

## Communicable Diseases Weekly Report

### Week 47, 18 November to 24 November 2018

In summary, we report:

- [Legionellosis \(Legionnaires' disease\)](#) - four new cases and cluster investigation
- [Shigellosis](#) – increase in notifications
- [Summary of notifiable conditions activity in NSW](#)

For further information see NSW Health [infectious diseases page](#). This includes links to other NSW Health [infectious disease surveillance reports](#) and a [diseases data page](#) for a range of notifiable infectious diseases.

### Legionellosis (Legionnaires' disease)

There were four notifications of legionellosis (Legionnaires' disease) this reporting week ([Table 1](#)). All but one of the cases were confirmed to be due to *Legionella pneumophila* serogroup 1 (LP1) and involved residents from the Camperdown, South Western Sydney and Newcastle Local Health Districts. There was also an additional case in an overseas traveller who reported travelling to several areas in Sydney and Illawarra. Public Health Units investigated all of the cases but no common exposures could be identified between the cases.

In the last six weeks, five cases of Legionnaires' disease due to the LP1 strain were recorded in people who had spent time in the Sydney's Central Business District. While no source of these infections has been identified, precautions are being taken to ensure cooling towers in the affected area have been properly maintained. See the related NSW Health [media release](#) for further information.

Legionellosis 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 per cent mortality rate.

Legionellosis 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*.

*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 legionellosis outbreaks.

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 case notifications of [Legionnaires' disease](#).

## Shigellosis

There were 27 notifications of shigellosis in this reporting week ([Table 1](#)): 15 were confirmed cases (culture positive) and 12 were probable cases (PCR positive only). Of the 15 confirmed cases, eight cases are thought to have acquired their infection through overseas travel, four cases are thought to have acquired their infections locally through male-to-male sexual contact, and three cases have unknown risk factors. Thirteen were serogroup *S. sonnei*, one *S. flexneri* and one is a serogroup *S. dysenteriae*.

Shigellosis is a diarrhoeal disease caused by *Shigella* bacteria. There are four serogroups of *Shigella*: *S. dysenteriae* (Group A), *S. flexneri* (Group B), *S. boydii* (Group C) and *S. sonnei* (Group D). Serogroups A, B and C are further divided into over 30 serotypes.

Symptoms of shigellosis usually start one to three days after exposure, and include diarrhoea (often containing mucous and/or blood), fever, nausea, vomiting and abdominal cramps. The illness usually resolves in 5 to 7 days. Some people who are infected may not have any symptoms, but may still pass the *Shigella* bacteria to others.

Shigellosis is easily transmitted from person to person by the faecal-oral route, as only a small number of organisms are enough to cause illness. People with shigellosis can have the bacteria in their faeces and so remain infectious for some weeks after their symptoms have resolved.

Certain types of sexual activity, such as oral-anal sex, facilitate transmission of shigellosis from person to person. Globally, shigellosis is commonly acquired from ingestion of food contaminated by poor hand hygiene or by flies that have been in contact with human waste.

Shigellosis can be prevented by thorough hand washing after any possible exposures to human faecal material, including after toileting, changing nappies and sexual activity. People who have diarrhoea should not have sex where there is any contact with the anus for seven days until after their symptoms have resolved.

People travelling to countries where shigellosis is common should avoid uncooked foods, including fruit and vegetables unless washed and peeled by the person themselves, and drink only bottled, boiled or treated water.

Treatment with appropriate antibiotics generally reduces the time a person is infectious to a few days. Antibiotics are therefore recommended for all people with shigellosis, even if symptoms are only mild, in order to reduce the risk of spread to other people.

Antibiotic choice should be determined by testing results, due to frequent resistance of *Shigella* bacteria to one or more commonly used antibiotics.

This year there has been an increase in the number of cases of multi-drug resistant *Shigella* reported in NSW. The majority of these infections are thought to have been acquired through male to male sexual contact. An alert was issued to health care providers, and NSW Health has been working closely with ACON to communicate with at risk community groups about safe sex, early detection and treatment options. Further information about the increase in drug resistance is available on the [Infectious Diseases shigellosis alert page](#).

Follow the links for further information on [shigellosis](#) and [Shigella notifications data](#).

## 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 18 November to 24 November 2018, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Enteric Diseases	Cryptosporidiosis	11	10	656	1207	977	1266	1184
	Giardiasis	47	48	2437	2908	3231	3134	3480
	Hepatitis A	2	1	80	62	34	72	41
	Rotavirus	10	6	732	2188	616	2319	750
	STEC/VTEC	3	1	52	47	49	53	65
	Salmonellosis	71	58	2992	3392	4112	3680	4533
	Shigellosis	27	23	461	206	283	235	310
	Typhoid	2	1	52	53	32	55	37
Other Diseases	Acute Rheumatic Fever	1	0	26	18	15	19	16
Respiratory Diseases	Influenza	203	185	16228	103276	34914	103853	35540
	Legionellosis	4	6	136	126	119	138	134
	Tuberculosis	12	8	474	493	468	542	533
Sexually Transmissible Infections	Chlamydia	542	570	28288	26415	23772	28972	25987
	Gonorrhoea	198	184	9696	8347	6336	9170	6992
	LGV	2	1	77	46	56	50	60
Vaccine Preventable Diseases	Adverse Event Following Immunisation	6	6	282	266	243	279	262
	Meningococcal Disease	1	3	63	85	64	91	70
	Pertussis	277	228	5112	4977	9962	5365	10956
	Pneumococcal Disease (Invasive)	10	10	625	654	512	683	545
Vector Borne Diseases	Barmah Forest	1	3	70	119	34	127	40
	Dengue	5	9	250	282	449	306	485
	Ross River	4	5	532	1610	451	1653	595
Zoonotic Diseases	Leptospirosis	1	0	58	18	14	20	16
	Q fever	1	3	201	189	203	210	231

### \* 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 (i.e. by report date). Note that [notifiable disease data](#) available on the NSW Health website are reported by onset date so case totals are likely to vary from those shown here.
- 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 chronic blood-borne virus case reports are not included here but are available from the [Infectious Diseases Data](#) webpage.