

Communicable Diseases Weekly Report

Week 25, 16 June to 22 June 2019

In summary, we report:

- [Invasive meningococcal disease](#) – three new cases in the reporting week
- [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 meningococcal disease

Three new cases of invasive meningococcal disease were notified in this reporting week (Table 1). Cases occurred in two males aged between 15 and 24 years, and a woman in her fifties. The cases were unrelated and occurred in metropolitan, regional and rural areas of NSW. Tests have shown the infection of the woman and one of the young men was caused by serogroup B meningococci, while the infection in the other young man was caused by serogroup W. None of the cases had received a vaccine against the strain of meningococcal disease which caused their infection.

Invasive meningococcal disease (IMD) is a serious, sometimes fatal infection caused by the bacteria *Neisseria meningitidis*. There are six serogroups of meningococcal bacteria associated with IMD (A, B, C, W, X and Y), of which four (B, C, W and Y) cause almost all IMD in Australia. Following the introduction of the meningococcal C vaccine in the National Immunisation Program (NIP) in 2003, disease caused by this serogroup is rare in Australia. From 2015, an increasing proportion of IMD cases in NSW were being caused by serogroup W (and to a lesser extent serogroup Y). This serogroup was associated with increased severity, a higher case fatality rate, and affected a wider range of ages.

In 2017 in response to the increase in IMD caused by serogroup W (and Y) NSW was among a number of states and territories to implement a school based vaccination program, administering the meningococcal ACWY (MenACWY) vaccine to adolescents in the later years of high school. In 2018 the Men ACWY vaccine replaced the meningococcal C vaccine administered at 12 months of age, and in 2019 the adolescent MenACWY was also added to the National Immunisation Program for people aged 14-19 years.

For the year to date, with the exception of February, cases of meningococcal disease in NSW have been below the 5 year rolling monthly average, with 65% of cases caused by meningococcal B.

While cases of IMD occur year round, the highest number of cases is usually observed during late winter and early spring. Recent or concurrent infection of the upper respiratory tract by a virus, or other bacteria, is an identified risk factor for meningococcal disease. As such, the 'peak period' for IMD often closely follows the peak period for influenza.

The initial symptoms of IMD are often non-specific and may mimic other illnesses such as respiratory or gastrointestinal infections, making diagnosis difficult. Symptoms may include: sudden fever; nausea, vomiting, or abdominal pain; headache, neck stiffness, or dislike of bright lights; joint pain; irritability; and a red-purple rash that doesn't disappear when pressure is applied (a rash does not always appear or it may occur late in the disease).

In young children, symptoms may also include irritability, difficulty waking up, high-pitched crying, rapid or laboured breathing, or refusal to eat.

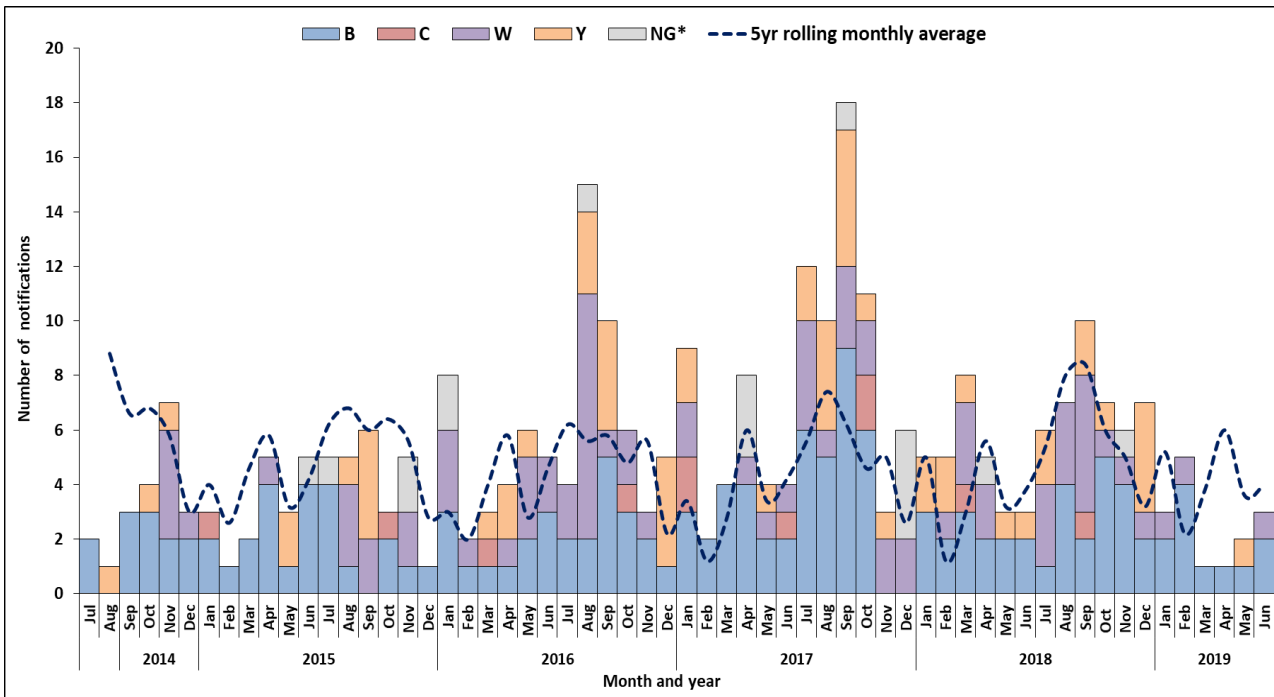


Figure 1: NSW meningococcal disease notifications by month of onset and serogroup, with rolling 5 year monthly average, 01 Jul 2014 to 25 June 2019. Data extracted from NCIMS, correct as of 25/06/2019
 (*NG refers to cases where a serogroup was not detected, or serogrouping was unable to be completed)

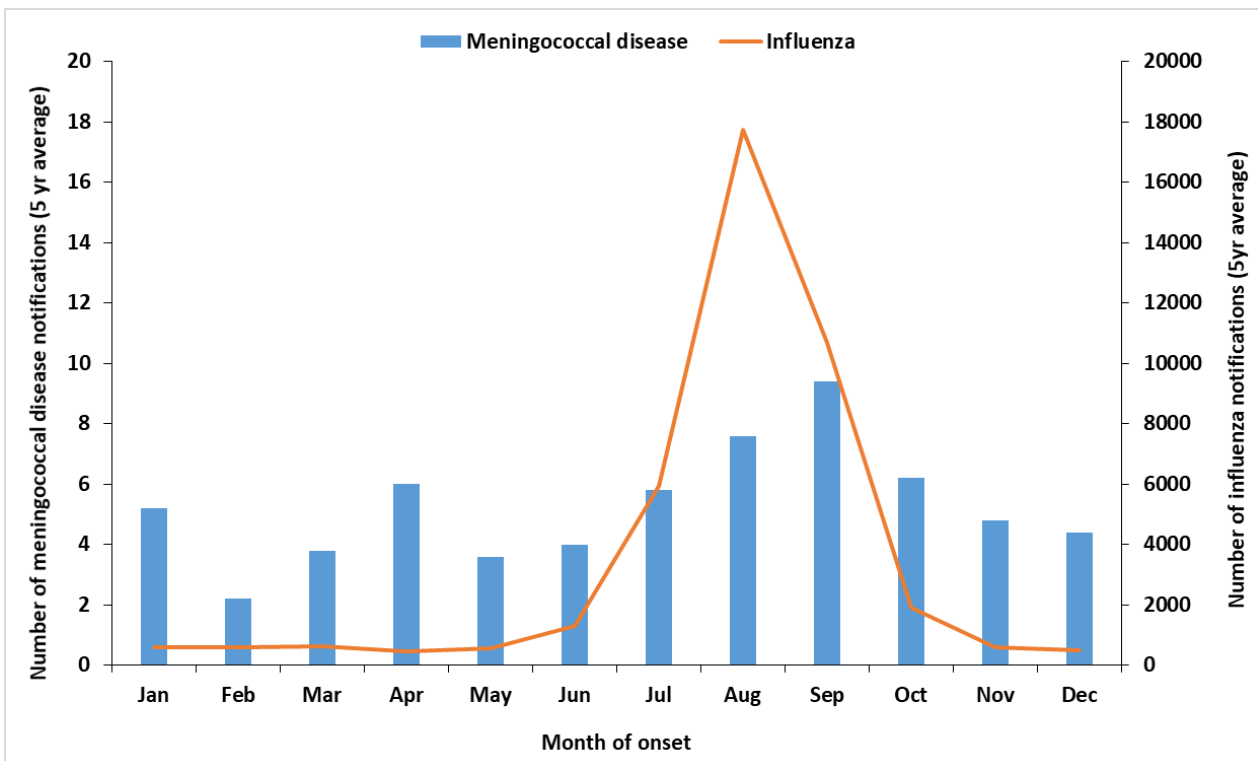


Figure 2: NSW meningococcal disease and influenza notifications by month of onset – 5 year monthly average 2014-2018.

People with IMD can become very unwell, very quickly, and the disease can be fatal within hours of first symptom appearance. Anyone who thinks they, or someone they care for, might be experiencing symptoms of meningococcal disease should seek urgent medical care. The absence of the rash (which may appear late in the illness or not at all), should not exclude the consideration of

meningococcal disease. Patients (and carers) presenting with non-specific symptoms should be encouraged to return to the doctor, or visit an emergency department if symptoms persist or rapidly worsen.

Further information

- NSW Health [meningococcal disease website](#) and [meningococcal disease factsheet](#).
- [The Australian Immunisation Handbook](#) for more information on meningococcal vaccines.
- [NSW meningococcal disease 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 16 June – 22 June 2019, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2019	2018	2017	2018	2017
Bloodborne Infections	Hepatitis C - Newly Acquired	1	0	14	24	17	37	40
	Cryptosporidiosis	7	5	398	446	1020	708	1266
Enteric Diseases	Giardiasis	43	41	1684	1497	1855	2937	3135
	Hepatitis A	1	1	35	59	15	86	71
	Rotavirus	14	19	309	435	343	808	2319
	Salmonellosis	41	49	2095	1909	2313	3341	3681
	Shigellosis	17	14	432	112	105	530	236
Respiratory Diseases	Influenza	4442	4089	30052	4621	5724	17423	103851
	Legionellosis	2	2	85	82	71	171	138
	Tuberculosis	13	11	278	233	245	510	542
Sexually Transmissible Infections	Chlamydia	616	443	15343	15461	14342	31197	29005
	Gonorrhoea	242	216	5781	5089	4640	10621	9160
Vaccine Preventable Diseases	Haemophilus influenzae type b	1	0	4	2	3	6	9
	Meningococcal Disease	3	1	16	28	29	72	91
	Pertussis	114	111	3007	1904	2946	6281	5366
	Pneumococcal Disease (Invasive)	20	19	231	219	208	683	683
Vector Borne Diseases	Barmah Forest	1	2	41	43	71	74	127
	Dengue	2	5	210	151	160	299	306
	Malaria	1	0	27	26	34	66	68
	Ross River	8	10	360	344	1386	570	1653
Zoonotic Diseases	Q fever	2	1	125	94	117	228	210

* 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.
- 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.
- 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](#).
- 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](#) and the [HIV Surveillance Data Reports](#) webpages.