Communicable Diseases Weekly Report

Week 29, 15 to 21 July 2018

In summary, we report:

- Invasive pneumococcal disease – surveillance update
- Leptospirosis – six new cases in Mid North Coast outbreak
- Summary of notifiable conditions activity in NSW

For further information see NSW Health infectious diseases page. This includes links to other NSW Health infectious disease surveillance reports and a diseases data page for a range of notifiable infectious diseases.

Invasive pneumococcal disease

A total of 21 notifications of invasive pneumococcal disease (IPD) were reported this week (Table 1). So far in 2018 there have been 296 notifications received (Table 1) which is similar to recent years.

IPD is a severe form of infection with the bacteria *Streptococcus pneumoniae*. Invasive infections can be life-threatening and include pneumonia (infection of the lungs) and meningitis (infection of the membranes lining the brain and spinal cord).

There are over 90 different pneumococcal serotypes and they vary in their propensity to cause disease. Worldwide, only a limited number of serotypes are responsible for most cases of IPD and the predominant serotypes vary by age group and geographic area. The current pneumococcal vaccine used for children under the National Immunisation Program (NIP) - Prevenar 13 - covers the 13 serotypes most commonly associated with invasive disease.

In the year to date there have been 43 notifications of IPD in children aged 0-4 years, with the majority (55%) of these cases caused by serotypes that aren't covered by the vaccine. However, the most common serotype in this age group this year has been a serotype included in the vaccine, serotype 3, which was found in 31% of cases where the serotype is known. Investigations into the vaccination status of the affected children are not yet finalised.

People most at risk of pneumococcal disease include children less than two years of age, older adults, Aboriginal people, people with lung disease, heart disease, cancer, kidney disease, or HIV infection, people whose spleen has been removed or is impaired, and people who smoke.

A change to the pneumococcal vaccine schedule for children came into effect on July 1 – the third dose of pneumococcal vaccine, previously provided at 6 months of age, is now given at 12 months of age. The first and second doses of pneumococcal vaccine will continue to be given at 6 weeks and 4 months (two dose primary course) followed by a booster dose at 12 months of age. Children with medical conditions associated with an increased risk of IPD should still receive a dose of vaccine at 6 months of age, followed by a booster dose at 12 months of age.

Pneumococcal vaccination is also recommended for all people aged 65 years or older, for all Aboriginal people aged 50 years or older, and for people in other age groups who have a chronic medical condition that puts them at higher risk of invasive disease.

For further information on pneumococcal disease see the NSW Health pneumococcal disease fact sheet and the invasive pneumococcal disease data page.

Follow the link for information on changes to the NSW Immunisation Schedule (1 July 2018).

Leptospirosis

Six new cases of leptospirosis were confirmed this week in adult residents of the Mid North Coast region, as part on an ongoing investigation into the illness among farm workers in the region, bringing the total confirmed cases to fourteen. One of the cases was reported this week (Table 1), while the other five cases were confirmed in people who have presented since April 2018 with a febrile illness, and had previously been notified as possible or probable leptospirosis cases.

Farm workers are the only people affected so far. The fourteen confirmed cases have been infected by the Arborea serovar of *Leptospira*; this serovar is found world-wide in rats and mice. The North Coast Public Health Unit is working with farm owners, SafeWork NSW and other government agencies to understand why these workers have caught this infection and to minimise ongoing risk of infection among other workers.

Leptospira bacteria usually enter the body through skin cuts or abrasions, and occasionally through the lining of the mouth, nose, or eyes. Water, soil or mud that has been contaminated with animal urine can be the source of infection. Eating contaminated food or drinking contaminated water has occasionally been responsible for transmission.

Follow the links for the NSW leptospirosis fact sheet and leptospirosis data or the SafeWork NSW safety alert about leptospirosis.

Further information on *Leptospira* serovars and national leptospirosis surveillance is available from the WHO/FAO/OIE Collaborating Centre for Reference and Research on Leptospirosis, Australia and Western Pacific Region.

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 July 2018, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Enteric Diseases	Cryptosporidiosis	8	9	476	1063	756	1266	1184
	Giardiasis	54	40	1555	2042	2281	3134	3480
	Hepatitis A	2	1	62	16	27	72	41
	Rotavirus	10	9	472	471	277	2319	750
	Salmonellosis	44	45	2079	2501	3009	3680	4533
	Shigellosis	17	16	161	126	183	235	310
Respiratory Diseases	Influenza	265	306	5616	13860	6544	103853	35540
	Tuberculosis	6	3	258	286	258	543	534
Sexually Transmissible Infections	Chlamydia	544	577	17764	16550	14679	28977	25989
	Gonorrhoea	206	184	5882	5273	3891	9173	6994
Vaccine Preventable Diseases	Adverse Event Following Immunisation	6	5	181	190	159	272	260
	Mumps	1	1	48	75	27	128	67
	Pertussis	69	60	2184	3348	6076	5365	10956
	Pneumococcal Disease (Invasive)	21	21	296	295	250	683	545
Vector Borne Diseases	Barmah Forest	2	1	50	89	30	127	40
	Dengue	2	2	164	178	312	306	485
	Malaria	2	3	35	43	26	68	59
	Ross River	5	9	387	1429	367	1653	595
Zoonotic Diseases	Leptospirosis	1	2	18	14	12	20	16
	Q fever	3	2	100	126	127	210	231

*** 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 (i.e. by report date). Note that notifiable disease data available on the NSW Health website are reported by onset date so case totals are likely to vary from those shown here.
- 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 chronic blood-borne virus case reports are not included here but are available from the Infectious Diseases Data webpage.