Communicable Diseases Weekly Report

Epi-Week 27: 30 June – 06 July 2014

In summary, we report:

- **Listeriosis** – one fatal case
- **Influenza** – the 2014 influenza season has begun
- **Invasive pneumococcal disease** – death due to a non-vaccine serotype
- **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.

Listeriosis

One fatal case of *Listeria* infection (listeriosis) was reported this week (Table 1). The case was an adult from Southern NSW with severe immunosuppression. Another case of listeriosis was reported in a Victorian resident living near the NSW border. NSW and Victorian public health authorities are working together to identify whether there is a potential common source of infection in these two cases. Additionally, specimens from both cases have been sent for molecular typing to assess whether they are likely to have come from the same source.

In 2013 there were 23 listeriosis cases notified in NSW. Twelve cases who became sick last year were linked to a national outbreak associated with soft cheeses from a particular Victorian manufacturer. The majority of cases were over 60 years of age and had underlying immunosuppressive conditions.

Listeriosis is a rare illness caused by the bacterium *Listeria monocytogenes*. *Listeria* bacteria are widespread in the natural environment and are commonly found in soil, water and vegetation. Humans and animals are infected by eating food contaminated with *Listeria* bacteria.

Most healthy people who ingest small amounts of *Listeria* bacteria do not develop any symptoms. However, pregnant women and people whose immune system is weakened, such as those with cancer, organ transplants, HIV infection, diabetes, and newborn babies and the elderly, may develop severe disease. The illness varies from a mild disease with fever, aches and pains, diarrhoea and vomiting to a serious illness with meningitis or septic shock. Pregnant women may transmit the infection to their unborn babies, resulting in miscarriage, stillbirth, premature birth or a very sick newborn baby.

Listeriosis is most commonly linked to the consumption of unpasteurised milk and milk products, soft cheeses, cold meat products or raw fruit and vegetables. Recent large outbreaks in Australia have been due to soft cheeses and to chicken wraps/sandwiches.

People who are susceptible to listeriosis, including pregnant women and those with immunocompromising conditions should avoid high risk foods such as soft cheeses, cold meat products, pre-cooked cold chicken, uncooked smoked seafoods, pre-packed cold salads including coleslaw and fresh fruit salad, and unpasteurised milk and milk products. Thorough cooking destroys *Listeria*, but refrigeration does not, so only freshly cooked foods should be eaten. Raw fruit and vegetables should be washed before eating.

Follow the links for further information on listeriosis and listeriosis notifications.

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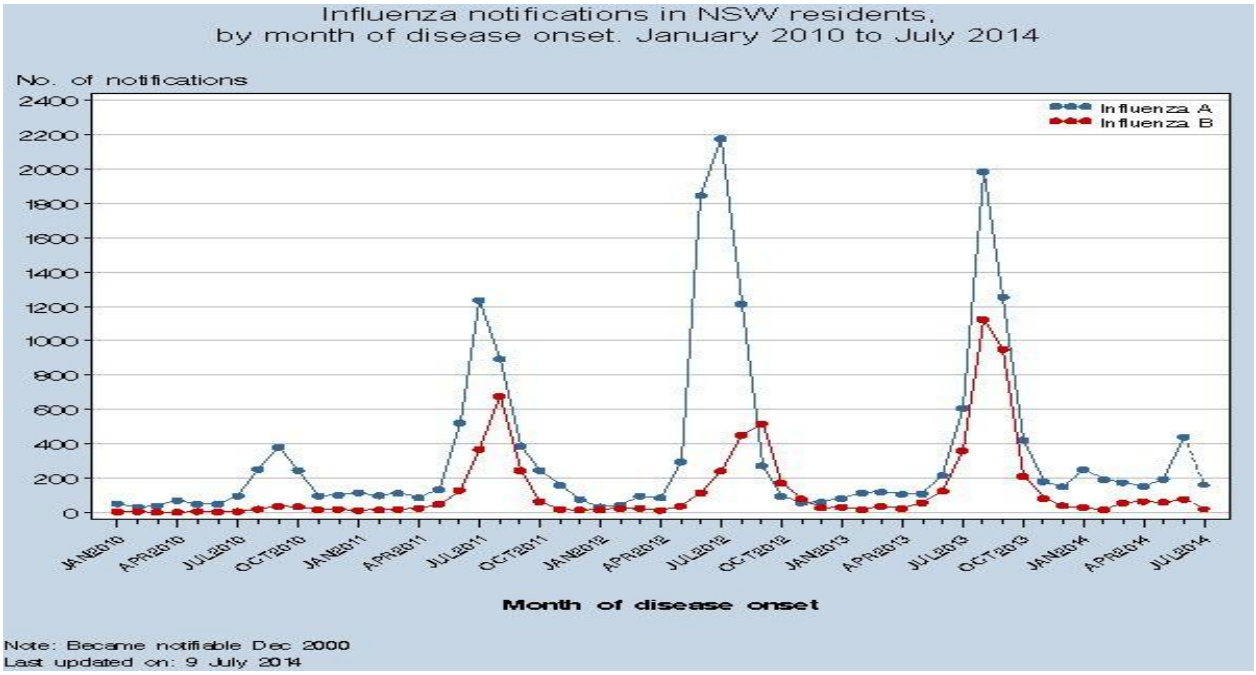
Influenza

Please note that comprehensive NSW influenza surveillance reports are also published each week by the Communicable Diseases Branch.

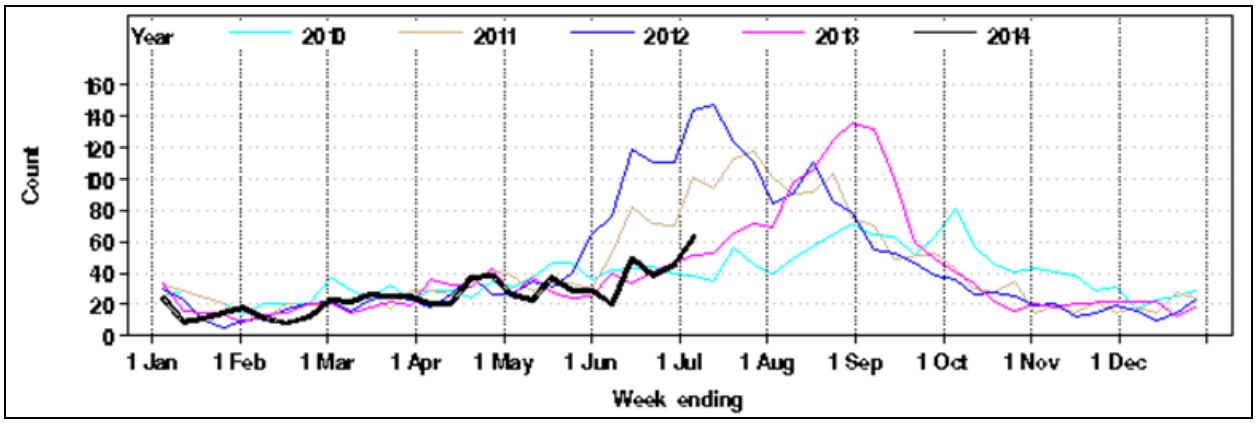
In recent weeks the number of confirmed laboratory reports for confirmed influenza has increased significantly indicating the influenza season has commenced (Figure 1). There were 237 laboratory-confirmed influenza cases notified this reporting week compared with 150 for the previous week (Table 1). The recent increasing trend in influenza notifications, particularly in influenza A viruses, parallels a recent increase in influenza-like illness (ILI) presentations at NSW Emergency Departments (Figure 2).

Figure 1. Influenza notifications in NSW residents, by month of disease onset. January 2010 to July 2014.*



* Note – incomplete for July 2014.

Figure 2: Total weekly counts of Emergency Department presentations for influenza-like illness, for 2014 (black line), compared with each of the five previous years (coloured lines) excluding 2009, persons of all ages, for 59 NSW hospitals.



The Emergency Department surveillance system uses a statistic called the 'index of increase' to indicate when ILI presentations are increasing at a statistically significant rate. With a threshold value of 15, the index is useful for signalling the increase in presentations when influenza starts circulating widely in the population.

On 6 July 2014, the index of increase for ILI presentations was 20.2 consistent with the start of the 2014 influenza season. Based on the index, last year's influenza season started around 26 June, peaked on 20 August and ended around 17 September.

Influenza, or flu, 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 rarely C - and many sub-types or strains. Influenza can occur throughout the year but influenza activity usually peaks in winter.

It is not too late to be vaccinated against influenza. Follow the link for further information on influenza vaccination.

Other practical steps to stop the spread of influenza include for following.

- 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 information on influenza and influenza notifications.

Follow the link for WinterWise campaign information.

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Invasive pneumococcal disease

Recently there was a reported death due to invasive pneumococcal disease in a fully vaccinated young child. Pneumococcal deaths in children now seldom occur following the inclusion of pneumococcal vaccine into the childhood immunisation schedule. However this child's disease was caused by serotype 23B which is not included in the childhood pneumococcal vaccine and so could not have been prevented. It is a reminder of how serious this disease can be.

Pneumococcal disease is caused by infection with *Streptococcus pneumoniae*, of which there are more than 90 different serotypes. In recent years the leading cause of pneumococcal disease in children was due to serotype 19A. The current 13-valent pneumococcal vaccine for children covers serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F.

The incidence of disease in children has declined significantly since the introduction of universal infant pneumococcal vaccination in 2005. The majority of disease in children now due to serotypes not included in the vaccine.

Follow the link for further information on pneumococcal disease and invasive pneumococcal disease notifications.

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

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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 30 June to 06 July, by date received.*

		Weekly		Year to date			Full Year	
		This week	Last week	2014	2013	2012	2013	2012
Enteric Diseases	Cryptosporidiosis	2	10	256	941	469	1131	655
	Giardiasis	40	56	1640	1337	1283	2240	2014
	Hepatitis A	1	0	39	40	20	62	41
	Listeriosis	1	0	15	23	22	33	36
	Rotavirus	5	21	211	216	375	508	1759
	STEC/VTEC	1	1	27	18	10	24	14
	Salmonellosis	40	48	2657	2187	1712	3485	2942
	Shigellosis	3	2	132	65	76	136	131
Respiratory Diseases	Influenza	237	150	1839	1237	3264	8401	8037
	Legionellosis	1	1	38	56	72	108	107
	Tuberculosis	5	7	203	227	235	440	469
Sexually Transmissible Infections	Chlamydia	387	442	12122	11516	11819	21085	21265
	Gonorrhoea	63	96	2525	2377	2200	4267	4116
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	1	153	386	186	509	269
	Measles	1	0	57	12	21	33	174
	Mumps	1	1	48	60	76	89	110
	Pertussis	29	33	913	1270	3741	2378	5998
	Pneumococcal Disease (Invasive)	14	11	199	245	261	489	564
	Rubella	1	0	5	5	7	12	11
Vector Borne Diseases	Barmah Forest	6	3	121	287	204	440	352
	Dengue	4	6	239	156	179	302	287
	Malaria	4	5	58	47	33	93	68
	Ross River	8	14	339	349	444	513	597
Zoonotic	Q fever	1	2	86	83	75	156	125

* **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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