Communicable Diseases Weekly Report

Week 5, 30 January to 5 February 2022

In summary, we report:

- Leprosy – World Leprosy Day (30th January 2022)
- Invasive meningococcal disease – two cases
- COVID-19 (Coronavirus)
- 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.

Leprosy

World Leprosy Day occurred on Sunday 30 January 2022. The day is an opportunity to raise awareness of the disease, celebrate those who have experienced leprosy and call for an end to stigma and discrimination associated with leprosy.

The theme this year was “United for Dignity” and honoured the lived experiences of individuals who have experienced leprosy by sharing their empowering stories, as well as advocating for mental wellbeing and the right to a dignified life free from disease-related stigma.

Leprosy (also known as Hansen’s Disease) is a chronic infection of the skin and peripheral nerves caused by the bacterium *Mycobacterium leprae*. The organism multiplies very slowly and on average it takes five years for symptoms to develop, however this can vary from months to over 20 years. Loss of nerve function eventually leads to damage and deformity of skin, hands and feet. Leprosy is an important cause of disability in some countries.

Leprosy is not highly infectious. While leprosy can be passed from one person to another, it requires close and prolonged contact with someone with the infection. The exact mechanism of transmission is not well understood, although person to person spread via droplets from the nose and mouth is believed to be the main route. Public health guidelines require close contacts to have expert medical review. Leprosy is curable with multi-drug therapy and once a person begins appropriate treatment, they quickly become non-infectious.

In 2020, the World Health Organization (WHO) reported 127,558 leprosy cases globally. The top three countries reporting cases were India, Brazil, and Indonesia. The global incidence 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.

Leprosy is a rare disease in Australia, with about 10 to 20 cases notified per year. In 2021, there were four confirmed leprosy cases notified in New South Wales (NSW). This is similar to the past twenty years where NSW has averaged three leprosy notifications per year. The majority of leprosy cases in NSW have immigrated from high-risk countries, however, there is occasional local transmission mainly to high-risk household contacts.

Follow the link for further information from the leprosy factsheet and leprosy notification data. Leprosy is a nationally notifiable disease, and all cases are reported to the WHO. WHO has a Global Leprosy Strategy: Accelerating towards a leprosy free world; further information can be obtained from WHO Leprosy Strategy website.

Invasive meningococcal disease

Two cases of invasive meningococcal disease (IMD) were notified in this reporting week (Table1). One case was in an adolescent from metropolitan Sydney and the other in an adult from a regional area of NSW. Laboratory testing revealed the infection in the adolescent was caused by *Neisseria meningitidis* (meningococcal bacteria) serogroup B. Tests to identify the serogroup for the other case are pending. So far in 2022, three cases of meningococcal disease have been reported in NSW.

IMD is a rare disease that can occur year-round but tends to increase in late winter and early spring. Measures to reduce transmission of COVID-19, such as wearing face masks, social distancing and staying at home, can also reduce transmission of IMD and have likely contributed to the lower numbers of IMD cases reported since 2020.

There are six serogroups of meningococcal bacteria associated with IMD in humans (A, B, C, W, X, Y), of which four (B, C, W, Y) cause almost all IMD in Australia. People of all ages are susceptible to contracting IMD, but the disease is more common in children under 5 years of age and people aged 15-24 years.

Meningococcal bacteria are not easily spread from person to person but can be passed between people in secretions from the back of the nose and throat. Spread of the bacteria from one person to another generally requires close and prolonged contact such as living in the same household or intimate kissing.

The initial symptoms of IMD are often non-specific and can mimic other illnesses like gastroenteritis or COVID-19, making diagnosis in the early stages difficult. Symptoms can vary, but may include sudden fever, nausea, vomiting, abdominal pain, headache, neck stiffness, photophobia (sensitivity to bright lights), joint pain and irritability. A red-purple rash that is non-blanching (i.e. does not disappear when pressure is applied) is typical but does not always appear, or may only occur late in the disease.

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

IMD can result in meningitis, meningococcaemia (bloodstream infection with the bacterium) or both. People with IMD can become very unwell very quickly, and the disease can be fatal within hours of the first symptom appearing. Anyone who thinks they, or someone they care for, might be experiencing symptoms of IMD should seek urgent medical care.

Meningococcal disease can be prevented through vaccination. 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 NSW School Vaccination Program, or catch up vaccination via 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)

Anyone outside of these groups wishing to protect themselves against meningococcal disease can access the vaccines via private prescription from their GP. If there are concerns that a teenager has missed their meningococcal ACWY vaccine due to school closures, this can be checked on the Australian Immunisation Register (AIR). If required, GPs can arrange catch up vaccination.

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

COVID-19 (Coronavirus)

For up-to-date information regarding the COVID-19 outbreak and the NSW response, please visit the NSW Health COVID-19 page.

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 30 January to 5 February 2022, by date received*

		Weekly		Year to date				Full Year		
		This week	Last week	2022	2021	2020	2019	2021	2020	2019
Enteric Diseases	Campylobacter	258	183	994	1197	1190	1354	11186	9458	11183
	Cryptosporidiosis	9	6	41	73	106	98	442	550	669
	Giardiasis	23	17	98	163	285	400	1500	1869	3323
	Rotavirus	12	5	26	26	211	78	300	485	1777
	Salmonellosis	101	73	388	563	488	538	3100	2885	3556
	Shigellosis	7	4	21	6	172	96	60	495	867
	STEC/VTEC	1	3	11	13	13	14	127	115	80
Respiratory Diseases	Influenza	2	0	16	11	2996	2350	123	7488	116436
	Legionellosis	3	5	23	30	14	26	209	170	153
	Tuberculosis	5	4	28	57	38	43	560	624	589
Sexually Transmissable Infections	Chlamydia	496	430	1877	3055	3465	3043	25362	27257	32483
	Gonorrhoea	200	161	783	948	1335	1128	7638	9901	11695
Vaccine Preventable Diseases	Meningococcal Disease	2	0	3	1	4	3	23	22	59
	Pneumococcal Disease (Invasive)	2	2	22	34	54	38	390	359	690
Vector Borne Diseases	Barmah Forest	2	1	5	15	9	7	110	271	63
	Ross River	26	29	124	105	20	51	654	1991	593
Zoonotic Diseases	Q fever	2	1	8	19	31	35	174	206	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.
- 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.
- 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.