HIV, viral hepatitis and sexually transmissible infections in Australia
Annual Surveillance Report
2010

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HIV, viral hepatitis and sexually transmissible infections in Australia
Annual Surveillance Report
2010

edited by

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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, viral hepatitis and sexually transmissible infections

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Contents

Tables

Preface

This report is the fourteenth annual review of available surveillance data pertaining to the occurrence of HIV, 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 2009 and reported by 31 March 2010, 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 2010* 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 C and Sexually Transmissible Infections in Australia Annual Report of Trends in Behaviour 2010*, edited by the National Centre in HIV Social Research. Specifically, data reported in Tables 5.1.1 and 7.1.2 of *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2010* also appears in the report on behavioural data.

Unless specifically stated otherwise, all data provided in the report are to the end of 2009, as reported by 31 March 2010. 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, viral hepatitis and sexually transmissible infections is gratefully acknowledged.

Acknowledgments

National organisations

- Association for Prevention and Harm Reduction Programs, VIC
- 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 Injecting and Illicit Drug Users' League
- Australian Institute of Health and Welfare, Canberra, ACT
- Australian Paediatric Surveillance Unit and its contributors, Westmead, NSW
- 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
- Royal Prince Alfred Hospital Sexual Health Clinic, Camperdown, 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

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

Contributing organisations

- Sexual Health and Family Planning, ACT
- Aboriginal Medical Service Western Sydney; Brindabella Family Practice, Queanbeyan; Charlestown Family Medical Services, Charlestown; Coffs Harbour Sexual Health Service, Coffs Harbour; Durri Aboriginal Corporation Medical Service, Kempsey; Glendale Medical Centre, Glendale; 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; Midway Family Medical Centre, Denistone East; 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 Clinic, Camperdown; Short Street Sexual Health Clinic; St George Hospital, St George; Sydney Sexual Health Centre, Sydney; Sydney South West Area Health Service – Clinical Sexual Health Services; Sydney West Area Health Service – Clinical Sexual Health Services; Young District Medical Centre, Young, NSW
- Anyinginyi Congress Aboriginal Medical Service; Danila Dilba Health Service, Darwin; Family Planning; Coconut Grove; NT Sexual Health and BBV Unit, NT
- Cairns Sexual Health Services, Cairns Base Hospital, Cairns; Carbal Medical Service, Toowoomba; Chancellor Park Family Medical Practice, Sippy Downs; Eli Waters Medical Centre, Eli Waters; Family Planning Queensland, Toowoomba; Gold Coast Sexual Health Clinic, Miami; Goondir Health Service, Dalby; Kewarra Family Practice, Kewarra Beach; Nambour Medical Centre, Nambour; Princess Alexandra Sexual Health, Princess Alexandra Hospital, Woolloongabba; Townsville Sexual Health Service, Townsville; Turton St Medical Centre, Sunnybank; Yeppoon Family Practice, Yeppoon, QLD

- O'Brien Street Practice, Adelaide; Shine SA (Sexual Health Information Networking and Education Inc), SA
- Davey Street Medical Centre, Hobart; Family Planning Tasmania, Hobart; Hobart, Devonport and Launceston Sexual Health Service; Newstead Medical, Launceston, TAS
- Brighton Medical Clinic, Brighton; Family Planning Victoria, Box Hill; Footscray Medical Centre, Footscray; Genesis Medical Centre, Brighton; Goulburn River Group Practice, Seymour; Melbourne Sexual Health Centre, Carlton; Mooroopna Medical Centre, Mooroopna; Victorian Aboriginal Health Service, Fitzroy; Wellness Centre Medical Clinic, Malvern East, VIC
- AK medical/dental Clinic, Kelmscott; Duncraig Medical Centre, Duncraig; Fremantle Hospital, Fremantle; Geraldton Regional Aboriginal Medical Service, Geraldton; Quarry Health Centre for under 25s, Fremantle, WA

Genital Warts Surveillance Network

Contributing organisations

- Northern Sydney Sexual Health Service, St Leonards; Royal Prince Alfred Hospital Sexual Health Clinic, Camperdown; Sydney Sexual Health Centre, Sydney, NSW
- NT Sexual Health and BBV Unit, NT
- Cairns Sexual Health Services, Cairns Base Hospital, Cairns; Gold Coast Sexual Health Clinic, Miami; Townsville Sexual Health Service, Townsville, QLD
- Hobart, Devonport and Launceston Sexual Health Service, TAS
- Melbourne Sexual Health Centre, Carlton, VIC
- Fremantle Hospital, 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 Clinic, 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, WA

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; 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
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- St Vincent's Centre for Applied Medical Research (AMR) and NSW State Reference Laboratory for HIV at St Vincent's Hospital, Sydney, NSW

Annual Surveillance Report 2010 Advisory Committee

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- Dr Ben Cowie, Australasian Society for HIV Medicine, NSW
- Dr Michelle Giles, 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
- Clint Ferndale, Hepatitis Australia, Canberra, ACT
- Tadgh McMahon, Multicultural HIV/AIDS and Hepatitis C Service, Sydney, NSW
- John Daye, National Association of People Living with HIV/AIDS, Sydney, NSW
- Dr Limin Mao, National Centre in HIV Social Research, The University of New South Wales, Sydney, NSW
- Associate Professor David Wilson (Chair), Professor Basil Donovan, Professor Andrew Grulich, Professor Lisa Maher, Ann McDonald, Melanie Middleton, Dr Libby Topp, Dr Handan Wand, James Ward, National Centre in HIV Epidemiology and Clinical Research

Summary

HIV infection

- By 31 December 2009, 29 395 diagnoses of HIV infection, 10 446 diagnoses of AIDS and 6 776 deaths following AIDS had occurred in Australia.
- An estimated 20 171 people were living with diagnosed HIV infection in Australia at the end of 2009.
- The number of new HIV diagnoses in Australia in 2009 was 1 050. The annual number of new HIV diagnoses has remained relatively stable at around 1 000 over the past four years.
- Trends in newly diagnosed HIV infection have differed across State and Territory health jurisdictions. New South Wales recorded a stable population rate at around 5.7 per 100 000 population in 2005 – 2009 whereas Queensland recorded its highest rate of HIV diagnosis in 2009 of 4.7 per 100 000 population. The rate of HIV diagnosis in Victoria peaked in 2006 at 5.5 and declined to 5.2 per 100 000 population in 2009.
- HIV continued to be transmitted primarily through sexual contact between men.
- Of 5 069 new diagnoses of HIV infection in 2005 – 2009, 1 443 (28.5%) had been acquired in the 12 months prior to HIV diagnosis.
- The *per capita* rate of HIV diagnosis in the Aboriginal and Torres Strait Islander population was similar to that in the non-Indigenous population. Higher proportions of Aboriginal and Torres Strait Islander cases of HIV infection were attributed to heterosexual contact (21% compared with 15%) and injecting drug use (20% compared with 3%) than in non-Indigenous cases.
- Of 1 185 cases of HIV infection newly diagnosed in 2005 – 2009, for which exposure to HIV was attributed to heterosexual contact, 58% were in people from high prevalence countries or their partners.

Viral hepatitis

- The *per capita* rate of diagnosis of hepatitis B infection in Australia in 2005 – 2009 was stable at around 31 per 100 000 population. The rate of diagnosis of newly acquired hepatitis B infection was also stable at 1.2 per 100 000 population in 2005 – 2009.
- An estimated 162 000 people were living in Australia in 2009 with hepatitis B infection. An estimated 325 deaths in 2009 were attributable to chronic hepatitis B infection.
- The *per capita* rate of diagnosis of hepatitis C infection declined by 12% to 51.9 per 100 000 population in 2009.
- An estimated 217 000 people were living in Australia with chronic hepatitis C infection, including 46 000 with moderate to severe liver disease.
- The reported annual number of diagnoses of newly acquired hepatitis C infection ranged from 362 to 442 in 2005 – 2009 and accounted for 3.5% of new hepatitis C diagnoses.
- Based on reported cases, hepatitis B and hepatitis C transmission in Australia continued to occur predominantly among people with a recent history of injecting drug use.
- In 2009, chronic hepatitis B infection and chronic hepatitis C infection were the underlying causes of liver disease in 4.8% and 28.1% of liver transplants, respectively.
- An estimated 3 969 people with chronic hepatitis C infection were prescribed ribavirin and pegylated interferon combination treatment or pegylated interferon only in 2009.
- The proportion of people seen at needle and syringe programs who reported having injected drugs for five years or less was stable in 2005 – 2009 at around 10%. Within this group, hepatitis C prevalence ranged from 19% in 2005 to 28% in 2007 and 2008.

Sexually transmissible infections other than HIV

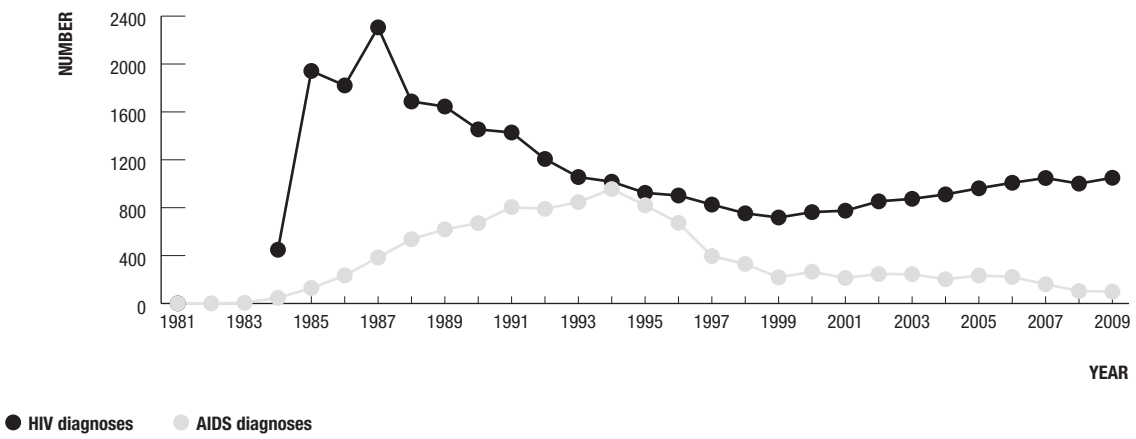
- Chlamydia was the most frequently reported condition in Australia in 2009 with 62 613 reported diagnoses. The population rate of diagnosis of chlamydia in 2009 was 272 per 100 000 population, a 4% increase over the rate in 2008, continuing the increase seen over the past ten years.
- The population rate of diagnosis of gonorrhoea was stable in 2005 – 2009 at 36 per 100 000 population. The rate of diagnosis of infectious syphilis doubled from 3.2 in 2005 to 6.6 in 2007 and declined to 5.8 in 2009. The increases in infectious syphilis have largely occurred among men who have sex with men.
- Substantially higher rates of diagnosis of chlamydia and gonorrhoea were recorded in the Aboriginal and Torres Strait Islander population compared with non-Indigenous population.
- In the past four years, more than 75% of men and women seen for the first time through a network of sexual health services were tested for chlamydia. In 2009, the chlamydia positivity rate was highest among Aboriginal and Torres Strait Islander men (16.5%) and women (16.7%) and among young heterosexual men (16.0%), and lowest among female sex workers (5.9%).
- A new surveillance network for monitoring genital warts reported a decline in diagnoses among young women, from around 10% in 2005 – 2007 to 5.3% in 2009.

Main Findings

HIV infection

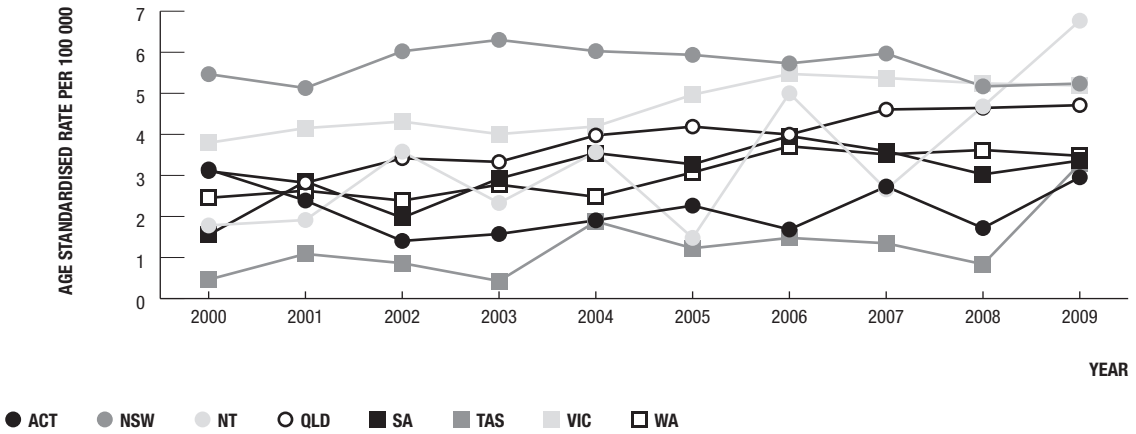
The annual number of new HIV diagnoses in Australia has remained relatively stable at around 1 000 cases in the past four years, 2006 – 2009, following a steady increase from the lowest annual count of 718 cases in 1999 (Figure 1).

Figure 1 Diagnoses of HIV infection and AIDS[1] in Australia



1 AIDS diagnoses in NSW not included from 1 January 2008.

Figure 2 Newly diagnosed HIV infection, 2000 – 2009, 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 was stable, at around 6.0 in 2000 – 2004 and around 5.7 in 2005 – 2009 (Figure 2). The rate of HIV diagnosis in Victoria increased from 3.9 per 100 000 population in 2000 to around 5.5 in 2006 and declined to 5.2 in 2009, similar to the rate in New South Wales in 2009. In Queensland, the rate increased steadily from 3.1 per 100 000 population in 2000 to 4.7 in 2009. In South Australia and Western Australia, the rate increased from 1.5 and 2.5 in 2000 to 4.0 and 3.7 in 2006, and then declined to 3.4 and 3.5, respectively, in 2009.

Of 1 050 cases of HIV infection newly diagnosed in Australia in 2009, 122 (12%) had been previously diagnosed overseas (Table 1.1.3). These cases have generally been included in past counts and are included in the count for 2009.

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

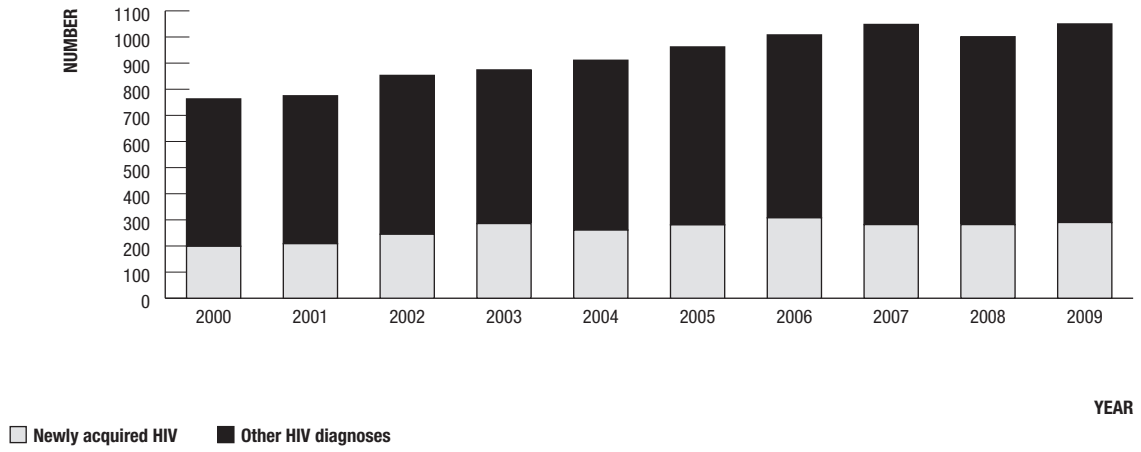
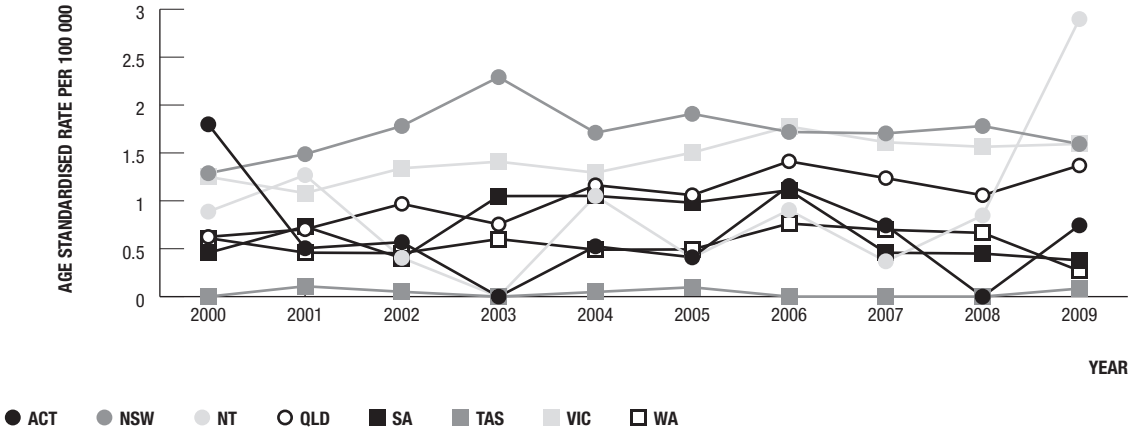


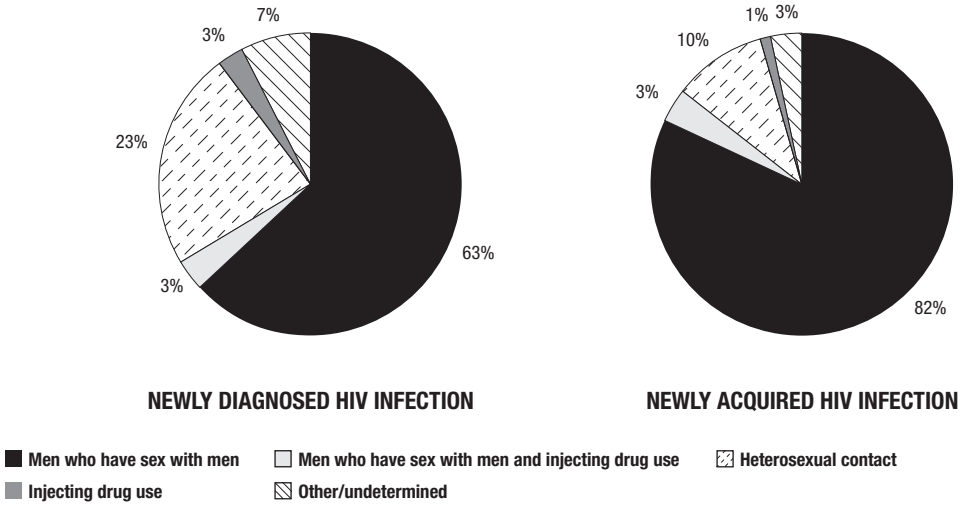
Figure 4 **Newly acquired HIV infection, 2000 – 2009, by year and State/Territory**



Over the past ten years, the proportion of newly diagnosed cases that were newly acquired in the 12 months prior to HIV diagnosis was relatively stable at 28.5% (Figure 3). The population rate of diagnosis of newly acquired HIV infection increased from 1.0 in 2000 to 1.5 in 2006 and declined to 1.3 in 2009. In New South Wales, the rate increased from 1.3 per 100 000 in 2000 to 2.3 in 2003 and declined to 1.6 in 2009 (Figure 4). The rate of diagnosis of newly acquired HIV infection also increased in Queensland and Victoria, to 1.4 and 1.8, respectively, in 2006, and has remained stable in 2007 – 2009 at 1.2 and 1.6, respectively. In South Australia and Western Australia, the diagnosis rate peaked in 2006 at 1.1 and 0.8, respectively, and then declined to their lowest rates in the past ten years of 0.4 and 0.3, respectively, in 2009.

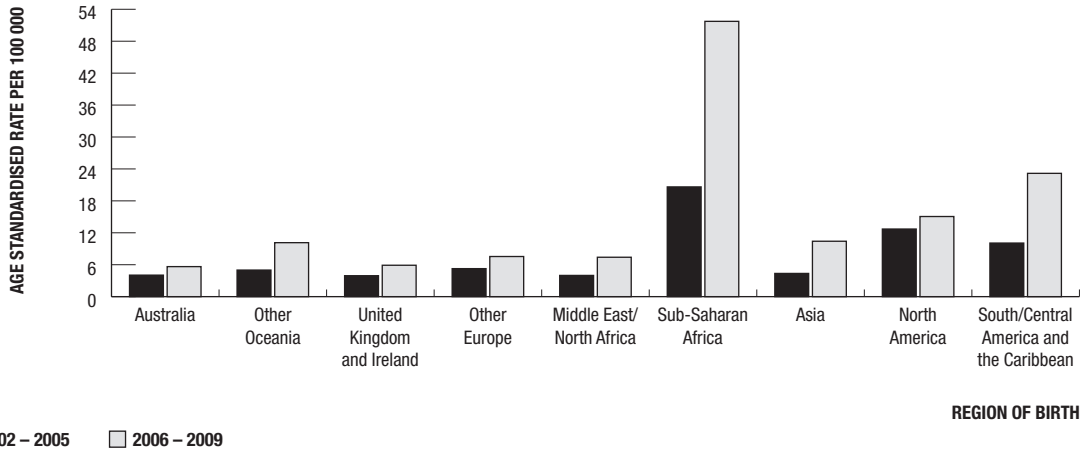
The annual number of AIDS diagnoses, reported by health jurisdictions other than New South Wales, dropped to around 100 in 2009 (Figure 1). The relatively small number of AIDS diagnoses is partly due to the wide availability of effective antiretroviral treatment for HIV infection.

Figure 5 HIV diagnoses, 2005 – 2009, by HIV exposure category



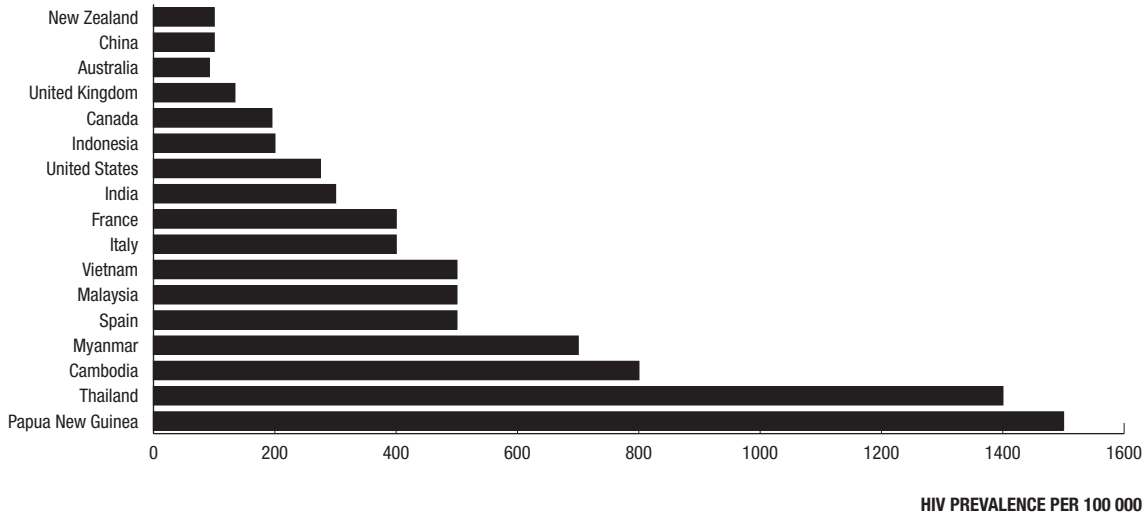
Transmission of HIV in Australia continues to occur primarily through sexual contact between men (Figure 5). In 2005 – 2009, 66% of new HIV diagnoses occurred among men who have sex with men, 23% were attributed to heterosexual contact and 3% to injecting drug use. Men who have sex with men accounted for 85% of diagnoses of newly acquired HIV infection. Heterosexual contact and injecting drug use was the reported source of exposure to HIV in 10% and 1%, respectively.

Figure 6 HIV diagnoses in Australia, 2002 – 2009, by year and region of birth



People born in Australia accounted for 60% of cases of HIV infection newly diagnosed in 2002 – 2005 and 55% of cases newly diagnosed in 2006 – 2009. The rate of HIV diagnosis among Australian born cases increased from 4.0 in 2002 – 2005 to 5.6 per 100 000 population in 2006 – 2009. Increased rates of HIV diagnosis in the years 2006 – 2009 also occurred among people from other regions of birth, with at least a doubling of population rates in the regions, sub-Saharan Africa, Asia, South/Central America and the Caribbean, and Oceania other than Australia. Among cases of HIV infection newly diagnosed in the past five years, 7% were in people who reported speaking a language other than English at home.

Figure 7 **HIV prevalence in the population in selected countries**



In 2009, the estimated number of people living in Australia with diagnosed HIV infection was 20 171. As a national prevalence (92 per 100 000), the estimate was lower than that for diagnosed and undiagnosed HIV infection in the United Kingdom (134 per 100 000) and in Canada (195 per 100 000) in 2008, and approximately three-fold lower than that for diagnosed HIV infection in the United States in 2007 (275 per 100 000). Estimated HIV prevalence in several neighbouring countries was substantially higher than that in Australia.

Viral hepatitis

The population rate of reported diagnoses of hepatitis A infection in Australia remained low at 1.6 per 100 000 population or lower in 2005 – 2008. A large multi-jurisdictional outbreak of hepatitis A infection occurred in Australia in 2009, with the majority of cases being diagnosed in Victoria (Table 2.1.1).

The population rate of diagnosis of hepatitis B infection and diagnoses of newly acquired hepatitis B was stable in Australia in 2005 – 2009 at 31 and 1.2 per 100 000 population, respectively (Figure 8). The rate of diagnosis of newly acquired hepatitis B infection declined substantially from 2001 among people aged 15 – 19 years and 20 – 29 years (Figure 9). Adolescent "catch up" vaccination programs may have contributed to 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 infection by year and sex**

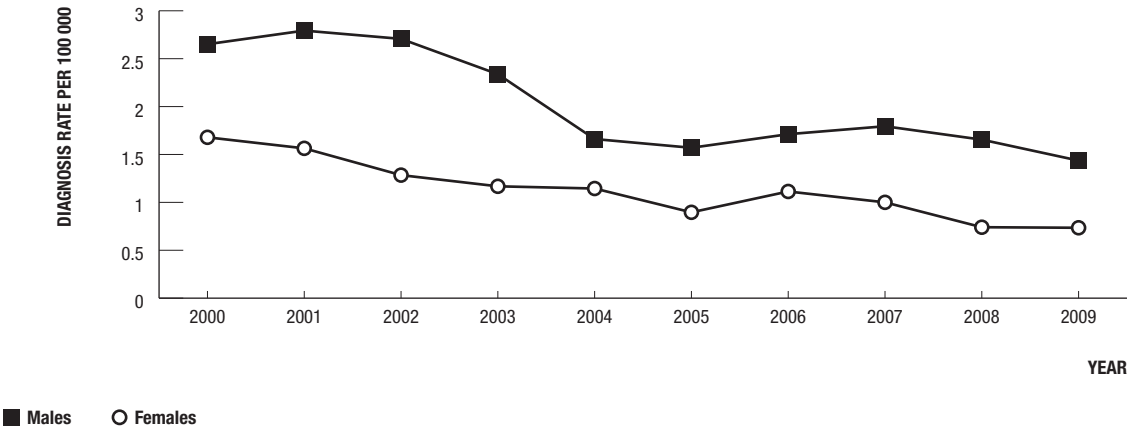
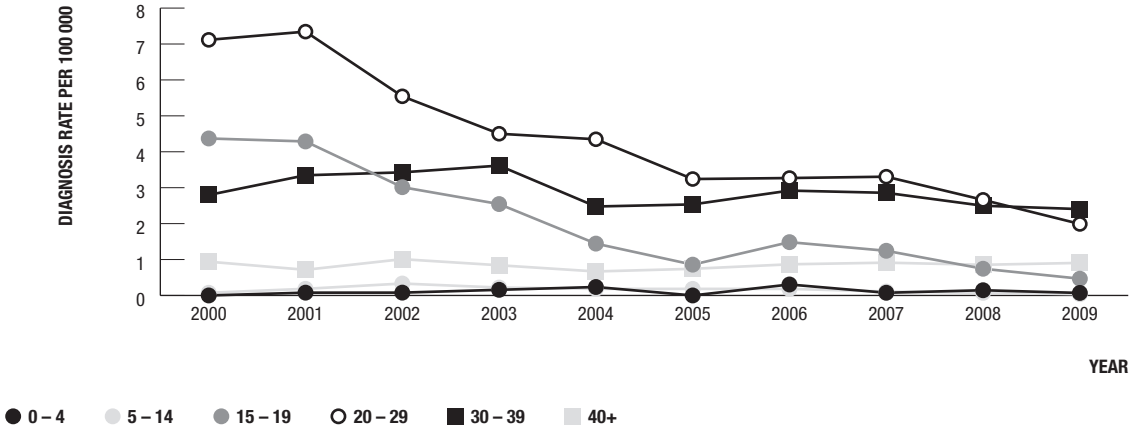
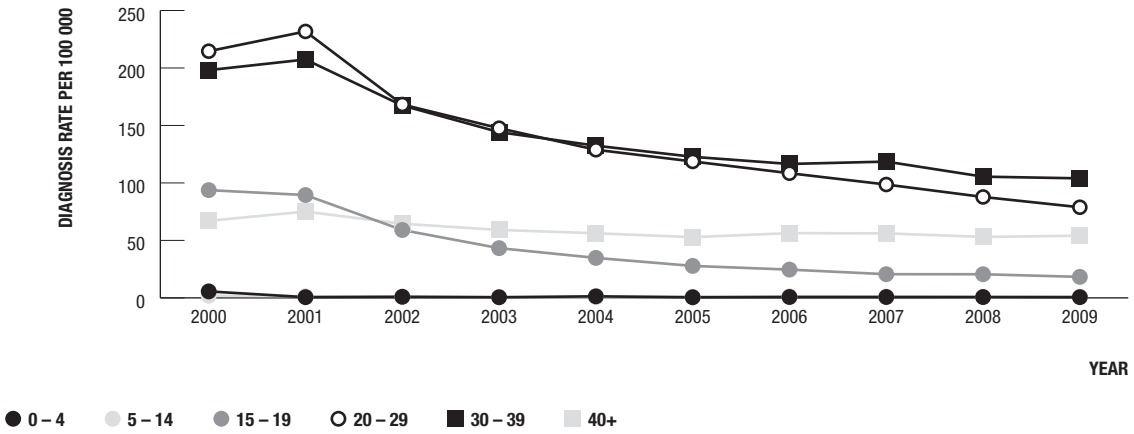


Figure 9 **Newly acquired hepatitis B infection by year and age group**



Information on the source of exposure to hepatitis B infection, reported through health authorities other than Queensland and Western Australia, indicated that the proportion of cases associated with injecting drug use declined from 43% in 2005 to 35% in 2009. The proportion of diagnoses attributed to heterosexual contact also declined, from 21% in 2005 to 9% in 2009, and the proportion with an "other/undetermined" source of exposure to hepatitis B ranged from 18% to 28% (Table 2.1.7).

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



The rate of diagnosis of hepatitis C infection per 100 000 population declined to 51.9 per 100 000 population in 2009. It declined by 63% in the 20 – 29 year age group and by 47% 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% between 2000 and 2009.

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

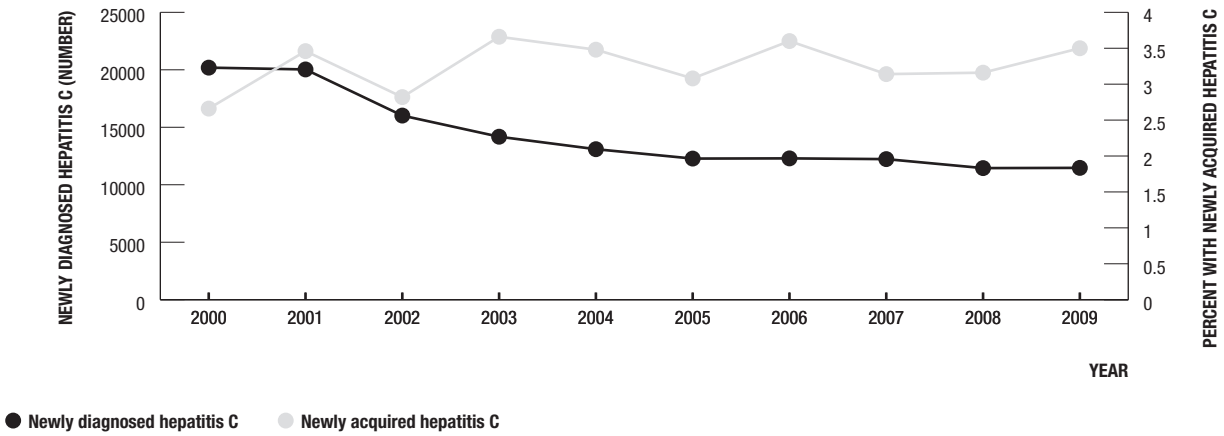
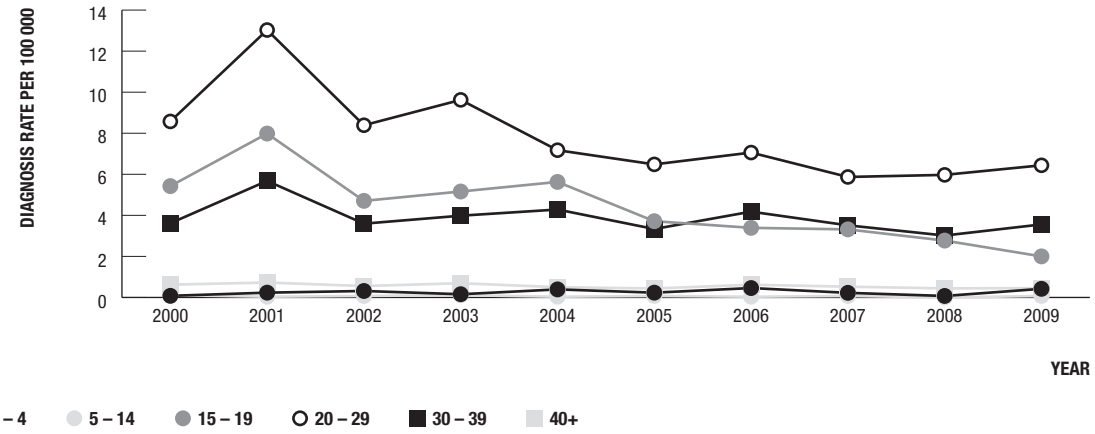


Figure 12 Newly acquired hepatitis C by year and age group



Around 3% of cases of hepatitis C infection diagnosed in 2005 – 2009 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 20 – 29 years (Figure 12), primarily those with a history of injecting drug use (Table 2.1.13). Among people who inject drugs seen at the Kirketon Road Centre in Sydney, hepatitis C incidence was relatively stable at around 9.2 per 100 person years in 2005 – 2008 (Table 4.4.1). Hepatitis C incidence among hepatitis C negative people who inject drugs enrolled in the Hepatitis C Incidence and Transmission Study – community (HITS-c) in Sydney in 2009 (6.5 per 100 person years) was comparable to that among people seen at the Kirketon Road Centre in 2009 (6.8 per 100 person years).

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 in the Australian population (Table 2.1.8) whereas the proportion of diagnoses of newly acquired hepatitis C among people born overseas was substantially lower than their proportion in the Australian population (Table 2.1.14).

An estimated 162 000 people were living with hepatitis B infection in Australia and 325 deaths were attributed to chronic hepatitis B infection in 2009 (Table 6.2.1).

An estimated 291 000 people living in Australia in 2009 had been exposed to hepatitis C virus. Of these, 74 000 people were estimated to have cleared their infection, 165 000 had chronic hepatitis C infection and early liver disease (stage F0/1), 46 000 had chronic hepatitis C infection and moderate liver disease (stage F2/3), and 5 900 were living with hepatitis C related cirrhosis.

Hepatitis C prevalence in 2009 was approximately 140 times lower among blood donors (0.01%) than the estimated prevalence of hepatitis C infection in the Australian population (1.4%) (Figure 37).

Sexually transmissible infections other than HIV

Chlamydia was the most frequently reported infection in Australia in 2009, with 62 613 newly diagnosed cases. Among males, the population rate of reported diagnoses per 100 000 population more than doubled between 2000 and 2004, from 68.8 to 145.7 and increased further to 234.5 in 2009. Among females, the rate of chlamydia diagnoses more than doubled from 100.5 in 2000 to 211.4 in 2004, and increased by 40% to 334.6 in 2009 (Figure 13).

Figure 13 Chlamydia by year and sex

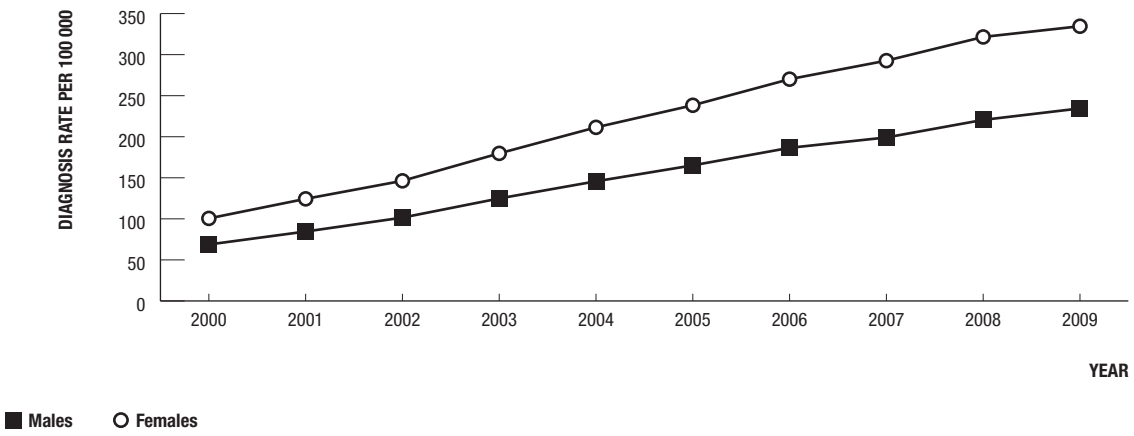
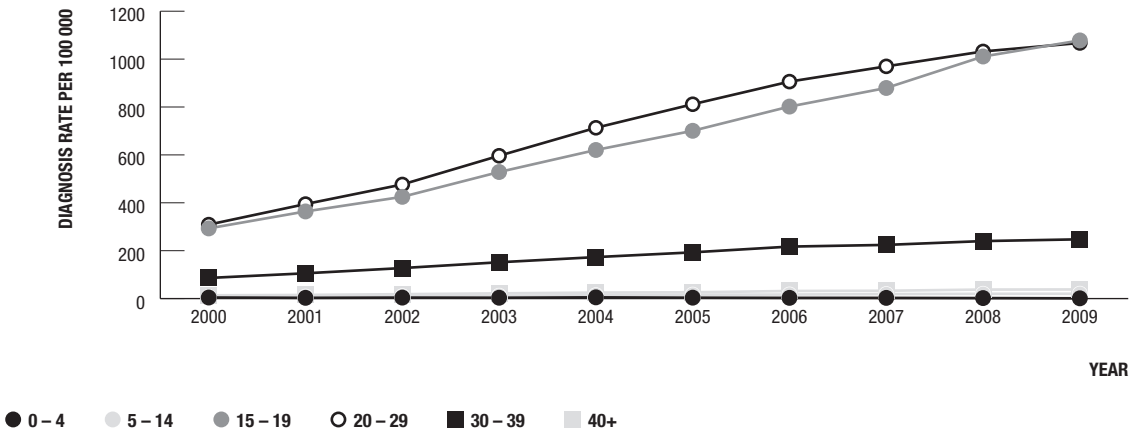


Figure 14 Chlamydia by year and age group



Increasing rates of diagnosis of chlamydia were reported in all States and Territories. The increases were greatest in the 20 – 29 and 15 – 19 year age groups, which accounted for 80% of the annual number (Figure 14). In 2005 – 2009, the female to male sex ratio in the 15 – 19 year age group was 3.2:1 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

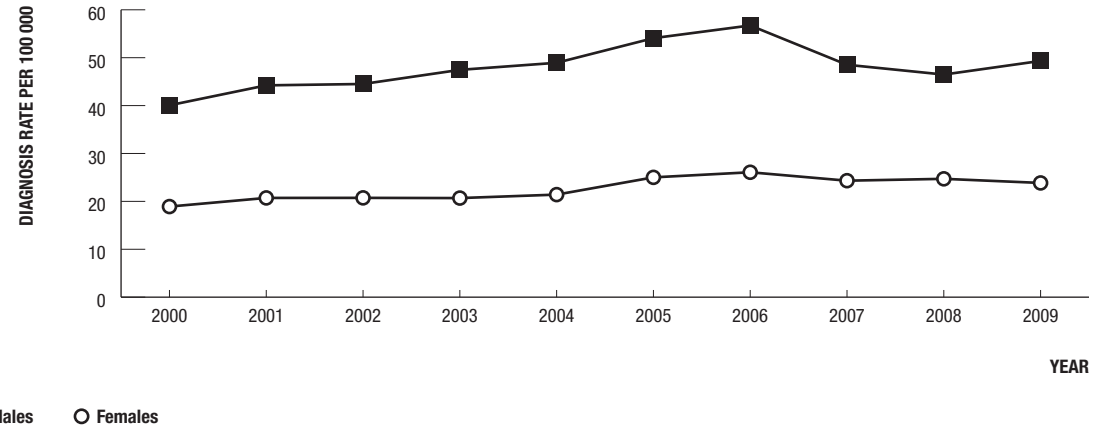
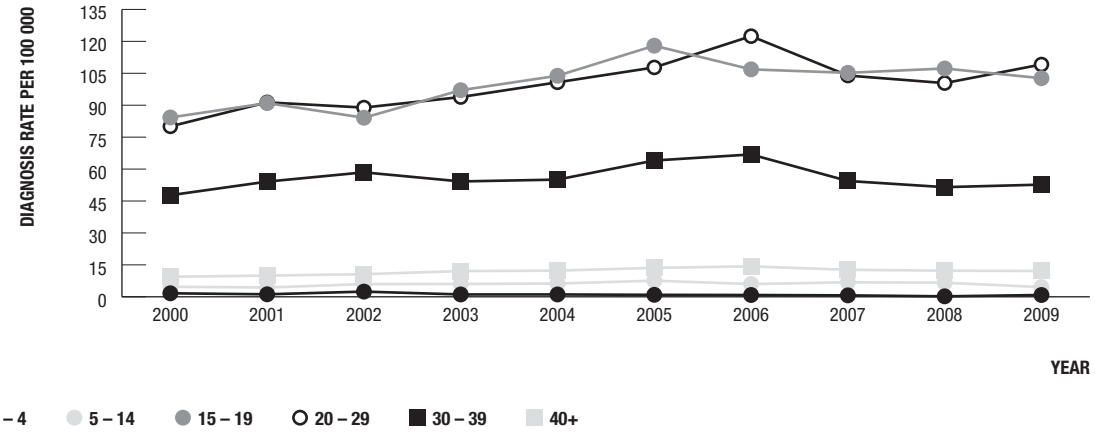


Figure 16 Gonorrhoea by year and age group



The population rate of diagnosis of gonorrhoea increased by about 22% among males and by 13% among females from 2000 to 2004 whereas from 2005 to 2009, the rate declined by 10% in males and by 5% among females (Figure 15). The decline in the rate of diagnosis occurred first in the 15 – 19 year age group 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

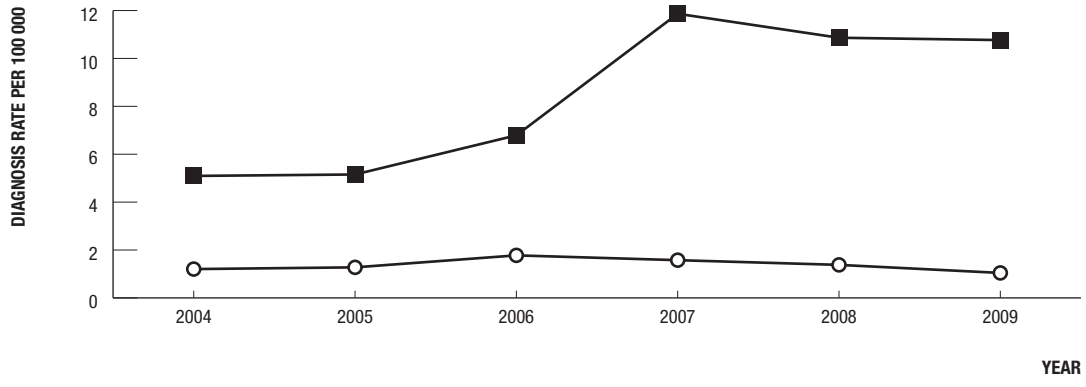
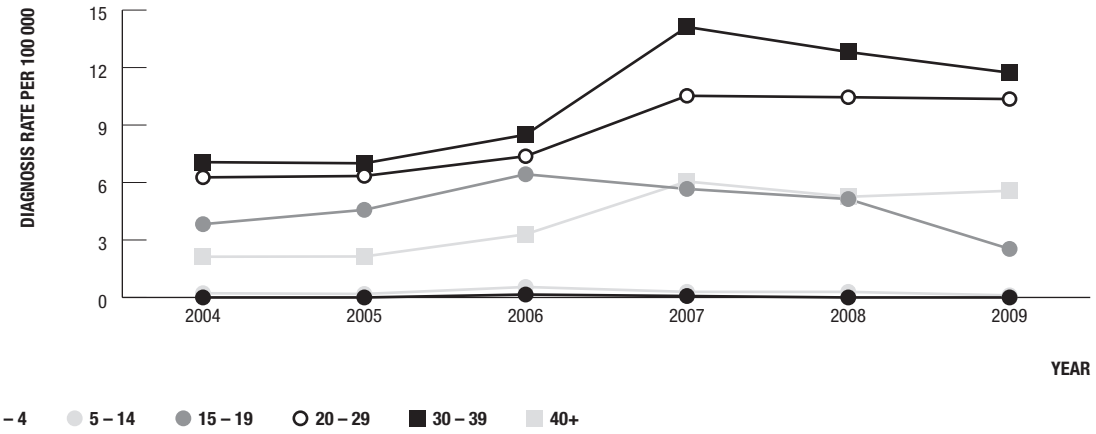


Figure 18 Infectious syphilis by year and age group



The rate of diagnosis of infectious syphilis increased from 3.2 per 100 000 population in 2005 to 6.6 in 2007 and declined to 5.8 in 2009 (Figure 17). The rate of diagnosis of infectious syphilis dropped from 4.6 in 2005 to 2.5 in 2009 in the 15 – 19 year age group but increased substantially in older age groups (Figure 18). In the Northern Territory, the rate of diagnosis of infectious syphilis declined from 62.4 in 2006 to 15.3 in 2009, reflecting a decline in diagnoses in the Aboriginal and Torres Strait Islander population. Increases in diagnoses of infectious syphilis in other jurisdictions have predominantly affected 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 14 in 2005 to 1 in 2009, may be a consequence of improved case ascertainment and treatment.

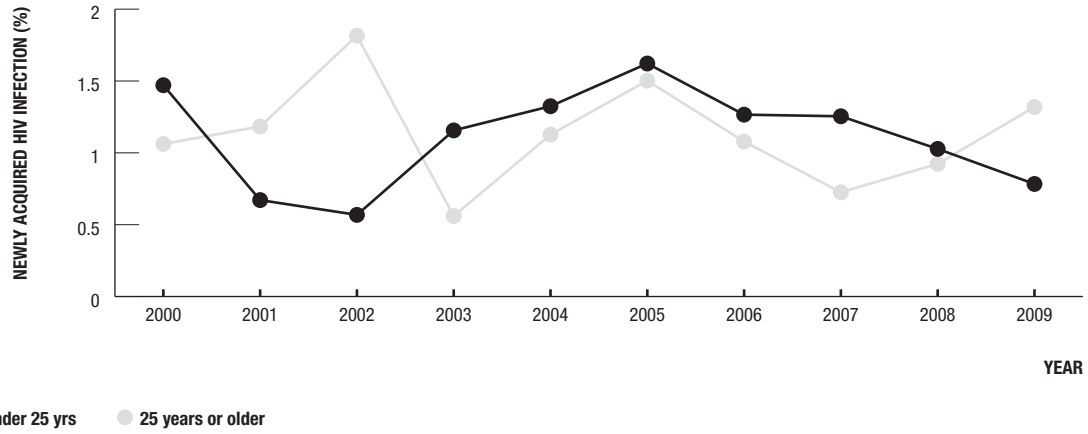
HIV, viral hepatitis and sexually transmissible infections in selected populations

Population groups regarded as priorities for prevention and health promotion activities under the most recent national strategies for HIV, hepatitis B, hepatitis C, sexually transmissible infections (STI) and the third National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy, include people living with HIV infection, men who have sex with men, Aboriginal and Torres Strait Islander people, sex workers, prison entrants, people who have injected drugs and young people. 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

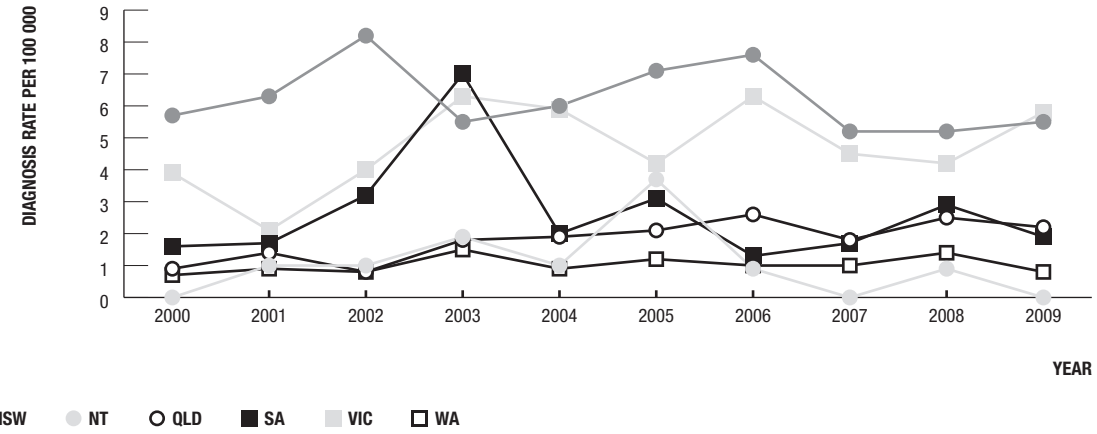
Men who have sex with men continue to make up the majority of people diagnosed with HIV infection in Australia. The overall number of new HIV diagnoses in this category in 2000 – 2004 and in 2005 – 2009 was 2 856 and 3 371, including 1 039 (36.4%) and 1 235 (36.6%) diagnoses of newly acquired HIV infection, respectively. Sexual transmission between men accounted for a higher proportion of diagnoses of newly acquired HIV infection (90%) than total HIV diagnoses (76%) among men. This difference may partly reflect higher levels of HIV antibody testing among men who have sex with men.

Figure 19 **Newly acquired HIV infection among men who have sex with men seen at sexual health clinics**



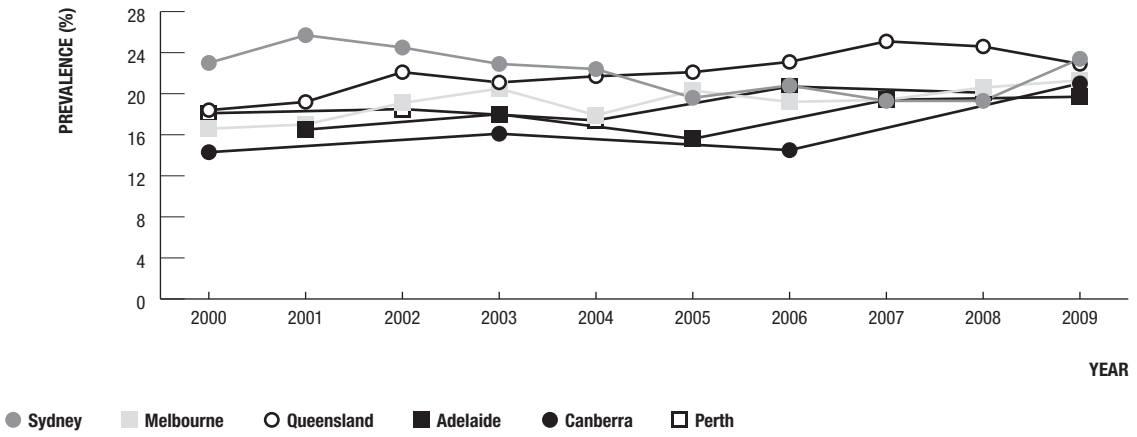
Among men who have sex with men seen at metropolitan sexual health clinics, the percentage with newly acquired HIV infection was relatively stable, both in those aged less than 25 years, and in those aged 25 years or older (Figure 19). HIV incidence among men who have sex with men in Sydney was 1.66 per 100 person years in 2002, declined to 0.15 in 2007 and has increased to 0.80 in 2009.

Figure 20 **Gonococcal rectal isolates among men by State/Territory and year**



Among men who have sex with men, tested for chlamydia through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS), chlamydia positivity increased from 7.1% in 2006 to 9.6% in 2009 (Figure 41). The rate of rectal gonococcal isolates among men in New South Wales was relatively stable at around 6.0 per 100 000 population in 2000 – 2004 and 5.5 in 2005 – 2009 (Figure 20). In Victoria, the rate in 2000 – 2004 was around 4.0 and around 4.5 in 2009.

Figure 21 Prevalence of unprotected anal intercourse with casual partners reported by men in Gay Community Periodic Surveys

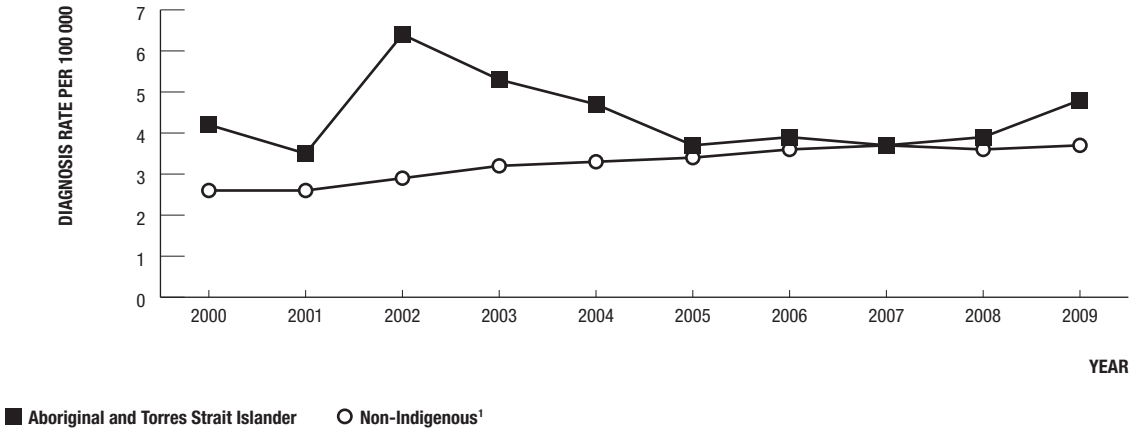


Following a steady decline in the proportion of Sydney Gay Community Periodic Survey respondents who reported unprotected anal intercourse with casual partners, from 25.7% in 2001 to 19.3% in 2007 and 2008, the proportion increased to 23.4% in 2009 (Figure 21). Modest increases unsafe sexual behaviour have also been reported in Melbourne, Adelaide and Perth in 2005 – 2009. In Queensland, the proportion of respondents reporting unsafe sexual behaviour had recently declined, from 25.1% in 2007 to 22.9% in 2009.

Aboriginal and Torres Strait Islander people

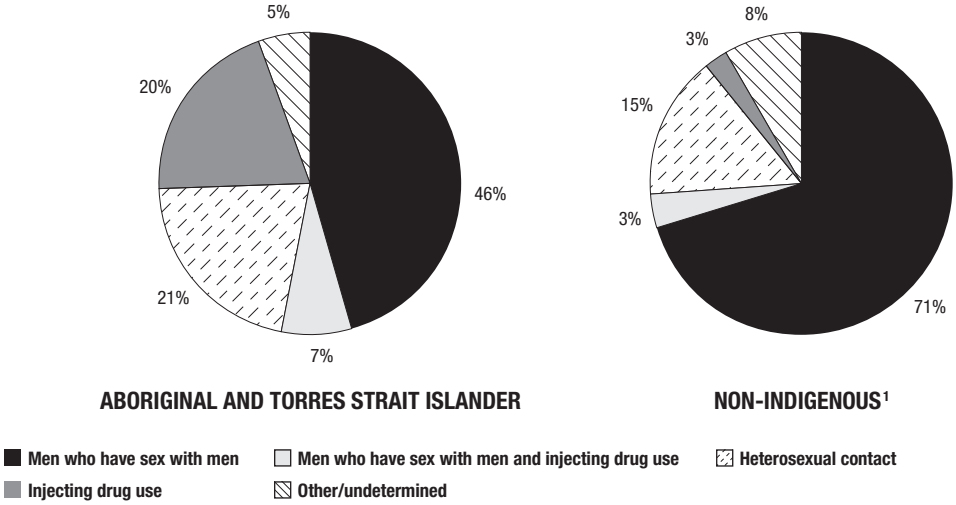
The rates of HIV diagnosis *per capita* in the Aboriginal and Torres Strait Islander and non-Indigenous populations, excluding non-Indigenous cases and populations from high HIV prevalence countries in sub-Saharan Africa and South East Asia, differed little in 2000 – 2009 (Figure 22). In the Aboriginal and Torres Strait Islander population, the rate declined from around 4.7 in 2000 – 2004 to around 3.9 in 2005 – 2009. In the non-Indigenous population, the rate of HIV diagnosis gradually increased from around 2.9 in 2000 – 2004 to 3.6 in 2005 – 2009. 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 HIV diagnoses, 2000 – 2009, by Aboriginal and Torres Strait Islander status and year



1 Cases and populations from high prevalence countries were excluded from the non-Indigenous rate.

Figure 23 HIV diagnoses, 2005 – 2009, by Aboriginal and Torres Strait Islander status and HIV exposure category

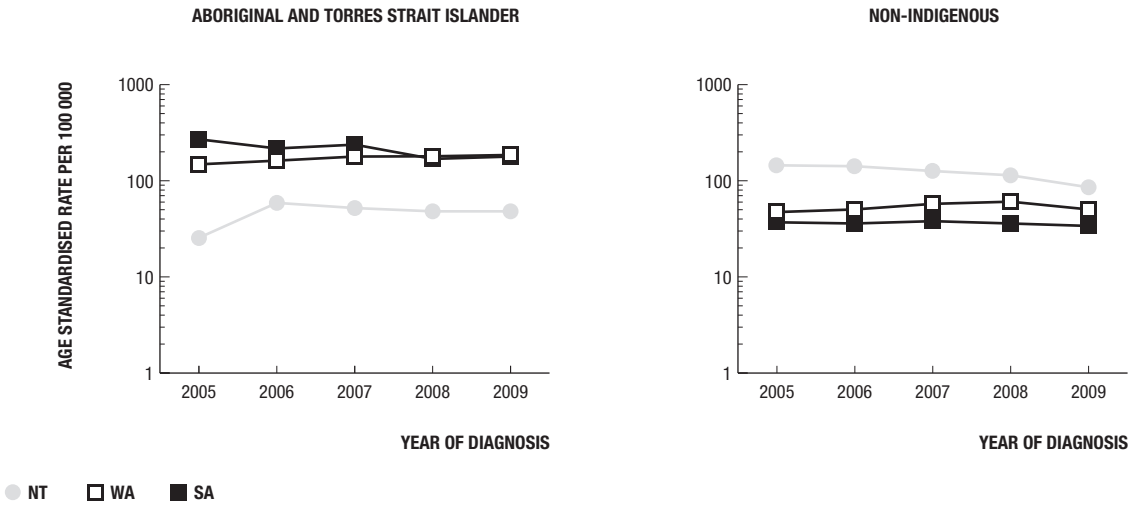


1 Cases and populations from high prevalence countries were excluded from the non-Indigenous rate.

In 2005 – 2009, the most frequently reported route of HIV transmission was sexual contact between men in both the non-Indigenous cases (74%) and in the Aboriginal and Torres Strait Islander cases (53%). Heterosexual contact was the reported source of exposure to HIV in 21% of Aboriginal and Torres Strait Islander cases and in 15% of non-Indigenous cases (Figure 23). Aboriginal and Torres Strait Islander cases also differed from non-Indigenous cases in that a higher proportion of infections were attributed to injecting drug use (20% among Aboriginal and Torres Strait Islander cases vs 3% for non-Indigenous cases), and a higher proportion of infections were among women (19.1% among Aboriginal and Torres Strait Islander cases vs 7.8% for non-Indigenous cases).

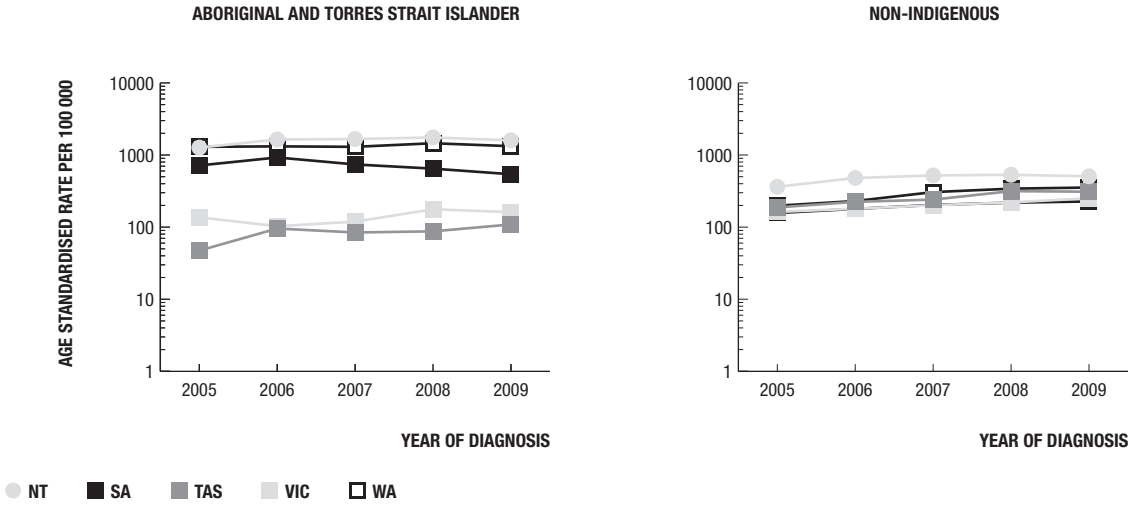
The rate of diagnosis of hepatitis B infection in the Aboriginal and Torres Strait Islander population resident in the Northern Territory, South Australia, Tasmania and Western Australia declined from 237 in 2006 to 120 in 2009, and the rate of diagnosis of newly acquired hepatitis B infection was 5 or less in 2005 – 2009. In the non-Indigenous population, the rate of diagnosis of both hepatitis B and newly acquired hepatitis B infection was 30 or less and 1 per 100 000 population, respectively, in 2005 – 2009.

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



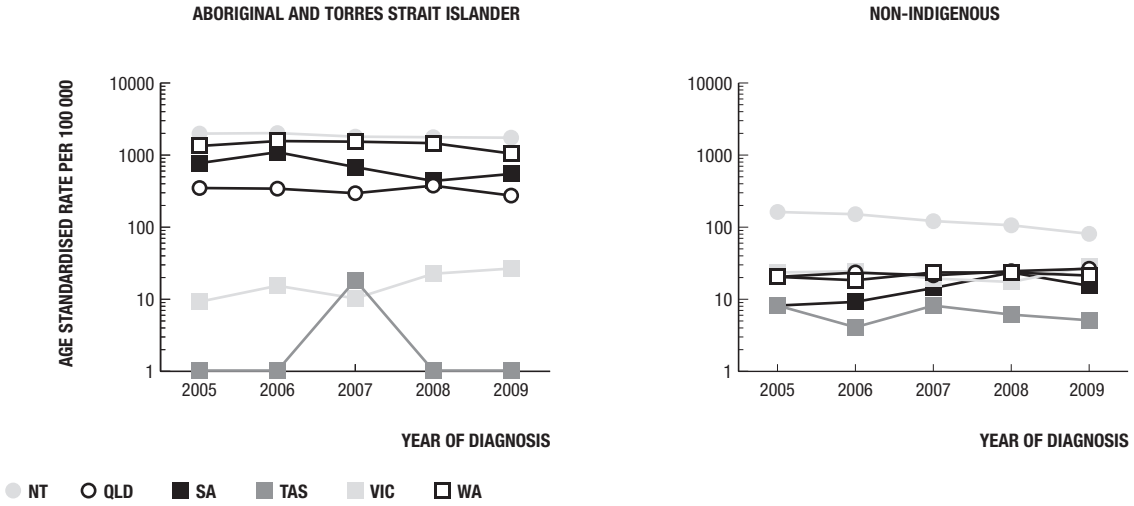
The population rate of diagnosis of hepatitis C infection in the Aboriginal and Torres Strait Islander population resident in the Northern Territory, South Australia and Western Australia was relatively stable in 2005 – 2009 at around 127 per 100 000 population and was around 47 in the non-Indigenous population. In the Northern Territory, the rate of hepatitis C diagnosis in the Aboriginal and Torres Strait Islander population was stable at around 49 in 2005 – 2009 whereas the rate declined from 141 in 2005 to 83 in 2009 in the non-Indigenous population. In South Australia and Western Australia, the rate of hepatitis C diagnosis was substantially higher in the Aboriginal and Torres Strait Islander population than in the non-Indigenous population.

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



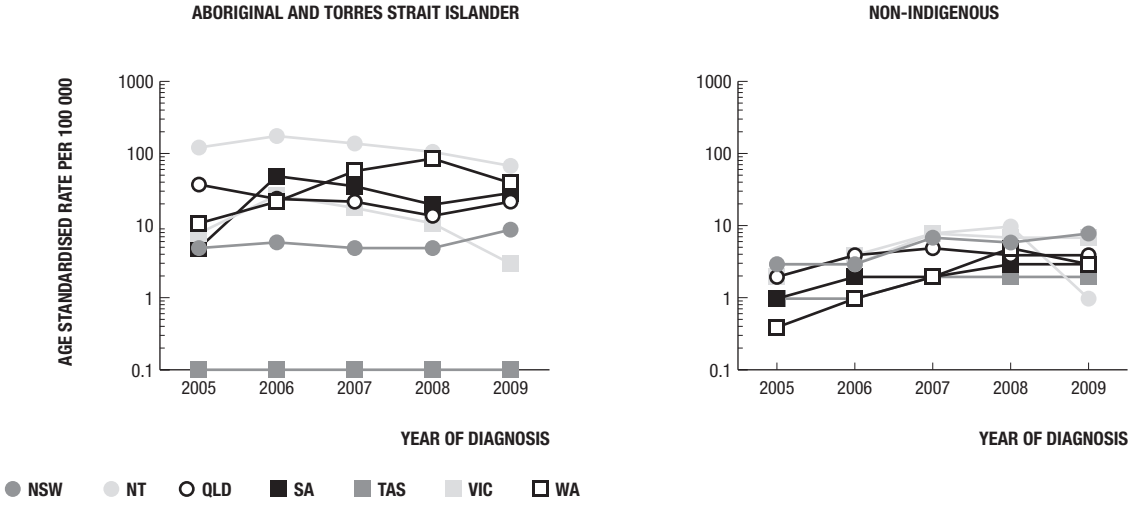
In the years from 2005 to 2008, the rate of diagnosis of chlamydia increased by 21% in the Aboriginal and Torres Strait Islander and by 48% in the non-Indigenous population resident in States and Territories other than the Australian Capital Territory, New South Wales and Queensland (Figure 25). The rate of diagnosis of chlamydia in the Aboriginal and Torres Strait Islander population declined by 10% in 2009 compared with the rate in 2008 but continued to increase in the non-Indigenous population.

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



The rate of diagnosis of gonorrhoea in the Aboriginal and Torres Strait Islander population resident in State/Territory jurisdictions other than the Australian Capital Territory and New South Wales declined by 33% from 886 in 2006 to 668 in 2009 (Figure 26). The rate of gonorrhoea diagnosis in the non-Indigenous population was stable at around 21 per 100 000 population in 2005 – 2009.

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



The rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population resident in State/Territory jurisdictions other than the Australian Capital Territory declined by 37% from 40 in 2006 to 25 in 2009 (Figure 27). The rate of infectious syphilis diagnosis in the Aboriginal and Torres Strait Islander population in the Northern Territory declined by approximately 60%, from 179 in 2006 to 69 in 2009 whereas the rate increased in Western Australia, from 11 in 2005 to 87 in 2008 and declined to 40 in 2009. The rate of diagnosis of infectious syphilis in the non-Indigenous population was relatively stable at 6 per 100 000 population in 2007 – 2009.

People who inject drugs

In 2000 – 2009, approximately 7% of HIV diagnoses in Australia were in people with a history of injecting drug use, of whom more than half were men who reported sex with men.

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

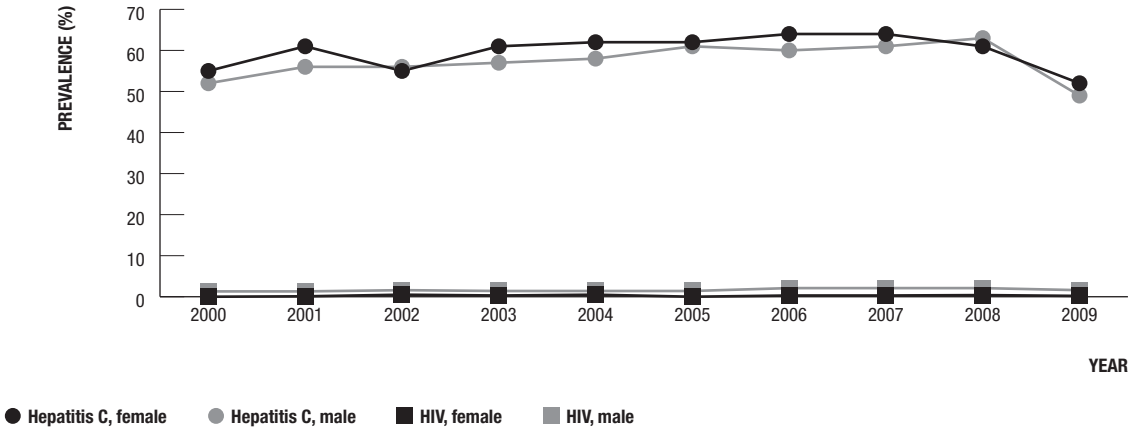
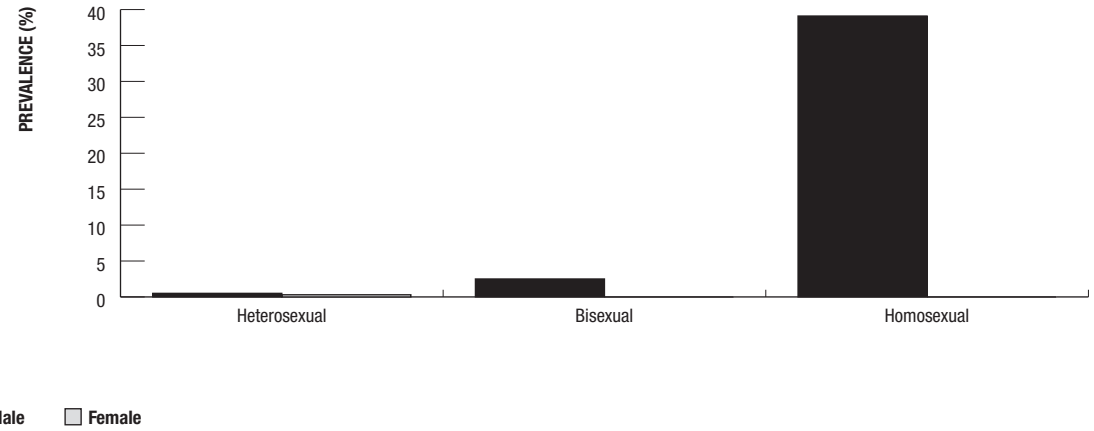


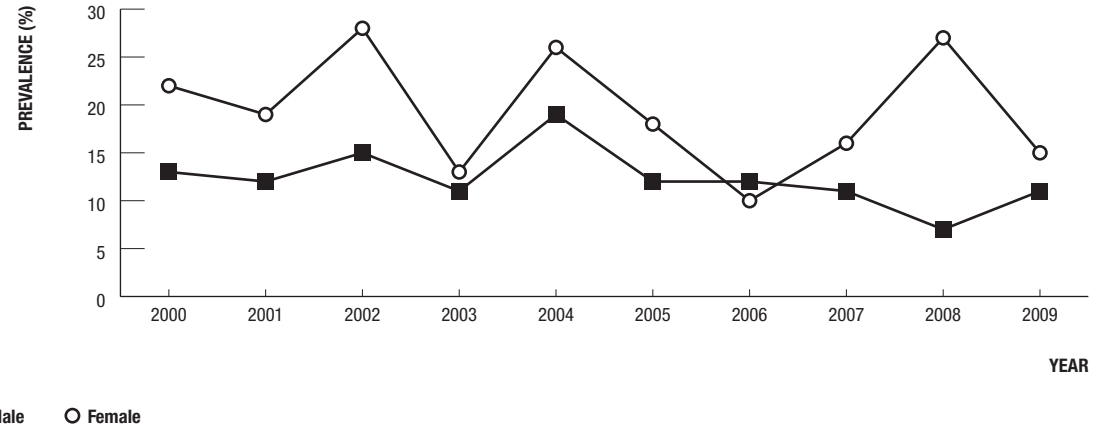
Figure 29 HIV prevalence at needle and syringe programs, 2009, by sexual identity



HIV prevalence among people attending needle and syringe programs has remained low (around 1% in 2000 – 2009) (Figure 28) but in the subgroup of men who have sex with men, it was 39% in 2009 (Figure 29). Of 598 men and 400 women with a history of injecting drug use who were tested for HIV antibody at metropolitan sexual health centres in 2008 – 2009, one male (0.2%) and two women (0.5%) were diagnosed with HIV infection (Figures 35 and 36).

In contrast to the low HIV prevalence, hepatitis C prevalence among people attending needle and syringe programs remained at high levels in 2000 – 2009 (Figure 28). Hepatitis C prevalence dropped among men, from 61% in 2008 to 52% in 2009, and among women, from 63% in 2008 to 49% in 2009. The decline in hepatitis C prevalence was not explained by demographic or laboratory factors.

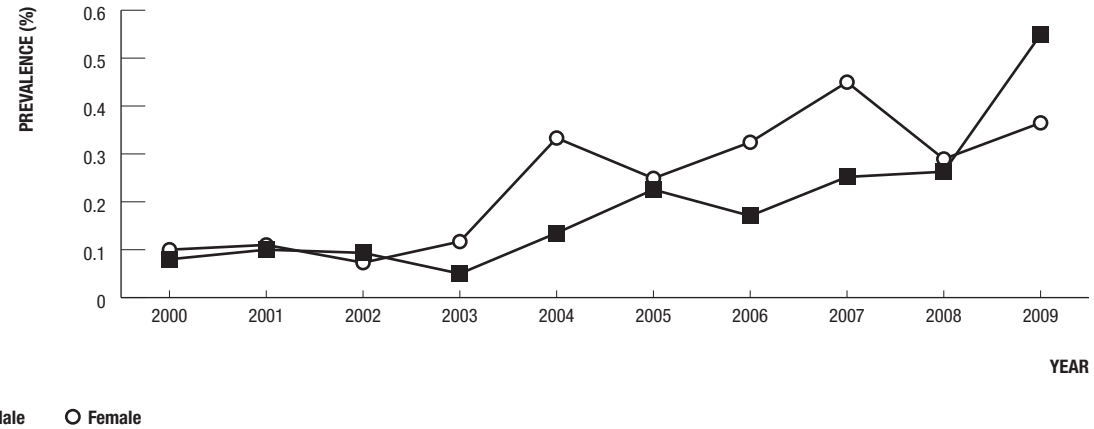
Figure 30 Prevalence of sharing among people[1] seen at needle and syringe programs, by year and sex



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

The percentage of people attending needle and syringe programs who reported having injected drugs for five years or less declined from 11.1% in 2005 to 9.8% in 2009; hepatitis C prevalence among these people was relatively stable at around 23%. The fluctuations in the prevalence of reported sharing of injecting equipment among women with a history of injecting of less than five years may be attributable to their relatively small number (Figure 30). The low proportion of people in the survey who reported having injected drugs for three years or less (around 10%) and the low proportion of survey respondents aged less than 20 years (around 3%) suggests a decline in the prevalence of injecting drug use among young people.

Figure 31 HIV prevalence in prison entrants by year and sex



HIV prevalence among people entering Australian prisons in 2000 – 2009 has remained low, at levels of less than 0.5% (Figure 31). Prevalence increased from 2004 in both men and women, 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 841 in 2000 – 2004 to 1 185 in 2005 – 2009, accounting for 20.1% of total HIV diagnoses in 2000 – 2004 and 23.4% in 2005 – 2009.

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

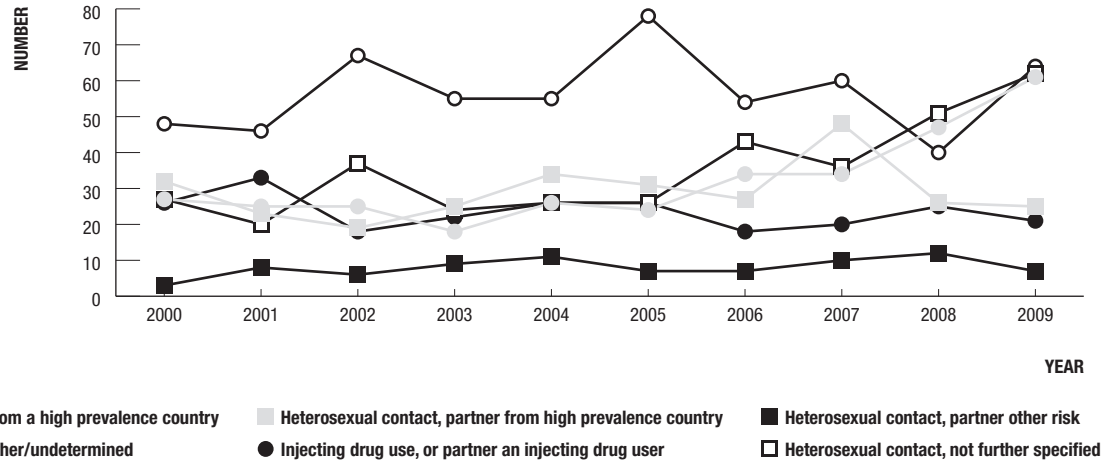
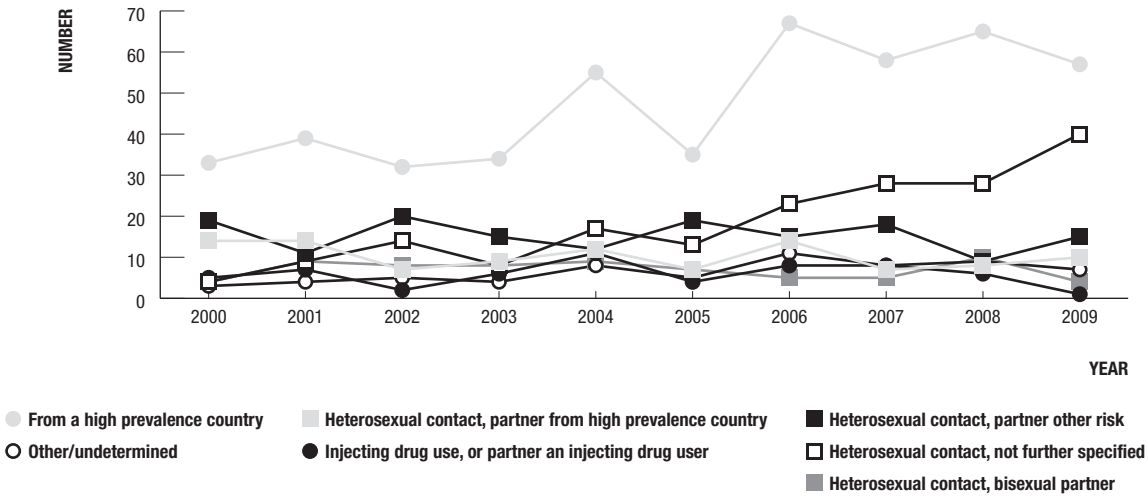


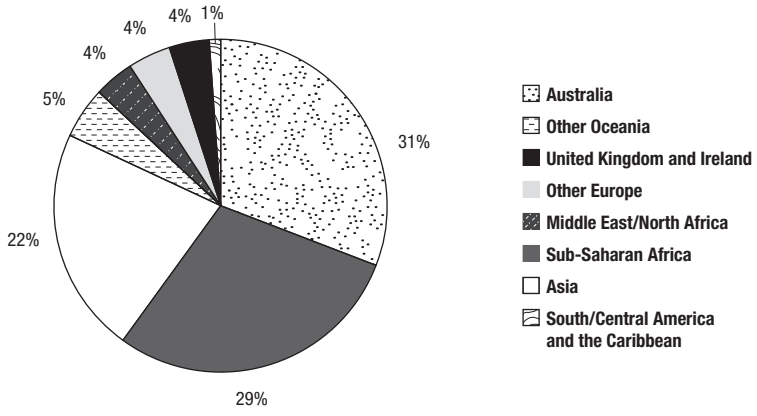
Figure 33 Newly diagnosed HIV among women, by year and HIV exposure category



Men and women from a country with high HIV prevalence accounted for 37.3% of HIV diagnoses attributed to heterosexual contact in 2000 – 2004 and 40.7% in 2005 – 2009 (Figure 32 and Figure 33). In both five year intervals, the majority of cases came from high HIV prevalence countries in sub-Saharan Africa (64% in both 5 year intervals) and South East Asia (31% in 2000 – 2004 and 25% in 2005 – 2009). Sixty two and 59% of cases from high prevalence countries in 2000 – 2004 and in 2005 – 2009 were among women.

Excluding cases from a high prevalence country, the number of new HIV diagnoses attributed to heterosexual contact increased by 33%, from 527 in 2000 – 2004 to 703 in 2005 – 2009, including a 38% increase among men and a 28% increase among women. Men and women with HIV infection who reported a partner from a high prevalence country accounted for 44% and 25% of new HIV diagnoses in 2000 – 2004, and for 37% and 16% of new diagnoses in 2005 – 2009, respectively. Of new HIV diagnoses in 2005 – 2009 for which the country of birth of the heterosexual partner was reported (80%), 59% of partners were from South East Asia and 35% were from sub-Saharan Africa, respectively. Heterosexual contact, not further specified, was reported in 35% of cases attributed to heterosexual contact in 2000 – 2004 and 50% in 2005 – 2009. The source of exposure to HIV remained undetermined for substantial numbers of men (Figure 32).

Figure 34 HIV infection attributed to heterosexual contact, 2005 – 2009, by region of birth



Among cases of HIV infection diagnosed in Australia in 2005 – 2009 for which exposure to HIV was attributed to heterosexual contact, the country of birth was reported as Australia in 31%, sub-Saharan Africa in 29% and South East Asia in 22% (Figure 34).

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

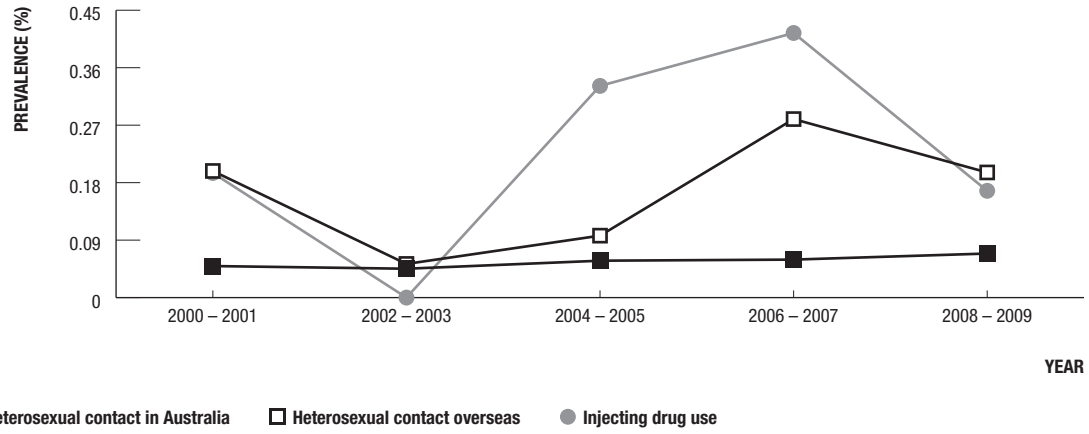
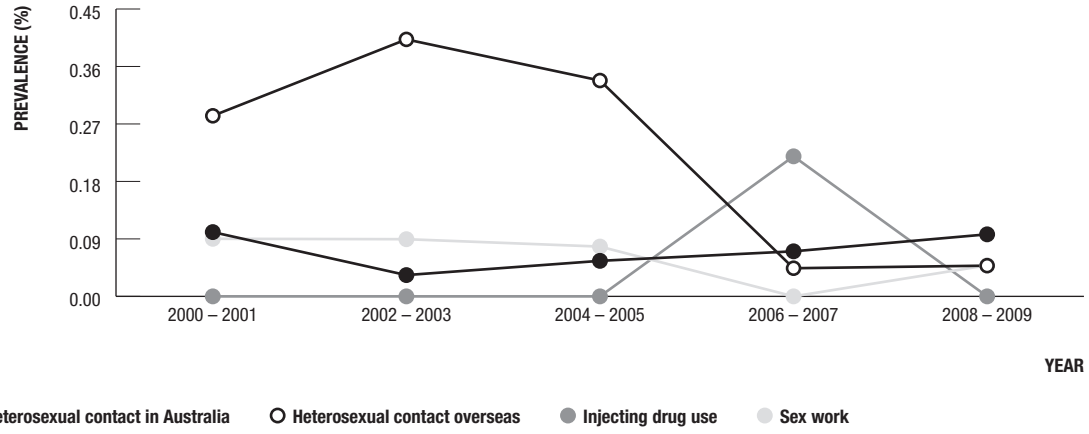
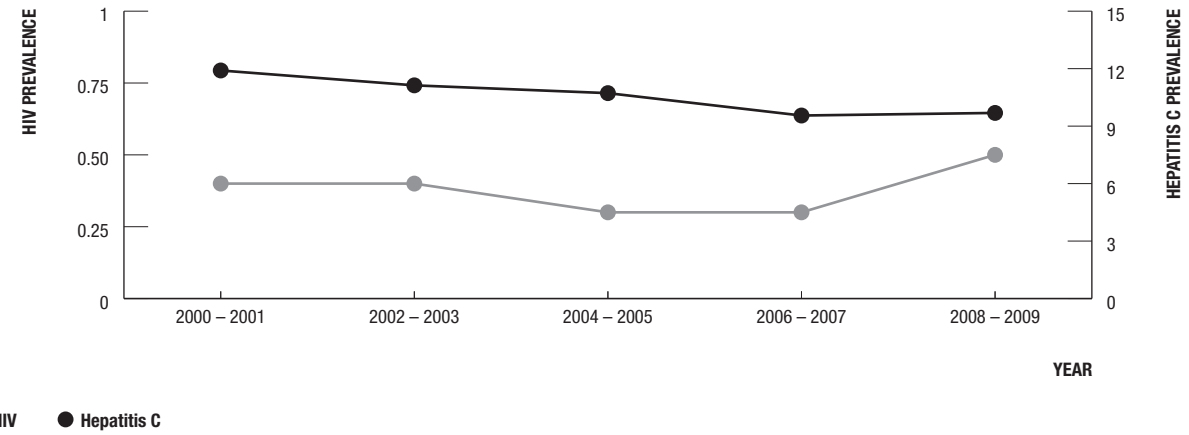


Figure 36 HIV prevalence among heterosexually active women seen at sexual health clinics by year and HIV exposure category



HIV prevalence has remained less than 0.5% among heterosexually active men and women seen through metropolitan sexual health clinics. In 2000 – 2009, HIV prevalence was less than 0.1% among men and women who reported a history of heterosexual contact in Australia (Figures 35 and 36). HIV prevalence among men and women who reported heterosexual contact overseas was around 0.2% and 0.3%, respectively, in 2000 – 2009. HIV prevalence remained low among women self-identifying as sex workers, with or without a history of injecting drug use (less than 0.1%) (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). HIV prevalence among blood donors has recently increased from 0.3 in 2006 – 2007 to 0.5 per 100 000 population in 2008 – 2009.

Monitoring chlamydia positivity

The Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) is a pilot surveillance program for monitoring the uptake and outcome of chlamydia testing in Australia. Chlamydia testing and positivity is monitored through separate networks of sexual health services, family planning clinics, general practices, antenatal clinics, Aboriginal community controlled health services and a laboratory network. Young heterosexual men and women, men who have sex with men, female sex workers and Aboriginal and Torres Strait Islander men and women were identified as priority populations for monitoring chlamydia testing and positivity.

Figure 38 Chlamydia testing rates in 2009 by ACCESS network and age group

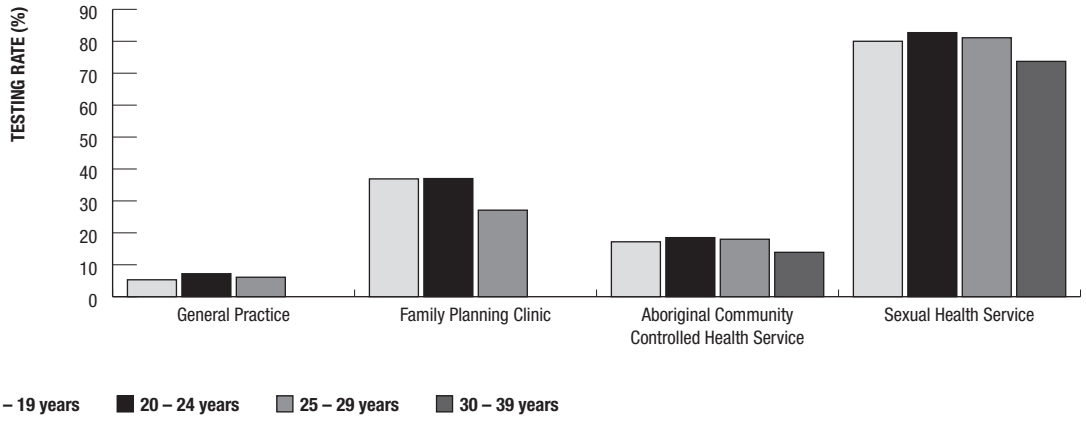
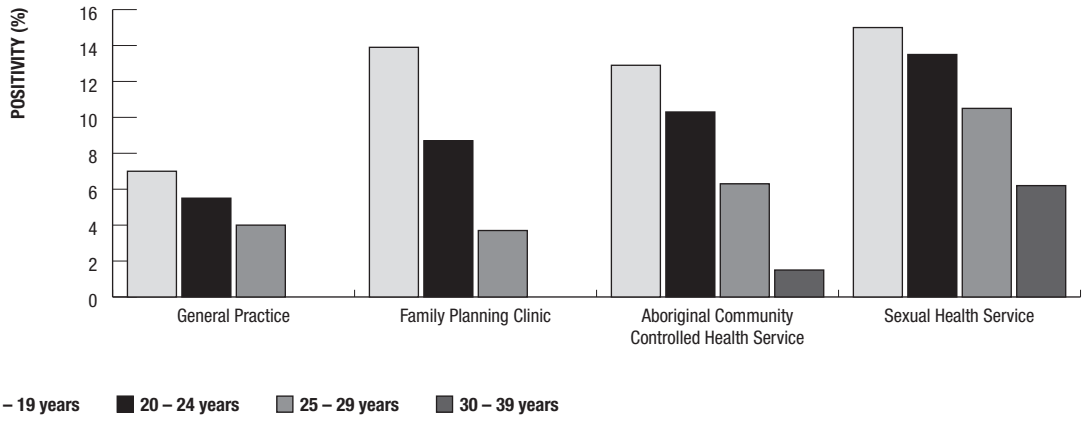


Figure 39 Chlamydia positivity rate in 2009 by ACCESS network and age group



In the four years from 2006 to 2009, more than 75% of men and women seen for the first time through the network of sexual health services were tested for chlamydia (Table 4.7.1). In 2009, chlamydia testing across all age groups was highest among people seen through sexual health services (Figure 38). Chlamydia positivity in 2009 was 10.6% among men and 9.3% among women. Chlamydia positivity was highest in the 16 – 19 year age group across the networks of general practice, family planning clinics, Aboriginal community controlled health services and the sexual health services (Figure 39).

Among the priority populations, the testing rate ranged from 95% among female sex workers to 71% among Aboriginal and Torres Strait Islander women (Figure 40). Chlamydia positivity in 2009 was highest among Aboriginal and Torres Strait Islander men (16.5%) and women (16.7%) and young heterosexual men (16.0%) and lowest among female sex workers (5.9%) (Figure 41). The chlamydia positivity rate steadily increased among young heterosexual men and women, from 14.0% and 12.4%, respectively, in 2006, to 16.0% and 14.4%, respectively, in 2009. Among men who have sex with men, chlamydia positivity increased from around 7% in 2006 – 2008 to 9.6% in 2009.

Figure 40 Chlamydia testing rate by year and chlamydia priority population

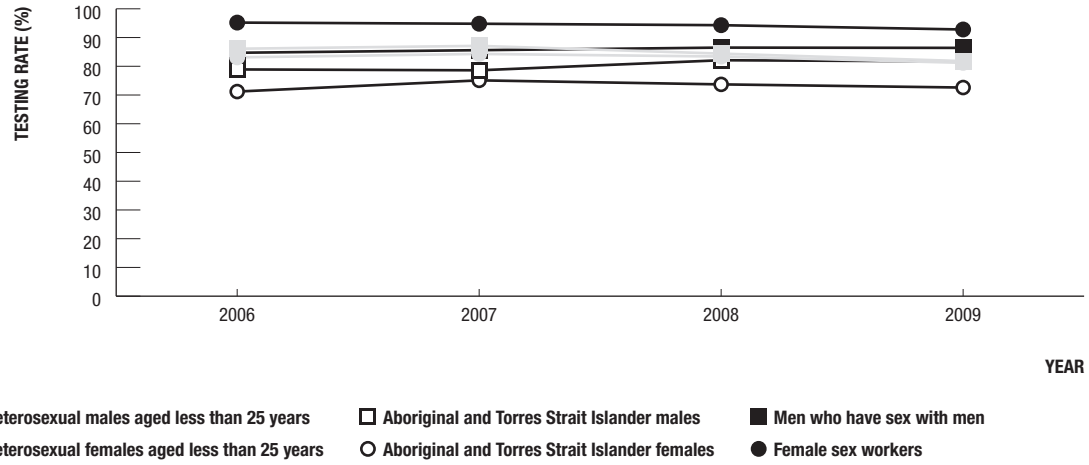
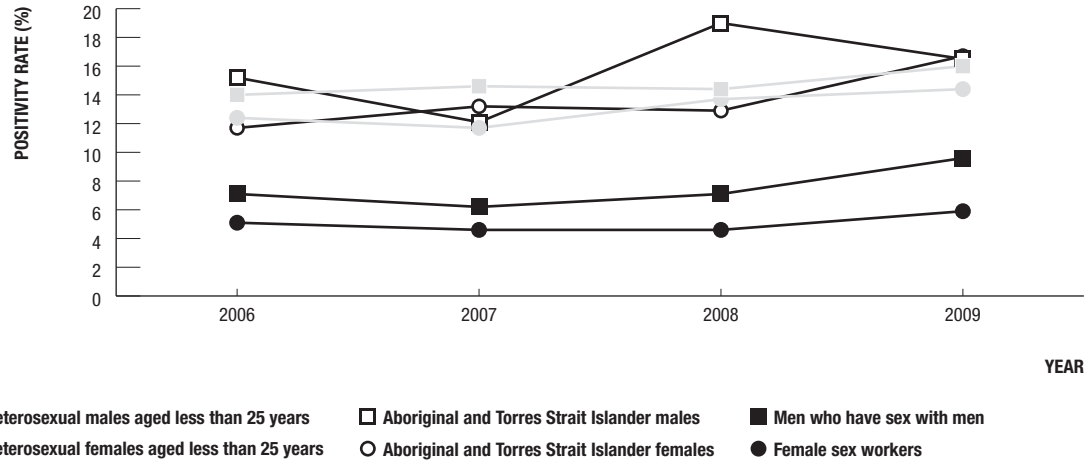


Figure 41 Chlamydia positivity rate by year and chlamydia priority population



A new sentinel surveillance system for monitoring genital warts

The Genital Warts Surveillance Network is a new surveillance program for monitoring diagnosis rates and identifying risk factors for genital warts. The program will also monitor Human Papilloma Virus (HPV) vaccination rates to assess the impact of vaccination on the occurrence of genital warts.

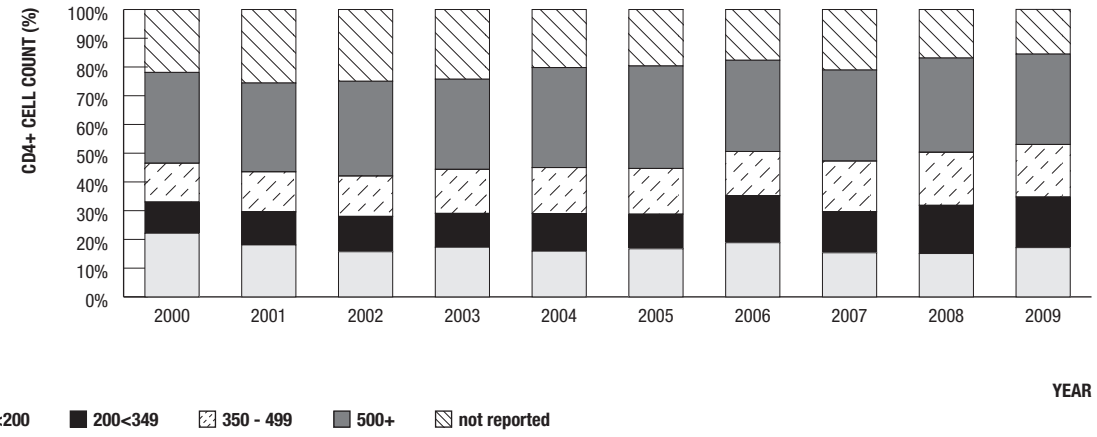
Information available through the Genital Warts Surveillance Network indicates that the genital warts diagnosis rate among women, aged 26 years or younger in July 2007 and so were eligible for free HPV vaccine, was around 10% in the years 2005 – 2007 and then declined to around 6% in 2008 – 2009. Among heterosexual men in the same age group, the genital warts diagnosis rate was 14% in 2005 – 2007 and declined to 10% in 2009. The genital warts diagnosis rate among older women and heterosexual men who were not eligible for free HPV vaccine did not change substantially over the five year period.

A similar pattern of a stable genital warts diagnosis rate in 2005 – 2007 followed by a drop in the diagnosis rate in 2008 – 2009 was found among resident Australian women and among travelling women who were eligible for free HPV vaccine (Table 4.8.2).

Illness and treatment in people with HIV infection and viral hepatitis

Late HIV diagnosis, measured by the CD4+ cell count of less than 200 cells/μl at HIV diagnosis, was 17.7% among cases diagnosed in 2000 – 2004 and 16.6% among cases diagnosed in 2005 – 2009 (Figure 42). Relatively early HIV diagnosis, measured by a CD4+ cell count of 500 or higher cells/μl, occurred in 32% of new diagnoses in 2000 – 2004 and in 33% in 2005 – 2009.

Figure 42 CD4+ cell count at HIV diagnosis by year



The extent of late HIV diagnosis was lowest, and declined over time, among men who have sex with men. Men and women whose exposure to HIV was attributed to heterosexual contact experienced a substantially higher rate of late HIV diagnosis (Figure 43). 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 the years 2000 – 2004 and 2005 – 2009 (Figure 44).

Figure 43 Late HIV diagnosis, 2000 – 2009, by year and exposure category

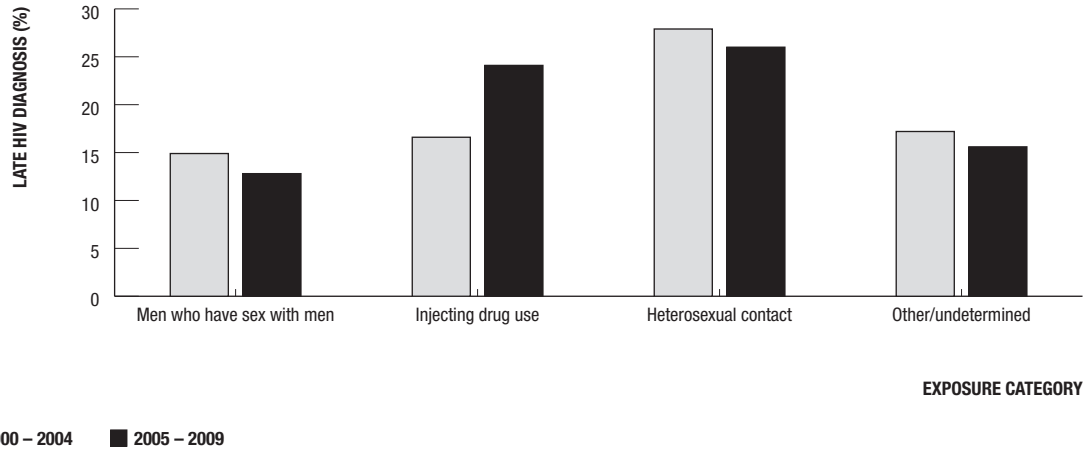


Figure 44 **Late HIV diagnosis, 2002 – 2009, by year and region of birth**

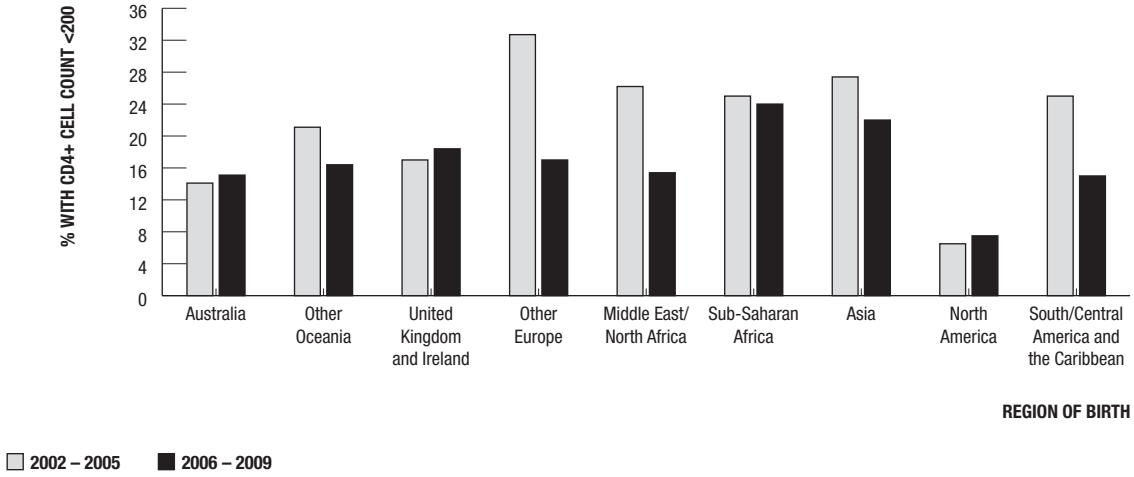


Figure 45 **Treatment uptake among people enrolled on the Australian HIV Observational Database by year**

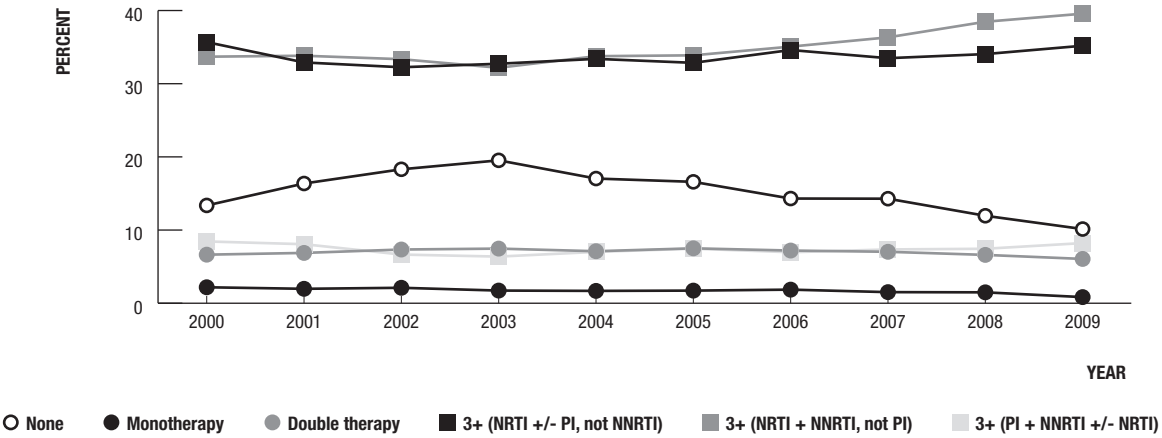
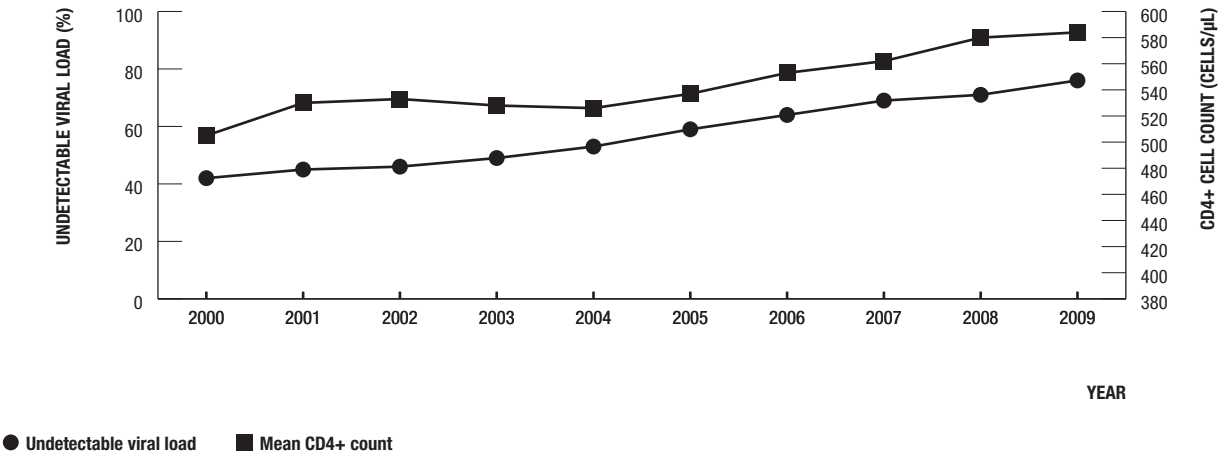


Figure 46 **HIV viral load and CD4+cell count by year**



The Australian HIV Observational Database indicated that 83% of 2 032 people under follow up in 2009 were receiving triple combination antiretroviral treatment for HIV infection (Figure 45). Viral load was undetectable for more than 50% of people being followed through the Australian HIV Observational Database from 2004 and CD4+ cell count was higher than 480 cells/μl from 2000 (Figure 46). Of people enrolled in the Australian HIV Observational Database in 2009, 9.0% had been diagnosed with both HIV and hepatitis C antibody.

Men who have sex with men participating in the Gay Community Periodic Surveys in Sydney reported increasing use of antiretroviral treatment for HIV infection from 63.8% in 2005 to 77.1% in 2009. Increasing use of antiretroviral treatment was also reported by men in Melbourne and Queensland, from 58.6% and 55.6% in 2005 to 67.6% at both locations in 2009. Relatively high levels of antiretroviral use were maintained in Adelaide, Canberra and Perth.

Figure 47 People prescribed reverse transcriptase inhibitors through the Highly Specialised Drugs Program

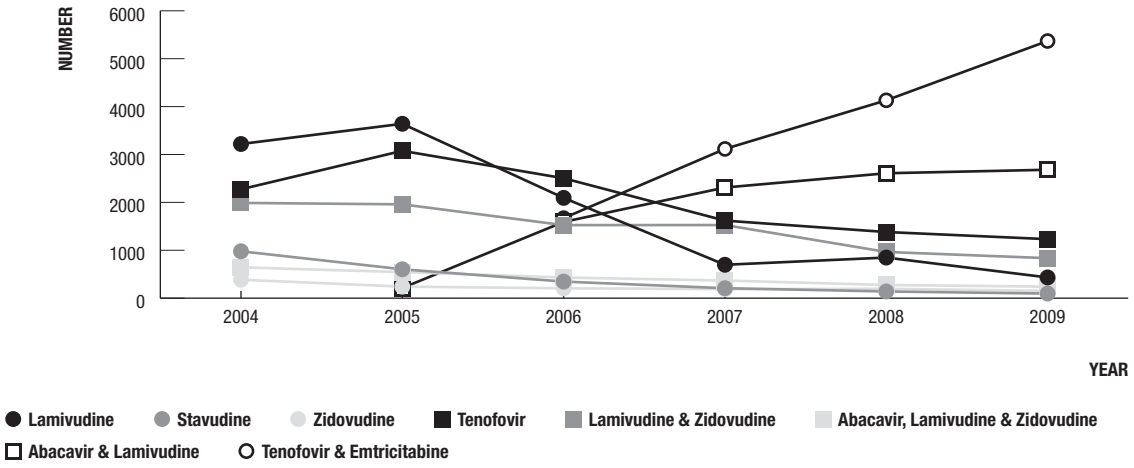
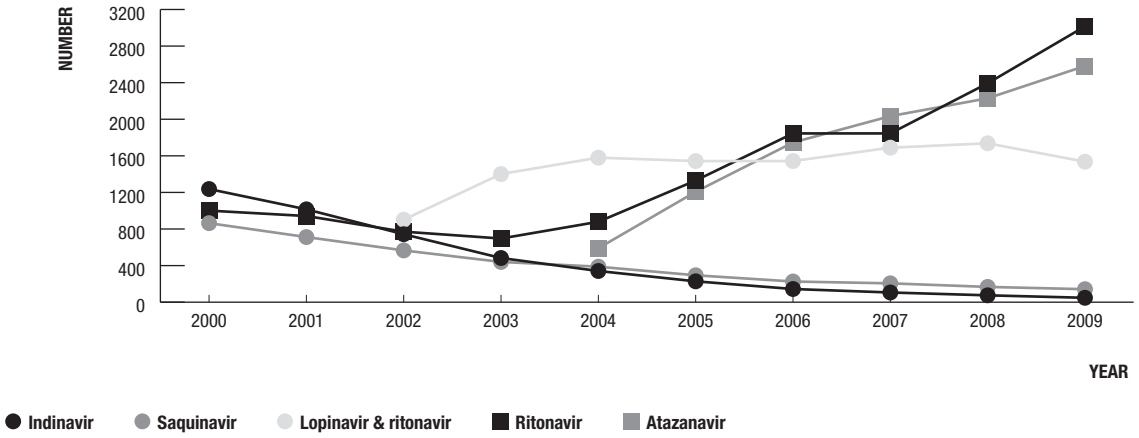


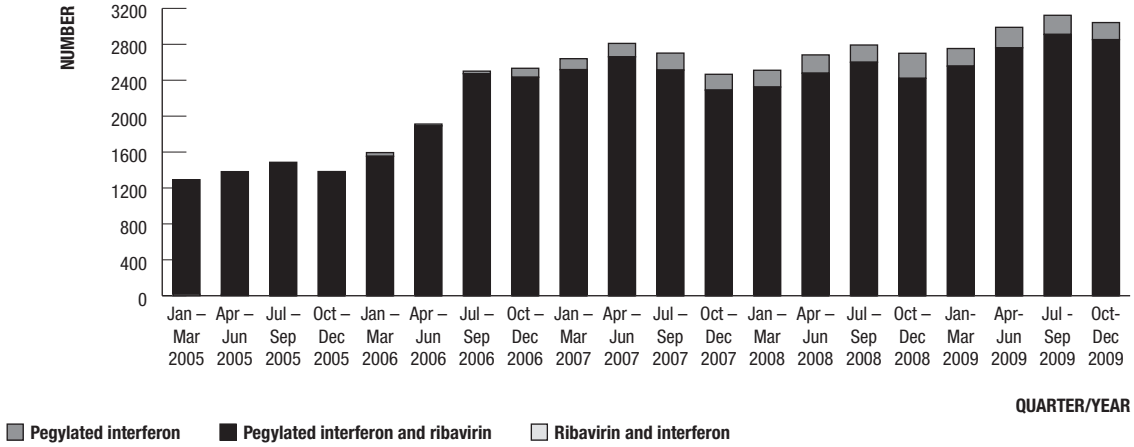
Figure 48 People prescribed protease inhibitors through the Highly Specialised Drugs Program



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 8 453 in 2005 to 11 120 during 2009. Tenofovir and emtricitabine were the most frequently prescribed reverse transcriptase inhibitors in 2009 (Figure 47). The most commonly prescribed protease inhibitors in 2009 were ritonavir (3 015 people), and atazanavir (2 229 people) (Figure 48).

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 146 people who had a liver transplant in 2009, 41 (28.1%) had hepatitis C infection whereas hepatitis B was the primary cause of liver failure for 7 (4.8%) people undergoing liver transplants (Table 2.3.1).

Figure 49 People prescribed drugs for treatment of hepatitis C infection through the Highly Specialised Drugs Program



Hepatitis C treatment has improved in recent years with a substantial shift away from standard interferon and ribavirin combination therapy prior to 2004 to pegylated interferon and ribavirin combination therapy in 2004. The number of people dispensed drugs for hepatitis C infection through the S100 scheme has almost doubled, from 1 847 in 2005 to 3 969 in 2009. The increase in the number of prescriptions for treatment of chronic hepatitis C started between the first and second quarters of 2006, coinciding with the removal in April 2006 of the requirement for biopsy proven liver damage prior to treatment.

Tables

1 National surveillance for newly diagnosed HIV infection

1.1 National HIV Registry

1.2 Monitoring incident HIV infection

1.3 National AIDS Registry

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

1.5 National surveillance for perinatal exposure to HIV

1.6 Global comparisons

1 National surveillance for newly diagnosed HIV infection

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, proportion with late HIV diagnosis, State/Territory and percent of total cases by sex and HIV exposure category

	Year of HIV diagnosis										
Characteristic	**≤ 00[1]**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**Total[1,2]**
Total cases	**20 913**	**775**	**853**	**874**	**911**	**962**	**1 008**	**1 048**	**1 001**	**1 050**	**29 395**
Males (%)	92.6	87.4	89.0	89.8	86.1	90.2	85.2	86.8	86.3	86.7	91.1
Median age (years)											
Males	32	35	35	36	37	37	38	38	37	37	34
Females	29	29	32	31	31	32	31	32	31	32	30
Language spoken at home[3]											
English	–	–	–	–	481	577	618	775	741	768	3 960
Other language	–	–	–	–	46	48	71	81	66	105	417
Not reported	–	–	–	–	384	337	319	192	194	177	1 603
Late HIV diagnosis (%)[4]											
CD4+ cell count <200	22.1	18.1	15.7	17.3	15.9	16.7	18.8	15.3	15.1	17.1	17.1
State/Territory											
ACT	254	8	5	5	7	7	6	9	7	11	319
NSW	12 191	351	411	430	411	406	394	415	365	376	15 750
NT	116	4	8	5	8	3	11	6	11	16	188
QLD	2 157	104	130	128	157	169	165	195	201	209	3 615
SA	751	44	30	45	54	51	61	56	47	53	1 192
TAS	85	6	4	2	9	6	7	6	4	15	144
VIC	4 273	207	219	204	215	257	286	285	285	290	6 521
WA	1 086	51	46	55	50	63	78	76	81	80	1 666
HIV exposure category (%)[5]											
Men who have sex with men	78.3	66.6	71.2	73.3	67.5	72.2	67.7	68.5	66.0	65.1	75.3
Men who have sex with men, and injecting drug use	4.4	5.4	4.2	4.6	4.0	4.4	3.9	2.8	3.1	3.1	4.2
Injecting drug use[6]	4.2	5.5	2.6	3.4	4.4	3.4	2.8	2.9	3.3	2.3	3.9
Heterosexualcontact	9.7	21.8	21.6	18.5	23.8	19.2	25.0	24.9	26.9	28.7	14.0
Partner with/at risk of HIV infection	*60.2*	*81.6*	*69.6*	*78.7*	*78.7*	*76.9*	*71.9*	*73.8*	*69.1*	*63.7*	*66.8*
Not further specified	*39.8*	*18.4*	*30.4*	*21.3*	*21.3*	*23.1*	*28.1*	*26.2*	*30.9*	*36.3*	*33.2*
Haemophilia/coagulation disorder	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Receipt of blood/tissue	1.3	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.9
Mother with/at risk of HIV infection	0.4	0.6	0.3	0.3	0.1	0.6	0.6	0.9	0.6	0.7	0.4
Health care setting	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Other/undetermined	16.4	6.6	8.9	7.1	6.9	8.6	6.7	6.5	4.8	6.9	13.7

1 Late HIV diagnosis for diagnoses in 2000 only. Total percentage with late HIV diagnosis in 2000 – 2009 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 men who have sex with men.

Source: State/Territory health authorities

Table 1.1.2 Number of new diagnoses of HIV infection[1], cumulative to 31 December 2009, by age group, sex and year

		Year of HIV diagnosis										
Age group (years)		**≤ 00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**Total[2]**
0 – 1	M	44	1	0	0	0	0	1	1	1	0	48
	F	20	2	0	0	1	1	3	1	1	2	31
2 – 12	M	89	0	1	0	0	2	2	4	4	3	105
	F	20	1	1	2	0	2	1	5	1	5	38
13 – 19	M	419	13	2	5	8	9	9	8	7	9	489
	F	82	4	5	4	6	3	6	2	6	3	121
20 – 29	M	6 620	160	181	164	161	181	170	196	214	222	8 269
	F	520	42	25	29	51	25	54	40	47	44	877
30 – 39	M	7 161	277	323	319	309	321	296	308	277	299	9 890
	F	345	29	41	30	30	42	47	54	54	50	722
40 – 49	M	3 378	147	156	164	191	215	242	250	234	230	5 207
	F	127	13	10	11	21	15	24	19	20	22	282
50 – 59	M	1 141	59	69	99	85	98	101	96	88	115	1 951
	F	49	3	3	5	12	4	9	12	6	10	113
60+	M	373	17	27	34	30	41	38	46	39	31	676
	F	59	1	4	5	4	1	2	4	2	3	85
Not reported	M	133	3	0	0	0	1	0	1	0	0	138
	F	31	1	0	0	0	0	0	0	0	0	32
Total	M	19 358	677	759	785	784	868	859	910	864	909	26 773
	F	1 253	96	89	86	125	93	146	137	137	139	2 301
Total[2]		**20 913**	**775**	**853**	**874**	**911**	**962**	**1 008**	**1 048**	**1 001**	**1 050**	**29 395**

1 Not adjusted for multiple reporting.

2 Totals include 71 people whose sex was reported as transgender and 250 people whose sex was not reported.

Source: State/Territory health authorities

Table 1.1.3 Number of new diagnoses of HIV infection in Australia in 2009, 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[1]**
ACT	10	1	11
NSW	328	48	376
NT	12	4	16
QLD	183	26	209
SA	50	3	53
TAS	14	1	15
VIC	262	28	290
WA	69	11	80
Total	**928**	**122**	**1 050**

1 Total includes 2 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.4 Number (percent) of new HIV diagnoses in Australia, 2005 – 2009, and age standardised rate per 100 000 population[1] by year of HIV diagnosis and region of birth

	2005			2006			2007			2008			2009		
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	587	61.0	4.4	577	57.2	4.3	596	56.9	4.5	557	55.6	4.1	535	51.0	4.0
Overseas born	281	29.2	4.5	350	34.8	5.8	380	36.2	6.3	389	38.9	6.5	460	43.8	7.5
Other Oceania	*34*	*3.5*	*5.6*	*46*	*4.6*	*6.9*	*34*	*3.2*	*5.2*	*57*	*5.7*	*10.7*	*46*	*4.4*	*7.7*
United Kingdom and Ireland	*47*	*4.9*	*4.3*	*35*	*3.5*	*3.5*	*39*	*3.7*	*4.1*	*42*	*4.2*	*4.6*	*52*	*5.0*	*5.5*
Other Europe	*43*	*4.5*	*4.9*	*47*	*4.7*	*5.4*	*42*	*4.0*	*5.9*	*40*	*4.0*	*4.7*	*52*	*5.0*	*6.5*
Middle East/North Africa	*13*	*1.4*	*6.0*	*20*	*2.0*	*7.1*	*18*	*1.7*	*5.8*	*6*	*0.6*	*2.2*	*21*	*2.0*	*7.1*
Sub-Saharan Africa	*46*	*4.8*	*19.6*	*65*	*6.4*	*28.7*	*72*	*6.9*	*36.7*	*97*	*9.7*	*42.4*	*107*	*10.2*	*47.4*
Asia	*74*	*7.7*	*4.4*	*119*	*11.8*	*7.6*	*133*	*12.7*	*8.3*	*111*	*11.1*	*6.5*	*145*	*13.8*	*8.8*
North America	*15*	*1.6*	*12.3*	*11*	*1.1*	*9.6*	*14*	*1.3*	*11.5*	*12*	*1.2*	*9.9*	*16*	*1.5*	*14.2*
South/Central America and the Caribbean	*9*	*0.9*	*7.4*	*7*	*0.7*	*5.8*	*28*	*2.7*	*24.8*	*24*	*2.4*	*20.0*	*21*	*2.0*	*19.0*
Total with a reported country of birth	**868**	**90.2**	**4.4**	**927**	**92.0**	**4.7**	**976**	**93.1**	**4.9**	**946**	**94.5**	**4.8**	**995**	**94.8**	**5.0**
Not reported	94	9.8		81	8.0		72	6.9		55	5.5		55	5.2	
Total	**962**	**100.0**		**1 008**	**100.0**		**1 048**	**100.0**		**1 001**	**100.0**		**1 050**	**100.0**	

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

Source: State/Territory health authorities

Table 1.1.5 Median CD4+ cell count at diagnosis of HIV infection (number of HIV diagnoses with CD4+ cell count), 2005 – 2009, by State/Territory, HIV exposure category, newly acquired infection status, sex and year

		Year of HIV diagnosis				
Characteristic	**Sex**	**2005**	**2006**	**2007**	**2008**	**2009**
State/Territory						
ACT	M	403 (6)	570 (3)	355 (4)	272 (4)	275 (6)
	F	– (0)	– (1)	– (1)	– (1)	– (1)
NSW	M	463 (244)	441 (238)	443 (244)	439 (258)	400 (281)
	F	243 (20)	378 (39)	300 (23)	450 (37)	385 (38)
NT	M	509 (3)	419 (6)	652 (6)	407 (7)	433 (10)
	F	– (0)	65 (5)	– (0)	– (1)	680 (5)
QLD	M	455 (146)	410 (130)	450 (147)	400 (126)	430 (135)
	F	480 (12)	380 (25)	360 (25)	410 (28)	385 (22)
SA	M	393 (43)	362 (50)	435 (44)	418 (41)	379 (40)
	F	421 (3)	494 (8)	336 (10)	314 (5)	353 (9)
TAS	M	430 (6)	234 (5)	400 (4)	– (1)	713 (10)
	F	– (0)	– (0)	677 (2)	– (1)	216 (3)
VIC	M	510 (205)	397 (229)	441 (214)	428 (212)	442 (229)
	F	392 (24)	490 (23)	363 (31)	300 (30)	322 (25)
WA	M	325 (45)	406 (48)	450 (57)	390 (61)	344 (52)
	F	560 (15)	456 (18)	408 (15)	322 (19)	299 (19)
Exposure category						
Men who have sex with men[1]	M	490 (569)	450 (574)	466 (573)	449 (551)	447 (582)
Injecting drug use[2]	M	256 (22)	255 (14)	390 (15)	474 (20)	352 (16)
	F	1 050 (4)	730 (5)	355 (7)	450 (5)	– (1)
Heterosexual contact	M	330 (69)	237 (92)	332 (106)	288 (113)	290 (127)
	F	375 (65)	380 (107)	360 (92)	340 (108)	321 (112)
Other/undetermined	M	370 (39)	217 (30)	450 (26)	348 (26)	351 (38)
	F	390 (5)	280 (7)	523 (8)	500 (9)	580 (9)
Newly acquired HIV infection status						
Diagnoses of newly	M	574 (234)	530 (254)	565 (215)	537 (218)	541 (237)
acquired HIV infection[3]	F	799 (7)	617 (15)	510 (9)	675 (12)	629 (12)
Other HIV diagnoses	M	379 (464)	320 (455)	390 (505)	380 (492)	361 (526)
	F	368 (67)	354 (104)	357 (98)	326 (110)	305 (110)
Total[4]		**450 (773)**	**410 (830)**	**423 (827)**	**420 (832)**	**406 (887)**

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

2 Excludes men who have 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 7 people whose sex was reported as transgender.

Source: State/Territory health authorities

Table 1.1.6 Number of cases of HIV infection for which exposure to HIV was attributed to heterosexual contact, by exposure category of the heterosexual partner at risk of HIV infection, year and sex

	Year of HIV diagnosis												
	2005		2006		2007		2008		2009		2005 – 2009		
HIV exposure category	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Total**
From a high prevalence country	24	35	34	67	34	58	47	65	61	57	200	282	482
Sub-Saharan Africa	*19*	*19*	*19*	*29*	*24*	*29*	*40*	*42*	*51*	*34*	*153*	*153*	*306*
South East Asia	*3*	*10*	*8*	*28*	*4*	*23*	*4*	*18*	*5*	*16*	*24*	*95*	*119*
North Africa/Middle East	*1*	*4*	*4*	*4*	*4*	*4*	*0*	*1*	*1*	*2*	*10*	*15*	*25*
Other Oceania	*0*	*0*	*1*	*3*	*0*	*1*	*3*	*4*	*3*	*5*	*7*	*13*	*20*
Not reported	*1*	*2*	*2*	*3*	*2*	*1*	*0*	*0*	*1*	*0*	*6*	*6*	*12*
Heterosexual contact with partner at risk													
Injecting drug use	*4*	*7*	*0*	*7*	*2*	*6*	*3*	*3*	*1*	*4*	*10*	*27*	*37*
Bisexual man	*–*	*7*	*–*	*5*	*–*	*5*	*–*	*10*	*–*	*4*	*–*	*31*	*31*
Partner from a high prevalence country	*31*	*7*	*27*	*14*	*48*	*7*	*26*	*8*	*25*	*10*	*157*	*46*	*203*
Sub-Saharan Africa	*5*	*2*	*5*	*6*	*6*	*5*	*3*	*2*	*7*	*8*	*26*	*23*	*49*
South East Asia	*14*	*1*	*11*	*2*	*25*	*2*	*15*	*0*	*13*	*0*	*78*	*5*	*83*
Other Oceania	*1*	*0*	*1*	*0*	*2*	*0*	*0*	*0*	*1*	*0*	*5*	*0*	*5*
Other/Not reported	*11*	*4*	*10*	*6*	*15*	*0*	*8*	*6*	*4*	*2*	*48*	*18*	*66*
Partner with medically acquired HIV	*1*	*0*	*1*	*2*	*0*	*0*	*0*	*1*	*0*	*1*	*2*	*4*	*6*
Partner with HIV infection whose exposure was not specified	*2*	*12*	*6*	*6*	*8*	*12*	*9*	*5*	*6*	*10*	*31*	*45*	*76*
Not further specified	*26*	*13*	*43*	*23*	*36*	*28*	*51*	*28*	*62*	*40*	*218*	*132*	*350*
Total	**88**	**81**	**111**	**124**	**128**	**116**	**136**	**120**	**155**	**126**	**618**	**567**	**1 185**

Source: State/Territory health authorities

Table 1.1.7 Number of specimens tested for HIV antibody in public health laboratories, 2000 – 2009, by State/Territory and year of test

	Year of HIV antibody test									
State/Territory	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008[1]**	**2009[1]**
ACT	5 762	5 446	5 712	7 978	14 388	15 551	16 565	17 602	19 443	20 173
NSW	311 904	328 295	357 526	358 063	347 064	356 046	322 569	251 724	191 873	114 041
NT	14 835	15 158	15 710	16 407	15 323	15 217	7 247	6 686	7 782	6 360
QLD	183 533	185 028	184 994	188 403	206 322	222 558	238 509	251 430	253 778	210 315
SA	76 275	77 219	75 360	79 409	83 970	88 158	88 552	80 664	95 696	62 560
TAS	13 152	12 714	12 574	12 967	12 754	13 041	12 573	12 248	13 346	4 126
VIC	160 611	177 949	202 682	204 561	152 284	165 461	183 508	253 145	231 844	224 300
WA	89 426	100 225	93 271	100 483	102 694	114 203	101 277	104 540	124 688	167 695
Total	**855 498**	**902 034**	**947 829**	**968 271**	**934 799**	**990 235**	**970 800**	**978 039**	**938 450**	**809 570**

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], 2000 – 2009, 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**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**Total[2]**
Total cases		**199**	**209**	**245**	**286**	**261**	**281**	**308**	**282**	**282**	**289**	**2 642**
Males (%)	M	94.0	92.3	95.1	96.2	94.2	96.8	93.5	95.7	95.0	94.8	94.9
Median age (years)	M	32	34	34	33	35	35	36	35	35	36	34
	F	25	34	37	34	23	27	35	35	31	29	31
State/Territory												
ACT	M	6	2	2	0	2	1	3	2	0	3	21
	F	0	0	0	0	0	0	1	0	0	0	1
NSW	M	84	95	118	153	112	128	110	115	120	107	1 142
	F	3	7	2	4	5	3	7	4	6	6	47
NT	M	1	3	1	0	2	1	2	1	2	4	17
	F	1	0	0	0	0	0	0	0	0	3	4
QLD	M	21	23	34	26	43	42	57	48	44	59	397
	F	2	3	3	3	3	1	1	4	2	2	24
SA	M	6	10	6	15	15	15	17	7	6	6	103
	F	1	1	0	1	1	0	0	0	1	0	5
TAS	M	0	2	1	0	1	2	0	0	0	2	8
	F	0	0	0	0	0	0	0	0	0	0	0
VIC	M	59	51	67	69	62	74	85	83	81	88	719
	F	3	3	0	3	4	4	8	3	5	2	35
WA	M	10	7	4	12	9	9	14	14	15	6	100
	F	1	2	5	0	1	1	2	1	0	0	13
HIV exposure category												
Men who have sex with men	M	161	165	212	243	209	234	247	235	235	235	2 176
Male who have sex with men, and injecting drug use	M	7	10	9	12	11	15	13	5	10	6	98
Injecting drug use[3]	M	5	5	0	5	2	2	2	2	0	2	25
	F	3	2	0	2	4	1	2	1	2	0	17
Heterosexual contact	M	12	8	8	13	16	9	16	20	18	23	143
	F	8	13	9	9	10	8	16	10	12	13	108
Health care setting[4]	M	0	0	0	0	2	0	0	0	0	0	2
	F	0	0	1	0	0	0	0	0	0	0	1
Other/undetermined	M	2	5	4	2	6	12	10	8	5	9	63
	F	0	1	0	0	0	0	1	1	0	0	3
Evidence of newly acquired infection												
Testing history only	M	77	91	98	139	105	128	150	126	121	135	1 170
	F	5	9	1	5	10	5	7	5	7	5	59
Primary HIV infection only	M	61	46	51	44	46	49	44	61	58	47	507
	F	3	1	2	0	3	2	9	5	5	4	34
Testing history and primary HIV infection	M	49	56	84	92	95	95	94	83	89	93	830
	F	3	6	7	6	1	2	3	2	2	4	36

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 men who have 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 (%)
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)
2009	108	6.5	1 (0.9)	6 (5.5)	8 (7.4)

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 – 2009)

1.3 National AIDS Registry

Table 1.3.1 Characteristics of AIDS cases by year[1]. Number of AIDS diagnoses, percentage of total cases by sex, HIV exposure category and AIDS defining condition, median age and late HIV diagnosis by sex, and number by State/Territory

		Year of AIDS diagnosis										
Characteristic		**≤ 00[2]**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[3]**	**09[3]**	**Total[1]**
Total cases		**8 729**	**213**	**246**	**245**	**202**	**234**	**222**	**161**	**104**	**90**	**10 446**
Males (%)		95.1	88.7	91.1	92.7	88.1	88.0	89.2	89.4	91.3	85.6	94.2
Median age (years)	Male	37	40	41	42	43	42	43	44	42	45	38
	Female	33	36	33	35	44.5	39	34	42	35	38	34
Late HIV diagnosis (%)	Male	38.6	37.0	35.7	40.5	37.1	43.7	50.5	54.2	56.8	58.4	43.2
	Female	45.8	60.9	50.0	47.1	63.6	53.6	61.9	43.8	55.6	84.6	56.0
State/Territory												
ACT		94	0	2	4	1	1	0	1	1	1	105
NSW		5 050	100	113	146	100	111	102	74	–	–	5 796
NT		35	1	1	4	3	1	2	2	2	3	54
QLD		916	29	51	24	32	37	23	22	23	18	1 175
SA		380	9	15	5	11	9	13	3	6	8	459
TAS		48	1	2	0	1	2	3	2	0	0	59
VIC		1 810	53	48	48	44	65	69	50	55	48	2 290
WA		396	20	14	14	10	8	10	7	17	12	508
HIV exposure category (%)[4]												
Men who have sex with men		82.1	68.6	71.9	65.8	63.0	62.6	59.0	67.6	59.8	59.5	79.4
Men who have sex with men and injecting drug use		4.8	4.4	6.8	7.5	9.5	9.1	7.8	6.9	2.1	7.6	5.2
Injecting drug use[5]		3.2	4.4	3.8	6.6	6.3	6.8	5.4	1.4	1.0	2.5	3.4
Heterosexual contact		6.3	19.6	16.2	18.9	19.6	20.1	27.3	22.1	33.0	27.8	8.7
Haemophilia/coagulation disorder		1.5	1.0	0.9	0.4	0.5	0.0	0.0	0.7	1.0	0.0	1.3
Receipt of blood/tissue		1.8	0.5	0.4	0.4	1.1	0.9	0.5	1.4	0.0	0.0	1.6
Mother with/at risk for HIV infection		0.3	1.5	0.0	0.4	0.0	0.5	0.0	0.0	3.1	2.5	0.4
Other/undetermined		3.2	4.2	4.5	6.9	6.4	6.4	7.7	9.9	6.7	12.2	3.8
AIDS defining condition (%)												
Pneumocystis jirovecii pneumonia (PCP)		27.6	27.7	29.3	23.7	28.2	23.9	27.9	32.9	28.8	28.9	27.6
Kaposi's sarcoma (KS)		11.8	9.9	5.3	8.6	6.4	10.3	9.5	10.6	11.5	10.0	11.3
PCP and other (not KS)		5.6	8.0	7.3	8.6	6.4	9.0	5.0	6.8	13.5	11.1	6.0
Oesophageal candidiasis		10.2	7.0	12.6	8.6	6.9	10.7	12.6	9.3	9.6	4.4	10.1
Mycobacterium avium		4.7	2.3	1.6	2.0	2.0	1.3	1.8	1.2	1.0	2.2	4.2
HIV wasting disease		5.4	3.8	4.9	6.9	3.0	2.1	4.1	4.3	2.9	2.2	5.1
Other conditions		34.8	41.3	39.0	41.6	47.0	42.7	39.2	34.8	32.7	41.1	35.7

1 Not adjusted for reporting delay.

2 Late HIV diagnosis defined as HIV infection newly diagnosed within 3 months of AIDS diagnosis. Percentage with late HIV diagnosis for 2000 only. Total percentage with late HIV diagnosis in 2000 – 2009 only.

3 AIDS cases diagnosed in NSW in 2008 and 2009 not included.

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

5 Excludes men who have 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**	**≤ 00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[1]**	**09[1]**	**Total[2]**
ACT	M	86	0	2	3	0	1	0	1	1	1	95
	F	8	0	0	1	1	0	0	0	0	0	10
NSW[1]	M	4 830	91	105	140	91	97	95	64	–	–	5 513
	F	207	9	6	5	8	14	6	10	–	–	265
NT	M	35	1	1	3	1	0	2	2	2	1	48
	F	0	0	0	1	2	1	0	0	0	2	6
QLD	M	864	28	47	20	27	33	19	21	22	15	1 096
	F	50	1	4	4	5	4	4	1	1	3	77
SA	M	355	6	13	5	9	9	12	3	6	8	426
	F	25	3	2	0	1	0	1	0	0	0	32
TAS	M	45	1	1	0	1	2	3	2	0	0	55
	F	3	0	1	0	0	0	0	0	0	0	4
VIC	M	1 723	45	45	44	39	57	61	44	50	43	2 151
	F	78	7	3	4	5	8	6	5	5	5	126
WA	M	366	17	10	12	10	7	6	7	14	9	458
	F	28	3	4	2	0	1	4	0	3	3	48
Sub-total	M	8 304	189	224	227	178	206	198	144	95	77	9 842
	F	399	23	20	17	22	28	21	16	9	3	568
Total[2]		**8 729**	**213**	**246**	**245**	**202**	**234**	**222**	**161**	**104**	**90**	**10 446**

1 AIDS cases diagnosed in NSW from 1 January 2008 not included.

2 Total 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**	**≤ 00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[1]**	**09[1]**	**Total[2]**
Adults/adolescents (13 years and older at diagnosis of AIDS)												
Men who have sex with men	M	6 922	140	168	150	118	137	118	98	58	47	7 956
Men who have sex with men and injecting drug use	M	395	9	15	16	18	20	16	10	2	6	507
Injecting drug use[3]	M	178	5	8	12	10	10	11	1	1	2	238
	F	89	3	1	3	2	5	0	1	0	0	104
Heterosexual contact	M	325	24	22	31	19	22	38	17	24	12	534
	F	209	16	16	12	18	22	18	15	8	10	344
Haemophilia/coagulation disorder	M	114	2	2	1	1	0	0	1	1	0	122
	F	3	0	0	0	0	0	0	0	0	0	3
Receipt of blood/tissue	M	78	0	0	1	2	1	1	2	0	0	85
	F	63	1	1	0	0	1	0	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	261	8	9	16	10	15	14	15	7	10	365
	F	14	1	2	1	2	0	3	0	0	1	24
Total Adults/Adolescents[3]		8 681	210	246	244	202	233	222	161	101	88	10 388
Children (under 13 years at diagnosis of AIDS)												
Mother with/at risk for HIV infection	M	13	1	0	0	0	1	0	0	2	0	17
	F	15	2	0	1	0	0	0	0	1	2	21
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 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
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		48	3	0	1	0	1	0	0	3	2	58
Total[3]		**8 729**	**213**	**246**	**245**	**202**	**234**	**222**	**161**	**104**	**90**	**10 446**

1 AIDS cases diagnosed in NSW from 1 January 2008 not included.

2 Includes 36 people whose sex was reported as transgender.

3 Excludes men who have sex with men.

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**	**≤ 00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08[1]**	**09[1]**	**Total[2]**
ACT	M	67	2	0	1	0	2	1	0	0	0	73
	F	4	0	1	1	0	1	0	0	0	0	7
NSW	M	3 329	60	49	44	43	30	27	15	–	–	3 597
	F	119	3	5	2	2	4	1	2	–	–	138
NT	M	24	1	1	0	0	0	1	3	2	1	33
	F	0	0	0	0	1	0	0	0	0	0	1
QLD	M	584	17	16	11	11	13	13	11	3	0	679
	F	33	3	1	2	2	0	2	0	0	0	43
SA	M	238	8	10	5	11	2	5	1	0	0	280
	F	16	0	2	2	0	0	0	0	0	0	20
TAS	M	30	1	1	0	0	0	1	0	1	0	34
	F	2	0	0	0	0	0	0	0	0	0	2
VIC	M	1 316	21	14	17	12	13	23	10	18	5	1 449
	F	51	6	0	1	1	0	2	3	1	1	66
WA	M	268	5	3	4	7	4	3	5	1	1	301
	F	19	2	1	1	1	0	2	3	0	1	30
Total[2]		**6 120**	**130**	**104**	**91**	**91**	**69**	**83**	**53**	**26**	**9**	**6 776**

1 Deaths following AIDS occurring in NSW from 1 January 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**	**≤ 00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**Total[1]**
Adults/adolescents (13 years and older at death following AIDS)												
Men who have sex with men	M	4 979	85	73	55	58	37	52	20	19	4	5 382
Men who have sex with men, and injecting drug use	M	264	11	6	9	8	7	4	5	1	0	315
Injecting drug use[2]	M	109	7	3	6	6	5	1	2	1	0	140
	F	51	1	4	3	0	3	0	2	1	0	65
Heterosexual contact	M	157	5	7	7	6	8	12	8	1	0	211
	F	114	9	5	5	6	1	5	5	0	2	152
Haemophilia/coagulation disorder	M	91	3	1	0	0	2	1	3	1	1	103
	F	3	0	0	0	0	0	0	0	0	0	3
Receipt of blood/tissue	M	69	0	0	0	2	0	2	2	0	0	75
	F	51	3	1	0	1	1	0	1	0	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	165	3	4	5	4	4	2	5	1	2	195
	F	11	0	0	1	0	0	2	0	0	0	14
Total Adults/Adolescents[1]		6 087	128	104	91	91	68	83	53	25	9	6 739
Children (less than 13 years at death following AIDS)												
Mother with/at risk for HIV infection	M	7	1	0	0	0	1	0	0	1	0	10
	F	9	1	0	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	2	0	0	0	1	0	0	1	0	37
Total[1]		**6 120**	**130**	**104**	**91**	**91**	**69**	**83**	**53**	**26**	**9**	**6 776**

1 Includes 23 people whose sex was reported as transgender.

2 Excludes men who have sex with men.

Source: State/Territory health authorities

Table 1.3.6 Number (percent) of AIDS diagnoses in Australia[1], 2000 – 2009, and age standardised annual incidence per 100 000 population[2] by year of AIDS diagnosis and region of birth

	2000 – 2004			2005 – 2009[1]		
Region/ Country of birth	**Number**	**Percent**	**Age standardised incidence[2]**	**Number**	**Percent**	**Age standardised incidence[2]**
Australia	776	66.3	1.2	513	63.3	0.7
Overseas born	363	31.0	1.1	266	32.8	0.8
Other Oceania	*60*	*5.1*	*1.8*	*37*	*4.6*	*1.9*
United Kingdom and Ireland	*53*	*4.5*	*1.0*	*42*	*5.2*	*1.5*
Other Europe	*70*	*6.0*	*1.4*	*36*	*4.4*	*1.4*
Middle East/North Africa	*12*	*1.0*	*0.8*	*9*	*1.1*	*0.9*
Sub-Saharan Africa	*51*	*4.4*	*4.2*	*43*	*5.3*	*4.6*
Asia	*90*	*7.7*	*1.1*	*81*	*10.0*	*1.1*
North America	*11*	*0.9*	*1.8*	*9*	*1.1*	*1.7*
South/Central America and the Caribbean	*16*	*1.4*	*2.6*	*9*	*1.1*	*2.3*
Total with a reported country of birth	**1 139**	**97.3**	**1.1**	**779**	**96.1**	**0.8**
Not reported	32	2.7		32	3.9	
Total	**1 171**	**100.0**		**811**	**100.0**	

1 AIDS cases diagnosed in NSW from 1 January 2008 not included.

2 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											
	≤ 00		01 – 03		04 – 06		07 – 09[1]		Cumulative to 31 Dec 09			
AIDS defining condition	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**Total[2]**	**%**
Pneumocystis jirovecii pneumonia (PCP)	2 314	86	174	13	157	17	99	9	2 744	125	2 879	27.6
Kaposi's sarcoma (KS)	1 026	5	55	0	58	0	38	0	1 177	5	1 183	11.3
KS and PCP alone	61	0	1	0	5	0	3	0	70	0	70	0.7
KS and other (not PCP)	139	0	10	0	5	0	2	0	156	0	156	1.5
PCP and other (not KS)	450	33	49	7	39	6	26	9	564	55	624	6.0
Oesophageal candidiasis	843	45	60	7	61	6	28	1	992	59	1 053	10.1
Toxoplasmosis	272	11	21	1	13	3	5	0	311	15	330	3.2
Cryptococcosis	314	13	19	2	22	3	14	1	369	19	390	3.7
Non-Hodgkin's lymphoma	342	16	48	1	56	0	29	4	475	21	496	4.7
Mycobacterium avium	379	31	13	1	10	1	5	0	407	33	441	4.2
Herpes simplex virus	179	17	6	0	7	0	1	1	193	18	212	2.0
HIV encephalopathy	293	16	48	3	36	4	7	0	384	23	407	3.9
Cytomegalovirus	310	7	9	1	11	2	11	0	341	10	354	3.4
HIV wasting disease	428	38	34	3	18	2	11	1	491	44	537	5.1
Cryptosporidiosis	189	6	13	0	6	0	4	1	212	7	219	2.1
Mycobacterium tuberculosis	45	9	10	1	6	5	4	3	65	18	83	0.8
Pulmonary tuberculosis[3]	49	9	15	6	18	8	9	3	91	26	118	1.1
Recurrent pneumonia[3]	56	3	5	4	10	2	4	1	75	10	87	0.8
Cervical cancer[3]	–	5	–	0	–	1	–	0	–	6	6	0.1
Other single diagnoses	103	10	17	1	10	2	3	1	133	14	147	1.4
Other multiple diagnoses	512	39	33	9	34	9	13	3	592	60	654	6.3
Total[2]	**8 304**	**399**	**640**	**60**	**582**	**71**	**316**	**38**	**9 842**	**568**	**10 446**	**100.0**

1 AIDS cases diagnosed in NSW from 1 January 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], 2000 – 2009, by year. Number of cases, median age and percent (number) of total cases by sex, newly acquired infection, late HIV diagnosis, State/Territory and HIV exposure category

	Year of HIV diagnosis									
Characteristic	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Total**
Total cases	**16**	**14**	**27**	**23**	**22**	**18**	**19**	**17**	**19**	**21**	**196**
Males (%)	87.5	57.1	55.6	73.9	72.7	83.3	73.7	82.4	78.9	81.0	74.0
Median age (years)	30	29	36	34	29	33	31	33	35	37	33
Newly acquired infection (%)	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)	33.3 (7)	25.5(50)
Late HIV diagnosis (%)[2]											
CD4+ cell count<200 cells/µl	37.5	14.3	18.5	26.1	31.8	11.1	10.5	5.9	15.8	33.3	20.9
State/Territory (%)											
ACT	–	–	–	–	–	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
NSW	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)	38.1 (8)	29.6(58)
NT	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)	0.0 (0)	3.6 (7)
QLD	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)	28.6 (6)	23.5(46)
SA	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)	9.5 (2)	7.7(15)
TAS	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)	4.8 (1)	1.0 (2)
VIC	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)	4.8 (1)	10.2(20)
WA	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)	14.3 (3)	24.5(48)
HIV exposure category (%)											
Men who have sex with men	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)	56.3 (9)	43.4(82)
Men who have sex with men, and injecting drug use	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)	6.2 (1)	6.3(12)
Injecting drug use[3]	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)	12.5 (2)	20.1(38)
Heterosexual contact	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)	25.0 (4)	29.6(56)
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)	7.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.5 (1)
Other/undetermined[4]	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)	23.8 (5)	3.6 (7)

1 In the ACT, Indigenous status at HIV diagnosis was available for cases diagnosed from 1 January 2005.

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

3 Excludes men who have sex with men.

4 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, 2005 – 2009, by year, Aboriginal and Torres Strait Islander status and area of residence

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
Major cities	Aboriginal and Torres Strait Islander	5	8	8	9	10
	Non-Indigenous	6	6	6	6	6
Inner regional	Aboriginal and Torres Strait Islander	4	2	3	2	2
	Non-Indigenous	1	2	2	2	2
Outer regional	Aboriginal and Torres Strait Islander	2	1	2	1	1
	Non-Indigenous	2	2	3	4	3
Remote	Aboriginal and Torres Strait Islander	3	5	0	3	3
	Non-Indigenous	1	4	4	1	2
Very remote	Aboriginal and Torres Strait Islander	1	1	0	0	1
	Non-Indigenous	0	5	0	0	2
Total	**Aboriginal and Torres Strait Islander**	**4**	**4**	**4**	**4**	**5**
	Non-Indigenous	**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, 2000 – 2009, by State/Territory and year of birth

State/ Territory	2000 – 2001		2002 – 2003		2004 – 2005		2006 – 2007		2008 – 2009	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ACT	2	25.0	1	12.1	0	0.0	0	0.0	0	0.0
NSW	26	15.2	18	10.4	26	15.1	19	10.7	27	14.3
NT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
QLD	6	16.3	8	8.3	13	12.8	13	11.4	9	7.1
SA	1	2.8	2	5.7	1	2.9	4	10.5	4	9.9
TAS	0	0.0	0	0.0	0	0.0	1	7.6	1	7.4
VIC	10	8.5	4	3.3	7	5.6	17	12.5	32	22.5
WA	9	18.3	12	21.5	3	5.8	1	1.8	0	0.0
Total	**54**	**10.9**	**45**	**9.0**	**50**	**9.7**	**55**	**10.4**	**73**	**12.3**

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, 2000 – 2009, 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		
2000 – 2001[1]	18	2	16	36	6	43
2002 – 2003	12	1	17	30	1	31
2004 – 2005[1]	17	4	11	32	3	36
2006 – 2007	10	8	12	30	5	35
2008 – 2009[1]	22	7	17	46	2	51
Total[1]	**79**	**22**	**73**	**174**	**17**	**196**

1 Total includes 1 woman whose first exposed child was born in 2000 – 2001, 1 woman who first exposed child was born in 2004 – 2005 and 3 women whose first exposed child was born in 2008 – 2009, 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, 2000 – 2009, 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	2000 – 2004		2005 – 2009		2000 – 2009	
	Number of women	Number of exposed children	Number of women	Number of exposed children	Number of women	Number of exposed children
Injecting drug use	4	8	6	9	10	17
Heterosexual contact	87	117	87	131	174	248
Sex with injecting drug user	*12*	*19*	*6*	*12*	*18*	*31*
Sex with bisexual male	*6*	*9*	*4*	*5*	*10*	*14*
From high prevalence country	*28*	*36*	*42*	*58*	*70*	*94*
Sex with person from a high prevalence country	*17*	*21*	*9*	*20*	*26*	*41*
Sex with person with medically acquired HIV	*1*	*1*	*0*	*0*	*1*	*1*
Sex with person with HIV infection, other exposure	*7*	*13*	*5*	*9*	*12*	*22*
Not further specified	*16*	*18*	*21*	*27*	*37*	*45*
Receipt of blood/tissue	1	1	0	0	1	1
Other/undetermined	4	4	7	7	11	11
Total	**96**	**130**	**100**	**147**	**196**	**277**

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

Table 1.5.4 Number of perinatally exposed children born in Australia, 2000 – 2009, and number with diagnosed HIV infection by year of the child's birth and time of the woman's HIV diagnosis relative to the child's birth

	Interval of the woman's HIV diagnosis					
	Before or at the birth		After the birth		Total	
Child's year of birth	Number exposed	Number with HIV	Number exposed	Number with HIV	Number exposed[1]	Number with HIV
2000 – 2001[1]	47	0	6	4	54	4
2002 – 2003	44	3	1	0	45	3
2004 – 2005[1]	45	0	4	2	50	2
2006 – 2007	50	2	5	3	55	5
2008 – 2009[1,2]	68	0	2	0	73	1
Total[1]	**254**	**5**	**18**	**9**	**277**	**15**

1 Totals includes 1 woman whose exposed child was born in 2000 – 2001, 1 woman whose exposed child was born in 2004 – 2005 and 2 women whose exposed child was born in 2008 – 2009, for whom the date of the woman's HIV diagnosis was not reported.

2 Total includes 1 exposed child with HIV infection.

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

Table 1.5.5 Number of perinatally exposed children, born in 2000 – 2009 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
2000 – 2001	47	0
No reported use of interventions	*8.5*	*0*
Use of 1 intervention	*4.2*	*0*
Use of 2 interventions	*36.2*	*0*
Use of 3 interventions	*51.1*	*0*
2002 – 2003	44	3
No reported use of interventions	*22.7*	*1*
Use of 1 intervention	*2.3*	*1*
Use of 2 interventions	*31.8*	*0*
Use of 3 interventions	*43.2*	*1*
2004 – 2005	45	0
No reported use of interventions	*2.2*	*0*
Use of 1 intervention	*2.2*	*0*
Use of 2 interventions	*33.3*	*0*
Use of 3 interventions	*62.2*	*0*
2006 – 2007	50	2
No reported use of interventions	*4.0*	*1*
Use of 1 intervention	*4.0*	*0*
Use of 2 interventions	*44.0*	*0*
Use of 3 interventions	*48.0*	*1*
2008 – 2009	68	0
No reported use of interventions	*5.9*	*0*
Use of 1 intervention	*4.4*	*0*
Use of 2 interventions	*42.6*	*0*
Use of 3 interventions	*47.1*	*0*
Total	**254**	**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	**2009[1]**	**Rate**
Africa		
Ethiopia[2,3]	980 000	2 100
Mauritius[2,3]	13 000	1 700
Somalia[2,3]	24 000	500
South Africa[2,3]	5 700 000	18 100
Sudan[2,3]	320 000	1 400
Zambia[2,3]	1 100 000	15 200
Zimbabwe[2,3]	1 300 000	15 300
Asia Pacific		
Australia[5]	20 171	92
Cambodia[2,3]	75 000	800
China[2,3]	700 000	100
India[2,3]	2 400 000	300
Indonesia[2,3]	270 000	200
Japan[2,3]	9 600	<100
Malaysia[2,3]	80 000	500
Myanmar[2,3]	240 000	700
New Zealand[2,3]	1 400	100
Papua New Guinea[2,3]	54 000	1 500
Philippines[2,3]	8 300	<100
Republic of Korea[2,3]	13 000	<100
Thailand[2,3]	610 000	1 400
Vietnam[2,3]	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[4,6]	83 000	134
North America		
Canada[4,6]	65 000	195
United States[3,5]	580 371	275

1 Estimated number of people living with HIV infection.

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

3 Estimated HIV prevalence in 2007.

4 Estimated HIV prevalence in 2008. Rate per 100 000 population.

5 Estimated number of people living with diagnosed HIV infection.

6 Estimated number of people living with diagnosed and undiagnosed HIV infection.

Tables

2 National surveillance for viral hepatitis

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

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

2.3 Long term outcomes among people with chronic viral hepatitis

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 of diagnosis of hepatitis A infection, 2005 – 2009, by State/Territory and year

	Year of diagnosis									
	2005		2006		2007		2008		2009	
State/Territory	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
ACT	3	0.8	1	0.3	2	0.5	5	1.6	6	1.4
NSW	83	1.2	95	1.4	65	0.9	69	1.0	98	1.4
NT	65	27.3	30	11.9	5	1.9	3	2.1	1	0.4
QLD	51	1.3	31	0.7	28	0.7	72	1.6	56	1.2
SA	10	0.7	8	0.5	5	0.3	20	1.3	59	3.7
TAS	2	0.4	4	0.9	3	0.6	1	0.2	5	1.1
VIC	59	1.2	44	0.9	36	0.7	85	1.6	303	5.5
WA	53	2.6	68	3.3	21	1.0	22	1.0	35	1.5
Total	**326**	**1.6**	**281**	**1.4**	**165**	**0.8**	**277**	**1.3**	**563**	**2.5**

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, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T[1]	M	F	T	M	F	T	M	F	T	M	F	T
0 – 4	21	11	32	15	10	25	5	8	13	9	6	15	13	6	19
5 – 14	34	34	68	35	33	68	10	19	29	35	25	60	29	21	50
15 – 19	12	14	26	9	10	19	4	4	8	12	7	19	22	23	45
20 – 29	32	37	69	32	20	52	23	18	41	41	34	75	73	62	135
30 – 39	25	17	43	16	20	36	15	9	24	22	10	32	56	63	119
40 – 49	23	13	36	21	15	36	14	8	22	15	15	30	35	43	78
50 – 59	13	14	27	14	9	23	6	4	10	15	8	23	26	38	64
60 +	13	12	25	13	9	22	8	10	18	10	13	23	25	28	53
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**173**	**152**	**326**	**155**	**126**	**281**	**85**	**80**	**165**	**159**	**118**	**277**	**279**	**284**	**563**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.3 Number and rate of diagnosis of hepatitis B infection, 2005 – 2009, by State/Territory and year

	Year of diagnosis									
	2005		2006		2007		2008		2009	
State/Territory	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
ACT	93	26.3	76	20.6	68	19.1	59	16.0	106	28.0
NSW	2 717	39.8	2 491	36.2	2 607	37.4	2 547	35.9	2 687	37.3
NT	211	96.3	248	121.3	252	121.0	203	94.2	156	68.9
QLD	956	23.6	1 003	24.2	1 028	24.2	882	20.3	1 068	24.0
SA	333	21.8	322	20.9	518	33.1	430	27.2	456	28.4
TAS	55	11.7	55	11.8	47	10.2	70	15.1	85	18.4
VIC	1 744	33.7	1 680	32.0	1 951	36.4	1 919	35.2	2 036	36.3
WA	406	19.6	640	30.5	671	31.2	662	29.8	746	32.4
Total	**6 515**	**31.5**	**6 515**	**31.0**	**7 142**	**33.5**	**6 772**	**31.1**	**7 340**	**32.9**

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 hepatitis B infection, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	22	11	33	18	16	34	10	7	17	15	10	25	2	4	6
5 – 14	79	60	140	95	53	149	79	68	148	81	61	144	77	51	129
15 – 19	203	144	350	141	158	305	191	139	334	169	127	299	186	140	328
20 – 29	898	928	1 842	910	939	1 864	915	1 027	1 955	840	964	1 829	944	979	1 953
30 – 39	1 008	743	1 759	952	779	1 743	1 083	872	1 978	996	863	1 879	1 070	959	2 063
40 – 49	819	475	1 297	790	479	1 276	851	543	1 406	818	473	1 298	871	528	1 407
50 – 59	416	271	692	431	294	726	472	322	798	445	302	749	539	349	893
60 +	247	145	397	246	165	415	292	202	500	310	230	541	316	226	549
Not reported	3	1	5	2	1	3	2	1	6	2	2	8	7	3	12
Total	**3 695**	**2 778**	**6 515**	**3 585**	**2 884**	**6 515**	**3 895**	**3 181**	**7 142**	**3 676**	**3 032**	**6 772**	**4 012**	**3 239**	**7 340**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.5 Number and rate of diagnosis of newly acquired hepatitis B infection, 2005 – 2009, by State/Territory and year

	Year of diagnosis									
	2005		2006		2007		2008		2009	
State/Territory	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
ACT	3	0.9	6	1.6	13	3.3	1	0.3	5	1.4
NSW	56	0.8	53	0.8	56	0.8	45	0.6	36	0.5
NT	5	2.3	11	4.9	12	4.8	8	4.1	4	1.5
QLD	64	1.6	52	1.3	66	1.5	45	1.0	49	1.1
SA	8	0.5	7	0.5	12	0.8	11	0.7	9	0.5
TAS	3	0.7	9	1.9	9	2.0	12	2.8	8	1.8
VIC	79	1.5	105	2.0	84	1.6	87	1.6	88	1.6
WA	34	1.6	50	2.4	42	1.9	48	2.1	39	1.7
Total	**252**	**1.2**	**293**	**1.4**	**294**	**1.4**	**257**	**1.2**	**238**	**1.1**

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 2.1.6 Number of diagnoses of newly acquired hepatitis B infection, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T[1]	M	F	T[1]	M	F	T	M	F	T	M	F	T
0 – 4	0	0	0	3	1	4	0	1	1	1	1	2	1	0	1
5 – 14	3	1	5	2	3	5	1	2	3	1	1	2	1	0	1
15 – 19	3	9	12	8	13	21	9	9	18	6	5	11	3	4	7
20 – 29	50	41	91	61	33	94	57	41	98	50	32	82	43	21	64
30 – 39	57	19	76	50	37	88	58	29	87	50	27	77	45	30	75
40 – 49	28	11	39	31	19	50	28	14	42	38	8	46	36	10	46
50 – 59	9	8	17	16	6	22	20	6	26	15	3	18	14	9	23
60 +	9	3	12	5	4	9	15	4	19	16	3	19	14	7	21
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**159**	**92**	**252**	**176**	**116**	**293**	**188**	**106**	**294**	**177**	**80**	**257**	**157**	**81**	**238**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.7 Number of diagnoses of newly acquired hepatitis B infection[1], 2005 – 2009, by exposure category, year and sex

	Year of diagnosis														
	2005			2006			2007			2008			2009		
Exposure category	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T[2]**
Injecting drug use	30	14	44	43	25	68	32	18	50	33	9	42	33	19	53
Sexual contact	17	17	34	10	9	19	9	11	20	16	8	24	25	10	35
Men who have sex with men	*7*	*–*	*7*	*3*	*–*	*3*	*3*	*–*	*3*	*1*	*–*	*1*	*7*	*–*	*7*
Heterosexual contact	*9*	*13*	*22*	*6*	*9*	*15*	*6*	*11*	*17*	*13*	*7*	*20*	*8*	*6*	*14*
Not further specified	*1*	*4*	*5*	*1*	*0*	*1*	*0*	*0*	*0*	*2*	*1*	*3*	*10*	*4*	*14*
Blood/tissue recipient	0	0	0	0	0	0	0	0	0	2	0	2	2	1	3
Skin penetration procedure	0	0	0	1	0	1	4	0	4	6	4	10	2	1	3
Healthcare exposure	0	0	0	0	0	0	1	0	1	4	1	5	2	4	6
Household contact	3	1	4	4	0	4	4	3	7	3	2	5	3	0	3
Other	0	0	0	3	2	5	15	5	20	3	1	4	4	1	5
Undetermined	16	4	20	23	12	35	1	3	4	15	5	20	27	15	42
Total	**66**	**36**	**102**	**84**	**48**	**132**	**66**	**40**	**106**	**82**	**30**	**112**	**98**	**51**	**150**

1 Includes diagnoses in SA, TAS and VIC in 2005 – 2009, diagnoses in WA in 2005 – 2007 and 2009, and diagnoses in NSW and NT in 2009.

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.8 Number and percentage of diagnoses[1] of newly acquired hepatitis B infection, 2005 – 2009, and the Australian population, by region/country of birth and year

Region/ country of birth	Year of diagnosis 2005 Number	2005 Percent	2006 Number	2006 Percent	2007 Number	2007 Percent	2008 Number	2008 Percent	2009 Number	2009 Percent	Australian population[2]
Total with a reported country of birth	**90**	**67.2**	**155**	**88.6**	**162**	**82.2**	**91**	**81.2**	**175**	**92.6**	**19 855 288**
Australia	74	55.2	123	70.3	133	67.5	66	58.9	113	59.8	70.9
Overseas born	16	11.9	32	18.3	29	14.7	25	22.3	62	32.8	22.2
Other Oceania	*1*	*0.7*	*9*	*5.1*	*4*	*2.0*	*3*	*2.7*	*11*	*5.8*	*2.5*
United Kingdom and Ireland	*2*	*1.5*	*5*	*2.9*	*6*	*3.0*	*2*	*1.8*	*12*	*6.3*	*5.5*
Other Europe	*2*	*1.5*	*5*	*2.9*	*8*	*4.1*	*4*	*3.6*	*10*	*5.3*	*5.0*
Middle East/North Africa	*1*	*0.7*	*0*	*0.0*	*2*	*1.0*	*1*	*0.9*	*7*	*3.7*	*1.3*
Sub-Saharan Africa	*5*	*3.7*	*5*	*2.9*	*1*	*0.5*	*2*	*1.8*	*3*	*1.6*	*1.0*
Asia	*5*	*3.7*	*8*	*4.6*	*7*	*3.6*	*12*	*10.7*	*19*	*10.1*	*6.1*
North America	*0*	*0.0*	*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*	*1*	*0.5*	*1*	*0.9*	*0*	*0*	*0.4*
Not reported	44	32.8	20	11.4	35	17.8	21	18.8	14	7.4	6.9
Total	**134**	**100.0**	**175**	**100.0**	**197**	**100.0**	**112**	**100.0**	**189**	**100.0**	**100.0**

1 Includes diagnoses in SA, TAS and VIC in 2005 – 2009, diagnoses in WA in 2004 – 2007 and 2009, and diagnoses in NSW, NT and ACT in 2009.

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.9 Number and rate of diagnosis of hepatitis C infection, 2005 – 2009, by State/Territory and year

	Year of diagnosis									
	2005		2006		2007		2008		2009	
State/Territory	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
ACT	174	48.4	191	52.9	200	54.3	200	54.6	165	43.8
NSW	4 315	63.2	4 325	63.0	4 167	60.0	3 743	53.2	3 950	55.4
NT	258	115.5	269	120.1	230	103.6	213	93.2	165	71.1
QLD	2 662	65.8	2 803	67.9	2 703	63.9	2 623	60.3	2 703	60.9
SA	625	40.8	589	38.1	628	40.3	584	37.0	548	34.6
TAS	240	52.1	269	57.9	275	59.3	348	75.5	282	60.8
VIC	2 958	57.1	2 737	52.1	2 765	51.9	2 402	44.4	2 510	45.5
WA	1 045	50.4	1 111	52.7	1 262	58.6	1 335	60.1	1 145	49.8
Total	**12 277**	**59.3**	**12 294**	**58.7**	**12 230**	**57.5**	**11 448**	**52.8**	**11 468**	**51.9**

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 2.1.10 Number of diagnoses of hepatitis C infection, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	3	4	7	5	5	10	6	4	10	3	7	10	1	8	9
5 – 14	7	17	24	22	16	38	16	16	32	13	9	22	14	16	31
15 – 19	183	204	389	147	199	348	121	176	298	130	173	304	127	146	274
20 – 29	1 987	1 329	3 332	1 877	1 225	3 119	1 736	1 176	2 923	1 587	1 107	2 705	1 406	1 113	2 535
30 – 39	2 378	1 294	3 680	2 193	1 301	3 512	2 302	1 293	3 610	2 070	1 172	3 251	2 120	1 099	3 244
40 – 49	2 111	1 131	3 245	2 242	1 083	3 338	2 160	1 083	3 250	1 941	970	2 918	1 973	951	2 934
50 – 59	771	350	1 125	956	419	1 378	1 061	510	1 575	1 196	537	1 737	1 341	577	1 921
60 +	222	248	472	279	264	544	289	230	522	268	229	500	260	255	516
Not reported	0	2	3	4	3	7	4	2	10	0	0	1	1	1	4
Total	**7 662**	**4 579**	**12 277**	**7 725**	**4 515**	**12 294**	**7 695**	**4 490**	**12 230**	**7 208**	**4 204**	**11 448**	**7 243**	**4 166**	**11 468**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.11 Number of diagnoses of newly acquired hepatitis C infection, 2005 – 2009, by State/Territory and year

	Year of diagnosis[1]				
State/Territory	2005	2006	2007	2008	2009
ACT	15	15	9	5	7
NSW	43	56	65	25	41
NT	3	3	4	6	5
QLD	–	–	–	–	–
SA	53	55	48	43	45
TAS	27	10	20	24	21
VIC	131	192	160	156	188
WA	107	111	78	103	94
Total	**379**	**442**	**384**	**362**	**401**

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.12 Number of diagnoses of newly acquired hepatitis C infection, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0 – 4	0	3	3	4	2	6	2	1	3	0	1	1	1	5	6
5 – 14	1	1	2	0	1	1	0	2	2	0	0	0	0	2	2
15 – 19	20	32	52	25	23	48	23	25	48	22	19	41	18	12	30
20 – 29	106	76	182	128	75	203	115	59	174	117	67	184	127	80	207
30 – 39	60	40	100	86	40	126	70	37	107	50	43	93	73	38	111
40 – 49	23	12	35	30	16	46	24	15	39	20	12	32	20	14	34
50 – 59	3	2	5	5	1	6	4	3	7	3	3	6	5	5	10
60 +	0	0	0	3	3	6	0	4	4	3	2	5	1	0	1
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**213**	**166**	**379**	**281**	**161**	**442**	**238**	**146**	**384**	**215**	**147**	**362**	**245**	**156**	**401**

Source: National Notifiable Diseases Surveillance System

Table 2.1.13 Number of diagnoses of newly acquired hepatitis C infection[1], 2005 – 2009, by exposure category, year and sex

	Year of diagnosis														
	2005			2006			2007			2008			2009		
Exposure category	M	F	T	M	F	T	M	F	T[2]	M	F	T[2]	M	F	T
Injecting drug use	159	132	291	187	108	295	135	71	207	81	48	129	179	103	282
Sexual contact	8	9	17	11	15	26	4	3	7	10	14	24	6	8	14
Blood/tissue recipient	2	1	3	1	1	2	1	2	3	0	0	0	0	0	0
Skin penetration procedure	6	4	10	26	11	37	2	2	4	21	16	37	3	5	8
Healthcare exposure	4	3	7	5	7	12	1	1	2	3	0	3	1	7	8
Household contact	3	0	3	1	1	2	0	0	0	2	2	4	0	1	1
Other	18	1	19	22	8	30	9	5	14	27	5	32	9	7	16
Undetermined	43	42	85	42	28	70	17	13	30	84	69	154	44	26	70
Total	**243**	**192**	**435**	**295**	**179**	**474**	**169**	**97**	**267**	**228**	**154**	**383**	**242**	**157**	**399**

1 Includes diagnoses in NSW, SA, TAS, VIC and WA in 2005 – 2009 and diagnoses in ACT and NT in 2005-2006 and 2008 – 2009 only.

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.14 Number and percentage of diagnoses[1] of newly acquired hepatitis C infection, 2005 – 2009, and the Australian population, by region/country of birth and year

	Year of diagnosis										
	2005		2006		2007		2008		2009		Australian
Region/Country of birth	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	population[2]
Total with a reported country of birth	**347**	**82.4**	**394**	**86.4**	**317**	**82.8**	**312**	**88.1**	**320**	**80.2**	**19 855 288**
Australia	313	74.3	361	79.2	285	74.4	280	79.1	282	70.7	70.9
Overseas born	34	8.1	33	7.2	32	8.4	32	9.0	38	9.5	22.2
Other Oceania	*7*	*1.7*	*5*	*1.1*	*4*	*1.0*	*3*	*0.9*	*8*	*2.0*	*2.5*
United Kingdom and Ireland	*7*	*1.7*	*5*	*1.1*	*6*	*1.6*	*10*	*3.0*	*5*	*1.3*	*5.5*
Other Europe	*7*	*1.7*	*6*	*1.3*	*6*	*1.6*	*2*	*0.6*	*4*	*1.0*	*5.0*
Middle East/North Africa	*1*	*0.2*	*2*	*0.4*	*3*	*0.8*	*2*	*0.6*	*4*	*1.0*	*1.3*
Sub-Saharan Africa	*2*	*0.5*	*1*	*0.2*	*2*	*0.5*	*1*	*0.3*	*0*	*0.0*	*1.0*
Asia	*9*	*2.1*	*12*	*2.6*	*10*	*2.6*	*13*	*3.9*	*13*	*3.3*	*6.1*
North America	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*1*	*0.3*	*2*	*0.5*	*0.5*
South/Central America and the Caribbean	*1*	*0.2*	*2*	*0.4*	*1*	*0.3*	*0*	*0.0*	*2*	*0.5*	*0.4*
Not reported	74	17.6	62	13.6	66	17.2	42	11.9	79	19.8	6.9
Total	**421**	**100.0**	**456**	**100.0**	**383**	**100.0**	**354**	**100.0**	**399**	**100.0**	**100.0**

1 Includes diagnoses in SA, VIC, WA and TAS in 2005-2009, diagnoses in NSW in 2005-2007 and 2009 only, diagnoses in NT in 2008 only, and diagnoses in ACT in 2009 only.

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

Source: National Notifiable Diseases Surveillance System

Table 2.1.15 Number of diagnoses of hepatitis D infection, 2005 – 2009, by State/Territory and year

	Year of diagnosis				
State/Territory	**2005**	**2006**	**2007**	**2008**	**2009**
ACT	0	0	0	0	0
NSW	15	15	11	14	9
NT	0	0	0	1	0
QLD	11	7	9	7	13
SA	0	0	0	0	0
TAS	0	0	0	0	0
VIC	4	7	10	14	12
WA	2	1	4	6	0
Total	**32**	**30**	**34**	**42**	**34**

Source: National Notifiable Diseases Surveillance System

Table 2.1.16 Number of diagnoses of hepatitis D infection, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	**2005**			**2006**			**2007**			**2008**			**2009**		
(years)	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
0 – 4	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
5 – 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	2	0	2	0	0	0	1	0	1	3	1	4	4	1	5
20 – 29	7	1	8	5	3	8	6	2	8	6	0	6	7	4	11
30 – 39	2	2	4	6	3	9	6	4	10	11	1	12	3	1	4
40 – 49	8	2	10	5	0	5	9	3	12	7	4	11	7	0	7
50 – 59	4	1	5	5	2	7	2	0	2	4	1	5	3	1	4
60 +	2	0	2	0	1	1	0	1	1	3	1	4	0	2	2
Not reported	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**25**	**7**	**32**	**21**	**9**	**30**	**24**	**10**	**34**	**34**	**8**	**42**	**24**	**10**	**34**

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 (percent) of diagnoses of hepatitis A infection, 2009, 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	(0.0)	6	(100.0)	0	(0.0)	6
NSW	2	(2.0)	92	(93.9)	4	(4.1)	98
NT	0	(0.0)	1	(100.0)	0	(0.0)	1
QLD	0	(0.0)	34	(60.7)	22	(39.3)	56
SA	3	(5.1)	56	(94.9)	0	(0.0)	59
TAS	0	(0.0)	5	(100.0)	0	(0.0)	5
VIC	3	(1.0)	284	(93.7)	16	(5.3)	303
WA	0	(0.0)	35	(100.0)	0	(0.0)	35
Total	**8**	**(1.4)**	**513**	**(91.1)**	**42**	**(7.5)**	**563**

Source: National Notifiable Diseases Surveillance System

Table 2.2.2 Number and rate[1] of diagnosis of hepatitis B infection, 2005 – 2009, by year, State/Territory[2] and Aboriginal and Torres Strait Islander status

State/	Aboriginal and Torres Strait	2005		2006		2007		2008		2009	
Territory	**Islander status**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
NT	Aboriginal and Torres Strait Islander	153	284	190	446	160	382	117	266	76	182
	Non-Indigenous[3]	58	35	58	35	92	55	86	57	80	50
SA	Aboriginal and Torres Strait Islander	33	177	41	227	34	154	26	165	19	89
	Non-Indigenous[3]	300	20	281	19	484	32	404	26	437	29
TAS	Aboriginal and Torres Strait Islander	1	7	1	4	1	6	0	0	2	12
	Non-Indigenous[3]	54	12	54	12	46	10	70	16	83	19
WA	Aboriginal and Torres Strait Islander	60	118	64	114	46	84	61	127	43	108
	Non-Indigenous[3]	346	17	576	28	625	31	601	30	703	34
Total	**Aboriginal and Torres Strait Islander**	**247**	**175**	**296**	**237**	**241**	**189**	**204**	**170**	**140**	**120**
	Non-Indigenous[3]	**758**	**18**	**969**	**23**	**1 247**	**30**	**1 161**	**28**	**1 303**	**31**

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 2.2.3 Number (percent) of diagnoses of hepatitis B infection, 2009, 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	3	(2.8)	81	(76.4)	22	(20.8)	106
NSW	–		–		2 273	(84.6)	2 687
NT	76	(48.7)	63	(40.4)	17	(10.9)	156
QLD	–		–		704	(65.9)	1 068
SA	19	(4.2)	407	(89.3)	30	(6.6)	456
TAS	2	(2.4)	60	(70.6)	23	(27.1)	85
VIC	–		–		1 283	(63.0)	2 036
WA	43	(5.8)	670	(89.8)	33	(4.4)	746
Total	**260**	**(3.5)**	**2 695**	**(36.7)**	**4 385**	**(59.7)**	**7 340**

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 2.2.4 Number and rate[1] of diagnosis of newly acquired hepatitis B infection, 2005 – 2009, by year, State/Territory[2] and Aboriginal and Torres Strait Islander status

		Year of diagnosis									
State/	**Aboriginal and Torres Strait**	**2005**		**2006**		**2007**		**2008**		**2009**	
Territory	**Islander status**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
NSW	Aboriginal and Torres Strait Islander	2	1	6	4	1	1	5	3	4	3
	Non-Indigenous[3]	54	1	47	1	55	1	40	1	32	0.5
NT	Aboriginal and Torres Strait Islander	4	6	6	11	4	5	4	12	0	0
	Non-Indigenous[3]	1	1	5	3	8	5	4	3	4	2
QLD	Aboriginal and Torres Strait Islander	7	5	3	2	7	4	8	5	5	3
	Non-Indigenous[3]	57	1	49	1	59	1	37	1	44	1
SA	Aboriginal and Torres Strait Islander	0	0	2	5	1	3	0	0	0	0
	Non-Indigenous[3]	8	1	5	0.3	11	1	11	1	9	1
VIC	Aboriginal and Torres Strait Islander	1	3	3	11	1	3	1	3	3	10
	Non-Indigenous[3]	78	1	102	2	83	2	86	2	85	2
WA	Aboriginal and Torres Strait Islander	5	9	6	10	3	4	2	4	1	1
	Non-Indigenous[3]	29	1	44	2	39	2	46	2	38	2
Total	**Aboriginal and Torres Strait Islander**	**19**	**4**	**26**	**5**	**17**	**3**	**20**	**5**	**13**	**3**
	Non-Indigenous[3]	**227**	**1**	**252**	**1**	**255**	**1**	**224**	**1**	**212**	**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 2.2.5 Number (percent) of diagnoses of newly acquired hepatitis B infection, 2009, 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 (0.0)	5 (100.0)	0 (0.0)	5
NSW	4 (11.1)	27 (75.0)	5 (13.9)	36
NT	0 (0.0)	4 (100.0)	0 (0.0)	4
QLD	5 (10.2)	27 (55.1)	17 (34.7)	49
SA	0 (0.0)	9 (100.0)	0 (0.0)	9
TAS	1 (12.5)	7 (87.5)	0 (0.0)	8
VIC	3 (3.4)	80 (90.9)	5 (5.7)	88
WA	1 (2.6)	38 (97.4)	0 (0.0)	39
Total	**14 (5.9)**	**197 (82.8)**	**27 (11.3)**	**238**

Source: National Notifiable Diseases Surveillance System

Table 2.2.6 Number and rate[1] of diagnosis of hepatitis C infection, 2005 – 2009, by year, State/Territory[2] and Aboriginal and Torres Strait Islander status

		Year of diagnosis									
State/	**Aboriginal and Torres Strait**	**2005**		**2006**		**2007**		**2008**		**2009**	
Territory	**Islander status**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
NT	Aboriginal and Torres Strait Islander	17	26	35	60	27	53	27	49	27	49
	Non-Indigenous[3]	241	141	234	138	203	123	186	111	138	83
SA	Aboriginal and Torres Strait Islander	75	275	59	221	62	242	48	172	47	182
	Non-Indigenous[3]	550	36	530	35	566	37	536	35	501	33
WA	Aboriginal and Torres Strait Islander	115	151	119	165	131	182	128	184	139	189
	Non-Indigenous[3]	930	46	992	49	1 131	56	1 207	59	1 006	49
Total	**Aboriginal and Torres Strait Islander**	**207**	**121**	**213**	**115**	**220**	**139**	**203**	**127**	**213**	**131**
	Non-Indigenous[3]	**1 721**	**46**	**1 756**	**47**	**1 900**	**51**	**1 929**	**52**	**1 645**	**44**

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 2.2.7 Number (percent) of diagnoses of hepatitis C infection, 2009, 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	–	–	156 (94.5)	165
NSW	–	–	3 449 (87.3)	3 950
NT	27 (16.4)	120 (72.7)	18 (10.9)	165
QLD	–	–	1 646 (60.9)	2 703
SA	47 (8.6)	451 (82.3)	50 (9.1)	548
TAS	10 (3.5)	176 (62.4)	96 (34.0)	282
VIC	–	–	1 777 (70.8)	2 510
WA	139 (12.1)	920 (80.3)	86 (7.5)	1 145
Total	**531 (4.6)**	**3 659 (31.9)**	**7 278 (63.5)**	**11 468**

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 2.2.8 Number (percent) of diagnoses of hepatitis D infection, 2009, 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)	0 (0.0)	0 (0.0)	0
NSW	–	–	5 (55.6)	9
NT	0 (0.0)	0 (0.0)	0 (0.0)	0
QLD	0 (0.0)	10 (76.9)	3 (23.1)	13
SA	0 (0.0)	0 (0.0)	0 (0.0)	0
TAS	0 (0.0)	0 (0.0)	0 (0.0)	0
VIC	0 (0.0)	7 (58.3)	5 (41.7)	12
WA	0 (0.0)	0 (0.0)	0 (0.0)	0
Total	**0 (0.0)**	**21 (61.8)**	**13 (38.2)**	**34**

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

2.3 Long term outcomes among people with chronic viral hepatitis

Table 2.3.1 Number (percent) of liver transplants, 1985 – 2009, by year and primary cause of liver disease, and hepatitis status for cases where the primary diagnosis was hepatocellular carcinoma

	Year											
Diagnosis	**1985 – 1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009[2]**	**Total**
Hepatitis B	**81 (7.4)**	**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)**	**7 (4.8)**	**147**
Hepatitis C	143 (13.1)	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)	41 (28.1)	483
Hepatitis B/C/D	7 (0.6)	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)	1 (0.7)	27
Hepatocellular carcinoma	28 (2.6)	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)	24 (16.4)	145
Hepatitis B	*9 (0.8)*	*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)*	*5 (3.4)*	*42*
Hepatitis C	*9 (0.8)*	*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)*	*8 (5.5)*	*64*
Hepatitis B/C/D	*1 (0.1)*	*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)*	*0 (0.0)*	*3*
Hepatitis negative	*9 (0.8)*	*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)*	*11 (7.5)*	*36*
Other[1]	832 (76.3)	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)	73 (50)	1 564
Total	**1091 (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)**	**146 (100)**	**2 366**

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

2 Data available to 31 December 2009.

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

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

3.3 Gonococcal isolates

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 of diagnosis of chlamydia, 2005 – 2009, by State/Territory and year

	Year of diagnosis									
	2005		2006		2007		2008		2009	
State/Territory	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
ACT	701	177.6	822	207.5	905	223.8	987	243.5	941	229.2
NSW	11 221	163.4	12 015	173.4	12 430	176.3	13 988	193.9	14 948	202.6
NT	1 625	677.5	2 056	845.1	2 196	880.9	2 289	888.5	2 114	800.3
QLD	9 719	235.2	12 241	289.0	12 973	297.4	15 189	337.4	16 694	359.1
SA	2 706	177.3	3 125	202.0	3 466	220.9	3 652	229.5	3 757	232.1
TAS	870	188.7	1 048	225.2	1 129	242.1	1 478	313.1	1 453	305.9
VIC	9 004	171.9	9 972	186.7	11 141	203.6	12 205	216.8	13 872	238.7
WA	5 435	257.5	6 138	284.9	7 745	349.1	8 637	375.2	8 834	368.6
Total	**41 281**	**197.1**	**47 417**	**222.7**	**51 985**	**238.8**	**58 425**	**261.4**	**62 613**	**272.4**

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, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	22	24	49	21	19	40	19	19	39	13	15	29	6	10	16
5 – 14	58	390	448	64	396	461	70	443	513	50	497	548	67	489	557
15 – 19	2 228	7 559	9 806	2 588	8 736	11 347	2 985	9 721	12 730	3 700	11 225	14 958	4 072	12 072	16 168
20 – 29	9 447	13 292	22 783	10 805	15 194	26 055	11 972	16 718	28 745	13 289	18 463	31 797	14 648	19 629	34 322
30 – 39	3 249	2 528	5 789	3 612	2 913	6 544	3 673	3 138	6 826	3 990	3 402	7 402	4 179	3 534	7 720
40 – 49	1 245	549	1 801	1 384	683	2 072	1 411	749	2 170	1 734	862	2 604	1 781	857	2 640
50 – 59	385	113	499	548	156	705	541	188	730	593	218	813	648	233	882
60 +	91	12	104	148	35	183	183	32	216	207	41	248	219	48	267
Not reported	0	0	2	6	2	10	5	5	16	10	11	26	14	12	41
Total	**16 725**	**24 467**	**41 281**	**19 176**	**28 134**	**47 417**	**20 859**	**31 013**	**51 985**	**23 586**	**34 734**	**58 425**	**25 634**	**36 884**	**62 613**

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, 2005 – 2009, by State/Territory[1] and year

	Year of diagnosis				
State/Territory	2005	2006	2007	2008	2009
NT	4	2	1	1	0
QLD	8	4	2	1	1
WA	2	0	0	0	0
Total	**14**	**6**	**3**	**2**	**1**

1 State/Territory with reported cases of donovanosis.

Source: National Notifiable Diseases Surveillance System

Table 3.1.4 Number of diagnoses of donovanosis, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
0 – 14	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0
20 – 29	0	2	2	1	1	2	0	1	1	1	0	1	0	0	0
30 – 39	1	3	4	2	1	3	0	0	0	0	0	0	0	0	0
40 – 49	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0
50 +	2	0	2	1	0	1	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	**5**	**9**	**14**	**4**	**2**	**6**	**2**	**1**	**3**	**2**	**0**	**2**	**1**	**0**	**1**

Source: National Notifiable Diseases Surveillance System

Table 3.1.5 Number and rate of diagnosis of gonorrhoea, 2005 – 2009, by State/Territory and year

	Year of diagnosis									
	2005		2006		2007		2008		2009	
State/Territory	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]	Number	Rate[1]
ACT	34	8.9	33	8.3	45	11.7	21	5.5	55	13.3
NSW	1 575	22.9	1 738	25.1	1 385	19.8	1 331	18.6	1 655	22.7
NT	1 804	763.5	1 777	733.2	1 609	647.0	1 549	609.1	1 503	571.3
QLD	1 429	34.9	1 567	37.3	1 370	31.7	1 633	36.6	1 557	33.7
SA	399	26.2	497	32.2	429	27.6	493	31.5	399	25.1
TAS	35	7.6	18	3.8	38	8.3	25	5.4	21	4.6
VIC	1 210	23.2	1 258	23.7	1 029	19.0	905	16.3	1 511	26.4
WA	1 575	75.0	1 672	78.1	1 763	80.3	1 693	74.7	1 339	56.7
Total	**8 061**	**38.7**	**8 560**	**40.5**	**7 668**	**35.6**	**7 650**	**34.7**	**8 040**	**35.4**

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, 2005 – 2009, by age group, year and sex

	Year of diagnosis														
Age group	2005			2006			2007			2008			2009		
(years)	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
0 – 4	2	9	12	1	10	11	3	5	9	1	2	3	6	5	12
5 – 14	40	167	207	24	140	164	47	140	187	29	153	182	26	99	126
15 – 19	791	860	1 651	690	822	1 512	738	785	1 523	744	842	1 587	747	787	1 540
20 – 29	2 033	989	3 025	2 410	1 106	3 521	1 984	1 096	3 081	2 045	1 043	3 093	2 326	1 178	3 509
30 – 39	1 539	377	1 920	1 561	453	2 016	1 257	395	1 657	1 172	414	1 588	1 258	383	1 644
40 – 49	746	123	875	779	143	926	691	120	812	634	149	784	643	118	761
50 – 59	248	36	286	287	31	318	276	28	304	262	45	307	285	44	329
60 +	78	7	85	80	11	91	86	7	93	83	18	102	100	14	114
Not reported	0	0	0	1	0	1	1	1	2	1	3	4	1	1	5
Total	**5 477**	**2 568**	**8 061**	**5 833**	**2 716**	**8 560**	**5 083**	**2 577**	**7 668**	**4 971**	**2 669**	**7 650**	**5 392**	**2 629**	**8 040**

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

Source: National Notifiable Diseases Surveillance System

Table 3.1.7 Number and rate of diagnosis of infectious syphilis, 2005 – 2009, by State/Territory and year

State/ Territory	Year of diagnosis 2005 Number	2005 Rate[1]	2006 Number	2006 Rate[1]	2007 Number	2007 Rate[1]	2008 Number	2008 Rate[1]	2009 Number	2009 Rate[1]
ACT	4	1.0	2	0.5	9	2.3	4	1.0	11	2.8
NSW	240	3.5	231	3.4	454	6.6	429	6.1	522	7.4
NT	94	41.2	150	62.4	120	48.8	83	34.2	38	15.3
QLD	154	3.8	175	4.2	239	5.6	189	4.4	180	4.0
SA	18	1.2	46	3.0	49	3.2	49	3.1	53	3.3
TAS	6	1.3	5	1.1	8	1.5	7	1.5	11	2.3
VIC	118	2.3	227	4.3	434	8.2	371	6.8	390	7.0
WA	19	0.9	49	2.3	99	4.5	180	8.0	88	3.8
Total	**653**	**3.2**	**885**	**4.2**	**1 412**	**6.6**	**1 312**	**6.0**	**1 293**	**5.8**

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, 2005 – 2009, by age group, year and sex

Age group (years)	Year of diagnosis 2005 M	2005 F	2005 T	2006 M	2006 F	2006 T[1]	2007 M	2007 F	2007 T[1]	2008 M	2008 F	2008 T[1]	2009 M	2009 F	2009 T[1]
0 – 4	0	0	0	1	0	2	0	1	1	0	0	0	0	0	0
5 – 14	2	3	5	2	13	15	4	4	8	0	8	8	0	3	3
15 – 19	28	36	64	36	55	91	44	38	82	39	37	76	28	10	38
20 – 29	128	50	178	151	61	212	253	59	312	271	51	322	287	46	333
30 – 39	188	22	210	225	30	256	395	35	430	366	29	395	333	33	366
40 – 49	117	9	126	191	16	207	344	18	362	330	10	341	353	10	364
50 – 59	44	6	50	67	8	75	144	8	152	115	11	126	129	9	138
60 +	15	5	20	24	2	26	59	4	63	41	3	44	47	4	51
Not reported	0	0	0	1	0	1	0	0	2	0	0	0	0	0	0
Total	**522**	**131**	**653**	**698**	**185**	**885**	**1 243**	**167**	**1 412**	**1 162**	**149**	**1 312**	**1 177**	**115**	**1 293**

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 – 2009, by sexual exposure, history of sex work, facility of diagnosis and sex

	Year of diagnosis								
	2007			2008			2009		
Characteristic	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Sexual exposure									
Heterosexual contact	90	44	134	106	71	177	55	10	65
Men who have sex with men	469	–	469	480	–	480	153	–	153
Other/undetermined[2]	598	75	675	524	40	565	807	48	856
Not reported[2]	86	48	134	52	38	90	162	57	219
Sex work in the past 12 months									
Current sex work	11	7	18	38	33	71	2	3	5
No sex work	168	38	206	184	18	202	39	2	41
Undetermined[2]	978	74	1 054	888	60	949	974	53	1 028
Not reported[2]	86	48	134	52	38	90	162	57	219
Facility of diagnosis									
Public hospital	21	7	28	34	15	49	19	5	24
Sexual health clinic	75	18	93	83	5	88	37	3	40
Family planning clinic	0	1	1	0	0	0	0	0	0
General practice	25	12	37	63	2	65	22	2	24
Other	56	15	71	48	33	81	38	1	39
Undetermined[2]	980	66	1 048	882	56	939	899	47	947
Not reported[2]	86	48	134	52	38	90	162	57	219
Total	**1 243**	**167**	**1 412**	**1 162**	**149**	**1 312**	**1 177**	**115**	**1 293**

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

2 A characteristic was recorded as "undetermined" when the information was sought 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, 2005 – 2009, by State/Territory, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis									
State/ Territory[2]	Aboriginal and Torres Strait Islander status	2005		2006		2007		2008		2009	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
NT	Aboriginal and Torres Strait Islander	1 019	1 230	1 259	1 579	1 327	1 622	1 397	1 705	1 273	1 553
	Non-Indigenous[3]	606	377	797	499	869	542	892	553	841	527
SA	Aboriginal and Torres Strait Islander	246	697	310	890	271	720	220	630	190	527
	Non-Indigenous[3]	2 460	163	2 815	186	3 195	211	3 432	227	3 567	236
TAS	Aboriginal and Torres Strait Islander	13	46	22	92	22	82	24	85	30	106
	Non-Indigenous[3]	857	195	1 026	233	1 107	251	1 454	328	1 423	322
VIC	Aboriginal and Torres Strait Islander	57	133	45	99	52	116	73	172	66	157
	Non-Indigenous[3]	8 947	169	9 927	187	11 089	209	12 132	229	13 806	261
WA	Aboriginal and Torres Strait Islander	1 184	1 263	1 202	1 269	1 172	1 261	1 297	1 417	1 229	1 290
	Non-Indigenous[3]	4 251	206	4 936	239	6 573	318	7 340	355	7 605	368
Total	**Aboriginal and Torres Strait Islander**	**2 519**	**906**	**2 838**	**1 038**	**2 844**	**1 029**	**3 011**	**1 100**	**2 788**	**999**
	Non-Indigenous[3]	**17 121**	**181**	**19 501**	**206**	**22 833**	**241**	**25 250**	**267**	**27 242**	**287**

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], 2005 – 2009, by age group, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Age group (years)	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
0 – 4	Aboriginal and Torres Strait Islander	3	2	1	5	3
	Non-Indigenous[2]	34	19	22	22	2
5 – 14	Aboriginal and Torres Strait Islander	170	135	138	140	112
	Non-Indigenous[2]	82	90	112	118	152
15 – 19	Aboriginal and Torres Strait Islander	948	1 026	1 081	1 124	1 059
	Non-Indigenous[2]	3 682	4 221	4 998	5 926	6 299
20 – 29	Aboriginal and Torres Strait Islander	980	1 176	1 154	1 231	1 220
	Non-Indigenous[2]	9 921	11 196	13 250	14 356	15 746
30 – 39	Aboriginal and Torres Strait Islander	311	369	364	359	298
	Non-Indigenous[2]	2 417	2 742	3 026	3 189	3 341
40 – 49	Aboriginal and Torres Strait Islander	89	96	75	118	73
	Non-Indigenous[2]	716	868	985	1 154	1 153
50 – 59	Aboriginal and Torres Strait Islander	13	27	24	25	19
	Non-Indigenous[2]	225	282	331	350	408
60 +	Aboriginal and Torres Strait Islander	5	6	7	9	4
	Non-Indigenous[2]	44	76	96	113	118
Total[3]	**Aboriginal and Torres Strait Islander**	**2 519**	**2 838**	**2 844**	**3 011**	**2 788**
	Non-Indigenous[2]	**17 121**	**19 501**	**22 833**	**25 250**	**27 242**

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], 2009, 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	0	20	324	411	117	25	12	4	913
Torres Strait Islander	Female	3	92	735	809	181	48	7	0	1 875
	Total	3	112	1 059	1 220	298	73	19	4	2 788
Non-Indigenous[2]	Male	1	17	1 519	6 866	1 863	787	302	97	11 462
	Female	1	135	4 772	8 865	1 471	366	106	21	15 744
	Total	2	152	6 299	15 746	3 341	1 153	408	118	27 242
Total[3]	Male	1	37	1 843	7 277	1 980	812	314	101	12 375
	Female	4	227	5 507	9 674	1 652	414	113	21	17 619
	Total	**5**	**264**	**7 358**	**16 966**	**3 639**	**1 226**	**427**	**122**	**30 030**

1 In State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in 2009.

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, 2009, by State/Territory and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander status					
State/Territory[1]	**Aboriginal and Torres Strait Islander**		**Non-Indigenous**		**Not reported**	**Total**
ACT	–		–		928 (98.6)	941
NSW	–		–		14 029 (93.9)	14 948
NT	1 273	(60.2)	651	(30.8)	190 (9.0)	2 114
QLD	2 302	(13.8)	6 354	(38.1)	8 038 (48.1)	16 694
SA	190	(5.1)	3 248	(86.5)	319 (8.5)	3 757
TAS	30	(2.1)	1 051	(72.3)	372 (25.6)	1 453
VIC	66	(0.5)	7 534	(54.3)	6 272 (45.2)	13 872
WA	1 229	(13.9)	5 801	(65.7)	1 804 (20.4)	8 834
Total	**5 275**	**(8.4)**	**25 386**	**(40.5)**	**31 952 (51.0)**	**62 613**

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, 2005 – 2009, by area of residence, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
Major cities	Aboriginal and Torres Strait Islander	684	799	780	833	822
	Non-Indigenous[2]	197	221	258	281	307
Inner regional	Aboriginal and Torres Strait Islander	150	210	213	296	337
	Non-Indigenous[2]	152	181	211	251	284
Outer regional	Aboriginal and Torres Strait Islander	680	861	891	929	956
	Non-Indigenous[2]	176	207	254	274	278
Remote	Aboriginal and Torres Strait Islander	2 965	2 965	2 541	2 873	2 493
	Non-Indigenous[2]	212	296	350	368	351
Very remote	Aboriginal and Torres Strait Islander	2 420	2 795	2 981	3 045	2 747
	Non-Indigenous[2]	289	338	361	405	308
Total	**Aboriginal and Torres Strait Islander**	**1 363**	**1 535**	**1 539**	**1 629**	**1 508**
	Non-Indigenous[2]	**193**	**219**	**257**	**284**	**306**

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, 2005 – 2009, by State/Territory, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis									
State/	**Aboriginal and Torres Strait**	**2005**		**2006**		**2007**		**2008**		**2009**	
Territory[2]	**Islander status**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
NT	Aboriginal and Torres Strait Islander	1 550	1 932	1 533	1 961	1 418	1 751	1 381	1 725	1 376	1 696
	Non-Indigenous[3]	254	159	244	148	191	119	168	104	127	79
QLD	Aboriginal and Torres Strait Islander	626	340	623	333	540	288	662	367	499	267
	Non-Indigenous[3]	803	20	944	23	830	21	971	24	1 058	26
SA	Aboriginal and Torres Strait Islander	272	753	360	1 068	224	665	145	426	178	533
	Non-Indigenous[3]	127	8	137	9	205	14	348	23	221	15
TAS	Aboriginal and Torres Strait Islander	0	0	0	0	3	18	0	0	0	0
	Non-Indigenous[3]	35	8	18	4	35	8	25	6	21	5
VIC	Aboriginal and Torres Strait Islander	4	9	6	15	4	10	10	22	10	26
	Non-Indigenous[3]	1 206	23	1 252	24	1 025	19	895	17	1 501	28
WA	Aboriginal and Torres Strait Islander	1 163	1 307	1 310	1 523	1 300	1 493	1 224	1 425	915	1 022
	Non-Indigenous[3]	412	20	362	18	463	23	469	23	424	21
Total	**Aboriginal and Torres Strait Islander**	**3 615**	**814**	**3 832**	**886**	**3 489**	**791**	**3 422**	**783**	**2 978**	**668**
	Non-Indigenous[3]	**2 837**	**21**	**2 957**	**22**	**2 749**	**20**	**2 876**	**21**	**3 352**	**25**

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 3.2.7 Number of diagnoses of gonorrhoea[1], 2005 – 2009, by age group, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Age group (years)	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
0 – 4	Aboriginal and Torres Strait Islander	9	8	6	3	4
	Non-Indigenous[2]	3	1	3	0	5
5 – 14	Aboriginal and Torres Strait Islander	188	148	163	170	108
	Non-Indigenous[2]	16	13	20	10	16
15 – 19	Aboriginal and Torres Strait Islander	1 202	1 113	1 109	1 134	976
	Non-Indigenous[2]	311	282	313	359	433
20 – 29	Aboriginal and Torres Strait Islander	1 457	1 682	1 439	1 371	1 311
	Non-Indigenous[2]	996	1 146	1 121	1 180	1 472
30 – 39	Aboriginal and Torres Strait Islander	569	651	580	520	452
	Non-Indigenous[2]	803	808	650	679	753
40 – 49	Aboriginal and Torres Strait Islander	151	182	157	169	104
	Non-Indigenous[2]	466	465	402	413	391
50 – 59	Aboriginal and Torres Strait Islander	31	36	28	43	17
	Non-Indigenous[2]	182	183	182	177	206
60 +	Aboriginal and Torres Strait Islander	8	12	7	12	6
	Non-Indigenous[2]	60	58	56	55	71
Total[3]	**Aboriginal and Torres Strait Islander**	**3 615**	**3 832**	**3 489**	**3 422**	**2 978**
	Non-Indigenous[2]	**2 837**	**2 957**	**2 749**	**2 876**	**3 352**

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], 2009, 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	2	22	428	636	241	66	12	5	1 412
Torres Strait Islander	Female	2	86	548	675	211	38	5	1	1 566
	Total	**4**	**108**	**976**	**1 311**	**452**	**104**	**17**	**6**	**2 978**
Non-Indigenous[2]	Male	3	3	247	1 125	624	348	179	65	2 595
	Female	1	12	181	345	128	43	27	6	744
	Total	**5**	**16**	**433**	**1 472**	**753**	**391**	**206**	**71**	**3 352**
Total[3]	Male	5	25	675	1 761	865	414	191	70	4 007
	Female	3	98	729	1 020	339	81	32	7	2 310
	Total	**9**	**124**	**1 409**	**2 783**	**1 205**	**495**	**223**	**77**	**6 330**

1 In State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in 2009.

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, 2009, by State/Territory and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander status						
State/Territory[1]	**Aboriginal and Torres Strait Islander**		**Non-Indigenous**		**Not reported**		**Total**
ACT	–		–		29	(52.7)	55
NSW	–		–		1 509	(91.2)	1 655
NT	1 376	(91.6)	98	(6.5)	29	(1.9)	1 503
QLD	499	(32.0)	372	(23.9)	686	(44.1)	1 557
SA	178	(44.6)	199	(49.9)	22	(5.5)	399
TAS	0	(0.0)	20	(95.2)	1	(4.8)	21
VIC	10	(0.7)	964	(63.8)	537	(35.5)	1 511
WA	915	(68.3)	422	(31.5)	2	(0.2)	1 339
Total	**2 994**	**(37.2)**	**2 231**	**(27.7)**	**2 815**	**(35.0)**	**8 040**

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 in 2009.

Source: National Notifiable Diseases Surveillance System

Table 3.2.10 Rate[1] of diagnosis of gonorrhoea, 2005 – 2009, by area of residence, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
Major cities	Aboriginal and Torres Strait Islander	271	234	221	183	131
	Non-Indigenous[2]	23	24	23	25	30
Inner regional	Aboriginal and Torres Strait Islander	100	74	36	43	57
	Non-Indigenous[2]	8	7	7	7	10
Outer regional	Aboriginal and Torres Strait Islander	748	798	714	850	643
	Non-Indigenous[2]	24	28	23	26	23
Remote	Aboriginal and Torres Strait Islander	2 751	2 674	2 217	2 318	1 998
	Non-Indigenous[2]	39	37	47	33	34
Very remote	Aboriginal and Torres Strait Islander	2 746	3 105	2 978	2 713	2 506
	Non-Indigenous[2]	103	102	85	70	55
Total	**Aboriginal and Torres Strait Islander**	**1 157**	**1 227**	**1 117**	**1 095**	**953**
	Non-Indigenous[2]	**22**	**23**	**22**	**23**	**26**

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, 2005 – 2009, by State/Territory, Aboriginal and Torres Strait Islander status and year

State/ Territory[2]	Aboriginal and Torres Strait Islander status	Year of diagnosis 2005 Number	2005 Rate	2006 Number	2006 Rate	2007 Number	2007 Rate	2008 Number	2008 Rate	2009 Number	2009 Rate
NSW	Aboriginal and Torres Strait Islander	7	5	9	6	7	5	7	5	12	9
	Non-Indigenous[3]	233	3	222	3	447	7	422	6	510	8
NT	Aboriginal and Torres Strait Islander	88	124	145	179	107	141	66	108	37	69
	Non-Indigenous[3]	6	3	5	3	13	8	17	10	1	1
QLD	Aboriginal and Torres Strait Islander	60	38	34	24	33	22	24	14	32	22
	Non-Indigenous[3]	94	2	141	4	206	5	165	4	148	4
SA	Aboriginal and Torres Strait Islander	2	5	15	50	13	36	5	20	7	29
	Non-Indigenous[3]	16	1	31	2	36	2	44	3	46	3
TAS	Aboriginal and Torres Strait Islander	0	0	0	0	0	0	0	0	0	0
	Non-Indigenous[3]	6	1	5	1	8	2	7	2	11	2
VIC	Aboriginal and Torres Strait Islander	3	8	9	27	6	18	3	11	1	3
	Non-Indigenous[3]	115	2	218	4	428	8	368	7	389	7
WA	Aboriginal and Torres Strait Islander	10	11	21	22	55	59	78	87	34	40
	Non-Indigenous[3]	9	0.3	28	1	44	2	102	5	54	3
Total	**Aboriginal and Torres Strait Islander**	**170**	**31**	**233**	**40**	**221**	**38**	**183**	**33**	**123**	**25**
	Non-Indigenous[3]	**479**	**2**	**650**	**3**	**1 182**	**6**	**1 125**	**6**	**1 159**	**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], 2005 – 2009, by age group, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Age group (years)	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
0 – 4	Aboriginal and Torres Strait Islander	0	0	1	0	0
	Non-Indigenous[2]	0	2	0	0	0
5 – 14	Aboriginal and Torres Strait Islander	2	12	7	8	2
	Non-Indigenous[2]	3	3	1	0	0
15 – 19	Aboriginal and Torres Strait Islander	51	69	64	52	17
	Non-Indigenous[2]	12	21	18	24	21
20 – 29	Aboriginal and Torres Strait Islander	62	85	87	58	43
	Non-Indigenous[2]	114	127	221	262	286
30 – 39	Aboriginal and Torres Strait Islander	35	39	38	31	35
	Non-Indigenous[2]	175	216	389	364	329
40 – 49	Aboriginal and Torres Strait Islander	9	21	19	25	15
	Non-Indigenous[2]	116	186	342	315	348
50 – 59	Aboriginal and Torres Strait Islander	7	7	5	8	10
	Non-Indigenous[2]	43	68	146	117	126
60 +	Aboriginal and Torres Strait Islander	4	0	0	1	1
	Non-Indigenous[2]	16	26	63	43	49
Total[3]	**Aboriginal and Torres Strait Islander**	**170**	**233**	**221**	**183**	**123**
	Non-Indigenous[2]	**479**	**650**	**1 182**	**1 125**	**1 159**

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], 2009, 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	0	0	10	21	24	12	7	0	74
Torres Strait Islander	Female	0	2	7	22	11	3	3	1	49
	Total	**0**	**2**	**17**	**43**	**35**	**15**	**10**	**1**	**123**
Non-Indigenous[2]	Male	0	0	18	263	307	340	120	46	1 094
	Female	0	0	3	23	22	7	6	3	64
	Total	**0**	**0**	**21**	**286**	**329**	**348**	**126**	**49**	**1 159**
Total[3]	Male	0	0	28	284	331	352	127	46	1 168
	Female	0	2	10	45	33	10	9	4	113
	Total	**0**	**2**	**38**	**329**	**364**	**363**	**136**	**50**	**1 282**

1 State/Territory health jurisdictions in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses in 2009.

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 3.2.14 Number (percent) of diagnoses of infectious syphilis, 2009, 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	1	(9.1)	10	(90.9)	0	(0.0)	11
NSW	12	(2.3)	470	(90.0)	40	(7.7)	522
NT	37	(97.4)	1	(2.6)	0	(0.0)	38
QLD	32	(17.8)	143	(79.4)	5	(2.8)	180
SA	7	(13.2)	46	(86.8)	0	(0.0)	53
TAS	0	(0.0)	10	(90.9)	1	(9.1)	11
VIC	1	(0.3)	380	(97.4)	9	(2.3)	390
WA	34	(38.6)	54	(61.4)	0	(0.0)	88
Total	**124**	**(9.6)**	**1 114**	**(86.2)**	**55**	**(4.3)**	**1 293**

Source: National Notifiable Diseases Surveillance System

Table 3.2.15 Rate[1] of diagnosis of infectious syphilis, 2005 – 2009, by area of residence, Aboriginal and Torres Strait Islander status and year

		Year of diagnosis				
Area of residence	**Aboriginal and Torres Strait Islander status**	**2005**	**2006**	**2007**	**2008**	**2009**
Major cities	Aboriginal and Torres Strait Islander	3	14	22	10	10
	Non-Indigenous[2]	3	4	8	7	8
Inner regional	Aboriginal and Torres Strait Islander	14	7	9	8	5
	Non-Indigenous[2]	1	1	2	1	2
Outer regional	Aboriginal and Torres Strait Islander	45	22	25	19	27
	Non-Indigenous[2]	1	1	1	3	2
Remote	Aboriginal and Torres Strait Islander	91	150	109	99	56
	Non-Indigenous[2]	0	1	0	1	0
Very remote	Aboriginal and Torres Strait Islander	102	179	163	148	77
	Non-Indigenous[2]	5	4	1	6	7
Total	**Aboriginal and Torres Strait Islander**	**38**	**52**	**49**	**41**	**27**
	Non-Indigenous[2]	**3**	**3**	**6**	**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 2009 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	523	238	353	86	412	219	1 855
Rectal	193	0	48	15	157	9	437
Pharynx	101	2	28	19	105	7	270
Other/not specified	8	13	11	8	11	8	60
Total	**825**	**253**	**440**	**128**	**685**	**243**	**2 622**
Female							
Cervix	100	125	116	31	87	71	530
Other/not specified	24	9	5	9	14	4	66
Total	**124**	**134**	**121**	**40**	**101**	**75**	**596**
Antibiotic sensitivity (%)							
PPNG	19.2	2.5	12.8	13.0	16.5	16.6	14.7
CMRP	27.8	1.7	6.1	31.4	35.1	12.2	21.5
LS	52.0	95.6	79.6	55.6	47.9	70.5	62.8
FS	0.9	0.3	1.4	0.0	0.5	0.7	1.0
Total[1,2]	**949**	**387**	**561**	**170**	**786**	**318**	**3 220**

1 Total includes gonococcal isolates from ACT (38) and TAS (11).

2 Totals includes 2 cases whose sex and/or site of isolation was not reported.

PPNG: penicillinase producing *N. gonorrhoeae,* **CMRP:** chromosomally mediated resistance to penicillin, **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, 2005 – 2009, by sex, site and year

	Year of diagnosis				
Sex and Site	**2005[1]**	**2006**	**2007**	**2008**	**2009**
Males					
Urethra	665	698	572	457	523
Rectal	238	255	178	181	193
Pharynx	171	149	106	99	101
Other/not specified	48	8	17	3	8
Total	**1 122**	**1 110**	**873**	**740**	**825**
Females					
Cervix	90	79	82	102	100
Rectal	1	3	2	1	4
Pharynx	3	2	14	11	15
Other/not specified	1	4	2	3	5
Total	**95**	**88**	**100**	**117**	**124**
Total	**1 218**	**1 198**	**973**	**857**	**949**

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 incidence among men who have sex with men enrolled in the Health in Men cohort study

4.2 HIV seroprevalence among people seen at sexual health clinics

4.3 HIV and hepatitis C seroprevalence among people who inject drugs

4.4 Incidence of hepatitis C infection among people who inject drugs

4.5 National monitoring of HIV infection among entrants into Australian prisons

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

4.7 Chlamydia positivity among people seen through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS)

4.8 Genital Warts Surveillance Network

4.9 Victorian Primary Care Network for sentinel surveillance for BBVs and STIs

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

4.1 HIV incidence among men who have sex with men enrolled in the Health in Men cohort study

Table 4.1.1 Number of men who have sex with men, who were HIV antibody negative when they enrolled in the Health in Men (HIM) cohort study, with newly acquired infection (incidence), by year

	Year of HIV diagnosis							
	2002	2003	2004	2005	2006	2007	2008	2009
Number of new HIV diagnoses	7	9	12	14	7	5	5	11
Person years at risk	726.1	1 131.1	1 369.6	1 400.2	1 381.4	1 374.8	1 349.3	1 375.2
HIV incidence	0.96	0.80	0.88	1.00	0.51	0.36	0.37	0.80

Source: National Centre in HIV Epidemiology and Clinical Research

4.2 HIV seroprevalence among people seen at sexual health clinics

Table 4.2.1 Number of people seen at selected metropolitan sexual health clinics in Australia, 2005 – 2009, 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						
Men		**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**
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)
2009	Seen	4 925	–	4 058	1 750	4 138	9 162	24 033
	Tested	2 551	–	1 469	537	3 546	5 546	13 649
	Newly diagnosed (%)	36 (1.4)	–	12 (0.8)	5 (0.9)	5 (0.1)	56 (1.0)	114 (0.8)
	Previously negative (%)	28 (1.4)	–	11 (1.2)	3 (1.4)	4 (0.2)	50 (1.2)	96 (1.0)

		Sexual Health Clinic						
Women		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
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)
2009	Seen	3 052	–	2 548	1 223	2 281	7 183	16 287
	Tested	1 297	–	712	313	1 893	2 553	6 768
	Newly diagnosed (%)	1 (0.1)	–	1 (0.1)	0 (0.0)	0 (0.0)	2 (0.1)	4 (0.06)
	Previously negative (%)	1 (0.1)	–	1 (0.2)	0 (0.0)	0 (0.0)	2 (0.1)	4 (0.08)

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

Source: Collaborative group on sentinel surveillance in sexual health clinics

Table 4.2.2 Number of people seen at selected metropolitan sexual health clinics in Australia, 2005 – 2009, 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						
Men		**Men who have sex with men[1]**	**Men who have sex with men[1], age < 25 years**	**Injecting drug use**	**Heterosexual contact overseas**	**Heterosexual contact in Australia**	**Other men**	**Total**
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)
2009	Seen	9 305	2 122	461	3 694	9 706	867	24 033
	Tested	6 727	1 144	284	2 101	4 438	99	13 649
	Newly diagnosed (%)	108 (1.6)	15 (1.3)	0 (0.0)	2 (0.1)	4 (0.1)	0 (0.0)	114 (0.8)
	Previously negative (%)	91 (1.6)	12 (1.1)	0 (0.0)	2 (0.2)	3 (0.1)	0 (0.0)	96 (1.0)

		HIV exposure category					
Women		**Sex worker[2]**	**Injecting drug use**	**Heterosexual contact overseas**	**Heterosexual contact in Australia**	**Other women**	**Total**
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)
2009	Seen	4 245	338	2 571	8 168	965	16 287
	Tested	2 459	193	954	2 903	259	6 768
	Newly diagnosed (%)	1 (0.04)	0 (0.0)	0 (0.0)	3 (0.1)	0 (0.0)	4 (0.06)
	Previously negative (%)	1 (0.04)	0 (0.0)	0 (0.0)	3 (0.17)	0 (0.0)	4 (0.08)

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 4.2.3 Number of people seen at selected metropolitan sexual health clinics in Australia, 2005 – 2009, 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)						
Men		**13 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60+**	**Total**
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)
2009	Seen	981	11 315	6 315	3 254	1 465	703	24 033
	Tested	515	6 574	3 635	1 777	783	365	13 649
	Newly diagnosed (%)	3 (0.6)	45 (0.7)	39 (1.1)	17 (1.0)	9 (1.1)	1 (0.3)	114 (0.8)
	Previously negative (%)	2 (1.1)	39 (0.9)	32 (1.1)	13 (0.9)	9 (1.5)	1 (0.4)	96 (1.0)

		Age group (years)						
Women		**13 – 19**	**20 – 29**	**30 – 39**	**40 – 49**	**50 – 59**	**60+**	**Total**
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)
2009	Seen	1 490	8 744	3 990	1 562	409	92	16 287
	Tested	515	3 390	1 910	772	149	32	6 768
	Newly diagnosed (%)	0 (0.0)	3 (0.09)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	4 (0.06)
	Previously negative (%)	0 (0.0)	3 (0.1)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	4 (0.08)

Source: Collaborative group on sentinel surveillance in sexual health clinics

4.3 HIV and hepatitis C seroprevalence among people who inject drugs

Table 4.3.1 Number of participating needle and syringe programs (NSP), 2005 – 2009, number of people who inject drugs who were 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

2005

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody[3]		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT	1	30	9	39 (57)	0 (0.0)	0 (0.0)	0 (0.0)	20 (67)	9 (100)	29 (74)
NSW	23	440	243	689 (45)	6 (1.4)	0 (0.0)	6 (0.9)	302 (69)	168 (69)	474 (69)
NT	3	15	9	24 (30)	0 (0.0)	0 (0.0)	0 (0.0)	6 (40)	6 (67)	12 (50)
QLD	7	189	88	279 (36)	4 (2.1)	0 (0.0)	4 (1.4)	105 (56)	40 (47)	146 (53)
SA	7	122	82	205 (51)	1 (0.8)	0 (0.0)	1 (0.5)	54 (44)	40 (49)	95 (46)
TAS	3	86	51	137 (67)	0 (0.0)	0 (0.0)	0 (0.0)	51 (59)	30 (59)	81 (59)
VIC	5	103	77	180 (65)	1 (1.0)	0 (0.0)	1 (0.6)	65 (64)	56 (73)	121 (68)
WA	3	101	55	156 (47)	3 (3.0)	0 (0.0)	3 (1.9)	59 (58)	31 (56)	90 (58)
Total	**52**	**1 086**	**614**	**1 709 (46)**	**15 (1.4)**	**0 (0.0)**	**15 (0.9)**	**662 (61)**	**380 (62)**	**1 048 (61)**

2006

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody[3]		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT[4]	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 (64)**	**1 162 (62)**

2007

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody[3]		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT[4]	1	10	8	18 (–)	0 (0.0)	0 (0.0)	0 (0.0)	10 (100)	6 (75)	16 (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[4]	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 (61)**	**388 (64)**	**1 091 (62)**

2008

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody[3]		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT[4]	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)	2 (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)**

2009

State/ Territory	Number of NSP	Number of clients tested (% of clients seen)[1]			Number (%) with HIV antibody			Number (%) with hepatitis C antibody[3]		
		Male	Female	Total[2]	Male	Female	Total[2]	Male	Female	Total[2]
ACT	1	36	22	58 (67)	0 (0.0)	0 (0.0)	0 (0.0)	21 (58)	13 (59)	34 (59)
NSW	20	488	320	816 (39)	12 (2.5)	0 (0.0)	13 (1.6)	272 (56)	193(60)	468 (58)
NT	3	51	25	76 (29)	0 (0.0)	0 (0.0)	0 (0.0)	20 (40)	9 (36)	29 (39)
QLD	8	581	209	795 (59)	10 (1.7)	0 (0.0)	10 (1.3)	244 (42)	94 (45)	339 (43)
SA	7	155	91	246 (53)	2 (1.3)	1 (1.1)	3 (1.2)	65 (42)	36 (40)	101 (41)
TAS	4	73	47	121 (16)	0 (0.0)	0 (0.0)	0 (0.0)	38 (52)	24 (53)	63 (53)
VIC[4]	6	215	116	333 (–)	3 (1.4)	0 (0.0)	3 (0.9)	120 (57)	60 (52)	182 (55)
WA	2	126	85	212 (29)	1 (0.8)	1 (1.2)	2 (1.0)	60 (48)	42 (49)	102 (48)
Total	**51**	**1 725**	**915**	**2 657 (45)**	**28 (1.6)**	**2 (0.2)**	**31 (1.2)**	**840 (49)**	**471 (52)**	**1 318 (50)**

1 At first attendance during the survey week.

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

3 Number tested for hepatitis C antibody excludes cases with insufficient blood for testing.

4 The number of NSP clients seen was not reported.

Source: Collaboration of Australian Needle and Syringe Programs

Table 4.3.2 Number of people who inject drugs seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2005 – 2009, and percent with HIV or hepatitis C antibody by year, age group, time since first injection, type of drug last injected among those reporting less than three years since first injection, and sex

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	18	22	40	0.0	0.0	0.0	17	45	33
20 to 24 years	112	90	202	0.9	0.0	0.5	30	51	40
25 to 34 years	413	260	674	0.7	0.0	0.5	53	54	54
35 to 44 years	363	169	537	2.5	0.0	1.7	72	74	73
45+ years	177	72	252	1.1	0.0	0.8	81	79	80
Not reported	3	1	4	0.0	0.0	0.0	100	100	100
Time since first injection									
Less than 5 years	114	73	189	3.5	0.0	2.1	11	30	19
5 to 9 years	186	169	356	1.1	0.0	0.6	51	54	53
10 to 14 years	234	146	381	1.3	0.0	0.8	59	58	59
15 to 19 years	161	85	249	1.3	0.0	0.8	71	75	72
20+ years	346	123	470	0.9	0.0	0.6	82	86	83
Not reported	45	18	64	2.2	0.0	1.6	42	72	52
Total	**1 086**	**614**	**1 709**	**1.4**	**0.0**	**0.9**	**61**	**62**	**61**
Last drug injected among those reporting less than 3 years since first injection									
Amphetamines	27	15	42	7.4	0.0	4.8	0	0	0
Heroin	12	6	19	0.0	0.0	0.0	8	83	32
Other opiates	6	3	9	0.0	0.0	0.0	33	67	44
All other drugs	9	3	12	0.0	0.0	0.0	0	33	8
Not reported	0	1	1	0.0	0.0	0.0	0	100	100
Total	**54**	**28**	**83**	**3.7**	**0.0**	**2.4**	**6**	**32**	**14**

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 34 years	492	265	764	1.0	0.4	0.9	51	59	54
35 to 44 years	402	195	600	3.0	0.5	2.2	68	73	69
45+ years	204	94	301	3.4	0.0	2.3	84	76	81
Not reported	5	2	7	0.0	0.0	0.0	80	100	86
Time since first injection									
Less than 5 years	106	79	186	2.8	0.0	1.6	22	24	23
5 to 9 years	218	156	378	0.9	0.6	1.1	44	57	49
10 to 14 years	254	159	415	2.0	0.0	1.2	56	66	60
15 to 19 years	224	98	325	4.5	0.0	3.1	65	73	68
20+ years	364	154	521	1.4	0.7	1.2	82	84	82
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**	**64**	**62**
Last drug injected among those reporting less than 3 years since first injection									
Amphetamines	33	21	54	3.0	0.0	1.9	9	5	8
Heroin	4	8	13	0.0	0.0	0.0	75	0	25
Other opiates	7	7	14	0.0	0.0	0.0	43	71	57
All other drugs	15	5	20	0.0	0.0	0.0	0	40	10
Not reported	0	1	1	0.0	0.0	0.0	0	100	100
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	16	34	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 34 years	453	236	693	1.3	0.0	0.9	55	59	56
35 to 44 years	434	219	654	2.5	0.5	2.0	65	69	67
45+ years	216	99	320	3.7	1.0	2.8	77	78	77
Not reported	2	0	2	0.0	0.0	0.0	100	0	67
Time since first injection									
Less than 5 years	100	74	175	3.0	0.0	1.7	20	38	28
5 to 9 years	185	116	304	1.1	0.0	0.7	39	57	45
10 to 14 years	259	155	416	1.2	0.0	1.0	61	63	62
15 to 19 years	217	113	333	2.3	0.9	1.8	64	67	65
20+ years	403	164	569	2.7	0.6	2.1	79	79	79
Not reported	31	17	48	3.2	0.0	2.0	71	76	73
Total	**1 195**	**639**	**1 845**	**2.1**	**0.3**	**1.5**	**61**	**64**	**62**
Last drug injected among those reporting less than 3 years since first injection									
Amphetamines	35	19	54	2.9	0.0	1.9	15	28	19
Heroin	10	11	21	0.0	0.0	0.0	10	45	29
Other opiates	7	5	12	0.0	0.0	0.0	33	20	27
All other drugs	8	3	11	0.0	0.0	0.0	0	0	0
Not reported	1	0	1	0.0	0.0	0.0	0	0	0
Total	**61**	**38**	**99**	**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 34 years	468	297	767	1.5	1.0	1.4	55	59	57
35 to 44 years	529	241	773	2.7	0.0	1.8	67	64	66
45+ years	287	136	428	2.8	0.0	1.9	81	72	78
Not reported	5	1	6	0.0	0.0	0.0	60	0	50
Time since first injection									
Less than 5 years	141	84	225	5.7	0.0	3.6	22	37	28
5 to 9 years	175	126	302	0.6	0.0	0.3	41	50	45
10 to 14 years	265	189	455	1.1	1.1	1.3	61	57	59
15 to 19 years	241	130	372	3.3	0.0	2.2	60	70	64
20+ years	539	224	769	1.5	0.5	1.2	83	79	82
Not reported	35	11	47	2.9	0.0	2.1	58	30	52
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 since first injection									
Amphetamines	28	14	42	14.3	0.0	9.5	14	21	17
Heroin	8	15	23	12.5	0.0	4.4	25	50	41
Other opiates	10	10	20	0.0	0.0	0.0	30	30	30
All other drugs	19	4	23	0.0	0.0	0.0	16	75	26
Not reported	2	0	2	0.0	0.0	0.0	0	0	0
Total	**67**	**43**	**110**	**7.5**	**0.0**	**4.6**	**18**	**38**	**26**

2009

	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	39	30	70	0.0	0.0	0.0	8	17	11
20 to 24 years	118	88	207	0.9	0.0	0.5	24	43	32
25 to 34 years	577	349	930	1.2	0.0	0.8	43	53	47
35 to 44 years	624	310	939	2.1	0.0	1.5	55	55	55
45+ years	367	137	510	1.9	0.7	1.6	62	53	59
Not reported	0	1	1	0.0	0.0	0.0	0	0	0
Time since first injection									
Less than 5 years	145	113	260	1.4	0.0	0.8	17	25	20
5 to 9 years	195	145	342	1.6	0.0	0.9	30	43	36
10 to 14 years	346	234	583	1.7	0.0	1.0	46	56	50
15 to 19 years	378	171	551	2.1	0.0	1.7	51	60	54
20+ years	622	226	855	1.5	0.5	1.2	64	62	63
Not reported	39	26	66	0.0	3.9	1.5	33	38	36
Total	**1 725**	**915**	**2 657**	**1.6**	**0.2**	**1.2**	**49**	**52**	**50**
Last drug injected among those reporting less than 3 years since first injection									
Amphetamines	33	18	51	3.0	0.0	2.0	0	22	8
Heroin	12	21	33	0.0	0.0	0.0	25	30	28
Other opiates	14	24	39	0.0	0.0	0.0	7	17	13
All other drugs	30	2	32	3.3	0.0	3.1	7	50	9
Not reported	1	2	3	0.0	0.0	0.0	0	0	0
Total	**90**	**67**	**158**	**2.2**	**0.0**	**1.3**	**7**	**23**	**13**

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

Source: Collaboration of Australian Needle and Syringe Programs

Table 4.3.3 Number of people who inject drugs seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2005 – 2009, 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

2005

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
Sexual identity									
Heterosexual	950	441	1 392	0.4	0.0	0.3	61	62	61
Bisexual	38	107	146	0.0	0.0	0.0	53	60	59
Homosexual	54	32	91	20.8	0.0	12.2	57	75	65
Not reported	44	34	80	0.0	0.0	0.0	67	65	66
Sex work last month									
No	1 034	527	1 568	1.4	0.0	0.9	61	60	61
Yes	28	74	104	3.6	0.0	1.0	68	78	75
Not reported	24	13	37	0.0	0.0	0.0	58	69	62
Country/region of birth									
Australia	910	542	1 458	1.4	0.0	0.9	60	62	61
Overseas born	153	65	220	1.3	0.0	0.9	69	66	65
Other Oceania	*32*	*15*	*49*	*3.1*	*0.0*	*2.0*	*47*	*67*	*51*
Asia	*11*	*4*	*15*	*0.0*	*0.0*	*0.0*	*45*	*25*	*36*
United Kingdom and Ireland	*62*	*32*	*94*	*1.6*	*0.0*	*1.1*	*74*	*69*	*73*
Other	*48*	*14*	*62*	*0.0*	*0.0*	*0.0*	*71*	*64*	*69*
Not reported	23	7	31	4.4	0.0	3.2	70	57	68
Main language spoken at home by parents									
English	900	549	1 456	1.7	0.0	1.0	61	61	61
Other language	71	25	98	0.0	0.0	0.0	58	64	59
Not reported	115	40	155	0.0	0.0	0.0	62	70	64
Total	**1 086**	**614**	**1 709**	**1.4**	**0.0**	**0.9**	**61**	**62**	**61**

2006

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
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*	*2.6*	*0.0*	*3.2*	*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**	**64**	**62**

2007

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
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**	**61**	**64**	**62**

2008

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	Female	Total[1]	Male	Female	Total[1]	Male	Female	Total[1]
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**

2009

	Number tested			Percent with HIV antibody			Percent with hepatitis C antibody		
	Male	**Female**	**Total[1]**	**Male**	**Female**	**Total[1]**	**Male**	**Female**	**Total[1]**
Sexual identity									
Heterosexual	1 517	684	2 207	0.5	0.3	0.4	50	49	50
Bisexual	80	146	229	2.5	0.0	1.3	46	66	58
Homosexual	48	37	87	39.1	0.0	21.2	27	41	32
Not reported	80	48	134	1.3	0.0	0.8	51	50	50
Sex work last month									
No	1 621	790	2 425	1.6	0.3	1.2	49	50	49
Yes	36	90	129	5.7	0.0	1.6	44	68	61
Not reported	68	35	103	0.0	0.0	0.0	53	40	49
Country/region of birth									
Australia	1 480	806	2 299	1.8	0.3	1.3	50	51	50
Overseas born	224	104	332	0.5	0.0	0.3	46	55	48
Other Oceania	*54*	*30*	*84*	*0.0*	*0.0*	*0.0*	*43*	*57*	*48*
Asia	*24*	*7*	*32*	*4.2*	*0.0*	*3.1*	*42*	*43*	*41*
United Kingdom and Ireland	*82*	*37*	*120*	*0.0*	*0.0*	*0.0*	*51*	*57*	*53*
Other	*64*	*30*	*96*	*0.0*	*0.0*	*0.0*	*42*	*53*	*46*
Not reported	21	5	26	0.0	0.0	0.0	48	60	50
Main language spoken at home by parents									
English	1 628	869	2 513	1.7	0.2	1.2	49	52	50
Other language	72	38	111	1.4	0.0	0.9	54	45	50
Not reported	25	8	33	0.0	1.0	0.0	44	63	48
Total	**1 725**	**915**	**2 657**	**1.6**	**0.2**	**1.2**	**49**	**52**	**50**

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

Source: Collaboration of Australian Needle and Syringe Programs

4.4 Incidence of hepatitis C infection among people who inject drugs

Table 4.4.1 Incidence of hepatitis C infection among people who inject drugs seen at the Kirketon Road Centre, Sydney, 2005 – 2009

Year/Age group	Person years at risk	Number newly diagnosed	Incidence per 100 person years
2005			
Less than 20 years	8.0	2	25.0
20-29 years	33.7	2	5.9
30+ years	34.1	3	8.8
Total	**75.8**	**7**	**9.2**
2006			
Less than 20 years	4.0	1	25.0
20-29 years	29.7	2	6.7
30+ years	39.0	1	2.6
Total	**72.7**	**4**	**5.5**
2007			
Less than 20 years	4.2	0	0
20-29 years	21.7	3	13.8
30+ years	34.2	3	8.8
Total	**60.1**	**6**	**10.0**
2008			
Less than 20 years	1.9	0	0
20-29 years	13.3	1	7.5
30+ years	28.1	4	14.2
Total	**43.3**	**5**	**11.5**
2009			
Less than 20 years	1.7	1	58.8
20-29 years	8.7	0	0
30+ years	19.2	1	5.2
Total	**29.6**	**2**	**6.8**

Source: Kirketon Road Centre

Table 4.4.2 Incidence of hepatitis C infection among people who inject drugs enrolled in the Hepatitis C Incidence and Transmission Study – community (HITS-c), Sydney, 2009

Year/Age group	Person years at risk	Number newly diagnosed	Incidence per 100 person years
2009			
less than 20 years	5.5	0	0
20-29 years	29	2	6.9
30+ years	12	1	8.3
Total	**46.5**	**3**	**6.5**

Source: Kirketon Road Centre

4.5 National monitoring of HIV infection among entrants into Australian prisons

Table 4.5.1 Number of receptions into Australian prisons, 2005 – 2009, 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**
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	–	9 382	4 316	1 552	6 061	6 961	44 163
Number (%) male	13 989 (88)	–	8 313 (89)	3 810 (90)	1 372 (88)	5 113 (84)	6 064 (87)	38 661 (88)
Tested for HIV antibody (%)	23.4	–	100.0	10.9	52.1	15.1	50.8	42.6
% males tested	24.2	–	100.0	10.9	53.5	15.0	51.3	43.3
Number (%) with HIV	30 (0.8)	–	17 (0.2)	3 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	50 (0.3)
Number (%) male	26 (0.8)	–	16 (0.2)	2 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	44 (0.3)
2009								
Number of receptions	15 055	–	–	3 987	1 491	–	7 424	27 957
Number (%) male	13 181 (88)	–	–	3 564 (89)	1 310 (89)	–	6 460 (87)	24 515 (88)
Tested for HIV antibody (%)	26.9	–	–	14.9	41.9	–	43.0	30.3
% males tested	27.9	–	–	15.1	42.7	–	44.5	31.2
Number (%) with HIV	42 (1.0)	–	–	2 (0.3)	0 (0.0)	–	1 (0.03)	45 (0.5)
Number (%) male	40 (1.1)	–	–	1 (0.2)	0 (0.0)	–	1 (0.03)	42 (0.5)

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

2 Dashes indicate that data were not available.

Source: State/Territory Departments of Corrections

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

Table 4.6.1 Number of donations tested for HIV antibody at blood services, number of donations positive for HIV antibody and prevalence of HIV antibody[1], 1985 – 2009, by State/Territory and years of donation

State/Territory	1985[2] – 1999			2000 – 2001			2002 – 2003		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT[3]	195 633	1	0.5	–	–	–	–	–	–
NSW	4 239 286	37	0.9	609 047	3	0.5	644 544	3	0.5
NT	129 910	1	0.8	15 834	0	0.0	16 950	0	0.0
QLD	2 531 038	27	1.1	386 060	3	0.8	426 959	2	0.5
SA	1 371 875	6	0.4	176 018	0	0.0	182 549	0	0.0
TAS	358 976	1	0.3	25 849	0	0.0	49 454	0	0.0
VIC	3 646 273	17	0.5	505 937	0	0.0	513 206	0	0.0
WA	1 186 498	9	0.8	196 489	1	0.5	215 146	3	1.4
Total	**13 659 489**	**99**	**0.7**	**1 915 234**	**7**	**0.4**	**2 048 808**	**8**	**0.4**

State/Territory	2004 – 2005			2006 – 2007			2008 – 2009			All years		
	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence	Tests	Positive	Prevalence
ACT	–	–	–	–	–	–	–	–	–	195 633	1	0.5
NSW	685 767	3	0.4	767 349	2	0.3	812 296	2	0.2	7 758 289	50	0.6
NT	20 939	0	0.0	20 292	0	0.0	24 104	0	0.0	228 029	1	0.4
QLD	473 053	2	0.4	482 500	2	0.4	527 114	6	1.1	4 826 724	42	0.9
SA	204 178	1	0.5	244 895	2	0.8	272 639	0	0.0	2 452 154	9	0.4
TAS	52 805	0	0.0	62 294	0	0.0	78 267	0	0.0	627 645	1	0.2
VIC	522 699	1	0.2	536 212	1	0.2	600 306	5	0.8	6 324 633	24	0.4
WA	232 349	0	0.0	231 209	1	0.4	255 295	0	0.0	2 316 986	14	0.6
Total	**2 191 790**	**7**	**0.3**	**2 344 751**	**8**	**0.3**	**2 570 021**	**13**	**0.5**	**24 730 093**	**142**	**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

Table 4.6.2 Number of blood donors in Australia with HIV antibody, 1985 – 2009, 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 – 1999		2000 – 2001		2002 – 2003		2004 – 2005		2006 – 2007		2008 – 2009		All years		
HIV exposure category	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**Total**
Male homosexual contact[1]	19	–	1	–	2	–	3	–	0	–	6	–	31	–	31
Injecting drug use	3	0	1	0	0	0	1	0	1	0	0	0	6	0	6
Heterosexual contact	21	20	2	2	1	4	1	1	3	2	3	3	31	32	63
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	5	0	0	0	0	0	0	0	0	0	0	0	5	5
Undetermined	25	3	1	0	1	0	1	0	2	0	1	0	31	3	34
Total	**69**	**30**	**5**	**2**	**4**	**4**	**6**	**1**	**6**	**2**	**10**	**3**	**100**	**42**	**142**
New HIV infection[2]	**26**	**14**	**4**	**2**	**5**	**1**	**0**	**2**	**2**	**1**	**4**	**1**	**41**	**21**	**62**

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 4.6.3 Number of donations tested for hepatitis B surface antigen at blood services, 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	2005 Tests	2005 Positive	2005 Prevalence	2006 Tests	2006 Positive	2006 Prevalence	2007 Tests	2007 Positive	2007 Prevalence
NSW/ACT	353 992	52	14.7	377 749	37	9.8	389 600	40	10.3
NT	10 003	0	0.0	9 319	1	10.7	10 973	3	27.3
QLD	232 386	19	8.2	244 369	21	8.6	238 131	20	8.4
SA	102 924	8	7.8	119 391	5	4.2	125 504	9	7.2
TAS	28 061	0	0.0	31 625	0	0.0	30 669	0	0.0
VIC	244 678	25	10.2	260 700	30	11.5	275 512	43	15.6
WA	110 150	6	5.4	110 492	7	6.3	120 717	8	6.6
Australia	**1 082 194**	**110**	**10.2**	**1 153 645**	**101**	**8.8**	**1 191 106**	**123**	**10.3**

State/Territory	2008 Tests	2008 Positive	2008 Prevalence	2009 Tests	2009 Positive	2009 Prevalence
NSW/ACT	387 669	46	11.9	424 627	46	10.8
NT	11 981	0	0.0	12 123	2	16.5
QLD	256 224	16	6.2	270 890	13	4.8
SA	134 384	9	6.7	138 255	9	6.5
TAS	37 257	1	2.7	41 010	0	0.0
VIC	289 338	44	15.2	310 968	35	11.3
WA	124 581	8	6.4	130 714	20	15.3
Australia	**1 241 434**	**124**	**10.0**	**1 328 587**	**125**	**9.4**

1 Prevalence per 100 000 donations.

Source: Australian Red Cross Blood Service

Table 4.6.4 Number of donations tested for hepatitis C antibody at blood services, number of donations positive for hepatitis C antibody and prevalence of hepatitis C antibody[1], by State/Territory and year of donation

State/Territory	2005 Tests	2005 Positive	2005 Prevalence	2006 Tests	2006 Positive	2006 Prevalence	2007 Tests	2007 Positive	2007 Prevalence
NSW/ACT	353 992	49	13.8	377 749	36	9.5	389 600	41	10.5
NT	10 003	1	10.0	9 319	3	32.2	10 973	0	0.0
QLD	232 386	37	15.9	244 369	27	11.0	238 131	34	14.3
SA	102 924	4	3.9	119 391	8	6.7	125 504	7	5.6
TAS	28 061	4	14.3	31 625	2	6.3	30 669	2	6.5
VIC	244 678	16	6.5	260 700	25	9.6	275 512	28	10.2
WA	110 150	16	14.5	110 492	6	5.4	120 717	9	7.5
Australia	**1 082 194**	**127**	**11.7**	**1 153 645**	**107**	**9.3**	**1 191 106**	**121**	**10.2**

State/Territory	2008 Tests	2008 Positive	2008 Prevalence	2009 Tests	2009 Positive	2009 Prevalence
NSW/ACT	387 669	61	15.7	424 627	52	12.2
NT	11 981	0	0.0	12 123	1	8.2
QLD	256 224	31	12.1	270 890	22	8.1
SA	134 384	9	6.7	138 255	14	10.1
TAS	37 257	4	10.7	41 010	5	12.2
VIC	289 338	20	6.9	310 968	24	7.7
WA	124 581	5	4.0	130 714	10	7.7
Australia	**1 241 434**	**130**	**10.5**	**1 328 587**	**128**	**9.6**

1 Prevalence per 100 000 donations.

Source: Australian Red Cross Blood Service

4.7 Chlamydia positivity among people seen through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS)

Table 4.7.1 Number of people seen for the first time at sexual health services participating in ACCESS, 2006 – 2009, number (percent) tested for chlamydia and number (percent) tested positive with chlamydia by State/Territory, sex and year

		State/Territory location of sexual health services						
Sex/Year		**NSW[1]**	**QLD[2]**	**VIC[3]**	**NT[4]**	**TAS[5]**	**WA[6]**	**Total[7]**
Males								
2006	Seen	6 191	1 927	4 126	788	–	474	13 506
	Tested (%)	4 482 (72.4)	1 576 (81.8)	3 330 (80.7)	467 (59.3)	–	372 (78.5)	10 227 (75.7)
	Positive (%)	357 (8.0)	212 (13.4)	287 (8.6)	73 (15.6)	–	26 (7.0)	955 (9.3)
2007	Seen	6 384	2 009	4 109	835	676	599	13 936
	Tested (%)	4 762 (74.6)	1 624 (80.8)	3 357 (81.7)	444 (53.2)	405 (59.9)	478 (79.8)	10 665 (76.5)
	Positive (%)	346 (7.3)	206 (12.7)	268 (8.0)	58 (13.1)	39 (9.6)	47 (9.8)	925 (8.7)
2008	Seen	5 856	2 073	4 573	894	663	635	14 031
	Tested (%)	4 129 (70.5)	1 714 (82.7)	4 010 (87.7)	709 (79.3)	384 (57.9)	483 (76.1)	11 045 (78.7)
	Positive (%)	334 (8.1)	241 (14.1)	343 (8.5)	67 (9.4)	47 (12.2)	57 (11.8)	1 042 (9.4)
2009	Seen	6 337	1 958	5 862	1 172	831	662	15 991
	Tested (%)	4 193 (66.2)	1 562 (79.8)	4 896 (83.5)	1 012 (86.3)	355 (42.7)	450 (68.0)	12 113 (75.7)
	Positive (%)	379 (9.0)	236 (15.1)	478 (9.8)	148 (14.6)	49 (13.8)	42 (9.3)	1 283 (10.6)

		State/Territory location of sexual health services						
Sex/Year		**NSW[1]**	**QLD[2]**	**VIC[3]**	**NT[4]**	**TAS[5]**	**WA[6]**	**Total[7]**
Females								
2006	Seen	5 273	2 004	2 674	687	–	301	10 939
	Tested (%)	3 738 (70.8)	1 535 (76.6)	2 309 (86.3)	411 (59.8)	–	212 (70.4)	8 205 (75.0)
	Positive (%)	268 (7.2)	179 (11.7)	193 (8.3)	56 (13.6)	–	22 (10.4)	718 (8.7)
2007	Seen	5 416	2 155	2 854	734	932	313	11 472
	Tested (%)	3 918 (72.3)	1 704 (79.1)	2 460 (86.2)	396 (53.9)	556 (59.6)	232 (74.1)	8 710 (75.9)
	Positive (%)	270 (7.0)	173 (10.1)	185 (7.5)	55 (13.9)	31 (5.6)	30 (12.9)	713 (8.2)
2008	Seen	5 015	2 298	3 070	876	777	343	11 602
	Tested (%)	3 452 (68.8)	1 848 (80.4)	2 756 (89.8)	689 (78.6)	421 (54.2)	251 (73.2)	8 996 (77.5)
	Positive (%)	266 (7.7)	215 (11.6)	223 (8.1)	77 (11.2)	44 (10.4)	30 (11.9)	811 (9.0)
2009	Seen	5 227	2 240	3 649	1 107	700	381	12 604
	Tested (%)	3 480 (66.6)	1 739 (77.6)	3 216 (88.1)	917 (82.8)	298 (42.6)	259 (68.0)	9 611 (76.2)
	Positive (%)	260 (7.5)	218 (12.5)	267 (8.3)	128 (13.9)	28 (9.4)	20 (7.7)	893 (9.3)

1 Nine Services contributed data.

2 Three Services contributed data.

3 One Service contributed data.

4 One Service contributed data.

5 One Service contributed data. Data not available for 2006.

6 One Service contributed data.

7 Sixteen Services contributed data.

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

Table 4.7.2 Number of people seen for the first time at sexual health services participating in ACCESS, 2006 – 2009, number tested for chlamydia and number (percent) positive with chlamydia, by priority population and year

Chlamydia priority Population		Heterosexual males < 25 years[1]	Heterosexual females < 25 years[1]	Men who have sex with men[1]	Female sex workers[1]	Aboriginal & Torres Strait Islander males[2]	Aboriginal & Torres Strait Islander females[2]
2006	Seen	2 629	3 744	3 157	932	399	466
	Tested (%)	2 263 (86.1)	3 113 (83.1)	2 673 (84.7)	887 (95.2)	315 (78.9)	332 (71.2)
	Positive (%)	318 (14.0)	386 (12.4)	189 (7.1)	45 (5.1)	48 (15.2)	39 (11.7)
2007	Seen	2 622	3 739	3 257	1 224	389	462
	Tested (%)	2 285 (87.1)	3 154 (84.3)	2 789 (85.6)	1 160 (94.8)	306 (78.6)	347 (75.1)
	Positive (%)	333 (14.6)	368 (11.7)	174 (6.2)	54 (4.6)	37 (12.1)	46 (13.2)
2008	Seen	3 021	3 982	3 327	1 390	409	537
	Tested (%)	2 550 (84.4)	3 321 (83.4)	2 879 (86.5)	1 311 (94.3)	336 (82.1)	396 (73.7)
	Positive (%)	368 (14.4)	454 (13.7)	205 (7.1)	61 (4.6)	64 (19.0)	51 (12.9)
2009	Seen	3 535	4 319	3 797	1 653	416	635
	Tested (%)	2 893 (81.8)	3 508 (81.2)	3 281 (86.4)	1 534 (92.8)	340 (81.7)	461 (72.6)
	Positive (%)	464 (16.0)	504 (14.4)	315 (9.6)	90 (5.9)	56 (16.5)	77 (16.7)

1 Data available from 15 services in NSW, NT, QLD, VIC and WA.

2 Data available from 14 services in NSW, NT, QLD and VIC.

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

Table 4.7.3 Number of people seen for the first time at sexual health services participating in ACCESS, 2006 – 2009, number tested for chlamydia and number (percent) tested positive with Chlamydia, by sex, year and age group

		Age group (years)[1]					
Sex/Year		**Less than 20**	**20 – 29**	**30 – 39**	**40 – 49**	**50+**	**Total**
Males							
2006	Seen	858	6 089	3 473	1 833	1 249	13 502
	Tested	662 (77.2)	5 030 (82.6)	2 537 (73.1)	1 234 (67.3)	762 (61.0)	10 225 (75.7)
	Positive (%)	66 (10.1)	591 (11.7)	191 (7.5)	68 (5.5)	39 (5.1)	956 (9.3)
2007	Seen	953	6 315	3 425	1 882	1 352	13 924
	Tested	791 (82.9)	5 197 (82.3)	2 569 (75.0)	1 275 (67.7)	831 (61.4)	10 663 (76.6)
	Positive (%)	88 (11.1)	562 (10.8)	171 (6.6)	73 (5.7)	30 (3.6)	924 (8.6)
2008	Seen	952	6 742	3 327	1 752	1 256	14 092
	Tested	790 (79.3)	5 682 (84.3)	2 549 (76.6)	1 242 (70.9)	782 (62.4)	11 045 (78.5)
	Positive (%)	100 (12.6)	658 (11.6)	182 (7.1)	69 (5.5)	33 (4.2)	1 042 (9.4)
2009	Seen	1 126	7 454	3 721	1 992	1 420	15 713
	Tested	906 (73.6)	6 175 (82.8)	2 721 (73.1)	1 332 (66.9)	799 (56.2)	11 933 (75.4)
	Positive (%)	129 (14.2)	808 (13.1)	198 (7.3)	86 (6.4)	47 (5.9)	1 268 (10.6)

		Age group (years)[1]					
Sex/Year		**Less than 20**	**20 – 29**	**30 – 39**	**40 – 49**	**50+**	**Total**
Females							
2006	Seen	1 833	5 554	2 108	972	467	10 934
	Tested	1 407 (76.8)	4 440 (79.9)	1 546 (73.3)	619 (63.7)	192 (41.1)	8 204 (75.0)
	Positive (%)	173 (12.3)	435 (9.8)	75 (4.8)	25 (4.0)	10 (5.2)	718 (8.7)
2007	Seen	1 840	5 912	2 269	951	497	11 469
	Tested	1 399 (76.0)	4 780 (80.8)	1 707 (75.2)	592 (62.2)	232 (46.7)	8 710 (75.9)
	Positive (%)	169 (12.1)	448 (9.4)	79 (4.6)	16 (2.7)	1 (0.4)	713 (8.2)
2008	Seen	1 908	5 989	2 275	946	479	11 597
	Tested	1 518 (79.5)	4 906 (81.9)	1 720 (75.6)	625 (66.1)	226 (47.2)	8 995 (77.6)
	Positive (%)	208 (13.7)	498 (10.1)	75 (4.4)	27 (4.3)	3 (1.3)	811 (9.0)
2009	Seen	1 984	6 419	2 466	974	497	12 340
	Tested	1 539 (77.6)	5 197 (80.9)	1 834 (74.4)	647 (66.4)	208 (41.8)	9 420 (76.3)
	Positive (%)	212 (13.8)	568 (10.9)	84 (4.6)	17 (2.6)	5 (2.4)	886 (9.4)

1 Data from 15 services in NSW, NT, QLD, VIC and WA.

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

Table 4.7.4 Number of people seen for the first time at ACCESS networks of family planning clinics, general practice clinics, the Aboriginal Community Controlled Health Service and the laboratory network, number tested for chlamydia and number (percent) tested positive[1], by ACCESS network, sex, age group and year

Characteristic	2008 Seen	2008 Tested	2008 Positive	2009 Seen	2009 Tested	2009 Positive
Family Planning Clinic Network[2]						
Sex						
Males	306	145 (47.4)	28 (19.3)	339	146 (43.1)	33 (22.6)
Females[3]	5 831	2 172 (37.2)	168 (7.7)	6 137	2 039 (33.2)	162 (7.9)
Age group (years)						
16 – 19	1 684	678 (40.3)	88 (13.0)	1 730	639 (36.9)	89 (13.9)
20 – 24	2 540	1 045 (41.1)	88 (8.4)	2 628	972 (37.0)	85 (8.7)
25 – 29	1 913	594 (37.8)	20 (3.4)	2 118	574 (27.1)	21 (3.7)
Total	**6 137**	**2 317 (37.8)**	**196 (8.5)**	**6 476**	**2 185 (33.7)**	**195 (8.9)**
General Practice Network[1]						
Sex						
Males	12 131	530 (4.4)	43 (8.1)	14 093	601 (4.3)	44 (7.3)
Females	20 679	1 496 (7.2)	89 (5.9)	22 457	1 705 (7.6)	78 (4.6)
Age group (years)						
13 – 19	8 562	467 (5.5)	38 (8.1)	9 231	489 (5.3)	34 (7.0)
20 – 24	12 559	877 (7.0)	61 (7.0)	13 885	1 001 (7.2)	55 (5.5)
25 – 29	11 689	682 (5.8)	33 (4.8)	13 434	816 (6.1)	33 (4.0)
Total	**32 810**	**2 026 (6.2)**	**132 (6.5)**	**36 550**	**2 306 (6.3)**	**122 (5.3)**
Aboriginal Community Controlled Health Service						
Sex						
Males	3 554	331 (9.3)	31 (11.7)	3 752	495 (13.2)	23 (5.4)
Females	5 176	820 (15.8)	72 (10.1)	5 465	1 011 (18.5)	69 (7.7)
Age group (years)						
13 – 19	1 671	264 (15.8)	45 (20.2)	1 769	305 (17.2)	34 (12.9)
20 – 24	1 885	299 (15.9)	32 (12.7)	2 034	377 (18.5)	34 (10.3)
25 – 29	1 637	217 (13.3)	16 (8.4)	1 731	311 (18.0)	17 (6.3)
30 – 39	3 537	371 (10.5)	10 (3.1)	3 683	513 (13.9)	7 (1.5)
Total	**8 730**	**1 151 (13.2)**	**103 (10.5)**	**9 217**	**1 506 (16.3)**	**92 (7.0)**
Laboratory Network[6]						
Sex						
Males		55 771	5 019 (9.0)		74 740	6 274 (8.4)
Females		122 142	8 054 (6.6)		164 343	9 765 (5.9)
Age group (years)						
13 – 19		27 356	3 391 (12.4)		33 282	4 066(12.2)
20 – 24		55 768	5 264 (9.4)		68 170	6 237 (9.1)
25 – 29		47 195	2 792 (5.9)		56 900	3 179 (5.6)
30 – 39		25 630	888 (3.5)		42 997	1 397 (3.2)
40+		19 018	385 (2.0)		17 115	206 (1.2)
Total		**177 913**	**13 073 (7.3)**		**239 083**	**16 039 (6.7)**

1 Tests without a result were excluded from the positivity calculation.

2 Data from 4 Family Planning Clinic sites.

3 Data from 7 Aboriginal Community Controlled Health Service sites.

4 Data from 15 Laboratory Network sites.

Source: Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance – Family Planning Clinic, General Practice, Aboriginal Community Controlled Health Service and Laboratory Networks

4.8 Genital Warts Surveillance Network

Table 4.8.1 Number of people seen for the first time at sexual health services participating in the Genital Wart Surveillance Network, 2005 – 2009, and number (percent) diagnosed with genital warts, by specific population and year

Warts Diagnosis[1]		Women aged ≤26 years in July 2007[2]	Older women	Heterosexual men aged ≤26 years in July 2007	Older heterosexual men	Men who have sex with men
2005	Seen	4 391	2 797	2 786	3 155	2 469
	Positive (%)	483 (11.0)	138 (4.9)	402 (14.4)	375 (11.9)	200 (8.1)
2006	Seen	4 696	2 713	2 877	3 059	2 653
	Positive (%)	495 (10.5)	132 (4.9)	408 (14.2)	351 (11.5)	170 (6.4)
2007	Seen	5 064	3 018	3 191	3 102	2 752
	Positive (%)	523 (10.3)	152 (5.0)	453 (14.2)	319 (10.3)	186 (6.8)
2008	Seen	5 384	3 045	3 631	3 262	2 832
	Positive (%)	337 (6.2)	117 (3.8)	442 (12.2)	306 (9.4)	173 (6.1)
2009	Seen	5 549	3 236	4 196	3 475	3 149
	Positive (%)	295 (5.3)	147 (4.5)	436 (10.4)	340 (9.8)	183 (5.8)

1 Data from 8 services from NSW, NT, QLD, TAS, VIC, WA

2 Women aged ≤26 years in July 2007 were eligible for the free national HPV vaccination catch-up program

Source: Genital Warts Surveillance Network

Table 4.8.2 Number of women seen for the first time at sexual health services participating in the Genital Wart Surveillance Network, 2005 – 2009, and number (percent) diagnosed with genital warts, by migration status and year

Warts Diagnosis[1]		Australian resident women aged ≤26 years in July 2007[2]	Travelling women aged ≤26 years in July 2007[2]	Older Australian resident women	Older travelling women
2005	Seen	2 742	930	1 902	318
	Positive (%)	315 (11.5)	85 (9.1)	101 (5.3)	11 (3.6)
2006	Seen	3 403	1 005	2 189	319
	Positive (%)	387 (11.4)	75 (7.5)	110 (5.0)	13 (4.1)
2007	Seen	3 553	1 352	2 405	448
	Positive (%)	395 (11.1)	111 (8.2)	123 (5.1)	23 (5.1)
2008	Seen	3 320	1 740	2 151	618
	Positive (%)	223 (6.7)	107 (6.1)	92 (4.3)	18 (2.9)
2009	Seen	3 205	1 987	2 070	777
	Positive (%)	174 (5.4)	109 (5.5)	112 (5.4)	24 (3.1)

1 Data from 8 services from NSW, NT, QLD, TAS, VIC and WA.

2 Women aged ≤26 years in July 2007 were eligible for the free national HPV vaccination catch-up program.

Source: Genital Warts Surveillance Network

4.9 Victorian Primary Care Network for sentinel surveillance for BBVs and STIs

Table 4.9.1 Number of men who have sex with men seen through the Victorian Primary Care Network who were tested for chlamydia, HIV antibody and syphilis and the number (percent) with chlamydia, HIV infection or infectious syphilis, by year and selected characteristics

	Year							
	Apr – Dec 2006		Jan – Dec 2007		Jan – Dec 2008		Jan – Jun 2009	
Infection	Number tested	Number (%) with infection	Number tested	Number (%) with infection	Number tested	Number (%) with infection	Number tested	Number (%) with infection
Chlamydia	**2 586**	**155 (6.0)**	**3 698**	**221 (6.0)**	**4 204**	**251 (6.0)**	**2 609**	**225 (8.6)**
Age group								
16 – 19	59	5 (8.5)	97	5 (5.2)	103	5 (4.9)	51	6 (11.8)
20 – 29	957	59 (6.2)	1 308	68 (5.2)	1 526	110 (7.2)	1 016	88 (8.7)
30 – 39	837	69 (8.2)	1 205	85 (7.1)	1 323	74 (5.6)	782	67 (8.6)
40 – 49	481	14 (2.9)	699	44 (6.3)	792	36 (4.6)	483	32 (6.6)
50+	252	8 (3.2)	389	19 (4.9)	460	26 (5.7)	277	32 (11.6)
STI symptoms								
Yes	543	51 (9.4)	699	68 (9.7)	846	68 (8.0)	489	61 (12.5)
No	1 838	89 (4.8)	2 757	137 (5.0)	2 845	158 (5.6)	1 689	118 (7.0)
HIV status								
Negative	2 405	137 (5.7)	3 425	189 (5.5)	3 836	219 (5.7)	2 429	185 (7.6)
Positive	177	18 (10.2)	269	32 (11.9)	362	29 (8.0)	178	27 (15.2)
HIV infection	**2 453**	**69 (2.8)**	**3 580**	**73 (2.0)**	**4 036**	**80 (2.0)**	**2 516**	**48 (1.9)**
Age group								
16 – 19	50	0 (0.0)	91	1 (1.1)	96	1 (1.0)	51	2 (3.9)
20 – 29	901	15 (1.7)	1 270	19 (1.5)	1 525	24 (1.6)	958	17 (1.8)
30 – 39	793	28 (3.5)	1 176	25 (2.1)	1 258	32 (2.5)	783	15 (1.9)
40 – 49	470	19 (4.0)	673	20 (3.0)	716	18 (2.5)	463	7 (1.5)
50+	239	7 (2.9)	370	8 (2.2)	441	5 (1.1)	261	7 (2.7)
STI symptoms								
Yes	354	10 (2.8)	515	12 (2.3)	624	9 (1.4)	401	6 (1.5)
No	2 015	54 (2.7)	2 984	58 (1.9)	3 059	65 (2.1)	1 805	38 (2.1)
Infectious syphilis	**2 559**	**47 (1.8)**	**3 830**	**98 (2.6)**	**4 464**	**107 (2.4)**	**2 960**	**64 (2.2)**
Age group								
15 – 19	51	0 (0.0)	94	1 (1.1)	100	1 (1.0)	53	1 (1.9)
20 – 29	903	12 (1.3)	1 288	26 (2.0)	1 568	41 (2.6)	1 019	26 (2.6)
30 – 39	834	15 (1.8)	1 262	30 (2.4)	1 388	29 (2.1)	895	18 (2.0)
40 – 49	521	13 (2.5)	782	29 (3.7)	889	25 (2.8)	625	14 (2.2)
50+	250	7 (2.8)	404	12 (3.0)	519	11 (2.1)	368	5 (1.4)
STI symptoms								
Yes	384	21 (5.5)	548	32 (5.8)	664	30 (4.5)	407	22 (5.4)
No	1 927	18 (0.9)	2 869	47 (1.6)	2 839	45 (1.6)	1 674	21 (1.3)
HIV status								
Positive	214	9 (4.2)	371	23 (6.2)	585	25 (4.3)	506	14 (2.8)
Negative	2 343	38 (1.6)	3 458	75 (2.2)	3 875	81 (2.1)	2 454	50 (2.0)

Source: Victorian Primary Care Network for the Sentinel Surveillance of Blood Borne Viruses and Sexually Transmitted Infections

Tables

5 Risk behaviour

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

5.2 Sexual and injecting behaviour among people who inject drugs

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, 2005 – 2009, 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 (age-standardised and venue-adjusted)

	Sydney					Queensland					Melbourne				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Sample size	**2 229**	**2 594**	**2 342**	**2 222**	**2 346**	**1 382**	**1 276**	**1 417**	**1 243**	**1 306**	**1 804**	**1 988**	**2 043**	**2 036**	**2 135**
Unprotected anal intercourse with regular partners	26.6	28.6	28.7	30.9	32.9	34.4	26.6	34.5	33.1	31.3	30.3	32.6	25.3	34.1	32.0
Unprotected anal intercourse with casual partners[1]	19.6	20.8	19.3	19.3	23.4	22.1	23.1	25.1	24.6	22.9	20.3	19.2	19.4	20.6	21.3
Injecting drug use[2]	4.8	5.3	5.8	6.5	6.2	2.7	8.2	2.8	4.6	4.8	5.2	8.4	5.4	6.2	6.2
HIV antibody testing[3]	60.1	61.8	64.8	62.0	66.6	58.3	56.1	59.5	54.0	61.3	58.0	52.1	61.1	56.7	59.7

	Adelaide			Canberra		Perth	
	2005	2007	2009	2006	2009	2006	2008
Sample size	**628**	**527**	**970**	**282**	**310**	**927**	**750**
Unprotected anal intercourse with regular partners	33.0	28.7	27.0	31.5	30.1	32.4	34.9
Unprotected anal intercourse with casual partners[1]	15.6	19.4	19.7	14.5	21.0	20.7	20.1
Injecting drug use[2]	6.4	2.2	3.5	1.6	0.8	4.4	3.8
HIV antibody testing[3]	56.7	57.6	54.0	53.9	53.3	52.2	52.1

1 Data not age standardised.

2 Injecting drug use in the previous 6 months.

3 HIV antibody testing in the previous 12 months among men not reported as HIV-positive excluding those recruited from clinic sites.

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 inject drugs

Table 5.2.1 Number of people who inject drugs seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2005 – 2009, percent reporting HIV and hepatitis C tests within the past twelve months, number reporting injecting drug use (IDU) in the last month, and percent reporting use of a needle and syringe after someone else in the last month by year, time since first injection, last drug injected and sex

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[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Time since first injection															
Less than 5 years	114	73	189	52	59	55	54	59	56	99	64	165	12	10	11
5 to 9 years	186	169	356	57	65	61	54	69	61	170	157	328	13	11	12
10 to 14 years	234	146	381	58	59	58	62	64	63	219	136	355	14	15	14
15 to 19 years	161	85	249	57	67	61	60	72	64	152	77	232	13	12	13
20+ years	346	123	470	55	51	54	58	63	60	310	106	417	10	8	10
Not reported	45	18	64	60	56	58	56	44	52	31	10	42	11	22	14
Last drug injected															
Amphetamine	340	196	541	55	54	55	52	58	54	306	174	484	11	12	11
Heroin	358	235	595	57	66	61	63	70	65	326	217	545	12	12	12
Other opiates	241	122	364	55	55	55	61	63	61	231	110	342	12	6	10
All other drugs	99	46	146	60	76	65	57	80	64	86	39	126	13	15	14
Not reported	48	15	63	60	47	57	54	60	56	32	10	42	23	33	25
Total	**1 086**	**614**	**1 709**	**56**	**60**	**58**	**58**	**65**	**61**	**981**	**550**	**1 539**	**12**	**12**	**12**

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[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Time since first injection															
Less than 5 years	106	79	186	50	67	57	55	66	59	90	68	159	8	10	9
5 to 9 years	218	156	378	57	65	61	59	66	62	199	144	346	11	15	13
10 to 14 years	254	159	415	55	68	60	57	65	60	235	144	381	17	14	16
15 to 19 years	224	98	325	57	55	57	60	59	60	208	88	298	15	14	15
20+ years	364	154	521	54	48	52	60	58	59	321	134	457	11	8	10
Not reported	57	15	72	60	47	57	58	53	57	50	13	63	21	33	25
Last drug injected															
Amphetamine	448	261	713	50	59	53	54	61	57	401	234	638	13	12	13
Heroin	303	187	495	58	52	56	61	59	60	267	160	431	12	15	13
Other opiates	331	165	499	60	67	62	63	65	64	315	155	473	12	12	12
All other drugs	103	37	141	48	73	55	51	73	57	88	32	120	14	14	13
Not reported	38	11	49	66	82	69	76	82	78	32	10	42	32	18	29
Total	**1 223**	**661**	**1 897**	**55**	**60**	**57**	**59**	**62**	**60**	**1 103**	**591**	**1 704**	**13**	**13**	**13**

2007

	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[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Time since first injection															
Less than 5 years	100	74	175	43	59	50	47	66	55	94	64	159	14	12	13
5 to 9 years	185	116	304	55	66	59	64	70	66	171	106	279	15	15	15
10 to 14 years	259	155	416	62	62	62	62	63	62	240	144	386	17	15	17
15 to 19 years	217	113	333	56	64	59	58	65	61	193	103	299	12	12	12
20+ years	403	164	569	55	47	53	59	52	57	364	140	506	12	8	11
Not reported	31	17	48	48	50	49	55	67	59	23	11	34	13	17	14
Last drug injected															
Amphetamine	348	204	552	53	55	54	52	62	55	300	178	478	12	12	12
Heroin	348	222	574	56	64	59	61	59	60	319	196	518	17	14	16
Other opiates	372	161	538	58	53	57	64	67	65	356	151	512	12	12	12
All other drugs	103	45	150	49	67	54	56	67	59	86	36	124	10	4	9
Not reported	24	7	31	63	63	63	63	75	66	24	7	31	33	38	34
Total	**1 195**	**639**	**1 845**	**55**	**58**	**57**	**59**	**63**	**60**	**1 085**	**568**	**1 663**	**14**	**13**	**13**

2008

	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[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Time since first injection															
Less than 5 years	141	84	225	48	55	50	57	62	59	117	73	190	7	25	14
5 to 9 years	175	126	302	57	50	54	65	57	62	160	113	274	14	17	16
10 to 14 years	265	189	455	52	52	52	58	52	56	244	161	406	17	15	16
15 to 19 years	241	130	372	50	46	49	59	48	55	223	121	345	16	18	17
20+ years	539	224	769	48	45	47	55	47	52	474	198	677	14	11	13
Not reported	35	11	47	54	9	43	51	36	49	30	6	37	6	18	9
Last drug injected															
Amphetamine	362	238	604	49	45	47	56	50	53	313	200	516	11	15	13
Heroin	494	253	749	51	52	52	58	54	57	438	230	670	16	15	16
Other opiates	401	218	621	51	46	49	60	50	57	381	201	584	14	17	15
All other drugs	113	43	158	48	51	49	51	53	52	95	32	129	16	19	17
Not reported	26	12	38	42	58	47	50	75	58	21	9	30	15	0	11
Total	**1 396**	**764**	**2 170**	**50**	**48**	**50**	**58**	**52**	**55**	**1 248**	**672**	**1 929**	**14**	**16**	**15**

2009

	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[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Time since first injection															
Less than 5 years	145	113	260	43	53	48	44	60	52	122	103	227	10	17	13
5 to 9 years	195	145	342	53	53	53	58	57	58	172	124	298	12	17	14
10 to 14 years	346	234	583	53	57	55	58	65	61	310	208	521	15	16	15
15 to 19 years	378	171	551	52	50	51	58	63	59	346	154	502	12	16	14
20+ years	622	226	855	46	51	47	54	60	56	563	202	771	15	10	14
Not reported	39	26	66	46	46	46	54	62	56	28	14	43	18	12	15
Last drug injected															
Amphetamine	402	243	649	44	52	47	50	58	53	344	201	549	11	13	12
Heroin	591	311	907	52	58	54	59	65	61	531	284	820	16	16	16
Other opiates	544	265	814	49	50	49	57	59	58	506	244	754	14	12	13
All other drugs	148	74	225	51	49	51	52	66	57	127	63	193	11	22	15
Not reported	40	22	62	53	45	50	60	59	60	33	13	46	23	18	21
Total	**1 725**	**915**	**2 657**	**49**	**53**	**51**	**55**	**61**	**58**	**1 541**	**805**	**2 362**	**14**	**15**	**14**

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 people who inject drugs seen at needle and syringe programs who were tested for HIV or hepatitis C antibody, 2005 – 2009, percent reporting HIV and hepatitis C tests within the last 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

2005

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse[2]		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Age group															
Less than 20 years	18	22	40	78	64	70	83	68	75	9	17	26	44	47	46
20 to 24 years	112	90	202	55	68	61	55	72	63	74	71	145	51	37	44
25 to 34 years	413	260	674	57	63	60	58	67	62	269	198	467	37	30	34
35 to 44 years	363	169	537	55	59	56	59	62	60	198	101	302	34	30	33
45+ years	177	72	252	54	44	51	54	56	55	83	33	117	25	21	25
Not reported	3	1	4	100	0	75	67	0	50	2	0	2	50	0	50
Sexual identity															
Heterosexual	950	441	1 392	56	57	56	58	63	60	553	300	853	34	30	33
Bisexual	38	107	146	55	64	62	39	64	58	23	86	109	52	41	43
Homosexual	54	32	91	70	75	71	67	84	74	34	17	53	65	24	53
Not reported	44	34	80	52	74	61	55	76	64	25	17	44	32	12	25
Total	**1 086**	**614**	**1 709**	**56**	**60**	**58**	**58**	**65**	**61**	**635**	**420**	**1 059**	**37**	**31**	**35**

2006

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse[2]		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Age group															
Less than 20 years	19	24	43	47	71	60	53	75	65	14	20	34	71	40	53
20 to 24 years	101	81	182	58	70	64	59	73	65	69	72	141	46	32	39
25 to 34 years	492	265	764	57	65	60	60	65	62	319	194	520	36	29	34
35 to 44 years	402	195	600	55	56	55	56	56	56	230	124	355	33	27	31
45+ years	204	94	301	49	46	48	60	59	59	87	43	132	17	16	17
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	30	23	28
Bisexual	55	110	171	71	64	66	67	65	66	37	92	135	54	42	46
Homosexual	59	46	107	64	72	68	64	72	68	42	30	73	67	30	51
Not reported	39	21	62	49	57	52	54	62	56	24	12	37	42	67	51
Total	**1 223**	**661**	**1 897**	**55**	**60**	**57**	**59**	**62**	**60**	**722**	**454**	**1 186**	**34**	**28**	**32**

2007

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse[2]		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Age group															
Less than 20 years	18	16	34	56	56	56	56	69	62	12	12	24	42	25	33
20 to 24 years	72	69	142	57	67	61	63	81	71	55	51	107	45	39	42
25 to 34 years	453	236	693	60	66	62	64	64	64	283	185	471	36	30	34
35 to 44 years	434	219	654	56	57	56	56	60	58	240	134	375	25	23	25
45+ years	216	99	320	45	39	44	52	52	52	88	45	135	23	27	24
Not reported	2	0	2	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	29	24	28
Bisexual	47	119	170	66	69	68	68	70	70	29	88	121	34	49	46
Homosexual	69	42	114	61	67	63	61	67	63	40	23	63	53	22	41
Not reported	24	20	47	67	65	66	71	80	74	12	12	26	50	92	69
Total	**1 195**	**639**	**1 845**	**55**	**58**	**57**	**59**	**63**	**60**	**680**	**427**	**1 114**	**31**	**28**	**30**

2008

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse[2]		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Age group															
Less than 20 years	21	16	37	48	63	54	57	75	65	13	14	27	46	57	52
20 to 24 years	86	73	159	50	48	49	63	64	64	64	58	122	56	38	48
25 to 34 years	468	297	767	56	54	55	64	52	60	312	218	531	38	36	38
35 to 44 years	529	241	773	50	48	49	55	51	53	279	153	433	27	27	27
45+ years	287	136	428	42	35	40	51	42	48	113	64	180	27	25	26
Not reported	5	1	6	40	0	33	60	0	50	2	0	2	50	0	50
Sexual identity															
Heterosexual	1 228	537	1 767	49	46	48	56	50	54	686	348	1 035	31	28	30
Bisexual	56	152	209	63	57	58	70	60	62	33	116	150	48	48	48
Homosexual	62	48	112	69	48	60	69	48	60	39	27	68	62	26	47
Not reported	50	27	82	44	44	44	56	52	55	25	16	42	44	31	38
Total	**1 396**	**764**	**2 170**	**50**	**48**	**50**	**58**	**52**	**55**	**783**	**507**	**1 295**	**34**	**33**	**34**

2009

	Number tested			% reporting recent HIV test			% reporting recent hepatitis C test			Number reporting sexual intercourse			% using condoms at last intercourse[2]		
	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]	M	F	T[1]
Age group															
Less than 20 years	39	30	70	33	67	49	31	63	46	27	29	57	74	41	58
20 to 24 years	118	88	207	48	52	50	54	65	59	77	64	142	44	36	41
25 to 34 years	577	349	930	56	58	57	59	67	62	350	253	606	34	28	32
35 to 44 years	624	310	939	46	49	47	56	57	56	325	196	521	30	26	28
45+ years	367	137	510	45	46	45	51	55	52	151	65	219	21	22	21
Not reported	0	1	1	0	0	0	0	0	0	0	1	1	0	1	100
Sexual identity															
Heterosexual	1 517	684	2 207	48	51	49	55	59	56	812	428	1 243	31	24	29
Bisexual	80	146	229	54	63	60	56	71	65	49	115	165	41	46	45
Homosexual	48	37	87	71	54	64	65	70	68	28	25	54	64	16	43
Not reported	80	48	134	51	46	51	51	63	57	41	40	84	29	30	30
Total	**1 725**	**915**	**2 657**	**49**	**53**	**51**	**55**	**61**	**58**	**930**	**608**	**1 546**	**32**	**28**	**31**

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 viral hepatitis

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

6.2 Estimates of the number of people living with viral hepatitis

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

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

Table 6.1.1 Estimated number of people living with diagnosed HIV infection in 2009 by State/Territory of HIV diagnosis and sex

State/Territory	Male	Female	Total	%
ACT	228	27	257	1.3
NSW	8 881	694	9 715	48.2
NT	112	23	135	0.7
QLD	2 916	326	3 260	16.2
SA	824	99	925	4.6
TAS	145	19	165	0.8
VIC	4 072	367	4 467	22.1
WA	1 019	223	1 247	6.2
Total	**18 197**	**1 778**	**20 171**	**100.0**

Source: State/Territory health authorities; National Centre in HIV Epidemiology and Clinical Research

6.2 Estimates of the number of people living with viral hepatitis

Table 6.2.1 Estimated number of people living with hepatitis B virus infection in 2009

Characteristic	Number	(plausible range)
Hepatitis B virus prevalence in 2009	162 000	(132 000 – 192 000)
During 2009		
Deaths attributable to chronic hepatitis B infection	325	(253 – 525)

Source: Victorian Infectious Diseases Reference Laboratory

Table 6.2.2 Estimated number of people living with hepatitis C virus infection in 2009 by stage of liver disease

Characteristic	Number	(plausible range)
Hepatitis C virus prevalence in 2009	291 000	(223 000 – 358 000)
Exposed to hepatitis C virus but not chronically infected	*74 000*	*(57 000 – 91 000)*
Chronic hepatitis C infection with stage F0/1 liver disease	*165 000*	*(126 000 – 205 000)*
Chronic hepatitis C infection with stage F2/3 liver disease	*46 000*	*(36 000 – 55 000)*
Living with hepatitis C-related cirrhosis	*5 920*	*(4 200 – 7 400)*
During 2009		
Hepatitis C-related liver failure	237	(169 – 297)
Hepatitis C-related hepatocellular carcinoma	118	(85 – 148)

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

7.2 Monitoring prescriptions for HIV treatments

7.3 Monitoring prescriptions for viral hepatitis

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 2009

	Current antiretroviral treatment[1]					
	None	Mono/Double	3+ (NRTI+/-PI, no NNRTI)	3+ (NRTI+ NNRTI, no PI)	3+ (NNRTI+ PI,+/-NRTI)	Total
Total	**206 (10%)**	**140 (7%)**	**715 (35%)**	**804 (40%)**	**167 (8%)**	**2 032**
Sex						
Male	189 (10%)	131 (7%)	679 (35%)	762 (40%)	159 (8%)	1 920
Female	17 (15%)	9 (8%)	36 (32%)	42 (38%)	8 (7%)	112
Age at enrolment (years)						
Less than 30	33 (20%)	8 (5%)	57 (35%)	64 (39%)	3 (2%)	165
30 – 39	92 (13%)	46 (7%)	243 (35%)	270 (39%)	49 (7%)	700
40 – 49	56 (8%)	52 (7%)	248 (35%)	271 (39%)	74 (11%)	701
50+	25 (5%)	34 (7%)	167 (36%)	199 (43%)	41 (9%)	466
Exposure category						
Male homosexual contact	151 (9%)	122 (8%)	583 (37%)	604 (38%)	136 (9%)	1 596
Other/not reported	55 (13%)	18 (4%)	132 (30%)	200 (46%)	31 (7%)	436
Viral load at enrolment (copies/ml)						
Less than 400	56 (5%)	88 (7%)	421 (35%)	564 (46%)	89 (7%)	1 218
400 – 10,000	70 (21%)	25 (8%)	119 (36%)	71 (22%)	43 (13%)	328
10,000+	68 (17%)	19 (5%)	151 (38%)	128 (32%)	31 (8%)	397
Not reported	12	8	24	41	4	89
CD4+ count at enrolment (cells/µl)						
Less than 200	5 (2%)	17 (8%)	84 (42%)	75 (37%)	21 (10%)	202
200 – 500	57 (7%)	64 (8%)	315 (39%)	303 (37%)	74 (9%)	813
500+	133 (14%)	54 (6%)	290 (31%)	392 (42%)	70 (7%)	939
Not reported	11	5	26	34	2	78
AIDS prior to enrolment						
No	199 (12%)	107 (6%)	563 (34%)	677 (41%)	111 (7%)	1 657
Yes	7 (2%)	33 (9%)	152 (41%)	127 (34%)	56 (15%)	375
Hepatitis C antibody positive						
No	158 (10%)	111 (7%)	578 (36%)	645 (40%)	136 (8%)	1 628
Yes	13 (7%)	15 (8%)	72 (40%)	61 (34%)	21 (12%)	182
No test done	35 (16%)	14 (6%)	65 (29%)	98 (44%)	10 (5%)	222
Regimen of longest duration in 2008						
None	193 (58%)	12 (4%)	47 (14%)	80 (24%)	3 (1%)	335
Mono/double	2 (2%)	114 (86%)	11 (8%)	2 (2%)	3 (2%)	132
3+ (NRTI+/-PI, no NNRTI)	6 (1%)	9 (1%)	629 (95%)	7 (1%)	14 (2%)	665
3+ (NRTI+NNRTI, no PI)	5 (1%)	2 (0%)	27 (4%)	715 (94%)	8 (1%)	757
3+ (NNRTI+PI,+/-NRTI)	0 (0%)	3 (2%)	1 (1%)	0 (0%)	139 (97%)	143

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, 2005 – 2009, and proportion reporting use of antiretroviral treatment for HIV infection, by city and year

	Year of survey[1,2]				
City	**2005**	**2006**	**2007**	**2008**	**2009**
Adelaide					
Sample size	36	–	43	–	38
Proportion reporting use of antiretroviral therapy	69.4	–	81.4	–	81.6
Canberra					
Sample size	–	16	–	–	8
Proportion reporting use of antiretroviral therapy	–	100.0	–	–	75.0
Melbourne					
Sample size	162	153	150	152	145
Proportion reporting use of antiretroviral therapy	58.6	58.8	64.0	65.1	67.6
Perth					
Sample size	–	41	–	31	–
Proportion reporting use of antiretroviral therapy	–	78.1	–	74.2	–
Queensland					
Sample size	81	68	88	84	71
Proportion reporting use of antiretroviral therapy	55.6	64.7	64.8	70.2	67.6
Sydney					
Sample size	232	331	286	294	275
Proportion reporting use of antiretroviral therapy	63.8	63.1	66.8	73.5	77.1

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

2 Data not age standardised or venue adjusted.

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	**2005**	**2006**	**2007**	**2008**	**2009**
Nucleoside analogue reverse transcriptase inhibitors					
Abacavir	1 592	830	617	586	519
Didanosine	873	601	600	311	207
Emtricitabine	238	163	28	74	54
Lamivudine	3 641	2 094	697	848	433
Stavudine	603	346	208	140	96
Zalcitabine	13	4	0	0	0
Zidovudine	241	206	189	195	151
Lamivudine & Zidovudine	1 959	1 525	1 527	965	835
Abacavir & Lamivudine	212	1 592	2 310	2 608	2 681
Abacavir, Lamivudine & Zidovudine	544	431	368	275	241
Tenofovir	3 076	2 504	1 619	1 381	1 232
Tenofovir & Emtricitabine	–	1 671	3 116	4 131	5 369
Non-nucleoside analogue reverse transcriptase inhibitors					
Delavirdine	20	16	11	5	6
Efavirenz	1 896	2 208	2 413	2 704	2 971
Nevirapine	2 697	2 387	2 436	2 629	2 701
Protease inhibitors					
Amprenavir	39	17	7	0	0
Atazanavir	1 207	1 746	2 034	2 229	2 582
Darunavir	–	–	69	369	569
Fosamprenavir	119	194	188	226	217
Indinavir	228	144	106	75	48
Lopinavir & ritonavir	1 543	1 543	1 689	1 737	1 536
Nelfinavir	230	136	95	0	0
Ritonavir	1 330	1 845	2 071	2 393	3 015
Saquinavir	294	226	206	167	142
Tipranavir	–	–	36	30	28
Fusion inhibitors					
Enfuvirtide	172	197	191	112	55
Integrase inhibitor					
Raltegravir	–	–	–	304	931
Total patients[4]	**8 453**	**9 463**	**9 933**	**10 596**	**11 120**
Total cost[5] ($'000s)	**98 485**	**110 512**	**118 847**	**135 532**	**155 556**

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. Number of person years for July – December 2009 estimated from the HSD Program Public Hospital Dispensed National Pack Number Report because of changes to S100 data collection methodology.

2 Dashes (–) indicate that data were not available. Person years of Etravirine omitted because of insufficient data.

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 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 ($'000s)[5]
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	–	3 010
April – June	1 430	781	1 086	–	3 598
July – September	1 367	779	1 376	2	3 611
October – December	1 271	792	1 599	9	4 155
2009[6]					
January – March	1 151	803	1 693	9	3 916
April – June	1 232	844	1 889	10	4 383
July – September	1 232	845	2 059	13	4 593
October – December	1 224	793	2 214	12	4 657

1 Number of person years 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, 2008 and 2009 data.

6 Number of person years for July – December 2009 estimated from the HSD Program Public Hospital Dispensed National Pack Number Report because of changes to S100 data collection methodology.

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	Ribavarin and Interferon	Pegylated Interferon and Ribavarin	Pegylated interferon	Total cost ($'000s)[2]
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
2009[3]				
January – March	0	2 557	196	10 683
April – June	0	2 761	228	12 113
July – September	0	2 910	213	12 689
October – December	0	2 852	190	12 399

1 An estimated 1 847, 2 847, 3 539, 3 562 and 3 969 people were receiving treatment throughout 2005 to 2009, 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.

3 Number of person years for July – December 2009 estimated from the HSD Program Public Hospital Dispensed National Pack Number Report because of changes to S100 data collection methodology.

Source: Highly Specialised Drugs (S100) Program

Methodological notes

1 National surveillance for newly diagnosed HIV infection

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 1.1.3). 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. From 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.

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 notifiable 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 2000 – 2009, 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. The rate of HIV diagnosis in the non-Indigenous population was calculated using cases other than those whose exposure to HIV occurred in a high HIV prevalence country and the Australian population other than populations from high HIV prevalence countries in sub-Saharan Africa and South East Asia.

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:

- Centers for Disease Control and Prevention. *HIV Surveillance Report 2008; 20.* Centers for Disease Control and Prevention, Atlanta, Georgia. 2010
- Health Protection Agency. HIV in the United Kingdom: 2009: London: Health Protection Agency, Centre for Infections. November 2009
- 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/in
- National Center for HIV/AIDS Dermatology and STDs (NCHADS). Consensus Workshop on HIV Estimation for Cambodia. NCHADS, 2007. http://www.nchads.org/
- Public Health Agency of Canada. Summary: Estimates of HIV prevalence and incidence in Canada, 2008. Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada 2009

2 National surveillance for viral hepatitis

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

New diagnoses of hepatitis A, new diagnoses of hepatitis B, 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 and country/region of birth 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, prevalent and newly acquired hepatitis B, and prevalent and newly acquired hepatitis C 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 2005 -- 2009) 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).

Enhanced surveillance for infectious syphilis commenced in all State/Territory health jurisdictions in 2007. Information was sought on self-report of exposure to syphilis, history of sex work in the past 12 months and facility of infectious syphilis diagnosis.

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 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 2010).

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

4.1 HIV incidence among men who have sex with men

The Health in Men (HIM) study was a cohort study of HIV antibody negative men who have sex with men in Sydney. The study commenced in 2001 and recruited men through a variety of community-based settings. The men were tested annually for HIV antibody as part of the study. The year of HIV diagnosis was based on the date of first diagnosis of HIV infection, recorded either in HIM or notified to the *National HIV Registry*, whichever was the earliest.

4.2 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. The proportion of men who have sex with men with newly acquired HIV infection was 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).

4.3 HIV and hepatitis C seroprevalence among people who inject drugs

All clients attending needle and syringe program (NSP) sites during one week in 2005 (52 sites), 2006 (45 sites), 2007 (53 sites), 2008 (52 sites) and 2009 (51 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).

4.4 Incidence of hepatitis C infection among people who inject 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.

The Hepatitis C Incidence and Transmission Study – community (HITS-c) is a prospective observational study of hepatitis C antibody negative people who inject drugs. Participants are tested for hepatitis C antibody and RNA every six months. Incidence of hepatitis C infection was calculated among people completing at least one follow-up visit since enrolment and date of infection was estimated as the mid-point between the last negative and the first positive test.

4.5 HIV seroprevalence 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).

4.6 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).

4.7 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 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.

Further information on ACCESS methodology and results are available at www.access.study.org

4.8 Genital warts surveillance network

The Genital Warts Surveillance Network is a new surveillance system for monitoring the diagnosis of genital warts in Australia and was funded by CSL Biotherapies. The network comprises of ten sexual health services in New South Wales, Northern Territory, Queensland, Tasmania, Victoria and Western Australia. The objectives of the network are: to monitor the diagnosis rates of genital warts, to determine risk factors for genital warts, and determine Human Papilloma Virus (HPV) vaccination rates with the aim of assessing the impact of HPV vaccination programs on the occurrence of genital warts.

Routinely collected data at sexual health services includes data on demographics, sexual behavior, travel status, wart diagnosis and HPV vaccination status. These data are extracted directly from patient management information systems at each site and are collated at NCHECR. For this analysis, only the patients seen for the first time at sexual health services were included. Genital warts diagnosis rates were calculated by dividing the total number of patients seen at the clinic by the number of patients diagnosed with genital warts, multiplied by 100.

4.9 Victorian Primary Care Network for Sentinel Surveillance for BBVs and STIs

Any person aged 16 years or older who visits a sentinel site and is tested for chlamydia, HIV or syphilis is eligible for inclusion in the program. For the HIV network, people with previously diagnosed HIV infection who are undergoing confirmatory testing, due to the original diagnosis having occurred overseas or at other clinics in Australia, were excluded.

Tests with matching demographic and behavioural information reported by men who have sex with men (MSM) were included in the analysis. Men whose behavioural data was not available were considered MSM if they were known to have HIV infection and were presenting for STI testing or if they had had an anal or pharyngeal swab when tested for chlamydia.

Indeterminate HIV test results, inactive syphilis test results and repeat diagnoses of chlamydia or syphilis within 30 days of the original diagnosis were excluded from analysis, as were MSM with an unknown HIV status. Chlamydial tests from multiple anatomical sites on the same day were collapsed as one testing record. Where a person was found to be newly diagnosed with HIV infection but had not completed a study questionnaire, demographic and exposure category information was sought through the passive surveillance system. As a person may have presented for testing on several occasions, only the first test for each person in a calendar year was included in analyses of the characteristics of those tested and the proportion positive (number of positive tests as a percentage of the total number of tests) for each infection. Further information on the sentinel surveillance program is available at www.burnet.edu.au/home/cph/current/sentinelsurveillance.

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 inject 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 52 needle and syringe programs in 2005, 45 in 2006, 53 in 2007, 52 in 2008 and 51 in 2009. Further information is available in MacDonald *et al* (1997 and 2000).

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

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

The estimated number of people living with diagnosed HIV was based cases of newly diagnosed HIV infection notified to the National HIV Registry. For each case, information on the year of birth, postcode of usual place of residence at the time of diagnosis, sex, CD4 count and date of HIV diagnosis was used in a computer modelling algorithm. The computer model simulated progression of disease, including potential development of AIDS-defining conditions, using CD4 counts at HIV diagnosis and established rates of change in CD4 count (Mellors *et al* 1997). The model also simulated geographic movement in residence using national census data available at the Australian Bureau of Statistics. Probabilistically-defined mortality was simulated using the age, gender and State/Territory-stratified ABS general population mortality data, AIDS status and standardised mortality ratio for those living with HIV and AIDS in Australia (Nakhaee *et al* 2009).

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

Estimates of the number of people living with hepatitis B virus were developed by the Hepatitis B Program at the Victorian Infectious Diseases Reference Laboratory. The estimates were derived from a deterministic compartmental mathematical model of hepatits B virus infection in the Australian population in the years from 1951 to 2050. A wide range of data sources were used including Australian Bureau of Statistics data, existing mathematical models, notified cases, epidemiologic research and clinical studies. Factors such as migration, attributable and all-cause mortality, the ageing of the population, the variable natural history of chronic hepatitis B infection and the impact of vaccination were incorporated into the model.

Model development included sensitivity analyses of critical variables such as the force of infection and migration estimates. Both static and dynamic force of infection models were created, the latter using novel techniques for deriving the force of infection over time. Model outcomes were validated using a range of external data, particularly national and Victorian serosurvey results. These data were not used to parameterise the model, to allow independent comparison with modelled outcomes. Results from the second national serosurvey (Gidding *et al* 2007) were used to generate the plausible range around the model estimates of hepatitis B prevalence.

6.3 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 injected 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 people who inject drugs 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 2009 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 viral hepatitis

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 2010, 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 2009 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 2009, 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.

A detailed summary of treatments data from the AHOD is published in the *Australian HIV Observational Database Annual Report* (NCHECR 2010).

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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