Communicable Diseases Weekly Report

Week 22, 29 May to 4 June 2022

In this report we provide information regarding *Legionella pneumophila, Monkeypox* and a summary of notifiable conditions activity in NSW over the reporting period 22, 29 May to 4 June 2022.

Due to the rapidly evolving nature of the situation, data on **COVID-19** notifications can be found separately on the NSW Health Latest Updates on COVID-19 page.

For up-to-date information regarding the **Japanese encephalitis** outbreak and the NSW response, please visit the NSW Health Japanese encephalitis page.

Information on notifiable conditions is available at the 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.

Legionella pneumophila - update

An outbreak investigation of Legionnaires' disease due to *Legionella pneumophila* serogroup 1 in the City of Sydney is concluding Eleven confirmed cases with illness onsets between 29 April and 30 May have been identified who had all been in the Sydney Central Business District (CBD) during their exposure period. All cases, eight males and three females, aged between 46 and 79 years, have required hospitalisation with five requiring respiratory support. All cases had known underlying risk factors associated with Legionnaires' disease, including smoking or advanced age.

Results from sampling of air conditioning cooling towers on 27 May identified four towers at three locations detected *Legionella pneumophila* serogroup 1. Three of the four towers also had either *Legionella pneumophila* serogroup 2-14 or other *Legionella* species identified. All towers have since undergone disinfection and retesting demonstrated that disinfection was successful in removing the *Legionella.* There have been no additional cases identified who were exposed after public health action took place. Whole genome sequencing on patient and environmental isolates is pending. Once available, this may indicate linkages between patient exposures and contaminated cooling towers.

Legionnaires' disease, an infection of the respiratory system caused by *Legionella* bacteria, is characterised by fever, chills, cough and shortness of breath. Some people may also experience muscle aches, headache, tiredness, loss of appetite and diarrhoea. Legionnaires' disease typically affects people over the age of 50 years and can result in severe pneumonia requiring hospitalisation, especially in those who smoke tobacco, have an existing lung condition or a suppressed immune system.

Legionnaires' disease is not spread from person to person, but infection may occur after breathing in water aerosols or environmental dust contaminated with *Legionella* bacteria.

There are two types of *Legionella* bacteria that commonly cause Legionnaires' disease: *L. longbeachae*, which may be found in soil, bagged potting mix and landscaping products, and *L. pneumophila*, which can be present in building water systems such as air-conditioning cooling towers and warm water systems.

Following notification of a case of Legionnaires' disease, the Public Health Unit (PHU) works closely with the case and their family to investigate potential sources. NSW Health in conjunction with the PHU consistently checks for common potential sources between cases, and monitors for any further cases or crossover in exposures.

Reducing risk of Legionnaires' disease:

Certain activities such as gardening, irrigation, and re-commissioning of spas or large air conditioning systems may increase the risk of *Legionella* bacteria exposure. The risk of Legionnaires' disease can be reduced by:

- Taking appropriate precautions when gardening and handling soil, potting mix and similar products, including:
  - Wetting down gardening products while working to reduce dust
  - Use of appropriate personal protective equipment including a P2/N95 mask and gloves
  - Washing hands after handling soil and potting mix and before eating, drinking, or smoking.
- Businesses ensuring cooling water systems are well maintained, particularly after periods of intermittent operation or seasonal usage, in line with the NSW Public Health Regulation.
- Regular maintenance (including disinfection) of spas, hot tubs and irrigation systems – particularly those sourced from untreated water sources such as dams or reservoirs.

Further information:

- NSW Health Legionnaires' disease fact sheet
- NSW Health Legionellosis notification data page
- NSW Guidelines for Legionella Control in Cooling Water Systems

Monkeypox

Five cases of monkeypox have been notified in NSW, three of whom were notified in this reporting week (Table 1). All cases are adults from metropolitan Sydney, two of whom recently returned from visiting Europe, while one case most likely acquired their infection in Queensland. Since May 2022, there has been a global increase in monkeypox cases reported from countries that are not endemic for monkeypox virus.

Monkeypox is a zoonotic viral infection that is usually associated with travel to Central and West Africa and spread through contact with bodily fluids or ingestion of wild animals. It can also be passed on from one person to another through prolonged close contact (i.e. inhaling respiratory droplets), or direct contact with infected bodily fluids, lesions or scabs on the skin or contaminated objects, such as bedding or clothes. It may also be passed on by direct contact during sex.

Symptoms of monkeypox normally begin with fever, headache, muscle aches, backache, swollen lymph nodes, chills and exhaustion. Within 1 to 3 days (sometimes longer) after the appearance of fever, a rash appears, often beginning as sores in the mouth and on the face then spreading to other parts of the body. A notable symptom in this international outbreak is that the rash may first appear in the genital area. Lesions start as a macular rash that develops into papules, vesicles, then pustules, which crust and fall off. The number of lesions can vary from a few to several thousand.

Infection with monkeypox virus is usually self-limiting and most people recover within a few weeks. However, severe illness can occur in a small percentage of people.

A large proportion of cases detected in this multi-country outbreak have involved mainly, but not exclusively, men who have sex with men. NSW Health is urging people who have recently returned from overseas and have attended large parties or sex on premises venues to watch for symptoms. If symptoms appear, contact your GP or local sexual health clinic by phone or telehealth or call the NSW Sexual Health Infolink on 1800 451 624.

More information on monkeypox is available from:

- NSW Health Monkeypox fact sheet
- NSW Health infectious disease alerts

Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period alongside reports received in the previous week, year to date and in previous years (Table 1).

Table 1. NSW Notifiable conditions from 29 May- 4 June 2022, by date received*

		Weekly		Year to date				Full year		
		This week	Last week	2022	2021	2020	2019	2021	2020	2019
Enteric Diseases	Campylobacter	202	203	4424	5461	4060	5013	11954	10008	11482
	Cryptosporidiosis	7	9	200	271	391	391	444	549	669
	Giardiasis	18	18	530	854	1036	1838	1504	1871	3328
	Hepatitis A	1	0	11	0	17	34	8	18	61
	Rotavirus	9	14	175	153	343	285	356	500	1777
	Salmonellosis	53	54	1638	1715	1848	1961	3096	2884	3555
	Shigellosis	10	7	121	38	363	400	60	494	867
	STEC/VTEC	5	4	63	60	47	30	126	115	79
Other	Monkeypox	3	0	5	0	0	0	0	0	0
Respiratory Diseases	Influenza	16264	8055	38912	41	7280	18891	124	7488	116431
	Legionellosis	5	7	118	103	76	79	213	170	153
	Tuberculosis	7	3	190	257	243	244	557	625	589
Sexually Transmissable Infections	Chlamydia	460	431	10499	12931	12288	13871	25369	27243	32475
	Gonorrhoea	188	207	4192	4053	4451	5173	7624	9882	11688
Vaccine Preventable Diseases	Haemophilus influenzae type b	2	0	3	4	1	3	9	6	11
	Pertussis	1	3	19	25	1289	2684	43	1400	6386
	Pneumococcal Disease (Invasive)	10	9	130	178	145	177	386	358	690
Vector Borne Diseases	Barmah Forest	1	1	40	61	127	37	111	271	63
	Ross River	8	11	510	487	1485	356	659	1990	595
Zoonotic Diseases	Q fever	2	0	77	90	106	130	187	206	248

*** Notes on Table 1: NSW Notifiable Conditions activity**

- Only conditions which had one or more case reports received during the reporting week appear in the table.
- Due to the rapidly evolving nature of the situation, data on COVID-19 notifications can be found separately on the NSW Health Latest Updates on COVID-19 page.
- 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.
- Cases involving interstate residents are not included.
- Chronic blood-borne virus conditions (such as HIV, hepatitis B and C) are not included here. Related data are available from the Infectious Diseases Data, the HIV Surveillance Data Reports and the Hepatitis B and C Strategies Data Reports webpages.
- Notification is dependent on a diagnosis being made by a doctor, hospital or laboratory. Changes in awareness and testing patterns influence the proportion of patients with a particular infection that is diagnosed and notified over time, especially if the infection causes non-specific symptoms.