

Communicable Diseases Weekly Report

Week 13, 28 March to 3 April 2016

In summary, we report:

- [Legionnaires' disease](#) - new cluster linked to the Kogarah and Hurstville districts
- [Measles](#) – four new imported cases, including two acquired in Queensland.
- [Listeriosis](#) – two new cases this reporting week
- [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.

Legionnaires' disease

There were five cases of Legionnaires' disease reported in this reporting week ([Table 1](#)). Health Protection NSW and the SES Local Health District (LHD) public health unit have initiated an outbreak investigation as three of the cases were in people who had been in the Kogarah or Hurstville areas during their exposure period and all were caused by the *Legionella pneumophila* serogroup 1 (LP1) strain. Two of the cases were male and all were aged between 64 and 85 years. Two of the cases reported significant underlying health conditions which predispose to *Legionella* infection and all of the cases required hospital admission.

The two additional cases of Legionnaire's disease reported this week have not been linked to the cluster but investigations are continuing. NSW hospital services and general practitioners were alerted to the outbreak and requested to be on the alert for new cases.

An environmental investigation was initiated to identify environmental sources of *Legionella pneumophila* bacteria, such as cooling towers and water fountains. All owners and operators of cooling towers in the Kogarah and Hurstville areas were requested to immediately check the plant maintenance and disinfection. Several field teams of environmental health officers from public health agencies and the Kogarah and Hurstville local councils have conducted inspections and testing of cooling towers and other possible sources, and ordered remedial actions to be undertaken where required.

NSW public health units are undertaking active case surveillance, and hospital emergency department presentations and respiratory admissions are being monitored on a daily basis. No further LP1 cases have been identified to date.

Legionnaires' disease is a type of pneumonia and the symptoms include fever, chills, cough and shortness of breath. Some people also have muscle aches, headache, tiredness, loss of appetite and diarrhoea. Risk factors for Legionnaires' disease include increasing age (most cases are aged over 50 years), smoking, and immunosuppression as a result of chronic medical conditions, cancer or taking high dose corticosteroids. People with Legionnaires' disease often have severe symptoms and infection is associated with a 10-15% mortality rate.

Legionnaires' disease is caused by *Legionella* bacteria. There are around 50 different species of *Legionella* bacteria, but most infections in NSW are caused by *Legionella pneumophila* or *Legionella longbeachae*.

Legionnaires' disease is not spread from person to person, but can occur from inhaling contaminated water aerosols or dust. *Legionella longbeachae* is found in potting mix, compost and soils and infection is associated with gardening and the use of potting mix. To prevent Legionnaires' disease it is recommended that people handling potting mix wet the mix beforehand to reduce dust, wear gloves and a mask and wash their hands after handling potting mix or soil.

Legionella pneumophila is found in water and can contaminate air conditioning cooling towers, spas, plumbing systems and other bodies of warm water. Outbreaks are sometimes associated with contaminated cooling towers that are part of air conditioning systems in large buildings. Regular inspection, disinfection and maintenance of cooling towers and plumbing systems limit the growth of the bacteria and prevent outbreaks of Legionnaires' disease.

The NSW *Public Health Act 2010* and the *Public Health Regulation 2012* control various man-made environments and systems which are conducive to the growth of *Legionella* bacteria and which are capable, under the right conditions, of transmitting Legionnaires' disease. Follow the link for more information on the [regulatory control of Legionnaires' disease](#).

Follow the links for more information on [Legionnaires' disease](#) and on [notifications of Legionnaires' disease](#)

Measles

Four cases of measles were notified with onset this reporting week (one notified in week 13 – [Table 1](#) - and the other three in week 14). Two cases were reported from Northern Sydney Local Health District in travellers who likely acquired the disease while in Queensland. A further two infant cases were reported in siblings too young to be vaccinated who acquired their infection overseas. This brings the total number of cases reported in 2016 to six. All cases reported this year acquired their infection outside of NSW.

Measles is endemic in many countries and it is important for people planning travel to make sure they are vaccinated. Travellers returning from areas where measles still circulates should seek medical advice if they develop the symptoms of measles. It is important that if someone suspects that they or a family member has symptoms of measles, they call ahead to their local doctor or emergency department so arrangements can be made to keep the person with suspected measles away from others who could be at risk of infection.

The measles virus is transmitted from person to person via respiratory secretions in the air following coughing and sneezing. Symptoms of measles include fever, runny nose, sore red eyes and cough, followed 3-4 days later by a red blotchy rash spreading from the head and neck to the rest of the body.

Infection with the measles virus can be serious with common complications including middle ear infection and viral or bacterial bronchopneumonia. Acute encephalitis occurs rarely and subacute sclerosing panencephalitis is a very rare fatal complication, occurring many years after infection in about 1 per 100,000 cases.

Vaccination is highly effective at preventing measles with two doses of measles containing vaccine offering protection against infection in 99% of people. Vaccination not only benefits those who receive it but also protects others, such as those too young or unable to be vaccinated, by reducing the risk that an unvaccinated person is exposed to measles virus; this is known as herd immunity

Anyone born in or after 1966 should have had two doses of measles containing vaccine, which is free for people up to 50 years of age in NSW. Measles containing vaccine is now routinely offered to all children at 12 months (as measles-mumps-rubella) and 18 months (as measles-mumps-rubella-varicella) of age through the National Immunisation Program.

If you were born in or after 1966 and are unsure of your vaccination status, or have not had two vaccine doses in the past (or had a confirmed measles infection), consult your GP for more advice. This is particularly important prior to overseas travel as the risk of being exposed to a case of measles is greater when travelling.

For more information please follow these links: [measles](#), [measles notifications](#) and [measles vaccination](#).

Listeriosis

Two new case of *Listeria* infections (listeriosis) were reported this week ([Table 1](#)). The first case was in an elderly man from Western Sydney LHD who has several immunosuppressive conditions. The second case was an elderly woman from Hunter New England LHD who also had other underlying health conditions. Neither of the cases were hospitalised during their exposure period and investigations into possible food sources consumed are ongoing. There is currently no evidence to suggest the cases are linked. So far this year, 14 cases of listeriosis have been notified, which is more than expected. Molecular typing available to date suggests that two of the cases notified in February may have a common source but all the other cases have unrelated sources. Investigation is ongoing regarding the potential source of infection of the two related cases.

Listeriosis is a 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 28 March to 3 April 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	30	30	363	349	154	1038	429
	Giardiasis	75	66	1157	1060	846	3414	2942
	Hepatitis A	1	1	15	36	30	71	80
	Listeriosis	2	0	14	7	8	26	23
	Rotavirus	7	2	148	103	97	1036	714
	Salmonellosis	81	74	1687	1570	1499	4045	4275
	Shigellosis	6	5	78	53	92	172	212
Respiratory Diseases	Influenza	155	141	1646	1018	753	30296	20887
	Legionellosis	5	2	29	23	20	96	72
	Tuberculosis	4	6	105	89	110	441	474
Sexually Transmissible Infections	Chlamydia	418	386	6328	5886	6116	22543	22898
	Gonorrhoea	91	72	1408	1387	1251	5399	4875
	LGV	1	3	14	8	4	20	14
Vaccine Preventable Diseases	Adverse Event Following Immunisation	3	2	44	52	92	182	256
	Diphtheria	1	0	1	0	0	0	0
	Measles	1	0	4	4	47	9	68
	Pertussis	187	199	3620	1549	544	12076	3052
	Pneumococcal Disease (Invasive)	7	8	72	58	67	494	511
Vector Borne Diseases	Dengue	8	10	112	117	137	340	378
	Ross River	16	22	216	769	111	1640	673
Zoonotic Diseases	Psittacosis	1	0	1	1	3	3	13
	Q fever	2	2	55	57	62	267	190

* 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.