

Communicable Diseases Weekly Report

Week 04, 25 January to 31 January 2016

In summary, we report:

- [Legionnaires' disease](#) – three new cases
- [Invasive meningococcal disease](#) – three new cases
- [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

Three cases of Legionnaires' disease were notified during this reporting period, all were residents of Northern Sydney Local Health District. Two cases were caused by infection with *Legionella longbeachae*, of which one was in a person who returned from overseas on the day of their illness onset. The third infection was due to *Legionella pneumophila*.

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 infections are associated with a 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 inspections, 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](#).

Invasive meningococcal disease

Three cases of invasive meningococcal disease (IMD) were notified this reporting week in residents of Northern Sydney, South East Sydney, and Western Sydney Local Health Districts (Table 1).

Eight cases of IMD have been reported so far in 2016 (to 4 February), including two people who died from their infection. In the same period of 2015 there were only four cases notified. In 2016 cases have occurred in adults and children with an age range of 0 to 73 years. Of the cases in 2016 for which the serogroup is currently available, three were serogroup B and one was serogroup W135.

IMD is caused by infection with the bacteria *Neisseria meningitides*. The bacteria are spread through direct contact of mucous membranes with the organism, such as exposure to respiratory droplets from the nose and throat of an infected person. Contact may result in the bacteria becoming established and reproducing in the throat of the exposed person; in most people this does not cause any symptoms; only a very small proportion of people develop disease. Disease is typically meningitis (infection of the lining of the brain), septicaemia (infection of the blood) or both. Up to 15 per cent of IMD cases are fatal even with appropriate antibiotic treatment, and survivors may be left with long-term complications.

A component of public health intervention for IMD is the identification of people who may be carrying the bacteria in the back of their throat without any illness, but who may be able to pass the bacteria onto someone else. People who have shared accommodation, or had sexual or prolonged contact, with someone with IMD are considered close contacts. Close contacts are offered antibiotics to clear the bacteria from their throat and so prevent the spread of the disease. For serogroups of *Neisseria meningitides* for which there is a vaccine, vaccination may also be offered to close contacts. Early treatment of IMD with antibiotics can be life-saving so both close and lower risk contacts of a case are provided with information about the disease and asked to be alert to any possible early signs or symptoms.

There are several serogroups of *Neisseria meningitidis* which cause invasive disease. Vaccination against meningococcal C infection is included in the national immunisation schedule with vaccination due at 12 months of age. Combined vaccines against the A, C, Y and W135 serogroups are generally only recommended for travellers to countries where these are more common and for some people with certain high risk conditions that predispose them to developing IMD such as people without a spleen. A vaccine against some serogroup B strains has recently become available in Australia; it is recommended for young children and adolescents but is not part of the National Immunisation Program.

Follow the links for more information on meningococcal [disease](#), [vaccination](#) and [notifications](#).

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 25 January to 31 January 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	28	23	103	70	67	1038	429
	Giardiasis	77	71	342	309	196	3415	2942
	Haemolytic Uremic Syndrome	1	0	1	1	3	11	7
	Listeriosis	1	1	5	2	4	26	23
	Rotavirus	20	18	73	44	41	1036	714
	Salmonellosis	203	100	700	586	533	4060	4302
	Shigellosis	3	6	26	19	31	167	212
	Typhoid	2	5	8	5	7	41	44
Respiratory Diseases	Influenza	74	110	396	288	314	30300	20888
	Legionellosis	3	0	8	11	6	94	72
	Tuberculosis	5	7	44	25	41	436	474
Sexually Transmissible Infections	Chlamydia	394	551	2115	1946	2141	22539	22899
	Gonorrhoea	82	128	421	467	484	5400	4875
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	0	8	10	16	182	256
	Meningococcal Disease	3	0	7	4	1	46	37
	Mumps	1	2	4	5	9	63	82
	Pertussis	244	345	1541	506	219	12079	3052
	Pneumococcal Disease (Invasive)	2	6	29	24	20	497	511
Vector Borne Diseases	Chikungunya	2	2	5	7	2	37	27
	Dengue	1	8	19	36	48	338	378
	Ross River	8	8	39	92	34	1642	673
Zoonotic	Q fever	3	4	17	18	32	260	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.