

# Communicable Diseases Weekly Report

## Epi-Week 18: 28 April 2014 – 04 May 2014

In summary, we report:

- [Human immunodeficiency virus \(HIV\)](#) – 357 notifications in 2013
- [Infectious syphilis](#) – update on trends
- [Summary of notifiable conditions activity in NSW](#)

For further information on infectious diseases and alerts see the [Infectious Diseases](#) webpage.

Follow the [A to Z of Infectious Diseases](#) link for more information on specific diseases.

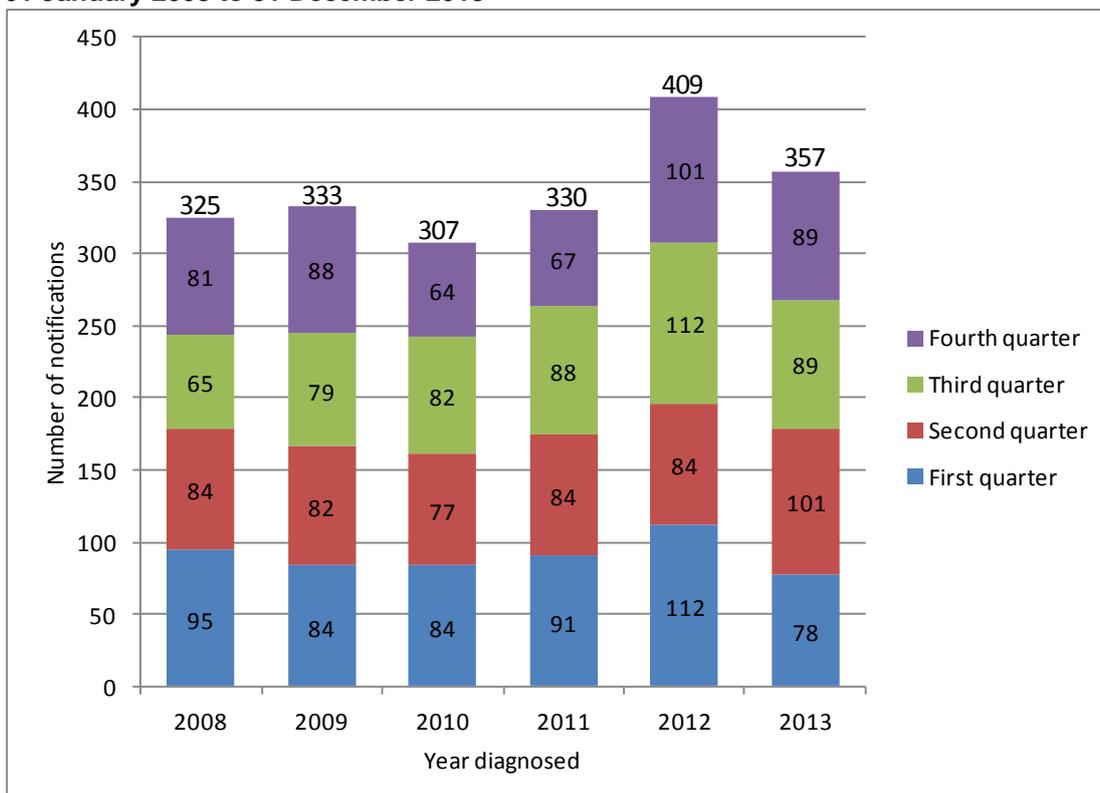
For links to other surveillance reports, including influenza reports, see the [NSW Health Infectious Diseases Reports](#) webpage.

### Human immunodeficiency virus (HIV)

There were 357 notifications of newly diagnosed human immunodeficiency virus (HIV) infection in NSW residents in 2013. This was a 13% decrease compared with to the number newly diagnosed in 2012 and a 4% increase in case numbers compared to the 5 year average 2008 to 2012 (Figure 1).

Seventy-eight percent of newly diagnosed HIV infections in 2013 were in men who have sex with men (MSM). In 17% of new diagnoses, the infection was reported to have been acquired via heterosexual sex, while in three percent acquisition was likely to have occurred via injecting drug use.

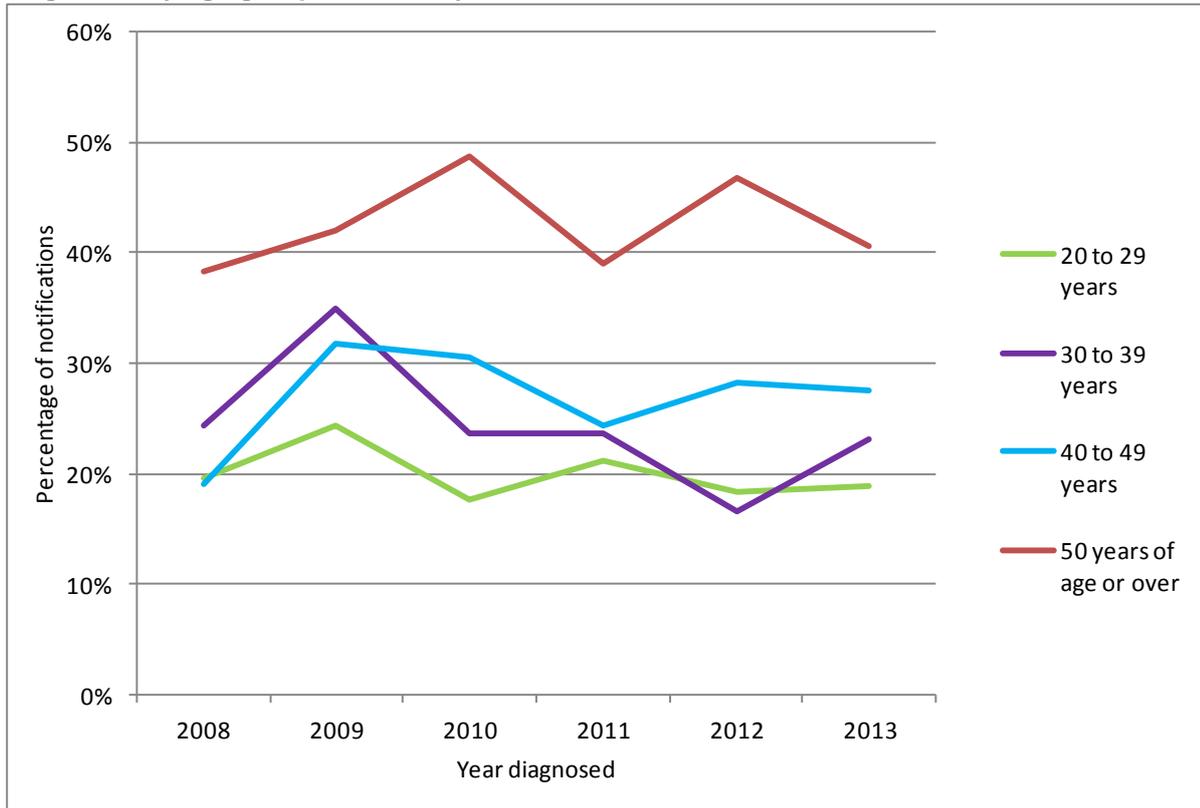
**Figure 1: Number of NSW residents newly diagnosed with HIV infection per quarter, 01 January 2008 to 31 December 2013**



Ninety-one percent of notifications were in males. One hundred and one (28%) notifications were aged 20-29 years, and 91 (25%) were in each of the 30-39 and 40-49 year age groups. Most notifications were in South Eastern Sydney (124, 35%) and Sydney (87, 24%) Local Health Districts (LHDs).

A greater proportion of new diagnoses in people aged 50 years and over were assessed to have been made at a late stage of HIV infection than in other age groups (Figure 2). This suggests older people who are at risk of HIV infection are not being tested as frequently as younger at risk people.

**Figure 7: Percentage of HIV notifications with clinical or immunological evidence of late diagnosis<sup>1</sup> by age group, 01 January 2008 to 31 December 2013**



<sup>1</sup>Clinical or immunological evidence of a late diagnosis included a CD4 count less than 350 or an AIDS defining illness at diagnosis, in the absence of evidence of a seroconversion illness or a negative or indeterminate HIV test in the 12 months before diagnosis.

HIV is a retrovirus that was first identified in 1983 as the cause of Acquired Immune Deficiency Syndrome (AIDS). HIV damages the immune system so that organisms that don't normally cause disease in healthy people can cause severe illness. Additionally certain types of cancer can develop. If these infections or cancers occur in a person with HIV infection, the person is considered to have AIDS. AIDS usually occurs as a late stage of HIV infection on average 10 years after initial infection, but can occur earlier.

Most people have either no symptoms or only mild symptoms when they are first infected with HIV. However some people develop a flu like illness with fever, sore throat, swollen glands or a rash a few weeks after infection. These symptoms disappear without treatment after a few days, and people with HIV infection may remain without symptoms for many years. However, people with untreated HIV infection can transmit the virus to others. Infectiousness is very high in the period shortly after initial infection when the virus is replicating but before an immune response occurs.

HIV is predominantly transmitted by unprotected sexual intercourse. It is also spread via contaminated drug injecting equipment and from mother to child during pregnancy, child birth or breast feeding. HIV can also be acquired where there is poor infection control in health care settings or other settings where skin penetration occurs such as with tattooing or body piercing.

In Australia, men who have sex with men are the highest risk group for HIV infection. Other risk group include people from countries where HIV prevalence is high and their sexual partners, people who inject drugs, and people who travel to or work in high prevalence countries. HIV can be prevented by consistent condom use and by not sharing injecting equipment.

The first antiviral treatments for HIV infection became available in 1996. These drugs had severe side effects and the virus frequently developed resistance to them. More recently developed anti-retroviral treatment regimens for HIV infection do not cause side effects in most people and resistance does not emerge if the drugs are taken properly. Currently people with HIV infection can have a life expectancy that is only 6 to 8 years less than those who do not have HIV.

The [NSW HIV Strategy 2012-2015 A New Era](#) (the Strategy) was launched in December 2012. The goal of the Strategy is to work towards the virtual elimination of HIV transmission by 2020. The impetus behind the Strategy has come from recent evidence showing that the people with HIV infection who are on HIV treatment have a greatly reduced risk of transmitting HIV to their sexual partners. The Strategy focuses on: promoting condom use, safe injecting and risk reduction behaviour among priority populations; improving access to HIV testing for those who need it; and encouraging and supporting people with HIV to start and maintain anti-retroviral treatment.

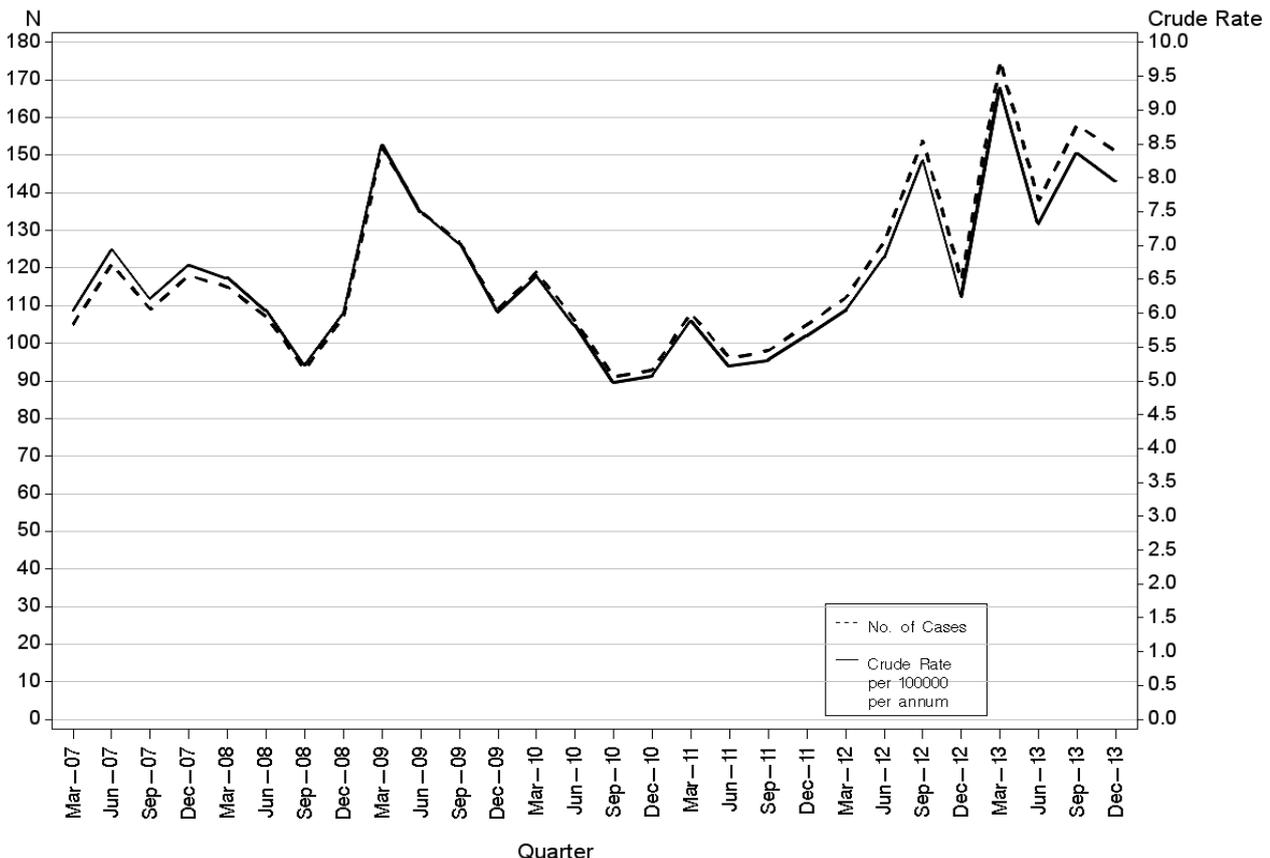
Follow the links for more information on [HIV](#) and on [HIV notifications and other HIV data](#).

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## Infectious syphilis

The number of notifications of infectious syphilis has been increasing during since 2010 with 648 notifications in 2013 compared to 536 in 2012 and 431 in 2011 (Figure 3).

**Figure 3. Number of infectious syphilis notification (excluding congenital infection) and crude rate per 100,000 per annum in NSW, 01 January 2007 to 31 December 2013**



Source: NCIMS (SAPHaRI)

Ninety-five percent of infectious syphilis notifications in NSW in 2013 were in men. Transmission of syphilis in NSW is thought to occur predominantly in men who have sex with men. Thirty-seven percent of infectious syphilis notifications were from Sydney LHD and 31% were from South Eastern Sydney LHD with only 13% coming from outside the Sydney metropolitan area.

Some people may not experience any symptoms when they are first infected with syphilis, or may not seek medical care if they do get symptoms. Therefore the number of notifications of syphilis depends to some degree on the amount of screening for the infection. Data on the number of syphilis tests performed in NSW is not available.

Syphilis is a sexually transmitted bacterial infection caused by the spirochaete *Treponema pallidum*. If untreated, the disease has three stages: primary, secondary and tertiary syphilis. There is a long period where there are no symptoms at all, called latent syphilis, which occurs when the symptoms of secondary syphilis disappear and before the onset of symptoms of tertiary syphilis.

The first symptom of syphilis, which occurs about three weeks after exposure, is a painless ulcer (chancre) that appears at the site of infection. This may be unnoticed, particularly if it is on the cervix or in the rectum. The ulcer clears spontaneously after four to six weeks. Symptoms of secondary syphilis can appear from the time when the primary ulcer is healing to several weeks after the ulcer has healed; these include skin rashes which may be on the palms of the hands and soles of the feet, swollen lymph nodes, fever, patchy hair loss, wart like lesions around the genitals or anus, fatigue and muscle aches. 15-30% of people who have not been treated for syphilis develop tertiary syphilis which can include bone, cardiovascular and neurological disease and which appears 10–30 years after the initial infection.

Syphilis in pregnancy can cause abortion, premature delivery, stillbirth and congenital syphilis. Manifestations of congenital syphilis are variable, but can be severe, and include cataracts, deafness, and seizures.

Syphilis is transmitted sexually from vaginal, anal, or oral sex. It is highly contagious during the primary and secondary stages when the ulcer or rash is present. It is also transmitted from a mother to her unborn child.

Syphilis is curable if treated with antibiotics such as penicillin.

Syphilis can be prevented by the use of a condom for vaginal and anal sex, and a dental dam for oral sex. The blood test for syphilis is part of a routine check for sexually transmissible infections (STIs). Anyone who has had unprotected sex, whose partner has another sexual partner, or who has had a recent partner change should have a check for STIs.

Follow the links for further information on [syphilis](#) and [syphilis notifications](#).

More detail on trends of sexually transmitted infections is available from the [STI report](#).

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## Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period (Table 1).

**Table 1. NSW notifiable conditions from 28 April to 04 May 2014, by date received.\***

		Weekly		Year to date			Full Year	
		This week	Last week	2014	2013	2012	2013	2012
Enteric Diseases	Cryptosporidiosis	8	6	193	792	334	1131	655
	Giardiasis	66	37	1164	961	918	2240	2012
	Hepatitis A	1	1	31	31	14	62	41
	Rotavirus	4	5	119	166	250	508	1758
	Salmonellosis	103	69	1981	1663	1386	3485	2942
	Shigellosis	1	1	106	51	59	136	131
Respiratory Diseases	Influenza	50	34	979	598	367	8402	8037
	Legionellosis	3	2	28	36	59	104	107
	Tuberculosis	2	1	128	155	166	438	469
Sexually Transmissible Infections	Chlamydia	506	258	8196	7825	8242	21079	21262
	Gonorrhoea	122	60	1681	1661	1453	4268	4115
Vaccine Preventable Diseases	Adverse Event Following Immunisation	3	2	109	329	130	508	269
	Measles	1	1	52	4	7	33	174
	Meningococcal Disease	1	1	12	11	21	48	68
	Mumps	1	1	39	32	35	88	110
	Pertussis	35	22	621	940	2839	2378	5998
	Pneumococcal Disease (Invasive)	4	3	94	130	110	490	564
Vector Borne Diseases	Barmah Forest	4	4	88	199	151	440	352
	Dengue	4	0	154	101	134	300	287
	Malaria	3	0	33	39	23	93	68
	Ross River	22	8	188	215	341	513	596
Zoonotic	Brucellosis	1	0	1	0	1	4	5

### \* Notes on Table 1: NSW Notifiable Conditions activity

- Data cells represent the number of case reports received by NSW Public Health Units and recorded on the NSW Notifiable Conditions Information Management System (NCIMS) in the relevant period.
- Data cells in the 'Adverse Event Following Immunisation' category refer to suspected cases only. These reports are referred to the Therapeutic Goods Administration (TGA) for assessment. Data on adverse events following immunisation is available online from the TGA [Database of Adverse Event Notifications](#).
- Only conditions for which at least one case report was received appear in the table. HIV and other blood-borne virus case reports are not included here but are available from the Infectious Diseases Data webpage.

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