Communicable Diseases Weekly Report

Epi-Week 46: 10 November – 16 November 2014

In summary, we report:

- **Invasive meningococcal disease** – 4 reported cases
- **Pertussis** – increasing notifications
- **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.

Invasive meningococcal disease

There have been four cases of invasive meningococcal disease this reporting period (Table 1); one in a child too young to be vaccinated and another in a vaccinated child under four years of age. The other two cases were in adults. Two of these infections were caused by serogroup W_{135} meningococcal bacteria, one by serogroup B and one by serogroup Y. All cases were promptly treated with antibiotics and are recovering. Several close contacts were given prophylactic antibiotics and provided with post exposure vaccination.

One of the cases in an adult arose in a person who had recently finished a cruise along the NSW and Queensland coast. As there was a small risk that other persons on the cruise had also been exposed to the infection, the shipping company arranged for low level contact information to be distributed to all passengers and crew.

One of the children with invasive meningococcal disease had attended a large family gathering during the incubation period, so family members from around Australia had to be contacted and provided with low level contact information.

Meningococcal disease is a bacterial infection caused by the organism *Neisseria meningitidis.* Infection with *N. meningitidis* can result in meningitis or septicaemia, both of which can be fatal. It is spread by droplets from the respiratory tract and has an incubation period of 1-10 days; usually 3-4 days.

Meningococcal disease can affect anyone in any age group. The largest proportion of cases in Australia is in children under 5 years old, followed by 15-24 year olds.

There are several serogroups of meningococcal bacteria. In Australia vaccination against meningococcal group C bacteria has been included in the routine immunisation program since 2003. There has been a marked decline in the number of meningococcal group C cases since the introduction of the vaccine. All children should receive the meningococcal C vaccine at 12 months of age.

A vaccine to protect against some strains of meningococcal group B bacteria has been available in Australia since 2014 however it is not provided as part of the National Immunisation Program vaccination schedule. Combination vaccines are available against four meningococcal serogroups (A, C, Y and W_{135}).These are recommended mainly for: people travelling to countries where epidemics of group A, Y or W_{135} are frequent (e.g. Hajj pilgrimage or the meningitis belt of Africa); and those with health conditions that put them at higher risk of meningococcal disease, such as not having a spleen.

Meningococcal disease may present with sudden onset of fever, intense headache (with or without vomiting), a stiff neck and sensitivity to light. A petechial (purple, dotty, spreading) rash may also appear.

Anyone with symptoms of meningococcal disease should seek immediate medical care, such as at their local hospital emergency department. Early antibiotic treatment of invasive meningococcal disease is life-saving.

Follow the link for further information on meningococcal disease notifications.

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

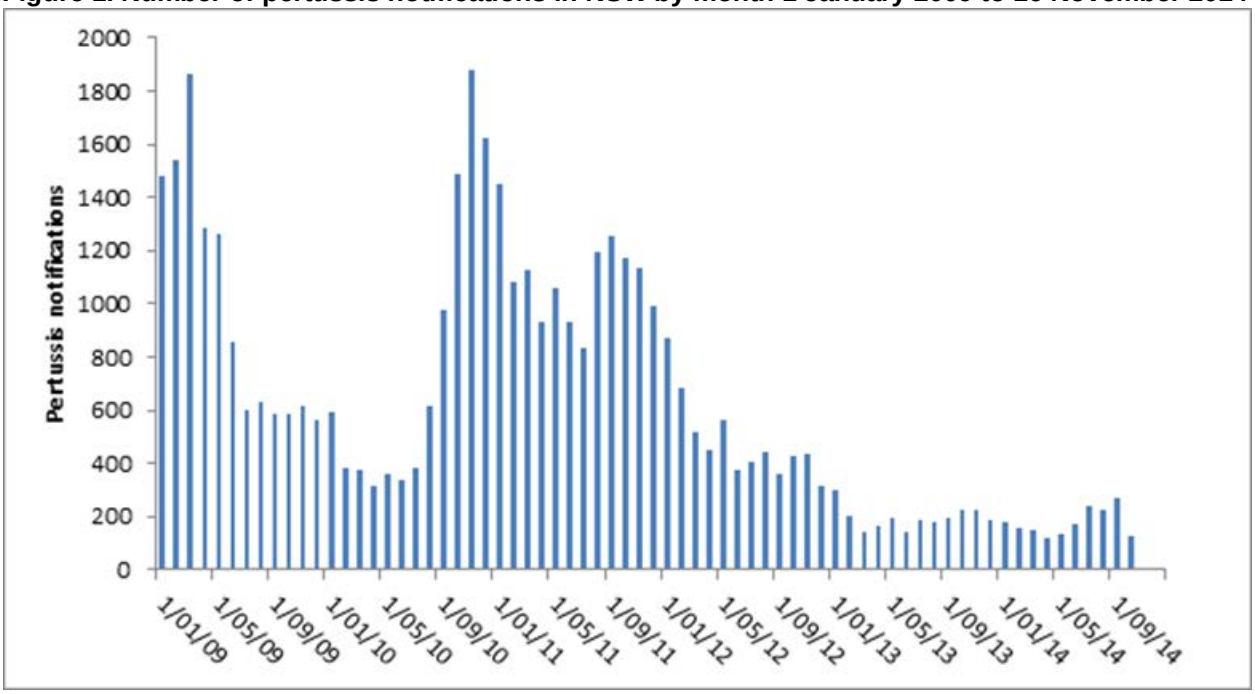
Back to top

Pertussis (whooping cough)

There were 128 confirmed cases of pertussis reported for the period 10-16 November (Table 1). Seventeen percent of these were children four years or younger, and 43% were children between five and 15 years of age.

For the period January to October 2014, pertussis notifications in NSW had been lower than the average number of notifications for the same period during the last 5 years. However, in recent weeks the number of notifications has increased, with the number of notifications in 2014 to date (2342) approaching the total number for the whole of 2013 (2378) (Figure 1). For the current reporting period notifications were highest in the Northern Sydney (24.2%) and Western Sydney (19.5%) Local Health Districts.

Figure 1. Number of pertussis notifications in NSW by month 1 January 2009 to 16 November 2014



Pertussis, also known as 'whooping cough', is a bacterial infection affecting the respiratory system, caused by the organism *Bordatella pertussis*. It affects individuals of all ages, but is more severe (and can be fatal) in small babies, particularly those too young to be vaccinated or those who are unvaccinated. Elderly people are also at increased risk of developing complications if infected with pertussis.

Pertussis is a vaccine preventable disease, and is notifiable in NSW. High levels of vaccination are important to protect babies who are too young to be vaccinated.

Vaccination against pertussis is recommended for children at 6-8 weeks, 4 and 6 months of age, with a booster at 4 years and in the first year of high school. Vaccination is also recommended for women planning pregnancy or in their third trimester of pregnancy, individuals living with or caring for infants (parents, siblings, grandparents, childcare workers), as well as for all health care workers.

Follow the link for more information regarding pertussis vaccination

Follow the link for more information regarding pertussis notifications

Back to top

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 10 to 16 November 2014, by date received.*

		Weekly		Year to date			Full Year	
		This week	Last week	2014	2013	2012	2013	2012
Enteric Diseases	Cryptosporidiosis	10	7	356	1062	592	1132	655
	Giardiasis	56	49	2582	2064	1853	2242	2014
	Hepatitis A	3	3	64	57	37	62	41
	Rotavirus	29	17	598	468	1690	508	1759
	Salmonellosis	71	56	3720	3141	2660	3483	2941
	Shigellosis	1	5	189	118	116	136	131
	Typhoid	1	1	37	52	38	58	43
Respiratory Diseases	Influenza	61	66	20425	8179	7831	8403	8036
	Legionellosis	2	2	59	97	100	108	108
	Tuberculosis	7	8	409	391	426	437	468
Sexually Transmissible Infections	Chlamydia	433	425	20240	19068	19380	21090	21267
	Gonorrhoea	95	85	4332	3867	3787	4267	4116
Vaccine Preventable Diseases	Adverse Event Following Immunisation	3	3	214	487	256	509	269
	Meningococcal Disease	4	1	33	45	65	48	67
	Pertussis	128	112	2342	2141	5583	2378	6000
	Pneumococcal Disease (Invasive)	8	7	453	460	526	490	564
Vector Borne Diseases	Barmah Forest	1	1	155	412	314	438	352
	Dengue	2	1	342	275	269	303	288
	Malaria	1	0	83	87	65	93	68
	Ross River	10	20	574	481	565	512	598

* **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.

Back to top