

Communicable Diseases Weekly Report

Week 36, 5 September to 11 September 2016

In summary, we report:

- [Viral gastroenteritis](#) – new norovirus strains discovered
- [Legionellosis](#) – two new 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.

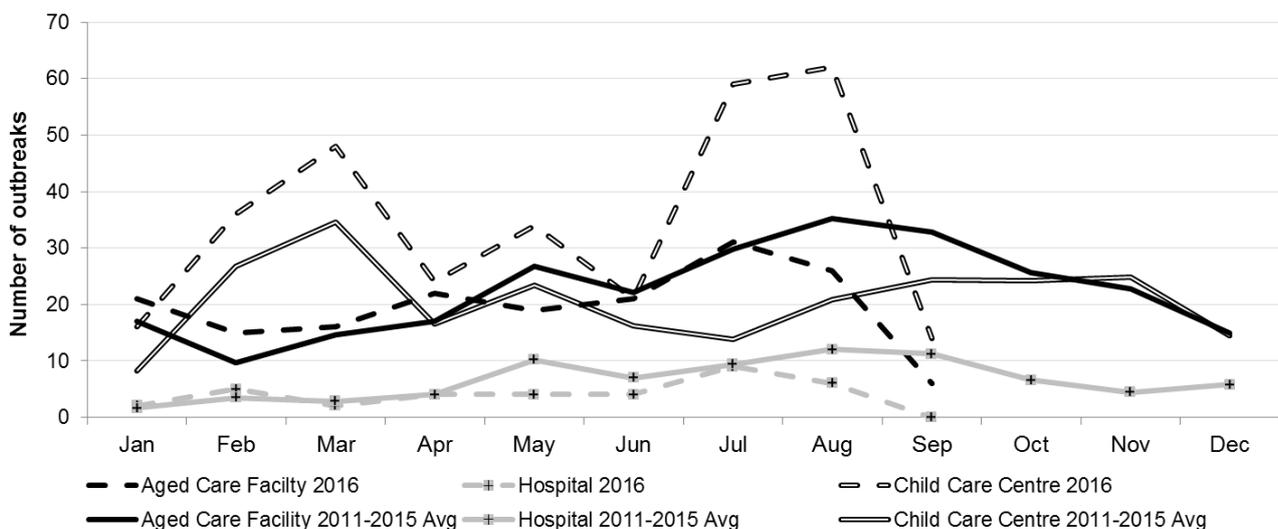
Viral gastroenteritis

There were nine outbreaks of gastroenteritis in an institution reported in this period affecting at least 72 people. The five-year average for September is 17 outbreaks per week. Three outbreaks occurred in an aged care facility, five occurred in child care centres and one occurred in a university. All outbreaks appeared to have been caused by a virus and spread from one person to another but no stool specimens have been collected.

Aged care facility and hospital gastroenteritis outbreaks have been at or below normal levels in 2016. Child care centre gastroenteritis outbreaks have, however, been far above average levels ([Figure 1](#)). It is not clear what has caused this as faecal samples are rarely collected in child care centres so the cause often remains unknown. Only 29 (9%) of outbreaks had a sample collected in 2016, and of these only four had positive results suggesting the cause of the outbreak (all norovirus).

The number of child care centres outbreaks reported each year has been increasing in recent years. This is believed to be due, at least in part, to more consistent reporting of child care centre outbreaks to local public health units.

Figure 1. Gastroenteritis outbreak in institution notifications by month and facility



[New research from UNSW Faculty of Science](#) has found the emergence of three new norovirus strains that may be responsible for increases in gastroenteritis infections in NSW. Two of the new viruses are hybrid strains that evolved from the previous pandemic Sydney 2012 strain, while the other new strain is likely to have come from Asia.

Each year, norovirus infects about two million Australians and kills about 220,000 people worldwide. Norovirus is usually spread by contact with an infected person, but can also cause outbreaks through contaminated food and water. There is no vaccine or treatment for norovirus and prevention via thorough hand washing is the best defence against this virus.

Legionellosis

There two notifications of legionellosis (Legionnaires' disease) in this reporting week and three notifications in the previous week. All five cases were diagnosed with infections caused by *Legionella pneumophila* serogroup 1 bacteria, and were aged between 28 and 76 years. Public health units have investigated all five cases and have not found any environmental exposure sites in common with two or more of the cases.

Legionellosis is a type of 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 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 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.

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 Legionnaires' disease](#).

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

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 5 to 11 September 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	12	10	825	665	296	1038	429
	Giardiasis	54	45	2680	2466	2070	3415	2942
	Hepatitis A	1	0	29	60	50	71	80
	Listeriosis	1	1	28	16	18	26	23
	Rotavirus	9	7	333	362	367	1036	714
	Salmonellosis	34	52	3436	2955	3114	4042	4273
	Shigellosis	7	5	213	127	153	172	212
Respiratory Diseases	Influenza	3434	3872	25901	19915	16211	30304	20888
	Legionellosis	2	3	94	75	50	96	72
	Tuberculosis	10	3	317	287	317	445	475
Sexually Transmissible Infections	Chlamydia	316	388	17771	15429	16079	22548	22899
	Gonorrhoea	70	101	4786	3724	3342	5401	4876
Vaccine Preventable Diseases	Adverse Event Following Immunisation	4	5	175	128	201	186	258
	Pertussis	244	201	7353	5827	1474	12083	3051
	Pneumococcal Disease (Invasive)	18	17	363	333	337	495	511
Vector Borne Diseases	Dengue	3	6	340	240	310	343	378
	Malaria	2	0	37	31	69	47	87
	Ross River	1	3	354	1403	437	1638	673
Zoonotic Diseases	Psittacosis	1	0	3	1	8	3	13
	Q fever	2	2	141	162	128	265	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.