

Communicable Diseases Weekly Report

Week 22, 28 May to 3 June 2017

In summary, we report:

- [Shigellosis](#) – seven cases
- [Legionellosis](#) – four 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.

Shigellosis

Seven notifications of shigellosis were received this reporting week, compared to two cases in the previous week ([Table 1](#)).

All seven cases were adults (five men and two women) aged between 19 and 75 years and were Sydney residents. Of the six cases who were able to be contacted, four are thought to have acquired their infections locally and two had travel-related exposures overseas. Three cases are thought to have acquired their infection through sexual contact with possible faecal exposure.

There is no indication of any links between these cases and none of these cases travelled to central Australia, where there has been an increase of shigellosis reported in Aboriginal communities.

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. In this reporting period, five of the cases were due to *S. sonnei*, and one case was due to *S. flexneri*.

Symptoms of shigellosis usually start 1 to 3 days after exposure, and include diarrhoea (often containing mucus 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. Strict personal hygiene is necessary to prevent person to person spread, which occurs if hands are not washed properly or if anything that is contaminated comes in contact with a person's mouth. 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.

People with shigellosis can have the bacteria in their faeces and so remain infectious for some weeks after their symptoms have resolved. 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.

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.

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.

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

Legionellosis (Legionnaires' disease)

There were four notifications of legionellosis in this reporting week ([Table 1](#)), including three cases of *Legionella pneumophila* infection and one due to *Legionella longbeachae*.

The three *L. pneumophila* cases were in people aged between 65 and 90 years, and all were Sydney residents. Public health units are currently reviewing possible sources of exposure for these cases and comparing with other recent cases. No exposure sources (such as a contaminated cooling tower) have been identified to date that link to one or more of these cases, but investigations are on-going.

Legionellosis is caused by infection with *Legionella* bacteria. There are around 50 different species of *Legionella* bacteria but most infections in NSW are caused by *L. pneumophila* or *L. longbeachae*.

Legionellosis usually presents as 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 legionellosis 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 corticosteroid medicines. People with legionellosis often have severe symptoms and infection is associated with a 10 to 15 per cent mortality rate.

Legionellosis is not spread from person to person, but can occur from inhaling contaminated water aerosols or dust. *L. longbeachae* is found in potting mix, compost and soils and infection is associated with gardening and the use of potting mix. To prevent legionellosis 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.

L. 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.

When legionellosis cases due to *L. pneumophila* are identified, NSW Health public health unit staff interview patients and their families about their illness and possible exposures, including all locations where the case travelled, worked, stayed or visited during the 2-10 days before the onset of illness. These locations are then mapped and compared closely with the geographic areas reported by other recent *L. pneumophila* cases, with environmental investigations and testing undertaken as indicated.

Regular inspection, disinfection and maintenance of cooling towers and plumbing systems limit the growth of 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 legionellosis.

Follow the link for more information on the [regulatory control of Legionella and Legionnaires' disease](#).

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

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 May – 03 June 2017, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2017	2016	2015	2016	2015
Enteric Diseases	Cryptosporidiosis	18	15	988	653	571	1184	1040
	Giardiasis	50	60	1648	1871	1737	3481	3413
	Rotavirus	16	16	293	224	155	751	1033
	Salmonellosis	57	52	2185	2485	2313	4543	4022
	Shigellosis	7	2	90	129	73	310	172
Respiratory Diseases	Influenza	284	261	3973	3251	1997	35538	30301
	Legionellosis	4	1	55	67	50	134	96
	Tuberculosis	3	3	175	200	184	532	443
Sexually Transmissible Infections	Chlamydia	494	513	12760	11316	10153	25994	22525
	Gonorrhoea	135	150	4168	2916	2325	7005	5397
	LGV	1	0	9	23	12	59	35
Vaccine Preventable Diseases	Adverse Event Following Immunisation	4	5	147	124	92	257	186
	Mumps	1	2	58	15	22	67	65
	Pertussis	98	75	2636	5112	2927	10957	12079
	Pneumococcal Disease (Invasive)	16	12	172	156	150	543	494
	Rubella	1	0	2	6	4	10	6
Vector Borne Diseases	Barmah Forest	3	4	40	22	132	35	184
	Dengue	2	6	141	253	172	481	344
	Malaria	1	2	31	19	19	59	47
	Ross River	33	36	1194	307	1238	540	1635
Zoonotic Diseases	Q fever	2	4	92	104	105	230	264

* 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.