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The Epidemiology of Notifiable Sexually Transmitted Infections and Blood-Borne Viruses in Western Australia 2012

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**Abbreviations**

|  |  |
| --- | --- |
| ABS | Australian Bureau of Statistics |
| ACT | Australian Capital Territory |
| ASR(s) | Age-standardised notification rate(s) per 100,000 population |
| AUS | Australia |
| BBV(s) | Blood-borne virus(es) |
| CDNA | Communicable Diseases Network Australia |
| DoE | Department of Education Western Australia |
| DoH | Department of Health Western Australia |
| ERP | Estimated Resident Population |
| ESF(s) | Enhanced surveillance form(s) |
| FPWA | Family Planning Western Australia |
| HIV | Human immunodeficiency virus |
| MMRC | Metropolitan Migrant Resource Centre |
| MSM | Men who have sex with men |
| NNDSS | National Notifiable Diseases Surveillance System |
| NSW | New South Wales |
| NT | Northern Territory |
| PHU | Public Health Unit |
| QLD | Queensland |
| SA | South Australia |
| STI(s) | Sexually transmitted infection(s) |
| TAS | Tasmania |
| VIC | Victoria |
| WA | Western Australia |
| WANIDD | Western Australian Notifiable Infectious Diseases Database |

**Terminology used in Tables/Figures**

|  |  |
| --- | --- |
| Age-specific rate | Notification rate for a specified age group. Both numerator and denominator refer to the same age group. Expressed per 100,000 persons in that age group |
| Age-standardised rate (ASR) | Notification rate adjusted to take account of differences in age composition when rates for different populations are compared. Expressed per 100,000 population |
| Crude rate | Calculated by dividing the number of notifications by the population. Not adjusted for age or other factors. Expressed per 100,000 population |
| N/A | Not applicable |
| Notification rate | See crude rate and age-standardised rate |
| Number | Number of notifications reported to the DoH/state and territory health authorities |
| Rate ratio (Aboriginal:non-Aboriginal) | Aboriginal to non-Aboriginal rate ratio =  ASR (Aboriginal)/ASR (non-Aboriginal) |
| Rate ratio (Male:Female) | Male to female rate ratio =  ASR (male)/ASR (female) |
| Test positivity rate | Number of positive test results (i.e. statutory notifications) from laboratories providing testing data divided by the number of tests conducted by these laboratories. Expressed per 1,000 tests and as a percentage |
| Testing rate | Crude population rate or age-specific testing rate per 1,000 population |

# Chlamydia

**Key points**

* Chlamydia is the most commonly notified disease in WA.
* Notification and testing rates were highest in females aged 15 to 24 years.
* Notification and testing rates were higher in the Kimberley region than in other parts of the state.
* Notification rates were almost four-times higher among Aboriginal people compared to non-Aboriginal people.
* The vast majority of infections were acquired in WA although more males acquired infection overseas than females.
* The WA notification rate was 38% higher than the national rate.

## Trends over time

Between 2003 and 2012, the number of chlamydia infections reported to the DoH increased more than three-fold, from 3,761 notifications in 2003 to 11,845 in 2012. The number of notifications in 2012 was comparable to the number in 2011 (n=11,744) and 26% greater than the 2007 to 2011 five-year average of 9,437 notifications (Figure 2.1)

Figure 2.1Number and ASR of chlamydia notifications, WA, 2003 to 2012



Between 2009 and 2011, the chlamydia testing rate increased 6% (54 to 57/1,000 population) while the test positivity rate increased 20% (5.1 to 6.1%). From 2011 to 2012, the testing rate increased 5% (to 60/1,000 population) while the test positivity rate decreased 7% (to 5.7%).

The total number and rate of chlamydia notifications plateaued between 2011 and 2012, despite testing rates increasing. This indicates that the decrease in notifications is not due to reduced testing and decreased disease transmission may be a contributing factor.

## Distribution by sex and age

As in previous years, 83% of chlamydia notifications in 2012 occurred in people aged under 30 years, with the highest incidence in those aged 20 to 24 and 15 to 19 years (37% and 26% of notifications respectively). From 2003 to 2012, more females than males were notified with chlamydia each year (Figure 10.1). The predominance of females was evident in people aged under 25 years, but the opposite was observed in those aged 25 years and over (Figure 2.2 and Table 10.2).

## Notifications by Aboriginality

In 2012, 14% of chlamydia notifications were reported in Aboriginal people, 79% in non-Aboriginal people and 8% of notifications were of unknown Aboriginal status. The Aboriginal to non-Aboriginal rate ratio declined steadily between 2003 (21.0:1) and 2011 (4.9:1) and was lower still in 2012 (3.9:1) (Figure 2.4). The highest chlamydia rates in 2012 were reported in both Aboriginal and non-Aboriginal people from the Kimberley region (2,679 and 602/100,000 population respectively) (Table 10.5).

Figure 2.4 ASR of chlamydia notifications by Aboriginality, WA, 2003 to 2012



## Regional distribution

The highest chlamydia notification rate in 2012 was reported from the Kimberley region, where the rate was almost four-times greater than the WA rate (1,752 vs. 472/100,000 population) (Map 2.1 and Table 10.4). Although chlamydia rates in the Kimberley were the highest in the state, they have not increased as rapidly as those in the rest of WA; the average increase for the Kimberley region from 2003 to 2012 was 4% per year, compared with 11% per year for WA (Table 10.4).

Figure 2.2 Number of chlamydia notifications by sex and overall age-specific rate, WA, 2012



In 2012, the highest testing and test positivity rates were observed in people aged 15 to 24 years (159/1,000 population and 9.8% respectively) (Figure 2.3).

Figure 2.3 Chlamydia testing rate and test positivity rate by age group, WA, 2009 to 2012

