

# Communicable Diseases Weekly Report

## Week 26, 27 June to 3 July 2021

In summary, we report:

- [Murray Valley encephalitis](#) – one new case
- [Leptospirosis](#) – two possible cases
- [Novel coronavirus 2019 \(COVID-19\)](#)
- [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.

### Murray Valley encephalitis

One case of Murray Valley encephalitis (MVE) virus infection was notified in this reporting week. The case had recently travelled to the Northern Territory where he had likely been exposed whilst undertaking outdoor activities. The virus that causes MVE was detected in the local mosquito population at the time the case had travelled to the region.

MVE is a rare but serious mosquito-borne illness that is transmitted by the bite of *Culex* mosquitoes. It is more common in some parts of northern Australia and Papua New Guinea. In NSW, MVE is rarely diagnosed in patients who live or travel west of the Great Dividing Range, usually after periods of heavy rainfall. The presence of MVE virus in the environment is monitored through the NSW Arbovirus Surveillance and Mosquito Monitoring Program. This includes surveillance of chicken flocks, trapping mosquitoes for virus testing and surveillance of human cases.

Most people infected with MVE virus do not show symptoms, or may develop a mild illness with fever, headache, nausea and vomiting. A small proportion may develop severe disease involving encephalitis, an infection of the brain. Symptoms of encephalitis include severe headache, increasing confusion, drowsiness and loss of coordination. It can progress to seizures, loss of consciousness and even death. People with encephalitis usually require treatment in hospital. Some people who recover will remain with permanent neurological complications.

There is currently no specific treatment for Murray Valley encephalitis, or vaccine to prevent infection.

Travellers to northern Australia are advised to check local mosquito alerts, and to protect themselves all year round against mosquito bites, which can reduce the risk of infection from viruses transmitted by mosquitoes, including MVE virus and Kunjin virus. People in NSW are also advised to avoid mosquito bites in the summer months and after periods of heavy rainfall by:

- Covering up with a loose-fitting long-sleeved shirt and long pants when outside
- Applying mosquito repellent to exposed skin
- Taking special care during peak mosquito biting hours, especially around dawn and dusk
- Removing potential mosquito breeding sites from around the home and screen windows and doors
- Taking extra precautions when travelling or camping in areas with a higher risk of mosquito-borne diseases.

### Further information

- [Murray Valley Encephalitis \(MVE\) factsheet](#)
- [Mosquitoes are a health hazard factsheet](#)
- [Vector borne diseases pages](#)
- [Kunjin factsheet](#)

## Leptospirosis

There have been two possible case of leptospirosis notified in this reporting week. NSW has had 66 confirmed leptospirosis cases notified for the year to date. This is an increase of 154% compared to the same period for the last 5 years. This increase in notifications has coincided with a large and ongoing mouse plague in regional NSW, in an area extending from the Upper Hunter and New England, into Far Western NSW and Queensland.

Leptospirosis is a rare and potentially serious bacterial disease of humans and animals. It is caused by *Leptospira* bacteria transmitted through direct contact with the bodily fluids (e.g. urine) or tissues of infected animals, or via exposure to contaminated water, soil and environments. The bacteria enter through cuts in the skin or through mucous membranes (such as the eyes, nose or mouth). Symptoms develop between 2–30 days after exposure (most commonly 5–14 days).

The most common clinical presentation is a non-specific febrile illness; however, symptoms can include headache, sore muscles, chills, conjunctival suffusion (red eyes), gastrointestinal symptoms, cough and rash. Some people develop severe complications, including kidney failure, jaundice (yellow discolouration of the skin and eyeballs, indicating liver disease), meningitis, or haemorrhagic (bleeding) complications. Leptospirosis is treated with a course of antibiotics, which can be more effective if started early.

Leptospirosis can affect many wild and domestic animals, including livestock, dogs and rodents. In NSW, most human cases are reported from regional areas, often in association with floods or rodent plagues. Those most at risk of contracting leptospirosis are people with frequent exposure to outdoor environments including flooded areas, those doing farm work, or having direct or indirect contact with livestock, rodents, or other animals. Persons with recreational exposure to contaminated environments such as campers, rafters and freshwater swimmers can also be at risk.

There are preventive measures to reduce the risk of contracting leptospirosis. These include practising good hand hygiene by thoroughly washing hands with soap and water after contact with potentially contaminated environments and keeping any cuts and abrasions covered with a waterproof dressing. Swimming or wading in any freshwater source that could be contaminated with animal urine or floodwater runoff should be avoided. When working with potentially infected animals, their tissues or bodily fluids, the use of personal protective clothing (e.g. gloves, goggles and boots) is very important.

Implementing rodent control measures around homes, outbuildings and other areas attracting rodents, e.g. grain or animal feed stores and refuse disposal areas, is also recommended (always use in accordance with the instructions on the label, and keep children and pets away from areas where baits have been used).

There is no vaccine available to prevent disease in humans. However, animal owners can seek veterinary advice about vaccination to protect against leptospirosis, which in NSW is available for cattle and dogs.

Follow the links for further [Leptospirosis data](#) and the NSW Health [Leptospirosis fact sheet](#). See also [Staying healthy during a mouse plague fact sheet](#).

## Novel coronavirus 2019 (COVID-19)

For up-to-date information regarding the COVID-19 outbreak and the NSW response, please visit the [NSW Health COVID-19 page](#).

## 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 27 June – 3 July 2021, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2021	2020	2019	2020	2019
Enteric Diseases	Cryptosporidiosis	5	11	303	397	417	550	669
	Giardiasis	34	30	1000	1115	2043	1869	3323
	Rotavirus	7	10	154	356	354	464	1754
	Salmonellosis	42	53	1872	1974	2143	2886	3556
	Shigellosis	1	0	42	371	448	494	867
Respiratory Diseases	Influenza	2	1	51	7323	39909	7486	116441
	Legionellosis	3	2	109	81	89	170	153
	Tuberculosis	11	13	307	283	285	624	590
Sexually Transmissible Infections	Chlamydia	390	410	14797	13964	16098	27272	32488
	Gonorrhoea	145	189	4761	5112	5979	9895	11696
Vaccine Preventable Diseases	Pertussis	1	1	35	1317	3155	1404	6386
	Pneumococcal Disease	17	15	244	163	242	359	690
Vector Borne Diseases	Barmah Forest	1	3	67	158	44	271	63
	Malaria	1	0	4	20	29	25	73
	Murray Valley Encephalitis	1	0	1	0	0	0	0
	Ross River	9	10	519	1709	393	1989	593
Zoonotic Diseases	Q fever	2	2	95	115	143	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.
- The shigellosis case definition changed on 1 July 2018 to include probable cases (PCR positive only), hence case counts cannot be validly compared to previous years.
- 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.