Communicable Diseases Weekly Report

Week 35, 29 August to 04 September 2016

In summary, we report:

- Pertussis - update
- Listeriosis – one new case
- Summary of notifiable conditions activity in NSW

For further information on infectious diseases on-line see NSW Health Infectious Diseases. Also see NSW Health Infectious Diseases Reports for links to other surveillance reports.

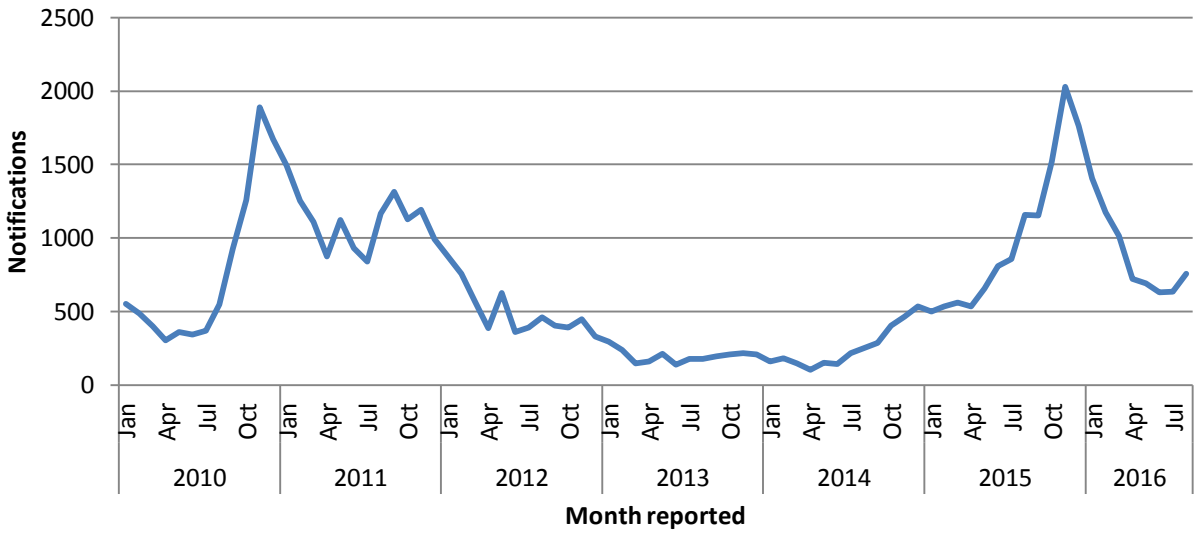
Pertussis

Although pertussis notifications in NSW have declined substantially since peaking in November 2015, there has been a slight upswing of reported cases in August 2016 (Figure 1). This is consistent with prior epidemic cycles such as in 2010 – 2011 where a delayed return to pre-outbreak notification levels was observed (Figure 1).

In response to the increasing number of pertussis notifications in the second half of 2014 and the likelihood that further increases would occur, the NSW Antenatal Pertussis Vaccination Program commenced in March 2015 to protect infants not old enough to be vaccinated (see below). Additionally, health professionals and all NSW schools were provided with information to encourage early diagnosis and treatment of pertussis to help reduce the spread of infections in the community. In March 2016 the immunisation schedule was updated to include an 18-month pertussis vaccine booster for all children born after 1 October 2014. Immunity to pertussis from vaccination, and from infection, wanes over time, so it is important that everyone receives their pertussis vaccinations on time.

Pertussis, also known as 'whooping cough', is a highly contagious bacterial infection affecting the respiratory system which is caused by the bacterium *Bordetella 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 from pertussis.

Figure 1. NSW pertussis monthly notifications for the period January 2010 to August 2016



Pertussis is a vaccine preventable disease and is notifiable in NSW. Vaccination against pertussis is recommended for children at 6-8 weeks, 4 and 6 months of age, with a booster at 18 months of age, 4 years of age and in the first year of high school. Boosters are important due to progressive waning of immunity with increasing time since the last dose.

The NSW Antenatal Pertussis Vaccination Program offers free diphtheria, tetanus and pertussis (dTpa – Boostrix®) vaccine to all pregnant women in the third trimester of pregnancy, preferably at 28 weeks gestation. Antibodies produced by the mother in response to vaccination are transferred to the unborn baby and persist in the baby during the first few months of life thereby protecting against whooping cough during the period before the baby is old enough to be vaccinated at six weeks of age. Boostrix® vaccine is provided free to general practices, Aboriginal Medical Services and antenatal clinics for all pregnant women in the third trimester.

Follow the link for more information about pertussis in childcare and schools.

Follow the link for more information about pertussis patient management for GPs.

Follow the link for more information regarding the Antenatal Pertussis Vaccination Program.

Follow the link for more information regarding pertussis notifications.

Listeriosis

One case of *Listeria* infection (listeriosis) was reported this week (Table 1). The case had no underlying predisposing medical conditions but had consumed numerous foods at high-risk for *Listeria* contamination prior to illness onset.

Twenty-seven cases of listeriosis have been notified in NSW during 2016 to date. Apart from three cases linked to a common food source (that has since been removed from market), most cases have been sporadic and unrelated to one another.

Listeriosis is a relatively rare illness caused by eating food contaminated with a bacterium called *Listeria monocytogenes*. This bacterium is widespread throughout nature, being commonly carried by many species of both domestic and wild animals. Outbreaks of illness have been associated with raw milk, soft cheeses, pre-prepared salads (for example, from salad bars), unwashed raw vegetables, pâté, cold diced chicken and pre-cut fruit and fruit salad. Babies can be born with listeriosis if their mothers eat contaminated food during the pregnancy. *Listeria* survives refrigeration but is sensitive to cooking temperatures.

People at increased risk of listeriosis include pregnant women and their unborn child, newborns, older people and people with weakened immune systems; for example, people on cancer treatment or steroids, or people with diabetes, kidney disease, liver disease or living with HIV infection. Listeriosis may be severe in these individuals, and infections during pregnancy may cause still birth or premature delivery.

People at increased risk of listeriosis should not eat pre-packed cold salads including coleslaw and fresh fruit salad, pre-cut fruit, pre-cooked cold chicken, cold delicatessen meats, pâté, raw seafood, uncooked smoked seafood (e.g. smoked salmon), unpasteurised milk or milk products, soft cheeses (e.g. brie, camembert, ricotta or blue-vein), sprouted seeds or raw mushrooms. Fruit and vegetables eaten raw should be thoroughly washed prior to eating.

Follow the links for further listeriosis data and the listeriosis factsheet.

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 29 August to 04 September 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	10	8	813	663	296	1038	429
	Giardiasis	45	68	2626	2408	2024	3415	2942
	Hepatitis E	1	0	14	12	30	20	38
	Listeriosis	1	0	27	16	18	26	23
	Rotavirus	7	6	324	342	348	1036	714
	STEC/VTEC	1	0	29	13	27	29	31
	Salmonellosis	52	56	3405	2917	3055	4044	4273
	Shigellosis	5	4	205	125	149	172	212
Respiratory Diseases	Influenza	3749	3241	22335	16321	14461	30304	20888
	Legionellosis	2	1	90	73	50	96	72
	Tuberculosis	2	5	306	280	305	445	475
Sexually Transmissible Infections	Chlamydia	376	460	17413	15011	15698	22548	22899
	Gonorrhoea	70	131	4671	3635	3250	5401	4876
	LGV	1	1	37	17	11	20	14
Vaccine Preventable Diseases	Adverse Event Following Immunisation	4	4	170	126	199	186	258
	Meningococcal Disease	5	6	51	30	20	46	37
	Mumps	1	2	34	38	62	63	82
	Pertussis	193	157	7097	5590	1414	12083	3051
	Pneumococcal Disease (Invasive)	16	21	344	321	329	495	511
Vector Borne Diseases	Dengue	4	5	332	232	309	343	378
	Ross River	3	2	352	1396	424	1638	673

*** 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.