Communicable Diseases Weekly Report

Week 17, 23 April to 29 April 2023

In this report we provide information regarding invasive pneumococcal disease and a summary of notifiable conditions activity in NSW over the reporting period Week 17, 23 April to 29 April 2023

For surveillance data on COVID-19 and influenza please see the latest *NSW Respiratory Surveillance Report.*

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 Pneumococcal Disease

Invasive pneumococcal disease (IPD) is a severe form of infection with the bacterium *Streptococcus pneumoniae*. Invasive infections can be life-threatening and can cause a variety of diseases include pneumonia and meningitis (infection of the membranes lining the brain and spinal cord).

In 2023, there have been 118 notifications which have also included 14 deaths (12% case fatality rate). Notifications in 2023 were slightly higher than the five-year average for the same time period (109 cases). The case fatality rate for the previous five-year average was similar at 11%. However, of the 118 notifications reported this year two of the deaths have been in children under five years of age. Deaths in children are uncommon with no deaths reported in the same time period for 2018-2021, however, there were three deaths reported in the same time period in 2022. Of the five childhood deaths, one serotype was unknown and three deaths were attributable to serotypes that were not covered by the vaccine. Only one death was caused by a serotype included in the current vaccine (Prevenar 13) but this child had only received two of the three required doses.

There are over 90 different pneumococcal serotypes, and they vary in their propensity to cause disease. Worldwide, only a limited number of serotypes are responsible for most cases of IPD and the predominant serotypes vary by age group and geographic area. People most at risk of pneumococcal disease include children less than two years of age, older adults, Aboriginal and Torres Strait Islander 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.

Vaccination with the pneumococcal vaccine is the most effective way to prevent infection. The pneumococcal vaccine is funded under the National Immunisation Program as part of the childhood immunisation schedule, for people with risk conditions for IPD, Aboriginal and Torres Strait Islander people aged 50 years and over, and all non-Indigenous adults aged 70 years and over.

Current pneumococcal vaccines available in Australia are Prevenar 13 (13vPCV, 13-valent pneumococcal conjugate vaccine) and Pneumovax 23 (23vPPV, 23-valent pneumococcal polysaccharide vaccine). A new vaccine (Prevenar 20) has recently been approved for use in adults in Australia. Prevenar 20 (20vPCV) contains an additional coverage for 7 serotypes. unfortunately, supplies of Prevenar 20 is not yet available in Australia.

For further information on pneumococcal disease see the NSW Health pneumococcal disease fact sheet and the invasive pneumococcal disease data page.

Follow the link for up to date information on the NSW Immunisation Schedule.

For information on the National Immunisation Program pneumococcal vaccine schedule, see the following resources:

- Clinical advice for vaccination providers
- Clinical decision tree for vaccination providers

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 23 April – 29 April 2023, by date received*

		Weekly		Year to date					Full Year			
		This week	Last week	2023	2022	2021	2020	2019	2022	2021	2020	2019
Enteric Diseases	Campylobacter	162	240	4029	3909	4690	3775	4048	13347	13015	11052	12071
	Cryptosporidiosis	8	11	209	148	233	345	346	463	444	548	669
	Giardiasis	50	46	833	433	708	941	1497	1410	1585	1986	3420
	Hepatitis A	1	1	30	7	0	18	33	37	8	19	61
	Hepatitis E	0	1	3	0	0	5	2	7	1	14	24
	Listeriosis	1	2	13	13	6	6	2	33	22	20	16
	Paratyphoid	1	1	22	5	0	15	29	12	1	17	39
	Rotavirus	36	43	1054	128	110	310	226	1802	356	500	1777
	STEC/VTEC	7	5	67	47	50	40	27	144	126	115	79
	Salmonellosis	54	68	1280	1366	1435	1575	1595	2967	3100	2885	3552
	Shigellosis	19	21	311	81	30	352	282	460	60	494	867
	Typhoid	0	1	39	11	0	30	33	47	2	37	64
Other	Invasive Group A Streptococcus	7	19	207	0	0	0	0	142	0	0	0
Respiratory Diseases	Influenza	861	1098	10348	3072	21	7197	10357	116315	125	7481	116402
	Legionellosis	3	3	80	91	82	53	64	268	216	171	154
	Respiratory syncytial virus (RSV)	1386	1586	12908	1	0	0	0	5669	0	0	0
	Tuberculosis	8	12	188	144	198	179	177	526	558	625	589
Sexually Transmissible Infections	Chlamydia	459	654	10408	7991	10095	9933	10493	25857	25298	27214	32466
	Gonorrhoea	193	275	4038	3093	3192	3609	3864	10227	7625	9878	11683
Vaccine Preventable Diseases	Mumps	2	1	12	1	3	44	21	26	6	56	59
	Pertussis	3	4	37	13	16	1212	2046	81	44	1400	6387
	Pneumococcal Disease	14	15	118	79	118	120	124	533	386	342	686
Vector Borne Diseases	Barmah Forest	0	3	32	18	24	15	12	89	111	271	63
	Dengue	7	5	110	13	1	75	151	170	4	78	460
	Malaria	1	1	36	7	2	17	21	42	8	25	73
	Ross River	5	4	170	439	401	476	249	725	661	1990	596
Zoonotic Diseases	Leptospirosis	1	0	5	15	39	6	3	44	96	12	9

*** 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.
- Surveillance data on COVID-19 can be found in the *NSW Respiratory Surveillance Report.*
- 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.