

Communicable Diseases Weekly Report

Week 38, 17 to 23 September 2017

In summary, we report:

- [Invasive pneumococcal disease](#) – increased notifications
- [Viral gastroenteritis](#) – outbreaks of gastroenteritis in institutions
- [Hepatitis A](#) – update on Sydney outbreak
- [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.

Invasive pneumococcal disease

Notifications of invasive pneumococcal disease (IPD) during August and September (188) were above the historical five year average (131). The majority of notifications have been in people aged 50 years and over, however there has been a notable increase in the number of children under 5 years notified this year (67) which is above the historical five year average (40).

Three vaccine serotypes – 3, 19A and 19F – were responsible for 45% of the IPD cases in children aged less than 5 years. While investigations into the vaccination history of these cases is on-going, most cases occur in children who are either unimmunised or who are fully vaccinated for age but who are too young to have completed the three dose vaccine course.

IPD activity generally increases during the winter flu season, especially in older adults, with pneumococcal pneumonia often a secondary complication for people who have had a recent influenza infection. Pneumococcal infection can cause a variety of diseases including pneumonia, septicaemia (blood infection), otitis media and meningitis. Symptoms depend on the site of infection and the age of the person. People with pneumococcal pneumonia tend to experience shortness of breath, fever, lack of energy, loss of appetite, headache, chest pain and cough.

People most at risk of the infection include children under two years of age, older adults, Aboriginal people, people with lung disease, heart disease, cancer, kidney disease, or HIV infection, people whose spleen has been removed or is impaired, and people who smoke.

There are over 90 serotypes of pneumococcal disease. Different pneumococcal serotypes vary in their propensity to cause disease. Worldwide, only a limited number of serotypes are responsible for most cases of IPD but the predominant serotypes vary by age group and geographic area. The current pneumococcal vaccine used for children under the National Immunisation Program (NIP) - Prevenar 13 - covers the 13 serotypes most commonly associated with invasive disease.

The introduction of pneumococcal vaccines for children under the NIP has led to a dramatic reduction in the overall incidence of IPD in Australia in the primary target group of children under 2 years of age.

Pneumococcal vaccine is recommended and is free for children at 6-8 weeks, 4 months and 6 months of age, for all people aged 65 years or older, and for all Aboriginal people aged 50 years or older. It is also free for children aged 2-5 years with certain medical conditions and for Aboriginal people aged 15-49 years who have a chronic medical condition. You should consult with your GP for more advice.

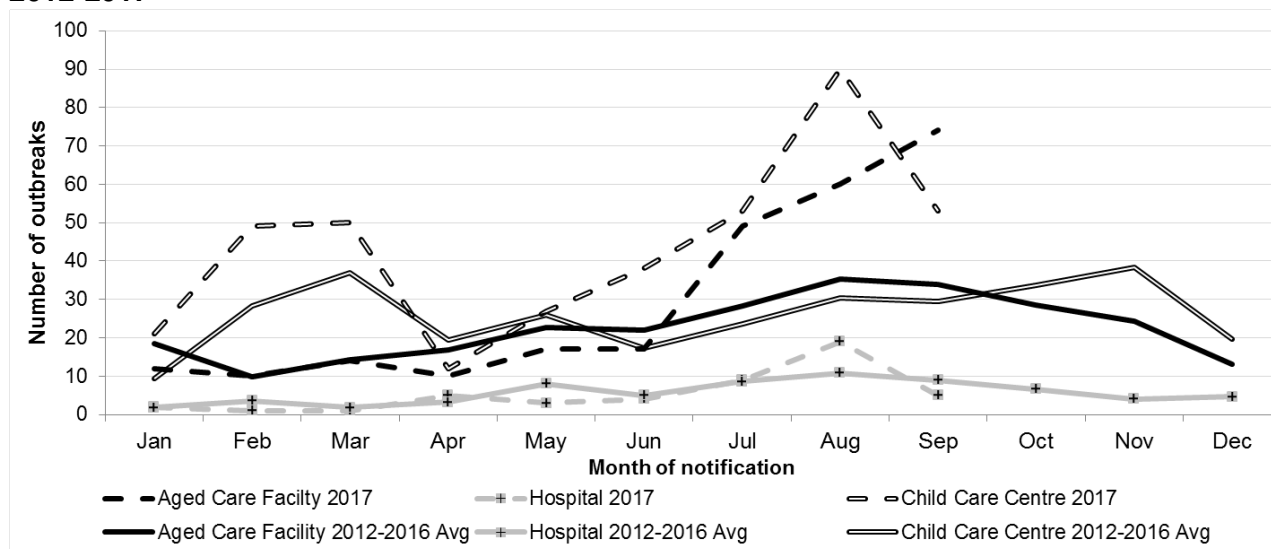
For further information see the NSW Health [pneumococcal disease fact sheet](#) and [invasive pneumococcal disease data](#) page.

Viral gastroenteritis

There were 41 outbreaks of gastroenteritis in institutions notified during this reporting period. This is 116% higher than the previous five year weekly average number of outbreaks for September, and at least 332 people were affected. Sixteen outbreaks occurred in aged care facilities, 22 occurred in child care centres, two occurred in hospitals and one occurred in a residential care facility. Two outbreaks have been confirmed as being caused by norovirus and two outbreaks have been confirmed as being caused by rotavirus; the rest are either waiting for results or did not have stool specimens collected. However, all outbreaks appeared to have been caused by a virus and spread from person to person.

The increase in outbreaks is predominantly in aged care facilities and child care centres (Figure 1). The number of child care centre 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 public health units in NSW.

Figure 1. Gastroenteritis outbreak in institution notifications by month and facility, NSW, 2012-2017



The number of reported rotavirus infections is also above expected levels this week. There were 98 notifications of rotavirus this week, 209% higher than the previous five year weekly average for September.

Rotavirus is the most common cause of severe gastroenteritis in early childhood globally. Immunisation to prevent rotavirus infection or reduce the severity of infection is recommended and is free for children under six months of age. In NSW, the vaccine is given as two oral doses, at six weeks and four months of age. The vaccine course must be completed by 24 weeks of age.

High numbers of gastroenteritis outbreaks often occur when new genotypes of gastroenteritis viruses (primarily norovirus and rotavirus) appear, against which the population has not developed immunity. Molecular typing work is carried out each year to track these genetic changes.

Viral gastroenteritis is a common intestinal infection caused by a number of different viruses, usually resulting in vomiting and diarrhoea. Norovirus infections are the most frequent cause and are most common during the cooler months. Symptoms may include nausea, vomiting, diarrhoea, fever, abdominal pain, headache and muscle aches. These symptoms can take between one and three days to develop and usually last between one and two days, sometimes longer. Dehydration may follow bouts of vomiting and diarrhoea, particularly in young children.

Viral gastroenteritis is highly infectious and is spread by the vomit or faeces of an infected person through close contact with infected persons, contact with contaminated surfaces, or consumption of contaminated food or drink. Viruses are often transmitted from person to person on unwashed hands.

The best way to prevent the spread of viral gastroenteritis is to wash hands thoroughly with soap and running water for at least 15 seconds, particularly after using the toilet, assisting someone with diarrhoea or vomiting, attending nappy changes, and before preparing and eating food. It is vital that people with gastroenteritis stay home from work, school and childcare while sick and for at least 24 hours after the last symptom of gastroenteritis.

For further information see the [norovirus](#) and [rotavirus](#) factsheets. Follow the link for more information on [controlling viral gastroenteritis outbreaks](#).

Hepatitis A

Three new cases of locally-acquired hepatitis A infection were reported this week ([Table 1](#)). From July 25 to September 23, 2017, there were 22 cases of hepatitis A reported in adults in NSW. On average, there are three cases reported in NSW per month, and most cases usually acquire their infection overseas. Only two of the 22 recent cases have any overseas travel during their incubation (exposure) period.

Molecular typing of the viruses isolated from 15 of these cases has shown that they share an identical common partial genome sequence, meaning that the cases are all part of the same outbreak. The median age of the 15 cases is 44 years (range 29 to 69 years). Fourteen of the 15 cases are male, with six reporting being men who have sex with men (MSM). These 15 cases are residents of South Eastern Sydney Local Health District (LHD) (8), Sydney LHD (3), Northern Sydney LHD (2), Illawarra Shoalhaven LHD (1) and Hunter New England LHD (1). The two cases who live outside Sydney reported travel to Sydney during their exposure period.

The molecular typing of hepatitis A viruses in this cluster shows they are very similar to a strain currently circulating in Europe associated with a large, multi-country outbreak. Since June 2016, 1,500 confirmed hepatitis A cases and 2,660 probable or suspected cases have been reported in Europe, predominantly among MSM (see the [ECDC report](#)).

The seven remaining cases have molecular typing results pending: six of the seven cases are males and the median age is 44 years (range 21 to 60 years). Three of these cases report MSM activity during their exposure period. The cases are residents of South Eastern Sydney LHD (1), Sydney LHD (2), South Western Sydney LHD (1), Western Sydney LHD (1), Hunter New England LHD (1) and Central Coast LHD (1). The two cases who live outside Sydney reported travel to Sydney during their exposure period.

It is suspected that the earlier cases and some of the later cases have been exposed to a common source as they share overlapping incubation periods. Secondary cases have also been identified, with evidence that some infections have been transmitted from person to person. Men who engage in sexual activity with other men (MSM) are being reminded to get vaccinated as anal sex and oral-anal sex have been identified as risk factors for some cases (see [media release](#)). Despite extensive investigation, to date no food item or other possible exposure has been found in common with all the cases. NSW public health units are continuing to investigate possible sources of infection in conjunction with the NSW Food Authority (see the related [media release](#)).

Hepatitis A is a viral infection of the liver. Symptoms include feeling unwell, lack of appetite, aches and pains, fever, nausea, and abdominal discomfort, followed by dark urine, pale stools and jaundice (yellowing of the skin and eyes). The illness usually lasts from one to three weeks. People who experience these symptoms are advised to see their GP.

Infected people can transmit the virus to others from two weeks before the development of symptoms until one week after the appearance of jaundice. The virus is spread by the faecal-oral route, including through the consumption of contaminated food or water or by direct contact with an infected person. While infectious, people diagnosed with hepatitis A should avoid preparing food or drink for other people, sharing utensils or towels, or having sex for at least one week after onset of jaundice.

There is no specific treatment for hepatitis A and people sometimes require hospitalisation for supportive care. A safe and effective vaccine is available, with two doses spaced at least six months apart shown to provide high levels of protection against infection for many years. Hepatitis

A vaccination is routinely recommended for people at higher risk of infection and those who are at increased risk of severe liver disease. These include travellers to countries where hepatitis A is common (most developing countries), some occupational groups, men who have sex with men, people with developmental disabilities and people with chronic liver disease.

People exposed to hepatitis A can be protected from developing the disease if they receive the vaccine or protective antibodies within two weeks of exposure.

Follow the links for NSW Health [hepatitis A notification data](#) and the NSW Health [hepatitis A fact sheet](#).

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 17 to 23 September 2017, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2017	2016	2015	2016	2015
Bloodborne Diseases	Hepatitis B - Newly Acquired	1	0	8	11	24	13	28
	Hepatitis C - Newly Acquired	1	1	25	22	21	25	29
	Hepatitis D	1	1	11	14	7	20	9
Enteric Diseases	Cryptosporidiosis	7	8	1132	841	690	1184	1040
	Giardiasis	45	33	2371	2769	2596	3481	3413
	Hepatitis A	3	3	40	30	62	41	72
	Rotavirus	146	113	1234	355	507	750	1033
	STEC/VTEC	1	2	41	34	14	65	29
	Salmonellosis	42	27	2878	3550	3072	4544	4022
	Shigellosis	3	3	162	229	133	310	172
	Typhoid	1	0	43	28	31	37	41
Respiratory Diseases	Influenza	6561	6431	89977	30293	27133	35540	30295
	Legionellosis	2	1	93	102	80	134	96
	Tuberculosis	6	17	361	369	323	534	445
Sexually Transmissible Infections	Chlamydia	471	464	21137	19109	16649	25991	22525
	Gonorrhoea	175	182	6793	5116	4032	7003	5395
Vaccine Preventable Diseases	Adverse Event Following Immunisation	4	1	219	192	142	257	186
	Meningococcal Disease	2	2	62	50	33	70	46
	Mumps	1	1	83	42	42	67	65
	Pertussis	88	80	4220	7899	6629	10956	12078
	Pneumococcal Disease (Invasive)	30	15	503	390	374	544	494
Vector Borne Diseases	Barmah Forest	1	1	90	30	165	35	184
	Dengue	3	5	209	372	250	481	344
	Malaria	1	0	54	39	33	59	47
	Ross River	9	9	1404	371	1439	542	1635

* 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 blood-borne virus case reports that are not newly acquired are not included here but are available from the [Infectious Diseases Data](#) webpage.