



# Australian Social Trends June 2012

## Sexually transmissible infections

[www.abs.gov.au/socialtrends](http://www.abs.gov.au/socialtrends)

ABS catalogue no. 4102.0

ISSN 1321-1781

© Commonwealth of Australia 2012



This work is licensed under a Creative Commons [Attribution 2.5 Australia](#) licence.

In all cases the ABS must be acknowledged as the source when reproducing or quoting any part of an ABS publication or other product. Please see the [Australian Bureau of Statistics website copyright statement](#) for further details.

Produced by the Australian Bureau of Statistics

## INQUIRIES

- For further information about these and related statistics contact the National Information and Referral Service on 1300 135 070, or refer to contacts listed at the back of this publication.



# Sexually transmissible infections

The past decade has seen rates of sexually transmissible infections (STIs) increase in Australia. Sexually transmissible infections are predominately contracted through unsafe sexual practices and can show no symptoms. If left untreated, STIs can have serious long-term consequences. While notification rates for several STIs are increasing, the reasons for these increases are not certain. Such increases may be the result of rising infection rates, more people being tested for STIs or a combination of both.

Sexually transmissible infections are either bacterial or viral. While bacterial STIs, such as chlamydia, gonorrhoea and syphilis are usually curable, they can cause significant complications if left untreated, including chronic abdominal pain, infertility, and genital, heart and brain damage. Viral infections, including human immunodeficiency virus (HIV) and herpes simplex virus (HSV), are incurable and may lead to lesions, ulcers, cirrhosis and increase susceptibility to opportunistic infections, such as tuberculosis and meningitis.

The incidence of each of the major STIs varies according to sex and age. While STIs predominantly affect the young, the rates of infection for older age groups are increasing as well. Indeed, there are select STIs that affect more people aged between 30 and 44 years than those aged between 18 and 29 years.

Several STIs are nationally notifiable diseases. This means state and territory health authorities supply notifications of chlamydia, gonorrhoea and syphilis to the National Notifiable Diseases Surveillance System, and notifications of HIV to the Kirby Institute, all of which serve to collect information relating to diseases of public importance. While genital herpes is not notifiable, it is becoming an infection of increasing significance owing to rising infection rates.

This article considers notification rates of major STIs by age and sex, as well as by state and territory. It also looks at the estimated prevalence of genital herpes and additionally considers the rates of STI notification in the Aboriginal and Torres Strait Islander population.

## Data sources and definitions

For data pertaining to chlamydia, gonorrhoea and syphilis, this article draws on information from the [National Notifiable Diseases Surveillance System](#) (NNDSS), available from the Department of Health and Ageing. The NNDSS coordinates notifications of communicable diseases supplied by state and territory health authorities. The NNDSS presents live notification data and so these data are subject to ongoing changes, either due to additional notifications being received or removal of duplicates or incorrect records. The data presented in this article represent a snapshot of STI trends at one point in time, 2 May 2012.

Care should also be taken when interpreting data sourced from the NNDSS, as such data may only represent a proportion (the 'notified fraction') of the total incidence of infection, as there are those with the infection who have not yet been diagnosed. Moreover, the notified fraction varies by disease, by jurisdiction, and by time.

For data pertaining to HIV, this article draws on information from the Kirby Institute's [HIV, viral hepatitis and sexually transmissible infections in Australia: Annual Surveillance Report 2011](#). The Kirby Institute utilises data from state and territory health authorities. Newly diagnosed HIV infections are a notifiable condition in each state and territory health jurisdiction in Australia. Cases of newly diagnosed HIV infection were notified through state and territory health authorities to the Kirby Institute on the first occasion of diagnosis in Australia. The data presented in this report represent a snapshot of HIV trends at one point in time, 31 March 2011.

Data for Aboriginal and Torres Strait Islander peoples have been taken from the Kirby Institute's [Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander people: Surveillance and Evaluation Report 2011](#). In addition to data supplied directly to the Institute in the case of HIV notifications, the Kirby Institute uses NNDSS data, which are subject to the limitations described above. Furthermore, there remain considerable gaps in the reporting of Aboriginal and Torres Strait Islander status at diagnosis of blood borne viruses and STIs in Australia. This has the potential to underestimate the true prevalence of these infections in the Aboriginal and Torres Strait Islander population. The data represent a snapshot of STI trends at one point in time, 31 March 2011. As such, the data may vary slightly from data compiled on 2 May 2012.

Additionally, this article draws on population estimates from [ABS Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0). The estimated resident population (ERP) from June each year is used to produce rates per 100,000 population.

### Further definitions

**Asymptomatic infections** are infections without any symptoms or evidence of disease. Persons with asymptomatic infections are often unaware they have the infection and can unknowingly transmit the infection to others.

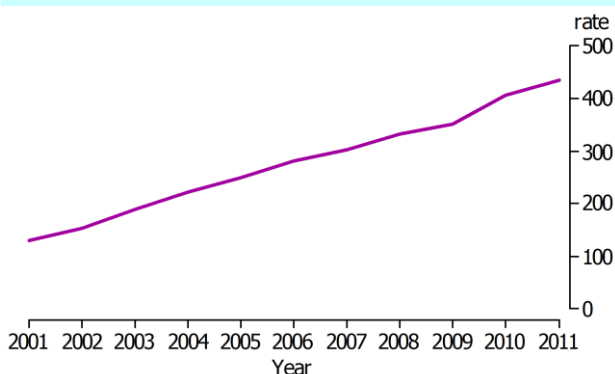
**Opportunistic infections** are infections that do not normally cause disease but can do so when the body's immune system is weakened and unable to protect against infection.

## Bacterial STIs ...chlamydia

Chlamydia is a bacterial infection that can infect the prostate, urethra and testes in men and the cervix, uterus and pelvis in women. Chlamydia is largely asymptomatic; most people are unaware that they have the infection and that they need treatment. If left untreated, chlamydia can cause serious complications. In men, chlamydia may lead to inflammation of the upper genital tract and infertility. In women, untreated chlamydia can result in pelvic inflammatory disease, which can cause ectopic pregnancies, chronic pelvic pain and infertility. Chlamydia also increases the possibility of contracting other infections, such as HIV, as it can initiate an immune response that makes the transmission of HIV more likely.<sup>1</sup> Treatment for chlamydia is usually straightforward and involves a course of antibiotics.

In 2011, chlamydia was the most frequently reported notifiable condition in Australia, with 79,833 new notifications for persons aged 15 years and over, or 435 cases per 100,000 population. This was nearly seven times the rate of the next most frequently reported notifiable STI, gonorrhoea. This rate has more than tripled over the past decade, increasing from 130 notifications per 100,000 in 2001.

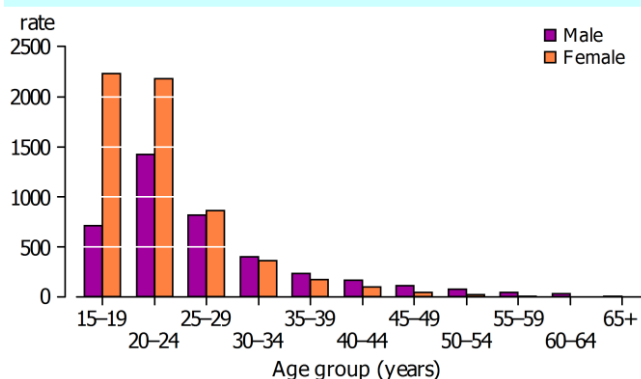
### Chlamydia notifications, Australia – 2001-2011(a)



(a) Per 100,000 population aged 15 years and over.

Source: National Notifiable Diseases Surveillance System; ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

### Chlamydia notifications by age – 2011(a)



(a) Per 100,000 population aged 15 years and over.

Source: National Notifiable Diseases Surveillance System; ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

In 2011, more women than men were diagnosed with chlamydia, with 46,636 women aged 15 years and over diagnosed with the infection, compared with 33,197 men aged 15 years and over. Women aged between 15 and 19 years had the highest rates of diagnosis in 2011, with 2,228 per 100,000 receiving a positive diagnosis, while men aged between 20 and 24 years had the highest rate, with 1,423 per 100,000. Overall, chlamydia diagnosis for men and women aged between 15 and 29 years accounted for 82% of diagnoses for the whole population.

While chlamydia notifications were more common in women than men in the younger age ranges, from the age of 30, the reverse was true.

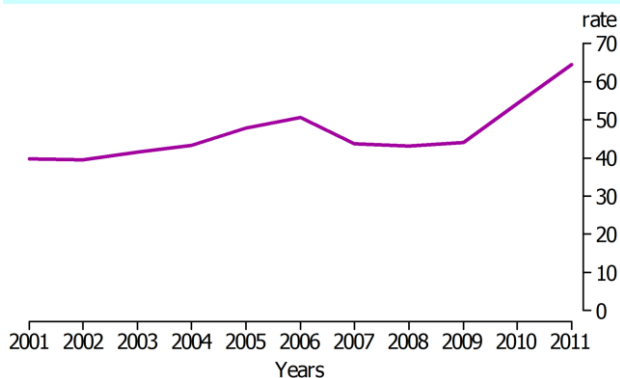
For both women and men, the rates of diagnosis for chlamydia have increased considerably over the past 10 years. Overall, the rate for women aged 15 years and over has more than tripled, from 152 per 100,000 in 2001, to 502 per 100,000 in 2011. The rate for men aged 15 years and over has also more than tripled, from 106 per 100,000 in 2001, to 366 per 100,000 in 2011.

The largest increases were for women and men aged 15–19 years. For women aged 15–19 years, the notification rate increased from 569 per 100,000 in 2001, to 2,228 per 100,000 in 2011. For men, the rate increased nearly five times, from 150 per 100,000 in 2001, to 714 per 100,000 in 2011.

### ...gonorrhoea

Gonorrhoea is a bacterial infection with similar characteristics to chlamydia. Like chlamydia, gonorrhoea infects reproductive organs, can be asymptomatic and increases the chances of contracting other infections. If left untreated, gonorrhoea can also cause infertility in men and women. While antibiotics can cure gonorrhoea, drug-resistant strains are increasing in many parts of the world and successful treatment is becoming more difficult.<sup>2</sup>

## Gonorrhoea notifications, Australia – 2001-2011(a)



(a) Per 100,000 population aged 15 years and over.

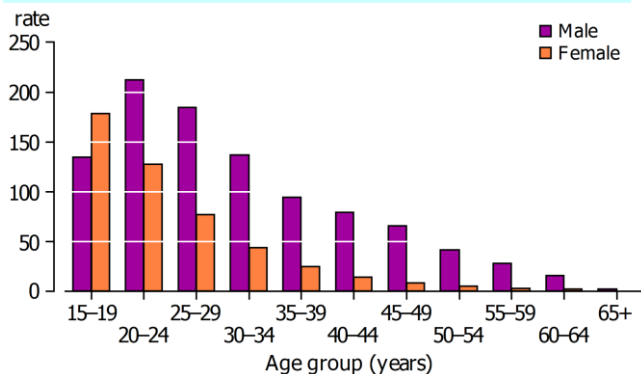
Source: National Notifiable Diseases Surveillance System; ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

Notification rates of gonorrhoea have generally increased over the past 10 years. In 2011, the national notification rate for people aged 15 years and over was 65 per 100,000 population, up from 40 per 100,000 in 2001.

In contrast with chlamydia, more men than women were diagnosed with gonorrhoea in 2011: 8,056 men, compared with 3,789 women. Men aged 20–24 years had the highest diagnosis rate, with 213 diagnoses per 100,000, followed by 185 per 100,000 for those aged 25–29 years. For women, the highest rates of diagnosis were in the youngest age groups, with 178 and 128 diagnosed per 100,000 for those aged 15–19 years and 20–24 years respectively. Men and women aged between 15 and 34 years accounted for nearly three quarters (74%) of total gonorrhoea diagnosis.

For both men and women, the rate of diagnosis has increased over the past 10 years, particularly amongst people aged 45 years and over. For men aged 45–49 years, the rate more than doubled between 2001 and 2011, from 25 per 100,000 to 66 per 100,000. Women of the

## Gonorrhoea notifications by age – 2011(a)



(a) Per 100,000 population aged 15 years and over.

Source: National Notifiable Diseases Surveillance System; ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

same age range experienced a similar increase, from 3.4 per 100,000 to 8.6 per 100,000.

## ...syphilis

Syphilis is a highly infectious bacterial disease, which can cause sores on the infected persons genitals, cervix and mouth. It can arise up to 10 years after the original infection, and if left untreated, can cause serious, irreversible damage to the brain, spinal cord and other organs.<sup>3</sup> Syphilis typically consists of three stages: primary, secondary and the late/latent stage. In the primary and secondary stages, syphilis is highly contagious and can be asymptomatic, allowing the spread of the disease as well as its undetected progression to the latent stage. It is in the latent stage that serious complications can arise.

Syphilis is rare in Australia. However, rates are increasing in some communities, including men who have sex with men and people with HIV/AIDS.<sup>3,4</sup> While syphilis responds to penicillin, if not treated it becomes a chronic disease with a variable course and long periods of latency.

## Prevention

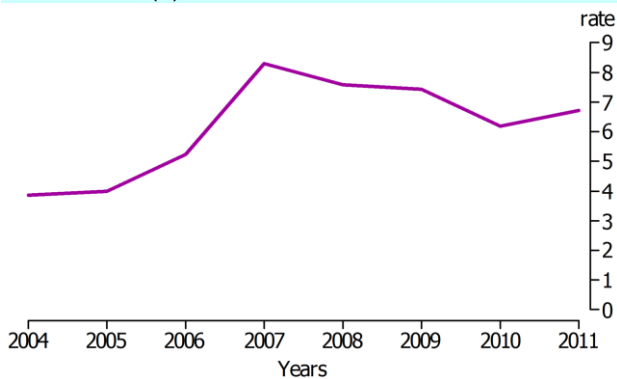
While the best way to avoid STIs is to avoid sex altogether, there are ways to improve safety by always using condoms and having regular STI tests.

Education and prevention programs are also significant. Together with access to prevention methods and testing, education and prevention programs have an important role in abating the spread of STIs.

The 'grim reaper' advertisement of the 1980s is an example of the importance of public health campaigns and is considered one of the most memorable campaigns ever devised. While the advertisement has been widely criticised for stigmatising gay and bisexual men, and people with the virus, and for overstating the threat of the virus to the heterosexual population, the campaign succeeded in ensuring widespread discussion of HIV/AIDS.<sup>5,6</sup> It has been suggested the campaign is responsible for the discourse surrounding needle exchange programs and subsequent safe sex programs targeted towards at risk populations,<sup>6</sup> programs that have helped reduce the rate of HIV transmission.

Current STI education and prevention programs are focussed on groups at risk, rather than the whole population. The Australian Government has sought to reduce the transmission of STIs with the development of several national strategies, such as the National Sexually Transmissible Infections Strategy and the National HIV Strategy. These strategies provide guidelines for education and prevention programs targeted towards people aged 15 to 29 years, Aboriginal and Torres Strait Islander people and men who have sex with men. The strategies aim to increase awareness of STIs and encourage behavioural change amongst target populations so that the transmission and morbidity associated with STIs may be reduced.<sup>7</sup>

### Syphilis notifications, Australia – 2004-2011(a)



(a) Per 100,000 population aged 15 years and over.

Source: National Notifiable Diseases Surveillance System; ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

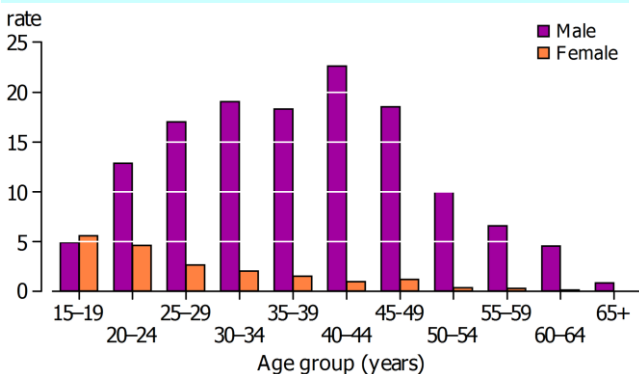
In 2011, there were 1,233 new cases of syphilis which had been diagnosed within two years of contracting the infection. After peaking at 8.3 diagnoses per 100,000 population in 2007, the number of diagnoses declined to 6.2 per 100,000 in 2010.

In 2011, men aged 15 years and over had a rate of diagnosis seven times as high as women aged 15 years and over, with 12 per 100,000 men diagnosed, compared with 1.7 per 100,000 women.

For men, the age group most affected was the 40–44 year age group, with 23 per 100,000 diagnosed. The pattern of diagnosis for men with syphilis was different from other bacterial STIs, as middle aged men were the most likely to be diagnosed with syphilis.

Women aged 15–19 years had a rate of diagnosis of 5.7 per 100,000, followed by 20–24 years, with 4.6 per 100,000. The notification rate for women aged 15–19 years exceeded that of men (5.7 women per 100,000, compared with 5.0 men per 100,000) and was the only age group to do so.

### Syphilis notifications by age – 2011(a)



(a) Per 100,000 population aged 15 years and over.

Source: National Notifiable Diseases Surveillance System; ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

Between 2004 and 2011, the rate of syphilis diagnosis increased for men in every age group. The most dramatic increases were for those aged 45–49 years (200%) and 55–59 years (206%). For women, the rate of diagnosis for each age group either declined or remained steady, with only three age groups showing increases: the 15–19 years age group increased by 60%, 35–39 years increased by 84% and 45–49 years increased by 129%.

### Viral STIs

#### ...HIV

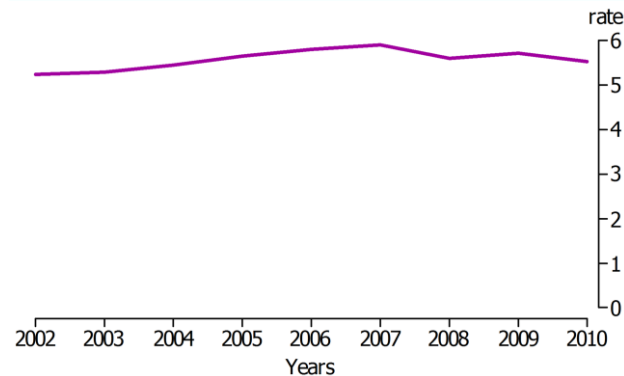
Human immunodeficiency virus (HIV) is a chronic retrovirus that affects the immune system. The virus suppresses the immune system and enables the onset of life-threatening infections. If left untreated, infection with HIV leads to the development of acquired immunodeficiency syndrome (AIDS), a syndrome of opportunistic infections and diseases that develops as immunosuppression deepens.<sup>8</sup> HIV is spread through unprotected sex, from mother to baby during pregnancy, childbirth and breastfeeding, and sharing needles.<sup>8</sup> Some people with HIV have no symptoms until the disease progresses to AIDS.<sup>9</sup>

Anti-retroviral drug treatment is the main type of treatment. It is not a cure, but can slow the progression of HIV to AIDS by keeping the level of HIV virus low and stopping any weakening of the immune system.<sup>8</sup>

In 2010, there were 1,031 new cases of HIV among men and women aged 13 years and over, or 5.5 notifications per 100,000 population.

In 2010, men in the 30–39 year age group had the highest rate of new HIV diagnosis (18 per 100,000). While this age group has historically had the highest rate of HIV diagnosis, the rate of diagnosis has started to fall, from 22 per 100,000 in 2002 to 18 per 100,000 in 2010.

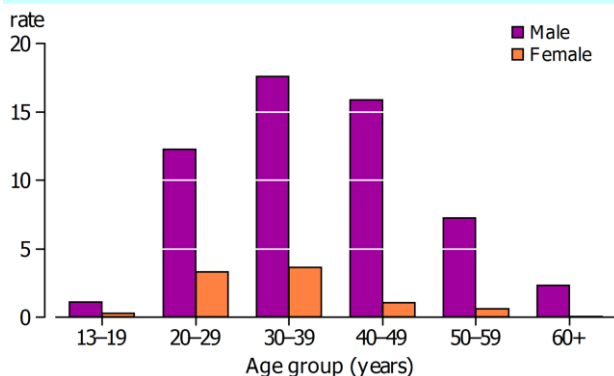
### HIV notifications, Australia – 2002-2010(a)



(a) Per 100,000 population aged 13 years and over.

Source: The Kirby Institute, [HIV, viral hepatitis and sexually transmissible infections in Australia, Annual Surveillance Report 2011](#); ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

## HIV notifications by age – 2010(a)



(a) Per 100,000 population aged 13 years and over.

Source: The Kirby Institute, *HIV, viral hepatitis and sexually transmissible infections in Australia, Annual Surveillance Report 2011*; ABS *Australian Demographic Statistics, September 2011* (cat. no. 3101.0)

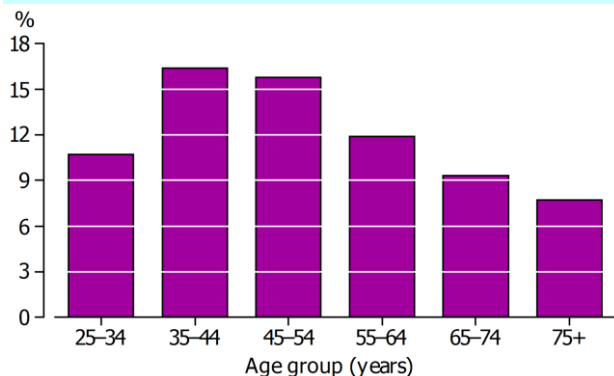
Women of the same age group also had the highest rate of diagnosis, but this rate was nearly one fifth the rate for men, 3.7 per 100,000 compared with 18 per 100,000. However, the rate of diagnosis has actually increased for women aged 30–39 years, from 2.7 per 100,000 in 2002 to 3.7 per 100,000 in 2010.

## ...genital herpes

Herpes simplex virus (HSV) is the virus responsible for genital herpes and cold sores. There are two types, HSV-1 and HSV-2. While both HSV-1 and HSV-2 can cause genital herpes, HSV-2 is the primary cause. Infection with HSV-2 is common; approximately 1 in 8 Australians aged 25 years and over have the virus (1 in 6 women and 1 in 12 men)<sup>10</sup> and it is considered one of the most common STIs.<sup>11</sup>

Genital herpes is spread through skin to skin contact with an infected person and can be asymptomatic.<sup>12</sup> Once infected, the virus remains in the body for life and recurrent infections or outbreaks may occur from time to time. This period of outbreak is viral shedding,

## Genital herpes, estimated prevalence(a) by age, Australia – 1999-2000



(a) Genital herpes is not a notifiable infection. As such, the prevalence presented above is an estimation of the prevalence in Australia.

Source: Cunningham, A. L. et al. (2006)

## Causes of death

Between 1997 and 2009, infection with HIV, syphilis and gonorrhoea was the underlying cause of death for 1,549 Australians.

Infection with HIV accounted for 1,519 deaths in this period (1,401 men and 118 women). Men and women aged 36–40 years were most likely to have been affected, with HIV registered as the underlying cause of death for 267 men and 28 women in this age group.

Syphilis, both early stage and late stage, was the underlying cause of 24 deaths between 1997 and 2009 (15 men and 9 women), while gonorrhoea was the underlying cause of 6 deaths.

Source: ABS 2010 Causes of Death data

when the virus is active and people are considered contagious.<sup>12</sup> There is no treatment that can cure genital herpes, but antiviral medication can shorten and even suppress outbreaks.

The number of notifications per annum of genital herpes is not known because it is not a notifiable infection. However, to estimate prevalence, an Australia-wide population based study was conducted using data collected between 1999 and 2000.<sup>10</sup> The study found that prevalence was highest in the 35–44 year age range and women had a significantly higher prevalence than men (16% compared with 8% respectively).<sup>10</sup> It has been suggested that the prevalence of HSV-2 has been associated with increasing duration of sexual activity, increasing number of lifetime sexual partners and increasing number of past infections with other STIs.<sup>13</sup> It is also thought that transmission of HSV-2 occurs more readily from male to female than female to male, hence the greater prevalence of HSV-2 among women.<sup>13</sup>

## States and territories

In 2011, the Northern Territory, Queensland, Western Australia and Victoria had the highest notification rates for several STIs.

For most states and territories, the notification rates for chlamydia, gonorrhoea and syphilis have increased over the past decade. Moreover, the notification rates for the Northern Territory have been much higher than the rates for Australia. In 2011, the rate for chlamydia was three times as high as the Australian rate, while the rate for gonorrhoea was 16 times as high as the Australian rate. Since collecting notifications for syphilis in 2004, the rates for the Northern Territory have been much higher than all other states and territories, reaching a peak of 71 per 100,000 in 2006, compared with 4.3 per 100,000 for Australia. Although the notification rates for syphilis are highest in the Northern Territory, the rates have been declining since 2006, falling by 80% to 13.9 per 100,000 in 2011.

## STI notification rate by state and territory – 2011(a)(b)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Chlamydia	280.5	341.3	407.1	309.3	496.9	347.5	1 161.2	344.9	357.3
Gonorrhoea	39.4	33.4	64.7	26.6	77.5	3.7	863.0	35.0	53.6
Syphilis	5.7	5.8	6.3	3.0	5.6	0.6	13.9	2.5	5.5
HIV(c)	4.9	5.1	5.4	2.5	4.4	2.0	2.6	3.3	4.7

(a) Per 100,000 population.

(b) Includes notification rates for all ages and 'unknown'.

(c) Data are for 2010.

Source: National Notifiable Diseases Surveillance System; the Kirby Institute, [HIV, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report 2011](#); ABS [Australian Demographic Statistics, September 2011](#) (cat. no. 3101.0)

In 2010, rates for newly diagnosed HIV were highest in Queensland, followed by Victoria and New South Wales (5.4, 5.1 and 4.9 per 100,000 population respectively). Until 2008, New South Wales had the highest rate of newly diagnosed HIV. However, with the exception of a few years, New South Wales and the Northern Territory are the only locations where a long term decline in HIV diagnosis is evident, from 6.2 and 4.0 per 100,000 in 2002, to 4.9 and 2.6 per 100,000 in 2010 respectively.

### Aboriginal and Torres Strait Islander people

In 2010, 9% of chlamydia notifications were among Aboriginal and Torres Strait Islander people,<sup>14</sup> despite this population representing just 2.5% of the total population (as of 2006). The notification rate for the Aboriginal and Torres Strait Islander population was nearly four times that of the non-Indigenous notification rate: 1,257 per 100,000, compared with 340 per 100,000 respectively.<sup>14</sup> Similar to the non-Indigenous population, around 80% of chlamydia diagnoses were among those aged 15 to 29 years.<sup>14</sup>

In 2010, more than a third (36%, or 3,604) of all gonorrhoea diagnoses were among Aboriginal and Torres Strait Islander people.<sup>14</sup> The rate of diagnosis was more than 26 times that for the non-Indigenous population: 804 per 100,000, compared with 30 per 100,000 respectively.<sup>14</sup>

In the same year, 12% of syphilis notifications were among Aboriginal and Torres Strait Islander people, affecting more men than women (79 and 51 respectively).<sup>14</sup> Between 2006 and 2010, the rate of diagnosis decreased from 40 to 25 per 100,000 Aboriginal and Torres Strait Islander people, while the rate of diagnosis in the non-Indigenous population increased from 3 to 5 per 100,000.<sup>14</sup>

The rates of HIV diagnosis were similar for the Aboriginal and Torres Strait Islander population and the non-Indigenous

populations. In 2010, 22 Aboriginal and Torres Strait Islander people were diagnosed with HIV at a rate of 4.6 per 100,000, compared with 1,021 diagnoses in the non-Indigenous population, or 4.0 per 100,000 population.<sup>14</sup>

It is estimated that the prevalence of genital herpes in the Aboriginal and Torres Strait Islander population is 18%, considerably higher than the 12% estimated for the non-Indigenous population.<sup>10</sup>

### STIs and travelling abroad

Foreign travel is in many ways related to the spread of disease. When travelling abroad people may feel less inhibited because of a perceived relaxation of social and moral constraints, leading to changing and potentially unsafe sexual behaviours and resultant exposure to STIs.<sup>15</sup> This situational loss of inhibition is heightened when alcohol and other drugs are used.<sup>2</sup>

Although STIs are present everywhere, many are endemic in developing countries. Infections such as HIV, gonorrhoea, syphilis and chlamydia are more common overseas than in Australia, especially in Africa and Southeast Asia. Some STIs, such as gonorrhoea, are also likely to be resistant to standard treatment.<sup>2</sup>

It has been suggested that only half of travellers engaging in new sexual relationships abroad consistently use condoms.<sup>2,15</sup> This limited condom use appears to be independent of country of origin, travelling style (business, backpacker) or country of destination.<sup>2</sup>



## Sexually transmissible infections: a brief history

Sexually transmissible infections have a long history in the global context. Although it is difficult to determine when such diseases emerged, several sources suggest STIs have been present for centuries.<sup>16,17,18</sup>

Syphilis is thought to have been carried from the New World to Europe after Columbus' voyages.<sup>16</sup> Researchers theorise Europeans may have carried a non-virulent bacteria home, where it mutated into a more deadly form in Europe.<sup>16</sup> Syphilis was a major killer during the Renaissance, and mental illness caused by late-stage syphilis was once one of the more common forms of dementia.<sup>16</sup>

Some well-known historical figures have reportedly suffered from syphilis. Napoleon Bonaparte and Henry VIII were both alleged to have had syphilis.<sup>16</sup> Several artists and writers were suspected of having the infection, including Vincent Van Gogh, Leo Tolstoy and Oscar Wilde.<sup>16</sup> Reportedly upon Al Capone's incarceration at Alcatraz, he was ill with late-stage syphilis and presented confused and disorientated.<sup>16</sup>

The history of gonorrhoea is a little more uncertain. It is alleged that one of the first mentions of the infection occurred in 1611, when the English Parliament passed an act that attempted to reduce the spread of the "perilous infirmity of burning".<sup>17</sup> While not a diagnosis of gonorrhoea, the symptoms described in the decree were consistent with the infection.<sup>17</sup>

Genital herpes has reportedly been around since Ancient Greek times. Herpes is a Greek word meaning to creep or crawl, and Hippocrates speaks of such a condition in his writing.<sup>18</sup> Medical journals from 1700 and 1800 also describe the condition.<sup>18</sup> As with other STIs, the viral nature of genital herpes was not discovered until the medical advances of the twentieth century. Until this period, much speculation surrounded the cause of the condition, ranging from insect bites to eczema-like skin conditions.<sup>18</sup>

## Looking ahead

The notification rates for many STIs are increasing. However, it is not clear whether this is the result of a rise in infection rates, more people being tested for STIs resulting from increased awareness, or a combination of both.<sup>19</sup> In the nine years between 1998–99 and 2007–08, there was a reported six-fold increase in tests for STIs, from 32 per 100,000 to 205 per 100,000.<sup>11</sup> It has been suggested that this may be due to the success of public health campaigns promoting STI screening as standard practice for safe sex.<sup>11</sup>

However, gaps in data make it difficult to present a comprehensive picture of STIs in Australia. Without knowing the reasons behind the recent increases in STIs, it is difficult to determine the success of public health campaigns or whether such campaigns have been targeted effectively.

## Endnotes

- 1 Centres for Disease Control and Prevention, 2012, [Is there a connection between HIV and other sexually transmitted diseases?](#), viewed 9 May 2012, <[www.cdc.gov](http://www.cdc.gov)>.
- 2 Ward, B.J. and Plourde, P., 2006, *Travel and Sexually Transmitted Infections*, Journal of Travel Medicine, Vol 13, Issue 5, pp. 300-317.
- 3 NSW Health, 2012, [Syphilis Factsheet](#), viewed 9 May 2012, <[www.health.nsw.gov.au](http://www.health.nsw.gov.au)>.
- 4 The Kirby Institute, 2011, [HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2011](#), viewed 9 May 2012, <<http://hiv.cms.med.unsw.edu.au>>.
- 5 AIDS Action Council, 2012, [there isn't room for ambiguity](#), viewed 9 May 2012, <<http://aidsaction.org.au>>.
- 6 The Australian, 2007, [Grim Reaper stemmed AIDS tide](#), viewed 9 May 2012, <[www.theaustralian.com.au](http://www.theaustralian.com.au)>.
- 7 Department of Health and Ageing, 2010, [Second National Sexually Transmissible Infections Strategy 2010-2013](#), viewed 23 May 2012, <[www.health.gov.au](http://www.health.gov.au)>.
- 8 Australian Federation of AIDS Organisations, 2012, [Reporting HIV in Australia: Information for Journalists, September 2011](#), viewed 10 May 2012, <[www.afao.org.au](http://www.afao.org.au)>.
- 9 Australian Government, 2012, [HIV/AIDS](#), viewed 10 May 2012, <[www.sti.health.gov.au](http://www.sti.health.gov.au)>.
- 10 Cunningham, A.L. et al., 2006, *Prevalence of infection with herpes simplex virus types 1 and 2 in Australia: a nationwide population based survey*, Sexually Transmitted Infections, Vol 82, pp. 164-168.
- 11 Australian Institute of Health and Welfare, 2009, 'Sexual health' in *General practice in Australia, health priorities and policies 1998 to 2008*, General Practice series no. 24, cat. no. GEP 24 <[www.aihw.gov.au](http://www.aihw.gov.au)>.
- 12 Science Daily, 2011, [Persons with herpes simplex 2, but without symptoms, still shed virus](#), viewed 12 May 2012, <[www.sciencedaily.com](http://www.sciencedaily.com)>.
- 13 Ashley, R. et al., 1994, *Antibody to herpes simplex virus type 2 as serological marker of sexual lifestyle in populations*, British Medical Journal, Vol 309, Issue 6965, pp. 1325-1335.
- 14 The Kirby Institute, 2011, [Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander People: Surveillance and Evaluation Report 2011](#), viewed 9 May 2012, <<http://hiv.cms.med.unsw.edu.au>>.
- 15 Vivancos, R. et al., 2010, *Foreign travel, casual sex, and sexually transmitted infections: systematic review and meta-analysis*, International Journal of Infectious Disease, Vol 14, Issue 10, pp. 842-851.
- 16 News-Medical Net, 2012, [Syphilis History](#), viewed 10 May 2012, <[www.news-medical.net](http://www.news-medical.net)>.
- 17 What is Gonorrhoea?, 2012, [History of Gonorrhoea](#), viewed 10 May 2012, <[www.whatisgonorrhoea.com](http://www.whatisgonorrhoea.com)>.
- 18 Miller, S., 2007, [What is the history of herpes and how is it spread?](#), viewed 10 May 2012, <[www.ezinearticles.com](http://www.ezinearticles.com)>.
- 19 Department of Health and Ageing, 2011, [National Women's Health Policy: Sexually transmitted infections](#), viewed 23 May 2012, <[www.health.gov.au](http://www.health.gov.au)>.

## FOR MORE INFORMATION . . .

<i>INTERNET</i>	<b>www.abs.gov.au</b> the ABS website is the best place for data from our publications and information about the ABS.
<i>LIBRARY</i>	A range of ABS publications are available from public and tertiary libraries Australia wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our website for a list of libraries.

### INFORMATION AND REFERRAL SERVICE

Our consultants can help you access the full range of information published by the ABS that is available free of charge from our website, or purchase a hard copy publication. Information tailored to your needs can also be requested as a 'user pays' service. Specialists are on hand to help you with analytical or methodological advice.

<i>PHONE</i>	1300 135 070
<i>EMAIL</i>	client.services@abs.gov.au
<i>FAX</i>	1300 135 211
<i>POST</i>	Client Services, ABS, GPO Box 796, Sydney NSW 2001

## FREE ACCESS TO STATISTICS

All statistics on the ABS website can be downloaded free of charge.

<i>WEB ADDRESS</i>	www.abs.gov.au
--------------------	----------------