIC, WA

4 Data from 18 services: NSW, NT, QLD, TAS, VIC, WA

Source: Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance – Sexual Health Services Network

Table 4.6.3 Number of new patients seen at sexual health services participating in ACCESS, 2004 – 2008, number tested for chlamydia and number (percent) newly diagnosed with chlamydia by sex, year and age group

Age group (years)		< 20	20 – 29	30 – 39	40 – 49	50+	Total
Males							
2004[1]	Seen	622	3 772	2 507	1 337	828	9 066
	Tested	384 (61.7)	2 787 (73.9)	1 662 (66.3)	792 (59.2)	434 (52.4)	6 059 (66.8)
	Newly diagnosed (%)	35 (9.1)	318 (11.4)	129 (7.8)	50 (6.3)	21 (4.8)	553 (9.1)
2005[1]	Seen	619	4 289	2 711	1 438	925	9 982
	Tested	412 (66.6)	3 169 (73.9)	1 788 (66.0)	801 (55.7)	487 (52.6)	6 653 (66.6)
	Newly diagnosed (%)	46 (11.2)	410 (12.9)	149 (8.3)	50 (6.2)	14 (2.9)	669 (10.1)
2006[2]	Seen	847	6 192	3 568	1 887	1 347	13 841
	Tested	580 (68.5)	4 806 (77.6)	2 450 (68.7)	1 169 (62.0)	750 (55.7)	9 755 (70.5)
	Newly diagnosed (%)	47 (8.1)	572 (11.9)	194 (7.9)	71 (6.1)	41 (5.5)	925 (9.5)
2007[3]	Seen	947	6 725	3 737	2 095	1 515	15 019
	Tested	705 (74.4)	5 236 (77.9)	2 630 (70.4)	1 283 (61.2)	886 (58.5)	10 740 (71.5)
	Newly diagnosed (%)	74 (10.5)	585 (11.2)	188 (7.1)	69 (5.4)	43 (4.9)	959 (8.9)
2008[4]	Seen	1 105	7 504	3 773	2 006	1 475	15 863
	Tested	793 (71.8)	6 039 (80.5)	2 713 (71.9)	1 302 (64.9)	847 (57.4)	11 694 (73.7)
	Newly diagnosed (%)	109 (13.7)	715 (11.8)	197 (7.3)	70 (5.4)	39 (4.6)	1 130 (9.7)

Age group (years)		< 20	20 – 29	30 – 39	40 – 49	50+	Total
Females							
2004[1]	Seen	1 597	4 049	1 902	889	400	8 837
	Tested	933 (58.4)	2 732 (67.5)	1 067 (56.1)	447 (50.3)	159 (39.8)	5 338 (60.4)
	Newly diagnosed (%)	104 (11.1)	234 (8.6)	39 (3.6)	13 (2.9)	3 (1.9)	393 (7.4)
2005[1]	Seen	1 588	4 007	1 826	927	493	8 841
	Tested	987 (62.2)	2 788 (69.6)	1 085 (59.4)	447 (48.2)	159 (32.3)	5 466 (61.8)
	Newly diagnosed (%)	128 (13.0)	249 (8.9)	64 (5.9)	15 (3.4)	6 (3.8)	462 (8.5)
2006[2]	Seen	1 875	5 618	2 157	1 017	490	11 157
	Tested	1 202 (64.1)	4 167 (74.2)	1 443 (66.9)	572 (56.2)	179 (36.5)	7 563 (67.8)
	Newly diagnosed (%)	159 (13.2)	412 (9.9)	68 (4.7)	22 (3.8)	10 (5.6)	671 (8.9)
2007[3]	Seen	2 072	6 458	2 514	1 126	598	12 768
	Tested	1 295 (62.5)	4 809 (74.5)	1 709 (68.0)	647 (57.5)	234 (39.1)	8 694 (68.1)
	Newly diagnosed (%)	183 (14.1)	464 (9.6)	82 (4.8)	17 (2.6)	1 (0.4)	747 (8.6)
2008[4]	Seen	2 239	6 672	2 597	1 106	617	13 231
	Tested	1 570 (70.1)	5 150 (77.2)	1 780 (68.5)	649 (58.7)	255 (40.5)	9 404 (71.1)
	Newly diagnosed (%)	220 (14.0)	545 (10.6)	81 (4.6)	16 (2.5)	5 (2.0)	867 (9.2)

1 Data from 14 services: NSW, NT, QLD, WA

2 Data from 15 services: NSW, NT, QLD, VIC, WA

3 Data from 16 services: NSW, NT, QLD, TAS, VIC, WA

4 Data from 18 services: NSW, NT, QLD, TAS, VIC, WA

Source: Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance – Sexual Health Services Network

Table 4.6.4 Number of people seen at ACCESS networks of antenatal clinics, family planning clinics, general practice clinics and the laboratory network, October 2007 – September 2008, number tested for chlamydia and number (percent) newly diagnosed with chlamydia, by ACCESS network, sex and age group

Age group (years)		16 – 19	20 – 24	25 – 29	Total
Antenatal Clinic Network[1]					
Females	Seen	387	1 096	–	1 483
	Tested	387	1 096	–	1 483
	Newly diagnosed (%)	38 (9.8)	61 (5.6)	–	99 (6.7)
Family Planning Clinic Network[2]					
Males	Seen[3]	82	211	100	393
	Tested[3]	21 (25.6)	47 (22.3)	20 (20.0)	88 (22.4)
	Tested[4]	36	42	20	98
	Newly diagnosed (%)[4]	8 (22.2)	5 (11.9)	4 (20.0)	17 (17.3)
Females	Seen[3]	1 469	2 366	1 559	5 394
	Tested[3]	398 (27.1)	925 (39.1)	464 (29.8)	1 787 (33.1)
	Tested[4]	353	761	468	1 582
	Newly diagnosed (%)[4]	31 (8.8%)	63 (8.3)	20 (4.3)	114 (7.2)
General Practice Network[5]					
Males	Seen	2 110	2 517	2 469	7 096
	Tested	51 (2.8)	121 (4.8)	105 (4.3)	277 (3.9)
	Newly diagnosed (%)	10 (19.6)	17 (14.0)	13 (12.4)	40 (14.4)
Females	Seen	3 175	3 951	3 912	11 038
	Tested	249 (7.8)	244 (6.2)	257 (6.6)	750 (6.8)
	Newly diagnosed (%)	23 (9.2)	23 (13.1)	14 (5.4)	69 (8.1)
Laboratory Network[6]					
Males	Seen	–	–	–	–
	Tested	3 784	8 074	6 588	18 446
	Newly diagnosed (%)	586 (15.5)	1 179 (14.6)	652 (9.9)	2 417 (13.1)
Females	Seen	–	–	–	–
	Tested	12 440	19 616	14 367	46 423
	Newly diagnosed (%)	1 630 (13.1)	2 570 (13.1)	1 882 (13.1)	6 082 (13.1)

1 Data from 10 ANC hospitals: ACT (1), NSW (1), NT (1), QLD (1), VIC (5), WA (1).

2 Data from 4 FPCs: ACT (1), NSW (1), SA (1), VIC (1)

3 Data from 3 FPCs were available to determine chlamydia testing rates, of which two reported test results for calculation of the chlamydia positivity rate.

4 Data from 3 FPCs were available to determine chlamydia positivity rates, of which two reported the number of people seen, for calculation of chlamydia testing rates.

5 Data from 15 GPs: NSW (2), QLD (4), SA (2), VIC (6), WA (1)

6 Data from 7 laboratories: QLD (4), VIC (3)

Source: Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance – Antenatal Clinic, Family Planning Clinic, General practice and Laboratory Networks

Tables

5 Risk behaviour

5.1 Sexual, injecting and HIV antibody testing behaviour among men who have sex with men

5.1.1 Number of men who have sex with men participating in the Gay Community Periodic Surveys, 2004 – 2008, prevalence of anal intercourse by partner type, city and year of survey, and prevalence of injecting drug use and HIV antibody testing by city and year of survey 115

5.2 Sexual and injecting behaviour among people who have injected drugs

5.2.1 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, percent reporting HIV and hepatitis C tests within the past twelve months, number reporting injecting drug use (IDU) in the past month, and percent reporting use of a needle and syringe after someone else in the past month by year, history of injecting drug use, last drug injected and sex 116

5.2.2 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, percent reporting HIV and hepatitis C tests within the past twelve months, number reporting sexual intercourse in the last month, and percent reporting condom use at last intercourse by year, age group, sexual identity and sex 118

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5 Risk behaviour

5.1 Sexual, injecting and HIV antibody testing behaviour among men who have sex with men

Table 5.1.1 Number of men who have sex with men participating in the Gay Community Periodic Surveys, 2004 – 2008, prevalence of anal intercourse by partner type, city and year of survey, and prevalence of injecting drug use and HIV antibody testing by city and year of survey

	Sydney					Queensland					Melbourne				
	2004	2005	2006	2007[3]	2008[3]	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Sample size	**2 821**	**3 413**	**3 732**	**2 342**	**2 222**	**1 667**	**1 382**	**1 276**	**1 417**	**1 243**	**1 962**	**1 804**	**1 988**	**2 043**	**2 063**
Anal intercourse with regular partners															
Men with regular partners	61.6	60.1	63.3	65.4	63.5	61.8	61.6	62.4	64.4	63.6	65.0	64.6	65.7	64.0	63.0
Unprotected anal intercourse	36.1	35.2	35.1	37.4	36.9	34.9	33.1	36.7	39.0	37.9	36.5	37.2	38.6	34.4	35.2
Anal intercourse with casual partners															
Men with casual partners	69.7	70.0	68.8	65.0	66.2	69.3	70.5	66.8	69.2	69.1	68.2	68.5	65.9	66.4	70.3
Unprotected anal intercourse	22.4	21.4	20.8	19.3	19.3	21.7	22.1	23.1	25.1	24.6	17.9	20.3	19.2	19.4	20.6
Injecting drug use[1]	6.8	5.2	5.2	6.0	5.7	5.7	5.1	7.4	5.6	4.7	5.0	4.7	4.4	4.7	4.7
HIV antibody testing[2]	54.2	53.3	54.0	53.3	47.5	48.8	52.3	53.6	53.7	55.3	46.9	43.2	44.1	46.5	48.5

	Adelaide		Canberra	Perth		
	2005	2007	2006	2004	2006	2008
Sample size	**629**	**527**	**282**	**1 014**	**927**	**750**
Anal intercourse with regular partners						
Men with regular partners	65.2	61.3	66.0	65.3	64.9	64.8
Unprotected anal intercourse	37.0	36.0	37.6	36.6	39.6	40.3
Anal intercourse with casual partners						
Men with casual partners	64.1	62.4	59.2	61.2	61.9	58.9
Unprotected anal intercourse	15.6	19.3	14.5	17.4	20.7	20.1
Injecting drug use[1]	4.6	2.6	1.8	4.2	5.2	4.0
HIV antibody testing[2]	48.8	50.4	40.3	41.2	39.5	41.8

1 Injecting drug use in the previous 6 months.

2 HIV antibody testing in the previous 6 months among men not diagnosed with HIV infection.

3 The Sydney Gay Community Periodic Survey questionnaire was modified in August 2007. Data from the Sydney Gay Community Periodic Survey in February 2007 and 2008 is shown.

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

5.2 Sexual and injecting behaviour among people who have injected drugs

Table 5.2.1 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, percent reporting HIV and hepatitis C tests within the past twelve months, number reporting injecting drug use (IDU) in the past month, and percent reporting use of a needle and syringe after someone else in the past month by year, history of injecting drug use, last drug injected and sex

2004

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting IDU last month			% using after someone else		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
History of injecting drug use															
Less than 3 years	84	51	135	45	59	50	54	57	55	75	47	122	19	26	21
3 to 5 years	138	84	224	58	61	59	52	68	58	127	77	206	16	16	16
6 to 10 years	312	161	474	61	66	63	66	68	67	291	153	444	19	14	17
11 or more years	656	290	949	62	58	60	64	63	64	615	260	878	21	15	19
Not reported	26	9	43	50	33	40	42	56	42	14	8	23	0	13	9
Last drug injected															
Amphetamine	360	221	581	57	58	57	57	61	58	331	198	529	20	17	19
Heroin/opiates	687	304	998	61	61	61	65	67	66	652	281	939	18	14	17
Combination	83	49	132	60	69	64	65	69	67	78	48	126	26	21	24
Other/not reported	86	21	114	59	52	55	53	62	53	61	18	79	18	6	15
Total	**1 216**	**595**	**1 825**	**60**	**60**	**60**	**62**	**64**	**63**	**1 122**	**545**	**1 673**	**19**	**16**	**18**

2005

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting IDU last month			% using after someone else		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
History of injecting drug use															
Less than 3 years	57	30	88	47	57	51	47	60	52	50	28	79	12	18	14
3 to 5 years	101	75	177	59	61	60	58	64	60	93	67	161	15	6	11
6 to 10 years	153	136	290	56	60	58	59	63	61	136	127	264	15	14	14
11 or more years	755	347	1 108	56	58	57	59	65	61	692	309	1 006	12	13	13
Not reported	47	30	77	57	77	65	47	80	60	44	27	71	16	7	13
Last drug injected															
Amphetamine	363	196	564	55	53	54	53	58	55	329	174	507	11	13	12
Heroin/Opiates	613	358	974	57	61	59	62	68	64	570	327	900	14	11	13
Combination	11	8	20	64	75	70	55	75	65	11	7	19	36	29	32
Other/not reported	126	56	182	55	71	60	52	68	57	105	50	155	16	18	17
Total	**1 113**	**618**	**1 740**	**56**	**60**	**57**	**58**	**65**	**60**	**1 015**	**558**	**1 581**	**13**	**12**	**13**

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

2006

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting IDU last month			% using after someone else		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
History of injecting drug use															
Less than 3 years	59	42	102	46	71	56	46	67	54	59	42	102	12	10	11
3 to 5 years	81	67	148	58	66	61	62	67	64	80	65	145	7	13	10
6 to 10 years	227	159	390	56	63	59	57	65	61	226	159	389	13	16	15
11 or more years	799	378	1 185	55	57	56	60	61	60	791	378	1 177	13	11	12
Not reported	57	15	72	60	47	57	58	53	57	56	13	69	23	33	25
Last drug injected															
Methamphetamine	448	261	713	50	59	53	54	61	57	447	258	709	13	12	13
Heroin/Opiates	625	349	982	59	59	59	62	62	62	618	348	974	12	14	13
Combination	33	17	50	52	71	58	64	71	66	30	17	47	18	18	18
Other/not reported	117	34	152	53	74	58	56	74	61	117	34	152	18	12	16
Total	**1 223**	**661**	**1 897**	**55**	**60**	**57**	**59**	**62**	**60**	**1 212**	**657**	**1 882**	**13**	**13**	**13**

2007

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting IDU past month			% using after someone else		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
History of injecting drug use															
Less than 3 years	61	38	99	39	61	47	41	61	48	60	33	93	11	16	13
3 to 5 years	67	58	126	55	57	56	64	64	64	55	51	107	19	9	14
6 to 10 years	210	132	345	56	67	61	64	73	68	201	119	322	14	17	15
11 or more years	826	394	1 227	57	56	57	59	59	59	746	354	1 107	13	11	13
Not reported	31	18	49	48	50	49	55	67	59	23	11	34	13	17	14
Last drug injected															
Methamphetamine	348	204	552	53	55	54	52	62	55	300	178	478	12	12	12
Heroin/Opiates	500	301	805	57	62	59	61	60	61	461	268	732	14	13	14
Combination	31	18	49	57	77	62	65	85	70	34	11	45	14	15	14
Other/not reported	316	116	439	55	54	55	63	66	64	290	111	408	15	13	14
Total	**1 195**	**639**	**1 845**	**55**	**58**	**57**	**59**	**63**	**60**	**1 085**	**568**	**1 663**	**14**	**13**	**14**

2008

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting IDU past month			% using after someone else		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
History of injecting drug use															
Less than 3 years	68	44	112	47	55	50	59	59	59	53	37	90	7	27	15
3 to 5 years	114	50	164	49	50	49	57	62	59	100	43	143	10	24	14
6 to 10 years	194	152	347	57	52	55	63	58	61	177	134	312	12	16	14
11 or more years	986	508	1 502	49	47	49	57	48	54	889	452	1 348	16	14	15
Not reported	34	10	45	53	10	42	50	40	49	29	6	36	6	10	7
Last drug injected															
Methamphetamine	362	238	604	49	45	47	56	49	53	313	200	516	11	15	13
Heroin/Opiates	627	331	960	51	48	50	58	51	56	564	297	863	15	17	16
Combination	39	12	51	56	83	63	54	58	55	39	12	51	26	8	22
Other/not reported	368	183	555	50	50	50	58	56	57	332	163	499	14	15	14
Total	**1 396**	**764**	**2 170**	**50**	**48**	**50**	**58**	**52**	**55**	**1 248**	**672**	**1 929**	**14**	**16**	**15**

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

Source: Collaboration of Australian Needle and Syringe Programs

Table 5.2.2 Number of injecting drug users seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2004 – 2008, percent reporting HIV and hepatitis C tests within the past twelve months, number reporting sexual intercourse in the last month, and percent reporting condom use at last intercourse by year, age group, sexual identity and sex

2004

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
Age group															
Less than 20 years	30	33	64	50	70	61	63	76	70	23	27	51	53	36	45
20 to 24 years	176	103	279	60	64	61	65	73	68	132	82	214	40	31	37
25 to 34 years	505	219	726	61	62	61	62	63	62	351	168	521	32	25	30
35 or more years	502	240	748	60	56	58	62	60	61	290	145	438	27	25	26
Not reported	3	0	8	33	0	13	0	0	0	1	0	1	33	0	13
Sexual identity															
Heterosexual	1 058	435	1 496	58	58	58	61	63	62	690	304	997	31	23	28
Bisexual	45	108	155	73	65	67	71	69	70	31	83	115	29	42	37
Homosexual	45	30	75	71	63	68	71	57	65	36	19	55	44	20	35
Not reported	68	22	99	68	73	66	65	73	65	40	16	58	41	23	33
Total	**1 216**	**595**	**1 825**	**60**	**60**	**60**	**62**	**65**	**63**	**797**	**422**	**1 225**	**32**	**26**	**30**

2005

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
Age group															
Less than 20 years	17	24	41	76	63	68	82	67	73	9	18	27	41		38
39															
20 to 24 years	111	92	203	56	67	61	56	72	63	73	72	145	37	28	33
25 to 34 years	422	260	683	57	63	59	58	66	61	278	197	475	29	23	27
35 or more years	551	240	798	55	54	55	57	61	58	285	135	423	18	17	18
Not reported	12	2	15	75	0	60	67	0	53	7	0	8	33	0	27
Sexual identity															
Heterosexual	974	444	1 419	56	57	56	58	63	60	569	302	871	23	21	22
Bisexual	37	107	145	57	64	62	41	64	58	22	85	107	41	36	37
Homosexual	57	33	95	70	76	72	67	82	73	35	18	55	42	12	32
Not reported	45	34	81	51	74	60	51	76	62	26	17	45	24	9	19
Total	**1 113**	**618**	**1 740**	**56**	**60**	**57**	**58**	**65**	**60**	**652**	**422**	**1 078**	**25**	**22**	**24**

2006

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% reporting condom use last month		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
Age group															
Less than 20 years	19	24	43	47	71	60	53	75	65	14	20	34	52	33	42
20 to 24 years	101	81	182	58	70	64	59	73	65	69	72	141	32	28	30
25 to 34 years	492	265	764	57	65	60	60	65	62	319	194	520	23	21	23
35 or more years	606	289	901	53	53	53	57	57	57	317	167	487	15	14	15
Not reported	5	2	7	80	0	57	40	0	29	3	1	4	0	0	0
Sexual identity															
Heterosexual	1 070	484	1 557	54	58	55	58	61	59	619	320	941	18	15	17
Bisexual	55	110	171	71	64	66	67	65	66	37	92	135	36	35	36
Homosexual	59	46	107	64	72	68	64	72	68	42	30	73	47	20	35
Not reported	39	21	62	49	57	52	54	62	56	24	12	37	26	38	31
Total	**1 223**	**661**	**1 897**	**55**	**60**	**57**	**59**	**62**	**60**	**722**	**454**	**1 186**	**20**	**19**	**20**

2007

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			%reporting condom use last month[2]		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
Age group															
Less than 20 years	18	15	33	56	56	56	56	69	62	12	12	24	17	8	13
20 to 24 years	72	69	142	57	67	61	63	81	71	55	51	107	20	16	18
25 to 34 years	453	236	693	60	67	62	64	64	64	283	185	471	18	17	18
35 or more years	650	318	974	52	52	52	55	57	56	328	179	510	12	12	12
Not reported	2	1	3	50	0	33	50	100	67	2	0	2	50	0	50
Sexual identity															
Heterosexual	1 055	458	1 514	54	55	54	58	59	59	599	304	904	14	10	12
Bisexual	47	119	170	66	69	68	68	70	70	29	88	121	17	32	28
Homosexual	69	42	114	61	67	63	61	67	63	40	23	63	35	9	25
Not reported	24	20	47	67	65	66	71	80	74	12	12	26	25	8	19
Total	**1 195**	**639**	**1 845**	**55**	**58**	**57**	**59**	**63**	**60**	**680**	**427**	**1 114**	**15**	**15**	**15**

2008

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% reporting condom use last month[2]		
	M	F	T[1]	M	F	T	M	F	T	M	F	T[1]	M	F	T
Age group															
Less than 20 years	21	16	37	48	63	54	57	75	65	13	14	27	38	7	22
20 to 24 years	86	73	159	50	48	49	63	64	64	64	58	122	45	22	34
25 to 34 years	468	297	767	56	54	55	64	52	60	312	218	531	31	30	31
35 or more years	816	377	1 201	47	44	46	53	48	51	392	217	613	21	23	22
Not reported	5	1	6	40	0	33	60	0	50	2	0	2	0	0	0
Sexual identity															
Heterosexual	1 228	537	1 767	49	46	48	56	50	54	686	348	1 035	24	22	24
Bisexual	56	152	209	63	57	58	70	60	62	33	116	150	45	35	38
Homosexual	62	48	112	69	48	60	69	48	60	39	27	68	59	15	41
Not reported	50	27	82	44	44	44	56	52	55	25	16	42	28	31	29
Total	**1 396**	**764**	**2 170**	**50**	**48**	**50**	**58**	**52**	**55**	**783**	**507**	**1 295**	**27**	**25**	**27**

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

2 Includes only those who reported sexual intercourse in the last month.

Source: Collaboration of Australian Needle and Syringe Programs

Tables

6 Estimates of the number of people living with HIV infection and hepatitis C infection

6.1 Estimates of the number of people living with HIV infection

6.1.1 Estimated number of people living with HIV infection in 2008 by State/Territory of HIV diagnosis and sex 122

6.2 Estimates of the number of people living with hepatitis C infection

6.2.1 Estimated number of people living with hepatitis C virus infection in 2008 by stage of liver disease 122

6 Estimates of the number of people living with HIV infection and hepatitis C infection

6.1 Estimates of the number of people living with HIV infection

Table 6.1.1 Estimated number of people living with HIV infection in 2008 by State/Territory of HIV diagnosis and sex

State/Territory	Male	Female	Total	%
ACT	147	27	174	1.0
NSW	8 535	726	9 261	53.1
NT	100	21	121	0.7
QLD	2 000	269	2 269	13.0
SA	625	87	712	4.1
TAS	67	10	77	0.4
VIC	3 485	340	3 825	21.9
WA	805	200	1 005	5.8
Total	**15 764**	**1 680**	**17 444**	**100.0**

Source: State/Territory health authorities

6.2 Estimates of the number of people living with hepatitis C infection

Table 6.2.1 Estimated number of people living with hepatitis C virus infection in 2008 by stage of liver disease

Characteristic	Number	(plausible range)
Hepatitis C virus prevalence in 2008	284 000	(218 000 – 348 000)
Exposed to hepatitis C virus but not chronically infected	*72 100*	*(55 000 – 88 000)*
Chronic hepatitis C infection with stage F0/1 liver disease	*162 000*	*(124 000 – 200 000)*
Chronic hepatitis C infection with stage F2/3 liver disease	*44 000*	*(35 000 – 52 000)*
Living with hepatitis C-related cirrhosis	*5 700*	*(4 100 – 7 100)*
During 2008		
Hepatitis C-related liver failure	229	(166 – 285)
Hepatitis C-related hepatocellular carcinoma	115	(83 – 143)

Source: Hepatitis C Virus Projections Working Group 2006

Tables

7 Uptake of treatment for HIV infection and viral hepatitis

7.1 Uptake of antiretroviral treatment for HIV infection

7.1.1 Antiretroviral treatment among people enrolled in the Australian HIV Observational Database in 2008 125

7.1.2 Number of men who have sex with men with diagnosed HIV infection participating in the Gay Community Periodic Surveys, 2004 – 2008, and proportion reporting use of antiretroviral treatment for HIV infection, by city and year 126

7.2 Monitoring prescriptions for HIV treatments

7.2.1 Number of people prescribed antiretroviral treatment through the Highly Specialised Drugs (S100) Program by antiretroviral agent and year 127

7.3 Monitoring prescriptions for treatment of viral hepatitis

7.3.1 Number of people dispensed drugs for hepatitis B infection through the Highly Specialised Drugs (S100) Program, by year 128

7.3.2 Number of people dispensed drugs for hepatitis C infection through the Highly Specialised Drugs (S100) Program, by year 129

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7 Uptake of treatment for HIV infection and viral hepatitis

7.1 Uptake of antiretroviral treatment for HIV infection

Table 7.1.1 Antiretroviral treatment among people enrolled in the Australian HIV Observational Database in 2008

	Current antiretroviral treatment[1]					
	None	Mono/Double	3+ (NRTI +/- PI, no NNRTI)	3+ (NRTI + NNRTI , no PI)	3+ (NNRTI + PI, +/- NRTI)	Total
Total	**239 (12%)**	**236 (12%)**	**599 (31%)**	**750 (38%)**	**126 (6%)**	**1 950**
Sex						
Male	220 (12%)	219 (12%)	565 (31%)	709 (39%)	122 (7%)	1 835
Female	19 (17%)	17 (15%)	34 (30%)	41 (36%)	4 (3%)	115
Age at enrolment (years)						
Less than 30	42 (28%)	12 (8%)	43 (28%)	50 (33%)	4 (3%)	151
30 – 39	104 (15%)	70 (10%)	210 (31%)	267 (39%)	37 (5%)	688
40 – 49	66 (10%)	93 (14%)	204 (30%)	251 (37%)	57 (8%)	671
50+	27 (6%)	61 (14%)	142 (32%)	182 (41%)	28 (6%)	440
Exposure category						
Men who have sex with men	195 (12%)	193 (12%)	500 (32%)	594 (38%)	101 (6%)	1 583
Other/not reported	44 (12%)	43 (12%)	99 (27%)	156 (43%)	25 (7%)	367
Viral load at enrolment (copies/ml)						
Less than 400	68 (6%)	139 (12%)	333 (29%)	522 (46%)	65 (6%)	1 127
400 – 10,000	76 (23%)	48 (14%)	104 (31%)	71 (21%)	34 (10%)	333
10,000+	83 (21%)	38 (10%)	134 (34%)	118 (30%)	23 (6%)	396
Not reported	12	11	28	39	4	94
CD4+ count at enrolment (cells/μl)						
Less than 200	9 (5%)	26 (13%)	78 (40%)	67 (34%)	16 (8%)	196
200 – 500	62 (8%)	98 (13%)	268 (35%)	289 (37%)	57 (7%)	774
500+	156 (17%)	101 (11%)	227 (25%)	360 (40%)	51 (6%)	895
Not reported	12	11	26	34	2	85
AIDS prior to enrolment						
No	230 (15%)	183 (12%)	472 (30%)	618 (39%)	82 (5%)	1 585
Yes	9 (2%)	53 (15%)	127 (35%)	132 (36%)	44 (12%)	365
Hepatitis C antibody positive						
No	186 (12%)	200 (13%)	466 (30%)	598 (39%)	101 (6%)	1 551
Yes	24 (13%)	23 (12%)	69 (36%)	62 (32%)	13 (7%)	191
No test done	29 (14%)	13 (6%)	64 (31%)	90 (43%)	12 (6%)	208
Regimen of longest duration in 2007						
None	216 (65%)	11 (3%)	39 (12%)	64 (19%)	1 (0%)	331
Mono/double	7 (3%)	196 (87%)	14 (6%)	7 (3%)	1 (0%)	225
3+ (NRTI+/-PI, no NNRTI)	11 (2%)	18 (3%)	522 (91%)	16 (3%)	9 (2%)	576
3+ (NRTI+NNRTI, no PI)	4 (1%)	10 (1%)	20 (3%)	660 (95%)	4 (1%)	698
3+ (NNRTI+PI, +/- NRTI)	1 (1%)	1 (1%)	4 (3%)	3 (2%)	111 (92%)	120

1 **NRTI**: Nucleoside reverse transcriptase inhibitor; **NNRTI**: Non-nucleoside reverse transcriptase inhibitor; **PI**: protease inhibitor.

Source: Australian HIV Observational Database

Table 7.1.2 Number of men who have sex with men with diagnosed HIV infection participating in the Gay Community Periodic Surveys, 2004 – 2008, and proportion reporting use of antiretroviral treatment for HIV infection, by city and year

	Year of survey[1]				
City	**2004**	**2005**	**2006**	**2007**	**2008**
Adelaide					
Sample size	–	36	–	43	–
Proportion reporting use of antiretroviral therapy	–	69.4	–	81.4	–
Canberra					
Sample size	–	–	16	–	–
Proportion reporting use of antiretroviral therapy	–	–	100	–	–
Melbourne					
Sample size	159	162	153	150	152
Proportion reporting use of antiretroviral therapy	60.4	58.6	58.8	64.0	65.1
Queensland					
Sample size	122	81	68	88	84
Proportion reporting use of antiretroviral therapy	63.9	55.6	64.7	64.8	70.2
Perth					
Sample size	49	–	41	–	31
Proportion reporting use of antiretroviral therapy	71.4	–	78.0	–	74.2
Sydney[2]					
Sample size	416	483	516	286	294
Proportion reporting use of antiretroviral therapy	66.1	64.2	65.7	66.8	73.5

1 Dashes (–) indicate that the survey was not carried out the in specified city and year.

2 The Sydney Gay Community Periodic Survey questionnaire was modified in August 2007. Data from the Sydney Gay Community Periodic Survey from February 2007 and 2008 is shown.

Source: National Centre in HIV Social Research; National Centre in HIV Epidemiology and Clinical Research; State AIDS Councils, State/Territory organisations representing people living with HIV/AIDS

7.2 Monitoring prescriptions for HIV treatments

Table 7.2.1 Number of people prescribed antiretroviral treatment through the Highly Specialised Drugs (S100) Program by antiretroviral agent and year

	Year of prescription[1,2]				
Antiretroviral agent	**2004**	**2005**	**2006**	**2007**	**2008**
Nucleoside analogue reverse transcriptase inhibitors					
Abacavir	1 542	1 592	830	617	586
Didanosine	1 203	873	601	600	311
Emtricitabine	–	238	163	28	74
Lamivudine[3]	3 219	3 641	2 094	697	848
Stavudine	979	603	346	208	140
Zalcitabine	21	13	4	0	0
Zidovudine	385	241	206	189	195
Lamivudine & Zidovudine	1 989	1 959	1 525	1 527	965
Abacavir & Lamivudine	–	212	1 592	2 310	2 608
Abacavir, Lamivudine & Zidovudine	643	544	431	368	275
Tenofovir	2 273	3 076	2 504	1 619	1 381
Tenofovir & Emtricitabine	–	–	1 671	3 116	4 131
Non-nucleoside analogue reverse transcriptase inhibitors					
Delavirdine	32	20	16	11	5
Efavirenz	1 656	1 896	2 208	2 413	2 704
Nevirapine	2 412	2 697	2 387	2 436	2 629
Protease inhibitors					
Amprenavir	98	39	17	7	0
Atazanavir	590	1 207	1 746	2 034	2 229
Darunavir	–	–	–	69	369
Fosamprenavir	3	119	194	188	226
Indinavir	341	228	144	106	75
Lopinavir & ritonavir	1 580	1 543	1 543	1 689	1 737
Nelfinavir	349	230	136	95	0
Ritonavir	879	1 330	1 845	2 071	2 393
Saquinavir	388	294	226	206	167
Tipranavir	–	–	–	36	30
Fusion inhibitors					
Enfuvirtide	54	172	197	191	112
Integrase inhibitor					
Raltegravir	–	–	–	–	304
Total patients[4]	**7 598**	**8 453**	**9 463**	**9 933**	**10 596**
Total cost[5] ($'000s)	**85 293**	**98 485**	**110 512**	**118 847**	**135 532**

1 The number of people dispensed each antiretroviral drug during a calendar year was estimated by calculating the average of the total number of people dispensed each drug during the corresponding financial year quarters.

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

3 The number of people prescribed lamivudine per calendar year was estimated by deducting the number of person years of lamivudine treatment for hepatitis B infection (calculated from the National Pack Number Report) from the total number of people dispensed lamivudine for treatment of HIV and/or hepatitis B infection.

4 Total patients calculated as (Lamivudine + Combivir (Lamivudine & Zidovudine)+Trizivir (Abacavir, Lamivudine & Zidovudine)+Kivexa (Abacavir & Lamivudine)+Emtricitabine +Truvada(Tenofovir & Emtricitabine))/the proportion of patients in the Australian HIV Observational Database receiving any of the previously mentioned drugs in each year.

5 Public Hospital Expenditure.

Source: Highly Specialised Drugs (S100) Program

7.3 Monitoring prescriptions for treatment of viral hepatitis

Table 7.3.1 Number of people dispensed drugs for hepatitis B infection through the Highly Specialised Drugs (S100) Program, by year

Year	Lamivudine[1]	Adefovir[2]	Entacavir[3]	Telbivudine[4]	Total cost[5] ($'000s)
2004					
January – March	1 068	–	–		421
April – June	1 120	–	–		442
July – September	1 197	–	–		472
October – December	1 245	357	–		815
2005					
January – March	1 145	502	–		1 334
April – June	1 177	568	–		1 526
July – September	1 156	617	–		1 545
October – December	1 255	646	–		1 709
2006					
January – March	1 178	673	–		1 629
April – June	1 638	657	–		1 785
July – September	1 320	694	–		1 789
October – December	1 292	711	282		2 052
2007					
January – March	1 077	700	562		3 289
April – June	1 263	744	689		3 591
July – September	1 365	738	802		3 916
October – December	1 410	719	857		3 707
2008					
January – March	1 482	754	956		3 013
April – June	1 430	781	1086		3 598
July – September	1 367	779	1376	2	3 611
October – December	1 271	792	1599	9	4 155

1 Number of person years of treatment with lamivudine 100mg estimated from the HSD Program Public Hospital Dispensed National Pack Number Report.

2 Adefovir included in S100 Program from October 2004.

3 Entacavir included in S100 Program from October 2006.

4 Telbivudine included in S100 Program from September 2008

5 Public hospital expenditure only. The cost of all doses of lamivudine is included in 2007 and 2008 data.

Source: Highly Specialised Drugs (S100) Program

Table 7.3.2 Number of people dispensed drugs for hepatitis C infection through the Highly Specialised Drugs (S100) Program, by year[1]

Year	Ribavirin and Interferon	Pegylated Interferon and Ribavirin	Pegylated interferon	Total cost[2] ($'000s)
2004				
January – March	158	1 164	–	5 423
April – June	52	1 342	–	6 353
July – September	12	1 477	–	6 896
October – December	3	1 285	–	6 154
2005				
January – March	17	1 275	–	5 306
April – June	15	1 367	–	6 075
July – September	0	1 486	–	6 782
October – December	0	1 383	–	6 742
2006				
January – March	0	1 553	41	6 942
April – June	0	1 892	20	9 620
July – September	0	2 473	28	10 844
October – December	0	2 433	100	12 187
2007				
January – March	0	2 518	122	11 233
April – June	0	2 661	149	12 266
July – September	0	2 513	189	10 844
October – December	0	2 290	176	12 187
2008				
January – March	0	2 324	187	10 906
April – June	0	2 478	204	11 874
July – September	0	2 600	192	11 271
October – December	0	2 421	279	10 935

1 An estimated 1 831, 1 847, 2 847, 3 539 and 3 562 people were receiving treatment throughout 2004 to 2008, respectively. Calculations were based on the assumption that 50% of people were receiving treatment for 6 months and the remaining 50% were receiving treatment for 12 months. From 1 April 2006, biopsy proven liver damage was no longer a requirement for treatment of hepatitis C infection.

2 Public hospital expenditure only.

Source: Highly Specialised Drugs (S100) Program

Methodological notes

1 National surveillance for HIV/AIDS

1.1 National HIV Registry

National surveillance for newly diagnosed HIV infection

Newly diagnosed HIV infection is a notifiable condition in each State/Territory health jurisdiction in Australia. Cases of newly 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, namecode (based on the first two letters of the family name and the first two letters of the given name), sex, date of birth, Aboriginal and Torres Strait Islander status, date of HIV diagnosis, CD4+ cell count at diagnosis, source of exposure to HIV and evidence of newly acquired HIV infection. Information on country of birth has been reported by all health jurisdictions for cases of HIV infection newly diagnosed in Australia from 1 January 2002. Information on language spoken at home has been reported by health jurisdictions in New South Wales, Victoria and Queensland for cases of HIV infection newly diagnosed from 1 January 2004 and by all jurisdictions from 2008. Reporting of a previous HIV diagnosis overseas was introduced for cases of HIV infection newly diagnosed in Australia from 1 January 2007 (Table 1.1.4). Late HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 200 cells/μl.

In New South Wales, information on cases of newly diagnosed HIV infection was sought only from the diagnosing doctor prior to 2008. In 2008, information was also sought from the doctors to whom the person with HIV infection was referred, and follow up was carried out for cases for which the information sought at HIV notification was incomplete. These new procedures resulted in more complete information on new HIV diagnoses and reassignment of cases found to have been newly diagnosed in earlier years.

The surveillance systems for newly diagnosed HIV infection are described in Guy *et al* (2007) 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 new diagnoses of HIV infection reported to the *National HIV Registry* was adjusted for multiple reporting, based on the reported dates of birth of each case. By assuming that all dates of birth were equally likely, and that all diagnoses of HIV infection were reported with the correct date of birth, it was possible to estimate the number of distinct HIV diagnoses. Further details of the methods used are described in Law *et al* (1996).

The total number of distinct HIV diagnoses was estimated for each State/Territory and year of diagnosis. Because adult/adolescent women and people whose sex was reported as transgender are a relatively small proportion of all HIV diagnoses, and 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.

1.2 Monitoring incident HIV infection

Information on the date of the last negative or indeterminate test or date of onset of primary HIV infection has been routinely sought through each State/Territory health jurisdiction for cases of HIV infection newly diagnosed in Australia from 1 January 1991. Newly acquired HIV infection was defined as newly diagnosed infection with evidence of a negative or indeterminate HIV antibody test or a diagnosis of primary HIV infection within 12 months of HIV diagnosis. The surveillance system for newly acquired HIV infection is described in McDonald *et al* (1994).

Monitoring transmitted drug resistance in Australian HIV-1 isolates

The NSW State Reference Laboratory for HIV/AIDS at St Vincent's Hospital, Sydney, and the Victorian Infectious Diseases Reference Laboratory, Melbourne, perform genotypic antiretroviral drug resistance testing on a selection of cases of newly acquired HIV-1 infection. Results from these tests, including HIV-1 subtype and HIV-1 drug resistance mutations, were compiled and forwarded to the NCHECR for analysis. The specific drug resistance mutations collected were based on the recommended World Health Organisation form, as published by Shafer *et al* 2007. For this analysis, HIV-1 drug resistance mutations were grouped by the class of drug they conferred resistance against.

1.3 National AIDS Registry

National surveillance for AIDS diagnoses

AIDS is a notifiable condition by the diagnosing doctor in each State/Territory health jurisdiction in Australia. Under national HIV/AIDS surveillance procedures, AIDS notifications are forwarded to the national HIV surveillance centre for national collation and analysis. Information sought at AIDS notification includes State/Territory of diagnosis, namecode (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 in adults/adolescents was defined as HIV infection newly diagnosed within three months of AIDS diagnosis (Kaldor and French 1993, McDonald *et al* 2003). 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 (Communicable Diseases Network Australia 2004).

1.4 National surveillance for newly diagnosed HIV infection among Aboriginal and Torres Strait Islander people

Information on Aboriginal and Torres Strait Islander status was routinely sought at diagnosis of HIV infection in the Northern Territory, Queensland, South Australia, Tasmania and Western Australia from 1985. Information on Aboriginal and Torres Strait Islander status was available for cases of HIV infection newly diagnosed in New South Wales from January 1992, from June 1998 in Victoria and from January 2005 in the Australian Capital Territory. Nationally, information on Aboriginal and Torres Strait Islander status at diagnosis of HIV infection was sought prospectively from May 1995. For HIV diagnoses prior to 1995, Aboriginal and Torres Strait Islander status was obtained retrospectively through State/Territory health authorities. In 1999 – 2008, Aboriginal and Torres Strait Islander status was reported at HIV diagnosis by State/Territory health authorities other than the Australian Capital Territory prior to January 2005 and Victoria prior to June 1998 in 98% of Australian born cases. Further information is available in Guthrie *et al* (2000).

Population rates of newly diagnosed HIV infection by Aboriginal and Torres Strait Islander status were calculated using *Experimental estimates of Aboriginal and Torres Strait Islander Australians June 2006* (ABS 2008). The area of residence by Aboriginal and Torres Strait Islander status was calculated using the 2006 census population distribution, based on the Australian Standard Geographical Classification.

1.5 National surveillance for perinatal exposure to HIV

Cases of perinatal exposure to HIV were reported to the national HIV surveillance centre by paediatricians, through the Australian Paediatric Surveillance Unit, and through assessment of perinatal exposure in children born to women with diagnosed HIV infection. Diagnoses of HIV infection in women and their exposed children were notified through national HIV/AIDS surveillance procedures. Further details are given in McDonald *et al* (1997), McDonald *et al* (2001) and McDonald *et al* (2009).

1.6 Global comparisons

The data in Table 1.6.1 were obtained from the following sources:

Health Protection Agency. HIV in the United Kingdom: 2008: London: Health Protection Agency, Centre for Infections. November 2008

Joint United Nations Programme on HIV/AIDS (UNAIDS). 2008 Report on the global HIV/AIDS epidemic. UNAIDS, 2008. http://www.unaids.org

Joint United Nations Programme on HIV/AIDS (UNAIDS). 2.5 Million People living with HIV in India: press release. UNAIDS, 2007. http://www.unaids.org/en

National Center for HIV/AIDS Dermatology and STDs (NCHADS). Consensus Workshop on HIV Estimation for Cambodia. NCHADS, 2007. http://www.nchads.org/

2 National surveillance for viral hepatitis

2.1 Notification of viral hepatitis to the National Notifiable Diseases Surveillance System

Diagnoses of hepatitis A, newly acquired hepatitis B and prevalent cases of hepatitis C infection were notifiable conditions in all State/Territory health jurisdictions in Australia. Cases were notified by the diagnosing laboratory, medical practitioner, hospital or a combination of these sources, through State/Territory health authorities, to the National Notifiable Diseases Surveillance System. Population rates of diagnosis of viral hepatitis were calculated for each State/Territory using yearly population estimates, provided by the Australian Bureau of Statistics.

Hepatitis B infection and hepatitis C infection was classified as newly acquired if evidence was available of acquisition in the 24 months prior to diagnosis (Communicable Diseases Network Australia 2004). Diagnoses of newly acquired hepatitis B infection was notifiable in all health jurisdictions. Diagnoses of newly acquired hepatitis C infection were recorded in all health jurisdictions other than Queensland.

Information on self-report of exposure to hepatitis B and hepatitis C is reported in a subset of diagnoses of newly acquired infection in the health jurisdictions which monitor incident hepatitis B and C. Exposure to hepatitis C was categorised into a hierarchy of risk for infection. For example, if injecting drug use was reported as well as a history of surgery, blood transfusion or tattoos, exposure was categorised as injecting drug use. Exposure to hepatitis C was categorised as household transmission when a case reported sharing items such as a toothbrush or razor with a person with documented hepatitis C infection, in the absence of other exposures to hepatitis C.

2.2 National surveillance for viral hepatitis among Aboriginal and Torres Strait Islander people

Information was sought on Aboriginal and Torres Strait Islander status for diagnoses of hepatitis A, newly acquired hepatitis B and hepatitis C (both newly acquired and prevalent cases) notified to the National Notifiable Diseases Surveillance System. Population rates of diagnoses of viral hepatitis were calculated by year and State/Territory of diagnosis (in those jurisdictions for which Aboriginal and Torres Strait Islander status was reported in more than 50% of diagnoses in each year 2004 – 2008) using *Experimental estimates of Aboriginal and Torres Strait Islander Australians June 2006* (ABS 2008).

2.3 Long term outcomes among people with chronic viral hepatitis

A network of liver transplant centres in Australia and New Zealand has collected information on the characteristics of people undergoing liver transplantation. People undergoing liver transplantation have been routinely tested for hepatitis B infection and for hepatitis C infection since antibody testing became available in 1990. Information was sought on the primary and secondary causes of liver disease including the results of tests for hepatitis B virus and hepatitis C virus. The information was forwarded to the Liver Transplant Registry located at Princess Alexandra Hospital in Brisbane.

3 National surveillance for sexually transmissible infections

3.1 Notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System

Diagnoses of specific sexually transmissible infections were notified by State/Territory health authorities to the National Notifiable Disease Surveillance System, maintained by the Australian Government Department of Health and Ageing. Chlamydia was notifiable in all health jurisdictions except New South Wales prior to 1998; chlamydia was made notifiable in New South Wales in 1998. Gonorrhoea was a notifiable condition in all health jurisdictions and infectious syphilis became notifiable in all jurisdictions in 2004. In most health jurisdictions, diagnoses of sexually transmissible infections were notified by the diagnosing laboratory, the medical practitioner, hospital or a combination of these sources (see Table below).

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

Diagnosis	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Gonorrhoea	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor
Infectious syphilis	Doctor Laboratory Hospital	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor
Chlamydia	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor
Donovanosis	Not notifiable	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor Laboratory

3.2 National surveillance for sexually transmissible infections among Aboriginal and Torres Strait Islander people

Information on Aboriginal and Torres Strait Islander status in diagnosed cases of chlamydia, gonorrhoea and infectious syphilis was sought through doctor notification in the Australian Capital Territory, the Northern Territory, Queensland, South Australia, Victoria and Western Australia. New South Wales and Tasmania were the only health authorities that sought information on Aboriginal and Torres Strait Islander status through laboratory notification.

Population rates of diagnosis of specific sexually transmissible infections were calculated by year and State/Territory of diagnosis using *Experimental estimates of Aboriginal and Torres Strait Islander Australians June 2006* (ABS 2008), available through the Australian Bureau of Statistics.

3.3 Gonococcal isolates

The Australian Gonococcal Surveillance Programme (AGSP) is a collaborative project involving gonococcal reference laboratories in each State/Territory and is coordinated by the NSW Gonococcal Reference Laboratory at the Prince of Wales Hospital, Sydney. The primary objective of the programme is to monitor the antibiotic susceptibility of isolates of *Neisseria gonorrhoeae,* to assist in the effective treatment of gonorrhoea. Information on sex and site of isolation of gonococcal strains was also collected (AGSP 2008).

4 HIV, viral hepatitis and sexually transmissible infections in selected populations

4.1 HIV seroprevalence among people seen at sexual health clinics

A network of selected metropolitan sexual health clinics provided, at the end of each quarter and annually, tabulations of the number of people seen, the number tested for HIV antibody and the number newly diagnosed with HIV infection, broken down by sex, age group, HIV exposure category and HIV antibody testing history. Potential exposure to HIV was categorised according to the person's reported sexual behaviour in the 12 months prior to being seen at the clinic and any history of injecting drug use. HIV antibody testing history was subdivided into two categories: any history of HIV antibody testing prior to being seen at the clinic and HIV antibody testing in the 12 months prior to being seen. Estimates of HIV incidence among gay and other homosexually active men were based on the number of men seen at the clinic during the year who had a negative HIV antibody test within 12 months of their last HIV antibody test. Further information is available in McDonald *et al* (2001).

4.2 HIV and hepatitis C seroprevalence among people who have injected drugs

All clients attending needle and syringe program (NSP) sites during one week in 2004 (44 sites), 2005 (52 sites), 2006 (45 sites), 2007 (53 sites) and 2008 (52 sites) were asked to complete a brief, self-administered questionnaire and to provide a finger prick blood spot sample for HIV and hepatitis C antibody testing. NSP sites were selected on the basis of large numbers of clients and representation from all State/Territory health jurisdictions. Further information is available in MacDonald *et al* (1997 and 2000).

4.3 Incidence of hepatitis C infection among people who have injected drugs

Incidence of hepatitis C infection was monitored among people with a history of injecting drug use attending the Kirketon Road Centre, a primary care clinic in central Sydney. Incidence of hepatitis C infection was calculated among people who were retested following a negative test for hepatitis C antibody when first assessed at the Centre. Repeat hepatitis C antibody testing was carried out, based on the assessment of risk behaviour for hepatitis C infection. The timing of hepatitis C seroconversion was estimated as the mid-point between the last negative test and the first positive test. Indeterminate hepatitis C antibody tests were considered to be negative in the analysis.

4.4 HIV and hepatitis C prevalence among entrants into Australian prisons

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

Hepatitis C seroprevalence was monitored among people entering prisons in all State/Territory corrections jurisdictions other than the Northern Territory in May 2004 and October 2007 who agreed to participate in a blood borne virus survey. Further information is available in Butler *et al* (2005) and Butler and Papanastasiou (2007).

4.5 HIV, hepatitis B surface antigen and hepatitis C antibody among blood donors

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

4.6 Chlamydia prevalence among people seen through the Australian Collaboration of Chlamydia Enhanced Sentinel Surveillance (ACCESS)

The Australian Collaboration of Chlamydia Enhanced Sentinel Surveillance system is a new surveillance system for monitoring the uptake and outcome of chlamydia testing in Australia, and is funded through the Australian Government Department of Health and Ageing Chlamydia Pilot Testing Program. The objectives of ACCESS are to provide enhanced data management systems at clinical sites with a view to routinely monitoring the extent of testing and test positivity rates in a range of chlamydia priority populations. The priority populations include young heterosexual men and women, men who have sex with men, Aboriginal and Torres Strait Islander people, pregnant women and women with a history of sex work.

ACCESS is a collaboration involving the Burnet Institute's Centre for Epidemiology and Population Health Research (CEPHR), the National Serology Reference Laboratory, Australia, the National Perinatal Statistics Unit and the National Centre in HIV Epidemiology and Clinical Research (NCHECR). ACCESS includes 6 networks, with each network providing unique information on test uptake and the chlamydia positivity rate. The 6 networks are (1) sexual health services (2) family planning clinics (3) antenatal clinics (4) Aboriginal Health Service clinics (5) general practitioner clinics and (6) diagnostic laboratories. CEPHR has responsibility for managing the network of family planning clinics, Aboriginal Health Service clinics and general practice clinics. NCHECR has responsibility for managing the network of sexual health services, antenatal clinics through the National Perinatal Statistics Unit, and diagnostic laboratories through the National Serology Reference Laboratory, Australia.

For clinical networks other than antenatal clinics, analyses were based on routine testing for chlamydia with no additional testing carried out due to participation in ACCESS. Routine chlamydia testing data were extracted directly from patient information management systems at each site and collated at a central location. At sexual health services, people seen for the first time ever at the clinic, defined as new patients, were included in analyses. In other networks, people seen for the first time in a reporting period, defined as unique patients, were included in analyses. Chlamydia testing rates were calculated by dividing the number of chlamydia tests by the number of new or unique patients seen, multiplied by 100. Chlamydia positivity rates were calculated by dividing the number of positive results by the number of new or unique patients tested, multiplied by 100.

5 Risk behaviour

5.1 Sexual, injecting and HIV antibody testing behaviour among men who have sex with men

The Sydney Gay Community Periodic Survey commenced in 1996, with the objective of providing information on sexual behaviour in a broad cross section of gay community attached men in Sydney. In February of each year, men who have sex with 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. Results from the two surveys in each year have been combined. The questionnaire was self-completed and takes approximately 5 minutes to answer. Information was sought on participant demographics, level of gay community attachment, sexual practices with regular and casual male partners, injecting drug use, patterns of testing for HIV antibody and other sexually transmissible infections, and antiretroviral use for respondents with HIV infection.

The Adelaide, Brisbane, Melbourne and Perth Gay Community Periodic Surveys commenced in 1998 and the Canberra Gay Community Periodic Survey commenced in 2000. The Brisbane (including small numbers of men recruited in Cairns and on the Sunshine and Gold Coasts) and Melbourne surveys were carried out annually (June and January/February, respectively); the Adelaide and Perth surveys were carried out every two years (in October/November) and the Canberra survey is conducted every three years (in November). The surveys used similar recruitment strategies and a compatible survey instrument. Men who have sex with men were recruited at the local equivalent of Sydney's Mardi Gras Fair Day (the Pride Fair in Brisbane and Picnic in the Park in Adelaide) or at one of a small number of community venues or medical clinics during the subsequent week. The sites were selected to be comparable with the range of sites used in the Sydney surveys.

5.2 Sexual, injecting and blood borne virus testing behaviour among people who have injected drugs

Information on sexual behaviour, history of injecting drug use and HIV and hepatitis C testing history was obtained by client completion of a questionnaire administered at 44 needle and syringe programs in 2004, 52 sites in 2005, 45 in 2006, 53 in 2007 and 52 in 2008. Further information is available in MacDonald *et al* (1997 and 2000).

6 Estimates of the number of people living with HIV infection and hepatitis C infection

6.1 Estimates of the number of people living with HIV infection

Cases of newly diagnosed HIV infection notified to the National HIV Registry were linked to reported deaths following AIDS notified to the National AIDS Registry by 31 March 2009, by matching on namecode, sex and date of birth. The State/Territory of HIV diagnosis was the State/Territory notified to the National HIV Registry for cases with a unique HIV-AIDS match and the State/Territory of AIDS diagnosis for cases with a non-unique match.

The number of people living with HIV/AIDS in each year by age, State/Territory of HIV/AIDS diagnosis and sex, was estimated to be equal to the number living in the previous year at one year younger, plus cases of HIV infection newly diagnosed in the next year for each age and sex, minus the number expected to have died for that age and sex among people without diagnosed HIV infection. The number of people living with HIV/AIDS in 2008 was estimated by State/Territory of HIV/AIDS diagnosis and not State/Territory of residence. No other causes of death from the National HIV Registry were used in these calculations, as deaths following HIV diagnosis only were not routinely reported in all years.

6.2 Estimates of the number of people living with hepatitis C infection

Estimates of the number of people living with hepatitis C virus were derived by the Hepatitis C Virus Projections Working Group, a collaborative group formed under the auspices of MACASHH's Hepatitis C Sub-Committee. Estimates were derived from mathematical models in the following way. First, the number of people who had injecting drugs in Australia over the last three decades was estimated. Based on this pattern of injecting drug use, and estimates of hepatitis C incidence among injecting drug users derived from cohort studies, hepatitis C incidence as a result of injecting drug use was estimated. These estimates of hepatitis C incidence due to injecting drug use were then adjusted in accordance with epidemiological data to allow for hepatitis C infections through other transmission routes, including receipt of blood or blood products. Estimates of the number of people experiencing long-term sequelae of hepatitis C infection were then obtained from the estimated pattern of hepatitis C incidence using rates of progression derived from cohort studies. Estimates of the numbers of people living with hepatitis C in 2003 were adjusted to allow for mortality related to hepatitis C infection, injecting drug use and unrelated to hepatitis C infection or injecting. Further details are given in the Working Group's Report (MACASHH, 2006).

7 Uptake of treatment for HIV and hepatitis C infection

7.1 Uptake of antiretroviral treatment for HIV infection

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

Information is collected from hospitals, general practitioner sites and sexual health centres throughout Australia. Participating sites contribute data biannually from established computerised patient management systems. Core variables from these patient management systems are transferred electronically to the National Centre in HIV Epidemiology and Clinical Research (NCHECR), where the data are collated and analysed. By March 2009, 27 participating clinical sites enrolled a total of 2 921 people into the AHOD.

Data from 26 of the 27 participating clinical sites were included in the analysis in Table 7.1.1. A person with HIV infection was classified as not on treatment if they were under active follow up in 2008 and either had no treatment records or had received treatment for at most 14 days. If the person received more than one treatment regimen during 2008, the treatment regimen of longest duration was included in the analysis in Table 7.1.1. Viral load and CD4+ cell counts were measured within three months of the date of cohort enrolment. In the years 1999 – 2000, information on the pattern of treatment uptake, shown in Figure 44, and viral load and CD4+ cell count at enrolment, shown in Figure 45, was based on data collected retrospectively through the clinical sites. The denominator used in these years was the number of people under active follow up in 2000.

A detailed summary of treatments data from the AHOD is published in the *Australian HIV Observational Database Annual Report* (NCHECR 2008).

Self-reported use of antiretroviral therapy for the treatment of HIV infection was monitored among men who have sex with men with HIV infection participating in the Gay Community Periodic Surveys in Adelaide, Brisbane, Canberra, Melbourne, Perth and Sydney.

7.2 Monitoring prescriptions for HIV treatments

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

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

The number of people dispensed each antiretroviral drug during a calendar year was estimated by calculating the average of the total number of people dispensed each drug during the corresponding financial year quarters. The number of people dispensed lamivudine per calendar year was estimated by deducting the number of person years of lamivudine treatment for hepatitis B infection (based on information from the National Pack Number Report) from the total number of people dispensed lamivudine for treatment of HIV and/or hepatitis B infection. The total number of people receiving treatment for HIV infection was estimated as the number of people dispensed (lamivudine + kivexa + combivir + trizivir + emtricitabine + truvada) through the S100 Program, divided by the proportion of people enrolled on AHOD who were receiving any of these mutually exclusive antiretroviral treatments during the same calendar year.

7.3 Monitoring prescriptions for treatment of viral hepatitis

The number of prescriptions for lamivudine, adefovir and entacavir for treatment of hepatitis B infection, for interferon and ribavirin therapy, pegylated interferon and ribavirin combination therapy and pegylated interferon only, was monitored through the Highly Specialised Drugs (HSDs) Program, a joint Australian Government and State/Territory mechanism for the supply of HSDs. The HSDs Program is coordinated federally by the Australian Government Department of Health and Ageing. In 2003, the estimated number receiving treatment dropped to 1 142, possibly due to the expected inclusion of pegylated interferon and ribavirin into the HSD program in late 2003. In 2004 and 2005, the estimated number of people receiving combination interferon and ribavirin for hepatitis C infection was 1 831 and 1 847, respectively. In 2006, the number receiving treatment for hepatitis C infection increased to 2 847, due to removal in April 2006, of the requirement for biopsy proven liver damage prior to treatment. In 2007 and 2008, 3 539 and 3 562 people were receiving treatment. The estimates were based on the assumption that 50% of patients were receiving treatment for 6 months, and the remaining were receiving treatment for 12 months.

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