

Communicable Diseases Weekly Report

Epi-Week 38: 15 September – 21 September 2014

In summary, we report:

- [Pertussis](#) – Infant cases, one fatality reported
- [Meningococcal disease](#) – two new cases reported
- [Human immunodeficiency virus \(HIV\)](#) – quarterly report (Q2 – 2014)
- [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.

Pertussis

While the weekly number of notifications of pertussis (also known as ‘whooping cough’) infection remained low (Table 1), a new case of pertussis in a child less than one year old was reported this week. The child was too young to be vaccinated.

Sadly, there was also a report of a fatal pertussis infection in another unvaccinated infant who had been previously notified.

Pertussis is a bacterial infection affecting the respiratory system, caused by the bacteria, *Bordetella pertussis*. Pertussis can be a life-threatening infection in babies, leading to episodes of apnoea (pauses in normal breathing), pneumonia, feeding problems and weight loss, seizures, brain damage and, in some cases, death. Older children and adults can also be infected and so can be a source of infection for babies.

Symptoms of pertussis often include a runny nose, tiredness, mild fever and a persistent cough. In young children, severe bouts of uncontrollable coughing can develop with the characteristic ‘whooping’ sound and often followed by vomiting. The cough can last for many weeks and be worse at night.

Antibiotics are used to treat pertussis in the early stages and can help prevent spreading the infection to others. People who are not treated early with the appropriate antibiotics can spread the infection during the first three weeks of their illness. After five days of antibiotic treatment people are no longer infectious but they may continue to cough for several weeks.

Vaccination against pertussis is included as part of the National Immunisation Program and the recommended schedule is for vaccination at the ages of 6-8 weeks, 4 months, 6 months, 4 years and in the first year of high school. A booster dose is also recommended for women planning pregnancy. Adults who are in contact with young babies should also be vaccinated.

High levels of vaccination within the community are required to protect those too young to be vaccinated.

Follow the link for more information on [pertussis vaccination](#).

Follow the link for further information on [pertussis notifications](#).

Meningococcal disease

Two cases of meningococcal disease were reported this week (Table 1). The first case was reported in the Hunter New England Local Health District (LHD), in a child too young to be vaccinated. In the Central Coast LHD a second case was reported in an unvaccinated adolescent with a history of a recent flu-like illness. In both cases, the local public health units contacted people who had been in close contact to recommend appropriate control measures.

Meningococcal disease is a rare, but serious bacterial infection which can sometimes be fatal. Symptoms of meningococcal disease are non-specific but may include sudden onset of fever, headache, neck stiffness, joint pain, a rash of red-purple spots or bruises, dislike of bright lights, nausea and vomiting. Not all of the symptoms may be present at once.

Young children may have less specific symptoms, including irritability, difficulty waking, high-pitched crying, and refusal to eat. A history of a recent viral illness (such as influenza) is more common in people who acquire meningococcal disease.

Meningococcal disease is caused by infection with *Neisseria meningitidis* bacteria, of which there are several serogroups. In NSW, most reported cases are due to serogroup B, for which until recently there has been no vaccine available in Australia. Disease caused by serogroup C bacteria has become rare in NSW since the introduction of serogroup C vaccines into the routine childhood immunisation schedule in 2003.

Vaccination against serogroup C meningococcal disease is recommended for all children at 12 months of age.

Follow the link for further information on [meningococcal disease notifications](#).

Follow the link for further information on [meningococcal vaccination](#) (external link).

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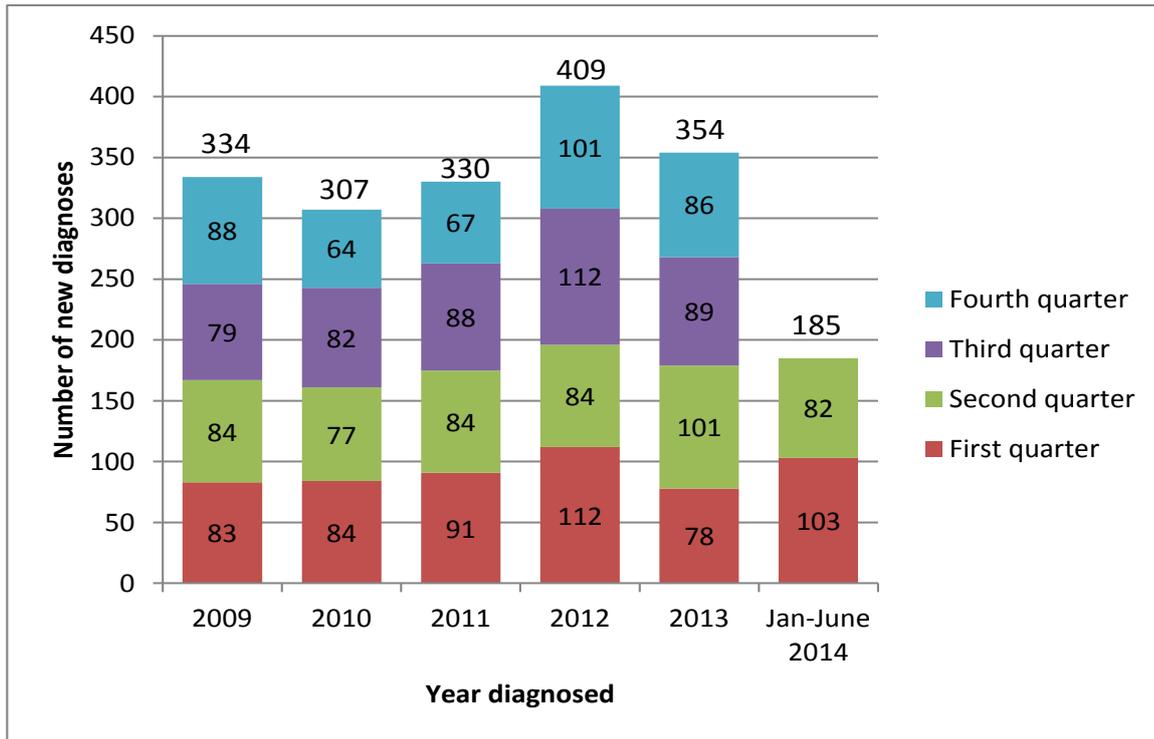
Human immunodeficiency virus (HIV)

The second quarter 2014 data report for monitoring the *NSW Health HIV Strategy 2012-2015: A New Era* is now available on the [NSW Health Ending HIV website](#). The following is a summary of HIV monitoring data for both the first and second quarters of 2014.

From January to June 2014:

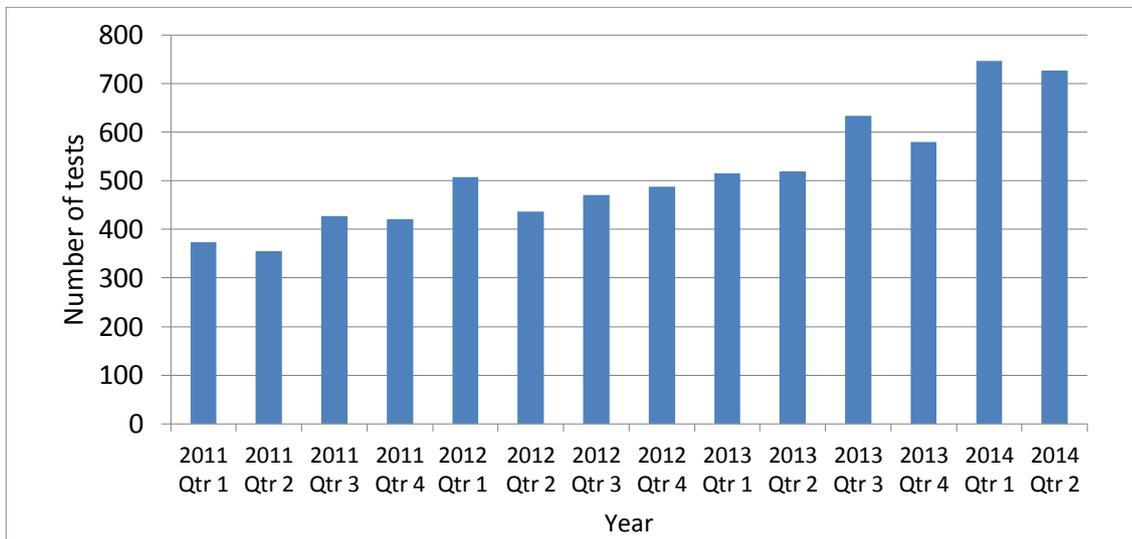
- 185 NSW residents were newly diagnosed with HIV, a three per cent (%) increase compared with the first half of 2013 and a six per cent decrease compared with the first half of 2012 (Figure 1). Of these 185, 121 (65%) had a CD4 count of 350 cells/ μ L or over, compared with 59% for the five year average 2009 to 2013.
- Of these 185, 1 (1%) was less than 20 years of age at diagnosis, 59 (32%) were 20 to 29 years, 58 (31%) were 30 to 39 years, 32 (17%) were 40 to 49 years and 35 (19%) were 50 years or over. An upward trend in the proportion of notifications that are people aged 50 years or over continues.
- 173 (94%) of the 185 NSW residents newly diagnosed were male.
- Of the 185, 146 (79%) reported being men who have sex with men (MSM), 27 (15%) reported acquiring HIV through heterosexual sex, 2 (1%) were a person who injected drugs (PWID) and 10 (5%) had unknown exposure to HIV.
- There were 234,153 HIV serology tests performed across 15 laboratories in NSW, a 4% increase on the same period in 2013 and 9% increase in the same period in 2012. HIV testing continued to increase both overall in NSW, and among high risk populations such as MSM (Figure 2).

Figure 1: Number of NSW residents newly diagnosed with HIV 1 January 2009 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

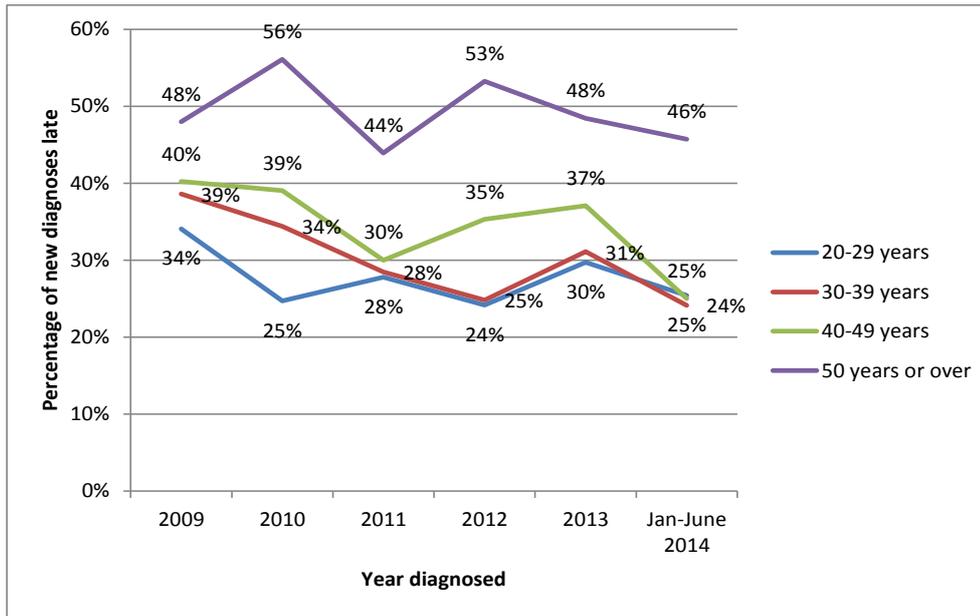
Figure 2: Number of HIV tests performed in MSM in five Local Health District Publicly Funded Sexual Health Clinics, 1 January 2011 to 30 June 2014



Data source: PFSHCs in Western Sydney, North Sydney, Nepean Blue Mountains, Northern NSW and Illawarra Shoalhaven LHDs

- In the first half of 2014, the proportion of people newly diagnosed presenting with evidence of late stage diagnosis in the age groups 20-29, 30-39 and 40-49, was lower compared with the years 2009 to 2013 (Figure 3). This may reflect a positive impact of HIV testing strategies. The less than 20 years age group is not shown due to very low numbers.

Figure 3: Percentage of HIV notifications with clinical or immunological evidence of late diagnosis¹ by age group, 1 January 2009 to 30 June 2014



Date source: NSW HIV/AIDS database, Health Protection NSW, extracted 19 August 2014

¹ Clinical or immunological evidence of a late diagnosis included a CD4 count less than 350 or an AIDS defining illness within three months of diagnosis, in the absence of evidence of a laboratory confirmed negative or indeterminate HIV test in the 12 months prior to diagnosis.

- Data from public sexual health and HIV clinics indicate 90% of people living with HIV who attended these services in the year ending 30 June 2014 were on antiretroviral treatment.

The *NSW HIV Strategy 2012-2015 A New Era* was launched on 1 December 2012. For more information on the strategy follow this [link](#).

HIV is a retrovirus that damages the immune system so that organisms that do not 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.

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. Making an early diagnosis is critical for reducing HIV transmission.

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 groups include people who inject drugs, people from countries where HIV prevalence is high and people who undertake high risk activities in high prevalence countries. HIV can be prevented by consistent condom use and by not sharing injecting equipment.

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

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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 15 to 21 September 2014, by date received.*

		Weekly		Year to date			Full Year	
		This week	Last week	2014	2013	2012	2013	2012
Enteric Diseases	Cryptosporidiosis	4	4	302	1002	545	1132	655
	Giardiasis	51	50	2153	1749	1591	2242	2014
	Hepatitis A	2	0	50	51	26	62	41
	Rotavirus	15	13	388	346	1167	508	1760
	Salmonellosis	56	62	3215	2628	2183	3483	2941
	Shigellosis	5	1	158	92	98	136	131
Respiratory Diseases	Influenza	906	1552	18642	7065	7318	8401	8037
	Legionellosis	2	1	54	82	93	108	108
	Tuberculosis	4	13	324	324	332	440	469
Sexually Transmissible Infections	Chlamydia	352	438	16794	15874	16122	21090	21267
	Gonorrhoea	66	110	3495	3264	3079	4266	4116
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	1	189	441	225	509	269
	Haemophilus influenzae type b	1	0	5	7	2	9	2
	Meningococcal Disease	2	0	24	32	58	48	67
	Pertussis	67	63	1546	1757	4832	2378	6000
	Pneumococcal Disease (Invasive)	12	25	376	384	448	489	564
Vector Borne Diseases	Barmah Forest	3	2	138	350	256	439	352
	Dengue	5	3	312	232	230	303	288
	Malaria	3	2	73	72	50	93	68
	Ross River	10	9	453	419	501	513	598
Zoonotic	Q fever	1	3	126	123	97	163	131

* 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](#) (external link).
- 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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