

AIDS – New Zealand



WORLD AIDS DAY
1 December 2013



- HIV continues to be a major global public health issue, having claimed more than 36 million lives.
- HIV infection is usually diagnosed through blood tests that detect HIV antibodies.
- Treatment with antiretroviral drugs can allow people with HIV to enjoy healthy and productive lives.
- Early diagnosis leads to better outcomes.

(Source: WHO, 2013)

ENHANCED SURVEILLANCE OF INFECTIOUS SYPHILIS IN NEW ZEALAND SEXUAL HEALTH CLINICS: 2011/2012

In this issue of *AIDS - New Zealand*, we report the main findings of a project undertaken by the AIDS Epidemiology Group (AEG) in 2011/2012 on the enhanced surveillance of infectious syphilis in New Zealand sexual health clinics (SHCs).

The rise of infectious syphilis

By the 1990s, prevention and control had led to the near elimination of endemic syphilis across the high-income Western European countries, and the United States. By then, most infections detected there were among either migrants originating from low and middle-income countries where syphilis was more prevalent, or among people who had sex in such areas. However, beginning in the late 1990s, many European countries experienced a rapid rise in syphilis diagnoses, particularly in the urban areas. A major increase in the United States occurred a few years later between 2000 and 2005.

Similarly in New Zealand, there has been a rise in cases of infectious syphilis seen at New Zealand sexual health clinics from 2000 onwards. While a number of studies have examined this in Auckland and Wellington, the New Zealand Sexual Health Society (NZSHS) requested the AEG to undertake a national enhanced syphilis surveillance project during 2011 and 2012. The aim was to improve our knowledge of the resurgence of syphilis, and the context in which

Key findings

- Enhanced surveillance of infectious syphilis in New Zealand Sexual Health Clinics took place between 2011- 2012.
- Most (81%) of the 135 reported cases were among men who have sex with men (MSM), many of whom were asymptomatic.
- Most (78%) of the MSM were infected in New Zealand.
- People of wide age ranges (17-73 years) were affected. However, the median age of the MSM in 2012 was lower, as a result of an outbreak among younger MSM in Christchurch during the first half of that year.
- Nearly one in five of the MSM with syphilis were also infected by HIV.
- Prevention and early treatment of syphilis should be part of the national strategy for the control of HIV.
- While syphilis is not currently widespread among the heterosexual population in New Zealand, there is a potential for syphilis to spread into this group.

infections were occurring nationally in New Zealand. In particular, information on the place of infection and sexual behaviours were sought, as such data are not reported in the routine epidemiological surveillance.

Infectious Syphilis in New Zealand Sexual Health Clinics – 2011/2012

All the public SHCs provided the AEG monthly with anonymous information on cases of infectious syphilis seen across New Zealand. This project did not collect information on people cared for elsewhere.

Overall 135 cases were reported, 72 in 2011 and 63 in 2012. Most (81%) were among men who had sex with men (MSM), in which 8% reported that they had also had sex with women during the past 12 months. Some of the cases of syphilis among MSM were believed to have been acquired through oral sex. From the 24 heterosexually infected cases, 17 were men and 7 were women.

For men, the age range was 17–73 years. The median was 40 years during 2011, lowering to 32 years during 2012. The lowered median age during 2012 was the result of an outbreak in Christchurch which occurred during the first half of 2012, which was concentrated among young MSM. For women, the age range was 25-57 years.

While the majority of the MSM (78%) were infected in New Zealand, more than half of the heterosexually acquired cases were reported to have been infected overseas. Those infected heterosexually were more ethnically diverse than for the MSM cohort. None of the people with syphilis were known sex workers.

Importantly, co-infection with HIV was common especially among the MSM, being reported by around one in five (19%) of MSM with syphilis. In addition, 16% of the MSM also had chlamydia. While many people did not display symptoms and were diagnosed through a blood test, some of the ways it would present when symptomatic were with genital ulceration and skin rashes.

Syphilis and HIV control

The spread of syphilis and HIV are linked in a number of ways. Firstly, behaviours such as low condom usage facilitate the acquisition and transmission of both infections. MSM with syphilis are more likely to become infected with HIV. Moreover, those infected with HIV are more likely to transmit this virus if they also have syphilis. Therefore, prevention and early diagnosis of syphilis should be part of the strategy for national HIV control.

Primary care has an important role to play in this. Advice on sexual health testing for MSM by the NZSHS and the Best Practice Advocacy Centre (BPAC) has recently been published in New Zealand. The risks of syphilis acquisition, and transmission

- The best practice guidelines for syphilis can be found at: www.nzshs.org
- BPAC New Zealand is an independent organisation that delivers continuing professional development for health professionals. In the April 2013 issue of BPAC's Best Practice Journal, the following was published:
A "how-to guide" for a sexual health check-up.
This can be downloaded from:
<http://www.bpac.org.nz/BPJ/2013/April/how-to-guide-sexual-health.aspx>

among HIV-infected people, highlights the importance of promoting prevention in this group. Syphilis, and other STIs need to be discussed as a regular part of HIV care. The internal service guidelines by the NZSHS recommends at least an annual test for syphilis for those with HIV infection and more frequent testing based on risk assessments.

Although only a few cases of infected women will be found, syphilis testing should continue as part of the screening process for pregnant women screening in New Zealand, as syphilis can cause a devastating infection when acquired *in utero*.

Surveillance for syphilis

We have shown that enhanced surveillance can be initiated relatively easily for an uncommon condition seen at SHCs. The extra information obtained allowed better characterisation of the resurgence of syphilis nationally. During 2012, the surveillance was able to help with the early identification of an outbreak of syphilis that predominantly affected younger MSM in Christchurch. This led to a rapid public health response.

A full report of the first year of the enhanced surveillance of syphilis has been published in the *International Journal of STD & AIDS* :

Psutka R, Dickson N, Azariah S, Coughlan E, Kennedy J, Morgan J, Perkins N. Enhanced surveillance on infectious syphilis in New Zealand Sexual Health Clinics. *Int J STD AIDS* October 2013 vol. 24 no. 10 pages 791- 798.

Syphilis

- Syphilis is a sexually transmitted infection caused by the bacterium *Treponema pallidum*.
- While primarily sexually transmitted – sometimes through oral sex - it may also be passed from an infected mother to her unborn child, resulting in *congenital syphilis*.
- Syphilis frequently presents with a firm, painless, skin ulceration called a chancre. Without treatment, chancres will heal but this can lead to secondary syphilis.
- Secondary syphilis usually manifest as a diffuse rash often on the palms of hands and soles of the feet. Other symptoms can include swollen glands, fever and a sore throat.
- While the signs of secondary syphilis go away without treatment, the infection can progress to latent – or hidden – syphilis.
- Latent syphilis can be asymptomatic for many years, but then in some people damage the brain, the heart and many other organs.
- While syphilis is generally diagnosed by a blood test for antibodies, sometimes the bacteria can be seen by examining materials that form syphilis sore. Sometimes, the bacterium can be detected by examining material from genital or skin lesions. However, this can usually be done only in specialist clinics.
- Treatment with the appropriate antibiotics will kill the syphilis bacterium and prevent further complications, but it will not repair the damages already done.
- Condoms do not provide complete protection from syphilis and can still be passed on via oral sex or contact with mucocutaneous lesions. Therefore, the NZSHS recommends screening should be offered even if a patient has a history of 100% condom use for anal sex.

SURVEILLANCE DATA HIV AND AIDS IN NEW ZEALAND January – June 2013

HIV Infection

- ✚ 63 people (54 males and nine females) were newly diagnosed with HIV through antibody testing in the first half of 2013.
- ✚ 37 were men infected through sex with other men, including two men who were thought to be infected either through sex with other men or from injecting drug use. 18 were people infected through heterosexual contact. Two people were infected by other means and for six people, the mode of infection was unknown.
- ✚ Furthermore, 21 people (19 males and two females) had their first viral load test in New Zealand in this period. They were mostly people who had previously been diagnosed overseas and who had not had an antibody test in New Zealand.
- ✚ Information on the means of infection and ethnicities of all those diagnosed in the six month period, and previously, is shown in Tables 3 and 4 (overleaf).

AIDS

- ✚ 16 people (11 males and five females) were notified with AIDS during the second half of 2013.
- ✚ Six were men infected through sex with other men, eight were people infected through heterosexual contact, none were infected through a blood transfusion. For two people, the mode of infection was unknown. No child was infected through mother-to-child transmission.
- ✚ Eight were European, three were Asian, two were Māori, one was a Pacific Islander and one was an African. For one person, the ethnicity was not stated.

Table 1. Exposure category by time of diagnosis for those found to be infected with HIV by anti-body test and first viral load test. (A small number of transsexuals are included with the males).

		HIV Infection*							
		1985-2003		2004-2012		2013 (To the end of June)		Total	
Sex	Exposure category	N	%	N	%	N	%	N	%
Male	Homosexual contact	1163	56.1	872	51.3	48	57.1	2083	54.0
	Homosexual & IDU	26	1.3	19	1.1	2	2.4	47	1.2
	Heterosexual contact	212	10.2	296	17.4	12	14.3	520	13.5
	Injecting drug use	53	2.6	16	0.9	0	0.0	69	1.8
	Blood product recipient	34	1.6	0	0.0	0	0.0	34	0.9
	Transfusion recipient [§]	9	0.4	4	1.2	0	0.0	13	0.3
	Perinatal	13	0.6	25	1.5	0	0.0	38	1.0
	Other	4	0.2	5	0.3	1	1.2	10	0.3
	Unknown	237	11.4	125	7.3	10	11.9	372	9.6
Female	Heterosexual contact	234	11.3	279	16.4	8	9.5	521	13.5
	Injecting drug use	11	0.5	1	0.1	0	0.0	12	0.3
	Transfusion recipient [§]	8	0.4	2	0.1	0	0.0	10	0.3
	Perinatal	11	0.5	9	0.5	0	0.0	20	0.5
	Other	7	0.3	9	0.5	1	1.2	17	0.4
	Unknown	24	1.2	35	2.1	2	2.4	61	1.6
Transgender	Total	8	0.4	4	0.2	0	0.0	12	0.3
NS	Transfusion recipient	5	0.2	0	0.0	0	0.0	5	0.1
	Unknown	13	0.6	0	0.0	0	0.0	13	0.3
TOTAL		2072	100.0	1701	100.0	84	100.0	3857	100.0

Table 4. Ethnicity[‡] by time of diagnosis in New Zealand for those found to be infected with HIV by antibody test and first viral load test. (A small number of transsexuals are included with the males).

		HIV Infection*							
		1996-2003		2004-2012		2013 (To the end of June)		Total	
Sex	Ethnicity	N	%	N	%	N	%	N	%
Male	European/Pakeha	514	50.0	740	43.5	35	41.7	1289	45.8
	Maori†	60	5.8	116	6.8	7	8.3	183	6.5
	Pacific Island	19	1.9	42	2.5	3	3.6	64	2.3
	African	96	9.3	155	9.1	2	2.4	253	9.0
	Asian	91	8.9	158	9.3	16	19.0	265	9.4
	Other	19	1.9	90	5.3	2	2.4	111	3.9
	Unknown	20	1.9	61	3.6	8	9.5	89	3.2
Female	European/Pakeha	53	5.2	48	2.8	2	2.4	103	3.7
	Maori†	7	0.7	16	0.9	0	0.0	23	0.8
	Pacific Island	13	1.3	15	0.9	1	1.2	29	1.0
	African	88	8.6	173	10.2	0	0.0	261	9.3
	Asian	44	4.3	52	3.1	6	7.1	102	3.6
	Other	1	0.1	17	1.0	1	1.2	19	0.7
	Unknown	1	0.1	14	0.8	1	1.2	16	0.6
Transgender	Total	1	0.1	4	0.2	0	0.0	5	0.2
TOTAL		1027	100.0	1701	100.0	84	100.0	2812	100.0

* Includes people who have developed AIDS. HIV numbers are recorded by time of diagnosis for those reported through antibody testing and by time of first viral load for those reported through viral load testing. The latter include many who have initially been diagnosed overseas and not had an antibody test here. The date of initial diagnosis may have preceded the viral load date by months or years.

For further information about the occurrence of HIV/AIDS in New Zealand, please contact:
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