Communicable Diseases Weekly Report

Week 17, 20 to 26 April 2015

In summary, we report:

- **Pertussis** – antenatal vaccination program
- **Influenza** – increased activity; outbreaks associated with cruise ships
- **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 - antenatal vaccination program

The NSW Antenatal Pertussis Vaccination Program commenced on 1 April 2015, offering free diphtheria, tetanus and pertussis (dTpa) vaccine to all pregnant women in the third trimester (preferably at 28 weeks) to protect infants through maternal pertussis antibody transfer until they are old enough to be vaccinated at 6 weeks of age. Boostrix® vaccine is provided free to GPs, Aboriginal Medical Services and antenatal clinics for all pregnant women in the third trimester. Since the introduction of the new antenatal pertussis program, 33 384 doses of Boostrix® have been distributed by the State Vaccine Centre with most of the doses (32 826) provided to GPs.

Vaccination during pregnancy is the most effective way to protect infants who are too young to be vaccinated from pertussis. International studies have shown that third trimester vaccination is over 90% effective at preventing pertussis in infants. International studies involving more than 40 000 participants have also shown that pertussis vaccination during pregnancy is safe for both mother and baby.

Pertussis, also known as whooping cough, is a bacterial infection affecting the respiratory system, caused by the organism *Bordetella pertussis*. The disease 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.

For more information see the whooping cough immunisation page

Influenza

** Please also note that comprehensive NSW influenza surveillance reports are published by the Communicable Diseases Branch – monthly in the inter-seasonal period and weekly during the influenza season.*

The unseasonal increase in the number of influenza cases notified has continued throughout April (Table 1), with 117 cases notified this week (Table 2). A small increase in notifications is often seen in January and February and this is presumed to be associated with travellers returning from countries in the northern hemisphere during their influenza season. In 2015, influenza notifications increased at the start of the year as usual but the number of cases reported has remained higher than expected through March and April (Table 1).

Table 1: Influenza notifications in NSW residents, by month of disease onset, January 2011 to 26 April 2015.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Influenza A	**2011**	114	97	112	87	132	521	1239	894	385	245	159	76	4061
	2012	32	42	95	85	294	1847	2177	1215	272	93	57	61	6270
	2013	81	114	119	105	107	215	608	1987	1255	421	180	150	5342
	2014	250	191	174	154	191	471	3692	9070	3090	417	138	170	18008
	2015	229	274	314	171									859
Influenza B	**2011**	12	15	17	24	46	129	368	678	245	62	18	14	1628
	2012	15	23	24	12	37	114	241	452	517	170	78	26	1709
	2013	31	17	34	24	55	123	359	1126	951	210	80	39	3049
	2014	27	16	54	63	59	77	280	997	861	261	64	71	2830
	2015	50	78	124	107									287

Influenza A/H3N2 has been the most common influenza strain identified but influenza B notifications are also above usual levels. Influenza A/H1N1 strains have also been detected.

The increased influenza activity has also resulted in at least six outbreaks in aged care facilities, and a number of outbreaks associated with cruise ships. Since 1 February 2015, cruise ships arriving into Sydney have reported influenza outbreaks that have affected at least 553 passengers and crew.

International travel increases the risk of contracting influenza, and the large numbers of passengers and frequent mingling of passengers from all parts of the world on cruise ships creates a risk for contracting influenza at any time of year. People planning to travel, and particularly those going on cruise ships should make sure they are vaccinated against influenza at least two weeks prior to departure. See the factsheet Influenza outbreaks in travel groups for further information on avoiding influenza while travelling in organised travel groups including cruise ships.

Influenza is a highly contagious respiratory illness caused by influenza viruses. There are three main types of influenza virus that cause infection in humans - types A, B and C - and many sub-types or strains. Influenza can occur throughout the year but influenza activity usually peaks in winter.

The 2015 seasonal influenza vaccines for Australia have been updated to match the new strains of influenza A/H3N2 and influenza B that have been circulating during the Northern Hemisphere winter and which circulated in NSW during the 2014 season. Influenza vaccine is available now and is recommended for all people aged 65 years and over, Aboriginal children aged from 6 months to 4 years **(new category),** Aboriginal people aged 15 years and over, pregnant women, and all people aged 6 months and over with medical conditions predisposing to severe influenza.

Follow the link for further information on influenza vaccination.

Other practical steps to stop the spread of influenza include:

- Covering your face when you cough or sneeze and throwing used tissues in a rubbish bin.
- Washing your hands thoroughly and often. Wash hands for at least 10 seconds, especially after coughing, sneezing or blowing your nose, or use an alcohol-based hand rub.
- Staying at home until you're well. Wait at least 24 hours after your symptoms resolve so you are less likely to infect other people.

Follow the link for further influenza data.

Follow the link for the influenza homepage.

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Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period (Table 2).

Table 2. NSW notifiable conditions from 20 to 26 April 2015, by date received

		Weekly		Year to date			Full Year	
		This week	Last week	2015	2014	2013	2014	2013
Enteric Diseases	Cryptosporidiosis	28	30	472	193	760	429	1132
	Giardiasis	69	62	1360	1165	923	2942	2242
	Hepatitis A	1	1	42	34	31	80	62
	Listeriosis	1	0	9	10	20	23	33
	Rotavirus	7	5	124	125	160	714	508
	STEC/VTEC	1	0	10	20	14	31	24
	Salmonellosis	106	95	1963	2002	1576	4305	3483
	Shigellosis	2	2	61	105	46	210	136
Respiratory Diseases	Influenza	117	96	1414	1008	573	20888	8403
	Legionellosis	3	1	31	31	34	72	109
	Tuberculosis	4	9	107	144	145	473	444
Sexually Transmissible Infections	Chlamydia	437	433	7619	8207	7473	22899	21088
	Gonorrhoea	71	109	1757	1701	1574	4876	4266
Vaccine Preventable Diseases	Adverse Event Following Immunisation	1	3	59	125	315	255	509
	Measles	1	1	6	55	4	68	33
	Meningococcal Disease	1	1	12	12	11	37	48
	Pertussis	98	138	2069	671	879	3051	2379
	Pneumococcal Disease (Invasive)	11	0	91	89	113	512	490
Vector Borne Diseases	Barmah Forest	15	11	111	84	191	163	438
	Dengue	6	1	138	162	97	378	303
	Malaria	1	2	18	34	38	87	93
	Ross River	56	79	1125	187	182	677	512
Zoonotic	Brucellosis	1	0	3	1	0	3	4

Notes on Table 2: 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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