

# Communicable Diseases Weekly Report

## Week 27, 2 July to 8 July 2017

In summary, we report:

- [Hendra virus](#) – risk assessment following report of an infected horse
- [Malaria](#) – three notifications in one family, overseas acquired
- [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.

### Hendra virus

An unvaccinated 11 year old horse on a property near Lismore was observed to be unwell on 6 July. It rapidly deteriorated the following day and needed to be euthanized by veterinary authorities. Laboratory testing confirmed Hendra virus as the cause of the illness. This is the first case of Hendra virus infection reported in a horse in NSW this year. The affected property has been placed under movement restrictions by Local Land Services. Further details are available in the related [NSW Department of Primary Industries \(DPI\) media release](#).

The local public health unit conducted risk assessments for all people who may have been in contact with the horse while it was potentially infectious. There had been minimal unprotected human contact with the sick horse and all exposures were assessed to be of negligible risk.

Hendra virus (originally called 'Equine morbillivirus') is a *paramyxovirus* of the genus *Henipavirus*. The only other agent in this genus is Nipah virus. Fruit bats (*Pteropus* species), also known as flying foxes, are the only known natural reservoir. Antibody to Hendra virus has been found in 20-50 percent of flying foxes in mainland Australian populations. Widespread testing involving 46 other species of animals and arthropods has not shown the natural presence of the virus in any species other than flying foxes.

Transmission from bats to horses is rare, and is thought to occur through contamination of horse-feed by infectious fluids from bats, such as from bat urine or bat birth products.

The infection has occasionally been passed onto people who have been in close contact with an infected horse. Only seven human cases have been documented, the last occurring in 2009. All seven had a high level of exposure to respiratory secretions and/or other body fluids of horses subsequently diagnosed with Hendra virus infection, or presumed to have Hendra virus infection through review of clinical and epidemiological evidence in the absence of samples for laboratory testing.

The symptoms of Hendra virus infection typically develop 5-21 days after contact with an infectious horse. Fever, cough, sore throat, headache and tiredness are common initial symptoms. Meningitis or encephalitis (inflammation of the brain) can develop, causing headache, high fever, and drowsiness, and sometimes convulsions and coma. Hendra virus infection can be fatal with four of the seven known cases dying from their infection. There is no Hendra virus vaccine to protect humans; however people who have had moderate to high risk exposure to infected horses can be offered an experimental preventive treatment at Princess Alexandra Hospital in Brisbane.

Veterinarian and horse owners are at highest risk of exposure to Hendra virus. All people in close contact with ill horses at risk of Hendra should be aware of the [DPI guidance](#) on preventing the disease in humans and the use of appropriate personal protective equipment (PPE).

Further information for Hendra virus in humans see the [Hendra virus fact sheet](#) and [Hendra virus contacts fact sheet](#).

## **Malaria**

Three new cases of malaria infection were notified in this reporting week (Table 1). All three cases were from one family who had travelled to Pakistan and returned in October 2016. All were due to infections with *Plasmodium vivax* and all appear to have had incubation periods over six months.

Malaria is an infection of the liver and red blood cells caused by protozoan parasites. There are five types of *Plasmodium* parasites that cause malaria: *P. vivax* and *P. falciparum* are the two most common species but *P. ovale*, *P. malariae* and, rarely, *P. knowlesi* can also cause disease. Malaria symptoms usually develop 9-14 days after being bitten by an infective female *Anopheles* mosquito. Some *P. vivax* strains in temperate areas have an incubation period of 6-12 months.

Symptoms of malaria include sudden onset of fever, chills, headache, sweating, nausea, vomiting and pain in joints and muscles. In severe cases symptoms can include seizures, confusion, kidney failure, breathing difficulty and coma. *P. falciparum* infection is particularly dangerous because of its tendency to cause severe and sometimes fatal disease.

Mainland Australia is free of malaria but malaria is occasionally found in the Torres Strait. Australians may be at risk of malaria while travelling in tropical and subtropical areas of Asia, Africa, Central and South America, the Pacific Islands and parts of the Middle East.

The 37 cases of malaria notified so far this year (by onset date) have been acquired in 14 different countries; countries in Africa (25 cases, 68%), South Asia (10 cases, 27%) and in Papua New Guinea (2 cases, 5%).

Overseas travellers can prevent malaria by taking actions to avoid mosquito bites and taking anti-malarial medications which kill the parasite. Most malaria infections occur in travellers who did not take anti-malarial medications or who did not take them as directed. Travellers visiting friends and relatives overseas appear to be less likely to take anti-malaria medications than other travellers.

All people intending to travel to malaria-affected areas should visit their local doctor or a travel health clinic from four to six weeks before their travel to obtain specific advice about preventing malaria based on their itinerary, season of travel and medical history.

For further information on malaria, including practical measures to avoid being bitten by mosquitoes while travelling, see the [malaria fact sheet](#).

Also see the [Staying health while travelling overseas](#) and [Mosquitoes are a health hazard](#) fact sheets.

Follow the link for [malaria 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 2 July to 8 July 2017, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2017	2016	2015	2016	2015
Enteric Diseases	Cryptosporidiosis	11	13	1047	734	622	1184	1040
	Giardiasis	42	59	1915	2170	2021	3481	3413
	Listeriosis	1	0	11	26	15	36	26
	Rotavirus	18	18	380	263	182	751	1033
	STEC/VTEC	2	1	33	22	12	65	29
	Salmonellosis	38	50	2411	2854	2599	4543	4022
	Shigellosis	2	2	109	172	92	310	172
	Typhoid	1	1	37	25	28	37	41
Respiratory Diseases	Influenza	1455	988	8150	4827	3353	35538	30301
	Legionellosis	4	0	74	75	58	134	96
	Tuberculosis	4	2	233	241	222	532	443
Sexually Transmissible Infections	Chlamydia	429	548	15319	13744	12146	25990	22525
	Gonorrhoea	122	152	4952	3641	2821	7005	5397
Vaccine Preventable Diseases	Adverse Event Following Immunisation	3	5	172	148	103	257	186
	Meningococcal Disease	2	2	34	27	21	75	47
	Mumps	1	1	66	24	30	67	65
	Pertussis	86	94	3130	5809	3831	10957	12079
	Pneumococcal Disease (Invasive)	13	20	243	218	207	544	494
Vector Borne Diseases	Barmah Forest	4	6	69	22	146	35	184
	Chikungunya	1	0	8	8	26	39	38
	Malaria	3	2	39	24	22	59	47
	Ross River	6	14	1304	334	1292	541	1635
Zoonotic Diseases	Q fever	2	2	114	122	121	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.