

Communicable Diseases Weekly Report

Weeks 52 & 53, 21 December 2015 to 3 January 2016

In summary, we report:

- [Storms, Floods and Communicable Disease Risks](#)
- [Leprosy](#) – new case reported
- [Emergency Department Surveillance – Gastroenteritis](#) – increase in presentations
- [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.

Storms, Floods and Communicable Disease Risks

Recent storms and localised flooding in many parts of NSW create both immediate and on-going communicable diseases risks for affected residents and other people assisting in the emergency response.

The major risk factor for outbreaks associated with flooding is when there is contamination of drinking-water supplies and residents need to carefully follow any advice issued by public health authorities including boil-water alerts.

There is also an increased risk of infection of water-borne diseases contracted through direct contact with polluted waters, such as wound infections, dermatitis, conjunctivitis and, rarely, leptospirosis. This is a risk for both residents and emergency responders. People should avoid contact with flood waters as far as possible, keeping any wounds covered with a water proof dressing and washing with clean water following contact with flood water.

Power outages during flooding may also affect the safety of refrigerated household food and medicines.

When residents are required to leave their homes and re-locate to evacuation centres there is a risk of localised outbreaks of respiratory or gastrointestinal illnesses so careful attention to food safety and personal hygiene is required in these centres. Local public health units work closely with evacuation centre residents to reduce the risk of outbreaks.

Flood waters may initially flush-out mosquito breeding sites but the risk of mosquito-borne diseases such as Ross River virus and Barmah Forest virus may increase in the weeks that following flooding events as standing water may favour mosquito breeding.

Follow the links for further information on [Maintaining Health During and After Floods and Storms](#) and [Advice on Mosquito Control During Floods and Public Events](#) .

Leprosy (Hansen's disease)

A new case of leprosy (also known as Hansen's disease) was notified in an adult male the Sydney region last month. This is the third case reported in NSW in 2015. Leprosy is a rare disease in Australia. Since 2000, there have been 34 confirmed leprosy cases notified in NSW, an average of two cases notified per year. The majority of leprosy cases notified were acquired overseas.

Leprosy is a chronic infection of the skin and peripheral nerves caused by the bacterium *Mycobacterium leprae*. The organism multiplies very slowly and the incubation period of the disease varies from months to 30 years, with an average of 4 years for tuberculoid leprosy and 10 years for lepromatous leprosy. Left untreated, leprosy can lead to progressive and permanent damage of nerves which can lead to loss of sensation in the arms and legs and paralysis of the muscles in the hand, feet and face.

Leprosy is not highly infectious. People at risk are generally in close and frequent contact with someone with the infection. The exact mechanism of transmission is not well understood, although person to person spread via nasal droplets is believed to be the main route. It's important to note that leprosy is curable with multi-drug therapy and once a person begins appropriate treatment they quickly become non-infectious.

There are two forms of leprosy, lepromatous and tuberculoid; the symptoms are different for each.

In lepromatous leprosy, disease occurs in many sites throughout the body. Skin nodules, papules and macules are symmetrical on both sides of the body and are usually numerous and extensive. The skin lesions may or may not have loss of sensation and may be hyperpigmented. The nose and eyes may be involved. Nerve involvement occurs and can result in loss of sensation or weakness.

In tuberculoid leprosy the skin lesions are single or few. The skin lesions are sharply demarcated, show loss of sensation or increased sensitivity and are not symmetrical. Nerve involvement tends to be severe. When loss of sensation occurs, injuries (such as burns or fractures) do not result in pain and so may go unnoticed.

The incidence of leprosy worldwide is declining due to various factors including socioeconomic development, the use of Bacillus Calmette–Guérin (BCG) vaccine and high treatment coverage with multi-drug therapy.

Follow the link for further information from the [leprosy factsheet](#) and [leprosy notifications data](#).

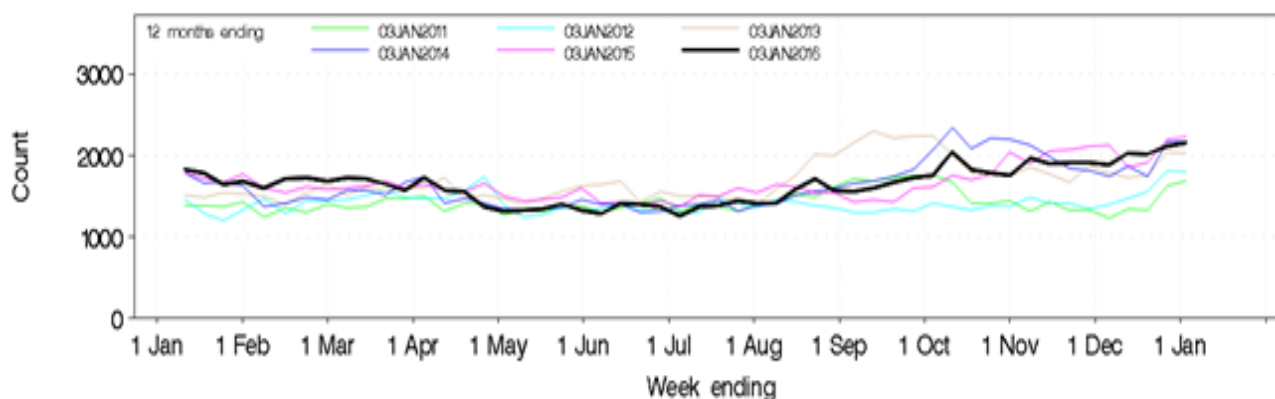
Leprosy is a nationally notifiable disease and all cases are reported to the World Health Organization (WHO). WHO has a 'Final Push' strategy for the worldwide elimination of leprosy; further information can be obtained from [WHO Leprosy Elimination](#) site.

Emergency Department Surveillance – Gastroenteritis

Emergency department (ED) surveillance has revealed an increasing trend in the number of ED presentations for gastroenteritis (Figure 1) with 2,157 presentations in the past week. This category includes provisional ED diagnoses of gastroenteritis, vomiting, diarrhoea, and food poisoning.

The rise in ED presentations is within the normal range for this time of year, with warmer weather associated with a rise in the incidence of a range of food- and water-borne illnesses such as salmonellosis and cryptosporidiosis. ED Presentations were significantly elevated in South Western Sydney Local Health District (data not shown).

Figure 1. Total weekly counts of Emergency Department presentations for gastroenteritis, for 12 months ending 3 January 2016 (black line), compared with each of the 5 previous years (coloured lines), persons of all ages, for 59 NSW hospitals.



For further information see [Foodborne and gastrointestinal diseases](#) and the related [media release](#) issued 23 December 2015.

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 21 December 2015 to 3 January 2016, by date received *

		Weekly			Year to date			Full Year	
		This week (Wk 53)	Last week (Wk 52)	Previous Week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	3	35	31	4	1	9	1038	429
	Giardiasis	17	52	51	10	21	32	3389	2942
	Hepatitis A	1	0	0	0	0	1	71	80
	Hepatitis E	1	0	0	0	0	0	20	38
	Listeriosis	0	2	0	26	23	33	23	33
	Rotavirus	5	11	20	0	3	7	1018	714
	Salmonellosis	25	83	95	34	27	83	4049	4302
	Shigellosis	1	4	4	0	0	2	167	212
Typhoid	1	0	0	0	0	1	41	44	
Respiratory Diseases	Influenza	4	24	31	16	9	52	30268	20888
	Legionellosis	1	0	0	2	0	0	92	72
	Tuberculosis	3	2	7	0	1	10	421	474
Sexually Transmissible Infections	Chlamydia	46	272	411	62	57	211	22386	22900
	Gonorrhoea	15	66	78	15	11	64	5306	4877
Vaccine Preventable Diseases	Meningococcal Disease	1	1	0	0	1	1	46	37
	Pertussis	31	304	428	92	29	65	12074	3052
	Pneumococcal Disease (Invasive)	4	3	9	0	1	3	497	511
Vector Borne Diseases	Barmah Forest	1	0	0	0	1	1	187	163
	Dengue	1	3	8	1	2	2	330	378
	Malaria	1	1	0	0	0	1	47	87
	Ross River	4	15	17	5	4	6	1652	674
Zoonotic	Psittacosis	0	1	0	0	0	0	4	13
	Q fever	0	2	4	0	1	4	251	190

* 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.