

Sexually transmitted infections in New Zealand

Key findings from the 2007 New Zealand Annual STI Surveillance Report:

- *Chlamydia trachomatis* was the most commonly diagnosed STI
- Between 2003 and 2007, diagnoses of chlamydia increased by 19% and gonorrhoea by 56%
- Genital warts were the most common viral infection
- There were 71 cases of infectious syphilis in 2007, up 4% from 2006
- People aged less than 25 years accounted for 72% of cases of chlamydia, 62% of gonorrhoea, 43% of genital herpes and 62% of genital warts

This article on the prevalence of sexually transmitted infections (STIs) in New Zealand begins our series on sexual health. Upcoming articles in future editions of Best Practice Journal and Best Tests will include:

- Overview of common STI pathogens – how to recognise
- Testing for STIs – how to select the best test and obtain the best sample
- Treating STIs – latest evidence
- Safer sex – talking to patients about safer sex

Every year the STI Surveillance Team at the Institute of Environmental Science and Research (ESR) collects data on STIs in New Zealand. This data is submitted voluntarily from sexual health clinics, family planning clinics, student health clinics and laboratories. Data collection does not cover all areas in New Zealand but this is the most complete source of information on STIs currently available.

Chlamydia is the most common STI in New Zealand

Chlamydia trachomatis is the most common STI in New Zealand and rates are increasing. Chlamydia is asymptomatic in approximately 70%–90% of females and up to 73% of males (Ministry of Health. Draft Chlamydia Management Guidelines, 2008). If left untreated, chlamydia infection can lead to pelvic inflammatory

Chlamydia screening guidelines

In 2008 the Sexual Health Advisory Group, established by the Ministry of Health, published the Chlamydia Management Guidelines with the purpose of increasing opportunistic testing for chlamydia in New Zealand. The implementation of these guidelines is currently being piloted, with national distribution anticipated for early 2009.

A copy of the current guideline is available at: www.moh.govt.nz/moh.nsf/pagesmh/8210

disease and ectopic pregnancy in females, urethritis, epididymo-orchitis and reactive arthritis in males, as well as infertility in both males and females. Infection can also be passed on to infants born vaginally, which may result in neonatal conjunctivitis or pneumonia.

In 2007, 5% of people who attended a sexual health clinic were diagnosed with chlamydia (4501 cases, Table 1). The rate of chlamydia detected in Māori and Pacific peoples was double that of Europeans. Māori and Pacific peoples were also more likely to present with complications of chlamydia.

Table 1: STIs in sexual health clinics in New Zealand in 2007

	Chlamydia	Gonorrhoea	Genital herpes	Genital warts	Syphilis	HIV (AEG data)
No. cases	4501	925	746	3797	71	195
European	53%	38%	74%	71%	52%	43%
Māori	34%	44%	dns	dns	6%	11%
Pacific	7%	11%	dns	dns	10%	4%
Other	5%	6%	dns	dns	30%	36%
Mean age	23	25	29	25	37	39

dns = data not supplied

Total sexual health clinic visits for 2007 = 89208

AEG = AIDS Epidemiology Group

Laboratory surveillance data from Auckland, Waikato and Bay of Plenty regions shows that the rate of chlamydia has risen by 20.6% between 2003 and 2006. More sensitive diagnostic techniques have been introduced over this time period but this would only partly explain the increase.

Rates of gonorrhoea are increasing

Although not as prevalent as chlamydia, the diagnosis of *Neisseria gonorrhoeae* is increasing at a greater rate. Māori accounted for more cases of gonorrhoea diagnosed in sexual health clinics than any other ethnic group (Table 1). Approximately 95% of males with gonorrhoea will be symptomatic (compared to 50% of females) therefore males are more likely to seek treatment. Untreated gonorrhoea infection can lead to pelvic inflammatory disease in females, epididymo-orchitis in males and severe conjunctivitis in infants born to infected mothers.

First presentations of genital herpes

The actual burden of disease caused by genital herpes is much greater than the rates of initial infection as reported in STI clinics (Table 1). Genital herpes can be difficult to diagnose clinically as around 60% of cases present with atypical symptoms and 20% are asymptomatic. Typical painful lesions are only seen in 20% of cases. Recurrent infection of genital herpes is common and prevalence in the population increases with age. Mothers with active infection pose a high risk to their infant when giving birth. Genital herpes can cause severe systemic disease in neonates and those who are immune suppressed. Ulcerative lesions can also facilitate the transmission of HIV infection.

Genital warts is the most common viral STI

Genital warts are caused by human papillomavirus (HPV) infection. In 2007, genital warts were the most frequently reported viral STI, with the number of cases increasing by 19% from the previous year in sexual health clinics (Table 1).

Some types of HPV infection (mainly types 16 and 18) are associated with cervical, penile and anal cancers. However approximately 90% of genital warts are caused by HPV types 6 or 11, which are not associated with cervical cancer.

Syphilis cases increasing

Infectious syphilis is caused by *Treponema pallidum*. In recent years this disease has resurfaced. Although a relatively uncommon STI, the number of cases in 2007 (71 cases, Table 1) has more than doubled since 2003 (30 cases). The majority of syphilis cases in 2007 were in males (92%) and occurred in the Auckland region (69%).

The first stage of infectious syphilis presents as a painless, solitary ulcer that heals spontaneously. If left untreated, secondary syphilis develops in two to eight weeks. In approximately one-third of cases, tertiary syphilis develops several years later. Untreated syphilis during pregnancy can be transferred directly to the foetus via the placenta, or through contact with lesions during vaginal delivery, resulting in congenital infections and complications or foetal death.

HIV in New Zealand

The AIDS Epidemiology Group, based at the University of Otago is responsible for HIV and AIDS surveillance in New Zealand.

In 2007, 195 people were newly identified with HIV (Table 1). Rates of HIV have decreased in New Zealand since a peak of 218 new cases in 2005. Of the new cases of HIV in 2007, almost half were males who contracted the virus through sex with other males. Cases of heterosexual transmission predominantly occurred in people, who were either infected overseas, or infected by a partner who contracted the virus overseas. Only one person was infected through intravenous drug use. Eight children, five of whom were born overseas, were infected with HIV in 2007 through mother to child transmission. The remaining

three children were born in New Zealand to mothers who were unaware of their HIV positive status.

Improvements in the effectiveness of HIV treatment has resulted in a decrease in the number of people being diagnosed and dying from AIDS. In 1995 64 people were diagnosed with AIDS in New Zealand and 62% died within the following two years. In 2005 only 23% of the 35 people diagnosed with AIDS had died by 2007. Progression from HIV to AIDS is dependent on many factors and may occur within one year of initial infection to up to 15 years later.

Further reading

STI Surveillance Team. Sexually transmitted infections in New Zealand. Annual Surveillance Report 2007. Population and Environmental Health Group. Institute of Environmental Science and Research. Wellington, 2008. Available from www.surv.esr.cri.nz

AIDS Epidemiology Group (AEG). AIDS – New Zealand 2008;61. Available from www.moh.govt.nz/moh.nsf/indexmh/aids-nz-issue61

How does New Zealand compare to the rest of the world?

There is no universal method for collecting STI surveillance data and numbers are also influenced by individual country's testing practices. Therefore it is unknown how the rate of STIs in New Zealand compares to the rest of the world. In addition, there is no national data for New Zealand.

In general it is known that:

- Regional chlamydia rates in New Zealand are two to three times higher than national chlamydia rates in Australia, the UK and the US.
- Regional gonorrhoea rates in New Zealand are three to four times higher than national gonorrhoea rates in Australia and the UK, but considerably less than in the US.