

Communicable Diseases Weekly Report

Week 30, 24 to 30 July 2022

In this report we provide information regarding invasive meningococcal disease and a summary of notifiable conditions activity in NSW over the reporting period, week 30, 24 to 30 July 2022

Due to the rapidly evolving nature of the situation, data on **COVID-19** notifications can be found separately on the NSW Health [Latest Updates on COVID-19](#) page.

For up-to-date information regarding the **Japanese encephalitis** outbreak and the NSW response, please visit the [NSW Health Japanese encephalitis page](#).

Information on notifiable conditions is available at the 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

Two cases of invasive meningococcal disease (meningococcal disease) were notified in this reporting week ([Table 1](#)). The two unrelated cases occurred in young adults from different areas of metropolitan Sydney. Both were due to meningococcal serogroup B.

Meningococcal disease is a rare, but serious and sometimes fatal acute bacterial infection caused by *Neisseria meningitidis*. Meningococcal disease cases can occur at any time of year but incidence tends to increase in late winter and early spring. Every year during this period, NSW Health launch their meningococcal disease awareness campaign, which encourages at risk audiences to “know the symptoms” and “act fast” if they suspect meningococcal disease. This year’s campaign will be launched on Monday 8 August.

At risk audiences

Meningococcal disease can affect anyone, but children under five (particularly those under two) and people aged 15-25 years are at most risk. Young children are at increased risk due to the naivety of their immune systems, while adolescents and young adults are at increased risk because carriage rates are highest in this age group and they are more likely to participate in activities which increase the likelihood of bacterial transmission.

Aboriginal people are also considered an at-risk audience because Aboriginal people are disproportionately affected by meningococcal disease compared to non-Aboriginal people.

The meningococcal disease campaign is aimed at parents and carers of children under five, young adults (and their parents), and parents and carers of Aboriginal children under five, and young Aboriginal people (and their parents).

Know the symptoms

Meningococcal disease can have many symptoms, which depend on the site of the infection (the blood or the fluid surrounding the brain and spinal cord). Some of the early symptoms of meningococcal disease can be similar to those caused by viral illnesses such as gastro and the flu or COVID. With meningococcal disease, symptoms often come on suddenly, get worse quickly, and can progress to more severe, specific symptoms, including the characteristic rash, which can start as red/purple pin pricks and progresses to purple bruise like spots. The rash is non-blanching, meaning the marks do not disappear when pressed. The rash does not always appear, and often appears late in the illness.

Figure 1: Symptoms of meningococcal disease

Non-specific symptoms	Specific symptoms	Symptoms in younger children
Sudden fever	Neck stiffness	Irritability
Nausea	Unexplained severe limb pain	Difficulty waking up
Vomiting	Dislike of bright lights	High-pitched crying
Headache	<u>Severe headache</u>	Rapid or laboured breathing
Joint pain	A red purple rash which does not disappear when pressed	Refusal to feed

Figure 2: The 'glass test' for a non-blanching rash



Image courtesy of Meningitis Now

Act Fast

Meningococcal disease can become very severe, and even fatal very quickly. Up to 10% of people with meningococcal disease die, even with rapid treatment and 40% of those who survive suffer long term effects including learning difficulties, sight and hearing problems, liver and kidney failure, loss of fingers, toes, or limbs, or scarring caused by skin grafts.

Patients with meningococcal disease require urgent treatment with antibiotics, in hospital. If you think you, your child, or someone you know or care for could have meningococcal disease, seek urgent medical advice. See a doctor or call healthdirect on 1800 022 222

Even if you've already seen a doctor, if symptoms rapidly worsen, or you or your child are very unwell, go straight to your local Emergency Department.

Preventing meningococcal disease

Vaccines against the most common strains of meningococcal bacteria associated with IMD in Australia are included as part of the schedule under the National Immunisation Program; however, eligibility varies by serogroup.

In NSW meningococcal vaccines are provided free of charge under the National Immunisation Program (NIP) to the following groups:

Vaccine	Groups eligible for free vaccine
Meningococcal ACWY vaccine	All children at 12 months of age Children aged 15-19 years (via the School Vaccination Program or their GP) People with certain medical conditions that cause increased risk of infection (including asplenia, hyposplenia, complement deficiency and those receiving eculizumab treatment)

Meningococcal B vaccine	Aboriginal children < 2 years of age People with certain medical conditions that cause increased risk of infection (including asplenia, hyposplenia, complement deficiency and those receiving eculizumab treatment)
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Anyone outside of these groups wishing to protect themselves against meningococcal disease can access the vaccines via private prescription from their GP.

Many private health insurers provide a rebate for privately purchased vaccinations, depending on level of cover.

More information on meningococcal disease is available from:

- NSW Health [meningococcal disease website](#) and [meningococcal disease factsheet](#)
- The [Australian Immunisation Handbook](#) for more information on meningococcal vaccines
- NSW Health [meningococcal disease data](#)

Acute rheumatic fever (ARF) and rheumatic heart disease (RHD)

There was one new case of ARF reported this week in an Aboriginal child in Western Sydney Local Health District (LHD). ARF is an uncommon but serious inflammatory complication of infection with Group A *Streptococcal* bacteria (Strep A). Polyarthrititis (pain and swelling in several joints) and fever are the most common symptoms of ARF. Other signs and symptoms may include carditis (inflammation of the heart), chorea (jerky limb movements arising from inflammation of the brain), erythema marginatum (a distinctive skin rash), and subcutaneous nodules. Episodes of ARF can cause permanent damage to the heart valves leading to RHD.

People diagnosed with ARF require long-term follow-up, including benzathine benzylpenicillin G (BPG) injections every 21-28 days generally for 10 years or until the age of 21 years, whichever is longer. This is to prevent repeat Strep A infections, which may lead to recurrent episodes of ARF and worsening valvular disease. People with ARF should also have annual medical and dental reviews, and an echocardiogram (ultrasound of the heart) every two years. People with RHD may require more frequent clinical review.

ARF in people of all ages and RHD in people aged less than 35 years became notifiable in NSW in October 2015. NSW Health has established a register for people diagnosed with ARF and RHD to assist patients and their doctors manage adherence to regular penicillin prophylaxis and clinical reviews in May 2016. Families and primary care providers of ARF and RHD cases are provided with information about ARF, RHD and how to reduce the risk of recurrent episodes of ARF, and consent sought for the NSW ARF/RHD Register to help with their ongoing management.

Aboriginal and Torres Strait Islander people were at substantially higher risk of both ARF and RHD. In NSW, people from Māori and Pacific Island backgrounds are also at higher risk. Timely and appropriate treatment of sore throats and skin infections in high-risk populations, such as Aboriginal and Torres Strait Islander people and Māori and Pacific Islander people, can reduce the risk of ARF.

There have been 4 notifications of ARF and 1 notification of RHD in 2022 year to date. Notifications of ARF in 2020 and 2021 declined by 37% and RHD by 42% compared to those reported in the four years prior to the COVID-19 pandemic. There are concerns regarding a potential decrease in ARF diagnoses potentially due to a reduction in throat swabs performed for Group A *Streptococcal* bacteria and changes to health-seeking behaviour during the pandemic.

From March-June 2020, Aboriginal health checks nationally decreased by 13-21% compared to equivalent period in 2019¹. There was an overall decline of 1.1% into 2020-21, which a significant

¹AIHW (Australian Institute of Health and Welfare) (2022). 'Changes in the health of Aboriginal and Torres Strait Islander people's use of health services in the early part of the COVID-19 pandemic' in Australia's health 2022: data insights. Catalogue no: AUS 240, released 7 Jul 2022. Available from <https://www.aihw.gov.au/reports/australias-health/australias-health-2022-data-insights/summary>, accessed 4 August 2022.

proportion done by teleconference which may be a barrier to identification of complex diagnoses such as ARF.

Further information on these conditions is available from [NSW Health](#) and [RHD Australia](#).

Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period alongside reports received in the previous week, year to date and in previous years (Table 1).

Table 1. NSW Notifiable conditions from 24 – 30 July 2022, by date received*

		Weekly		Year to date				Full Year		
		This week	Last week	2022	2021	2020	2019	2021	2020	2019
Enteric Diseases	Campylobacter	228	249	6193	7143	5346	6399	11954	10008	11482
	Cryptosporidiosis	15	5	265	326	421	448	444	549	669
	Giardiasis	27	30	731	1096	1250	2244	1504	1871	3328
	Hepatitis A	2	0	15	3	17	40	8	18	61
	Paratyphoid	1	1	10	0	17	33	1	17	39
	Rotavirus	12	11	256	219	391	474	356	500	1777
	Salmonellosis	45	36	1958	2047	2099	2324	3097	2883	3555
	Shigellosis	10	8	194	44	391	505	60	494	867
	STEC/VTEC	2	0	79	72	55	36	126	115	79
Other Diseases	Monkeypox	4	1	28	0	0	0	0	0	0
Respiratory Diseases	Influenza	1233	1785	110427	63	7376	71017	124	7485	116429
	Legionellosis	1	7	152	122	92	97	213	170	153
	Tuberculosis	6	12	260	357	333	331	558	625	589
Sexually Transmissible Infections	Chlamydia	430	465	14489	16764	16136	18614	25370	27242	32474
	Gonorrhoea	202	232	5873	5269	5948	6868	7624	9882	11688
Vaccine Preventable Diseases	Meningococcal Disease	2	0	11	14	12	28	23	22	59
	Pertussis	2	2	30	34	1362	3582	43	1400	6386
	Pneumococcal Disease (Invasive)	18	21	288	285	207	337	387	358	690
Vector Borne Diseases	Barmah Forest	3	0	47	76	192	47	111	271	63
	Dengue	3	4	38	1	76	274	4	76	456
	Malaria	1	1	19	4	21	35	8	25	73
	Ross River	3	5	551	555	1807	442	659	1990	595
Zoonotic Diseases	Q fever	3	3	111	113	134	152	195	208	248

* 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.
- Due to the rapidly evolving nature of the situation, data on COVID-19 notifications can be found separately on the NSW Health [Latest Updates on COVID-19](#) page.
- 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.
- 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](#), the [HIV Surveillance Data Reports](#) and the [Hepatitis B and C Strategies Data Reports](#) webpages.
- Notification is dependent on a diagnosis being made by a doctor, hospital or laboratory. Changes in awareness and testing patterns influence the proportion of patients with a particular infection that is diagnosed and notified over time, especially if the infection causes non-specific symptoms.