National Communicable Diseases Surveillance Report

Fortnight 06, 2021 Summary Notes for Selected Diseases

15 March to 28 March 2021

Infectious and congenital syphilis

Increases in infectious syphilis notifications are attributed to an on-going outbreak occurring in young Aboriginal and Torres Strait Islander people residing in northern and central Australia, continued increases among men who have sex with men (MSM) in urban areas of Victoria (Vic) and New South Wales (NSW), and increases in women (Indigenous and non-Indigenous) residing in urban areas of Vic, NSW, Queensland (Qld) and Western Australia (WA).

Outbreak in remote Australia

In January 2011, an increase of infectious syphilis notifications among young (15-29 years) Aboriginal and Torres Strait Islander people was identified in the North West region of Qld, following a steady decline at a national level in remote communities. Subsequent increases in infectious syphilis notifications were reported in the Northern Territory (NT) in 2013, WA in 2014 and South Australia (SA) in 2016, following sustained periods of low notification rates. The outbreak is of significant public health concern given the: elevated rates of infectious syphilis among women of child-bearing age, increasing the risk of congenital syphilis; and the concomitant risk of HIV transmission. For the latest information on the infectious syphilis outbreak and related national activities, refer to the Department's website.

Increases among MSM

Since 2010 increases in notifications of infectious syphilis have been reported in MSM, predominately 20-39 years of age, residing in urban areas of Vic and NSW.

Increases among women (Indigenous and non-Indigenous)

Since 2016, increases in notifications of infectious syphilis have been reported in women (Indigenous and non-Indigenous) aged predominately 20-39 years of age residing in urban areas of NSW, Vic, Qld and WA. As noted in the outbreak in remote Australia, increases in women of child-bearing age is of significant public health concern given the increased risk of congenital syphilis.

Syphilis response

On 23 March 2021, the Australian Health Protection Principal Committee (AHPPC) endorsed the *National strategic approach for responding to rising rates of syphilis in Australia 2021* (Strategic Approach) prepared through the Communicable Diseases Network Australia (CDNA) and BBV STI Standing Committee (BBVSS). The Strategic Approach builds on and intersects with existing national activities related to syphilis and provides specific focus for efforts towards rising rates of syphilis and adverse outcomes in Australia.

The CDNA and BBVSS are, in collaboration, developing priority public health actions, including those related to workforce and community engagement, to ensure progress is made towards reducing the incidence of syphilis and elimination of congenital syphilis in Australia. These actions will be provided to AHPPC for endorsement in the coming months.

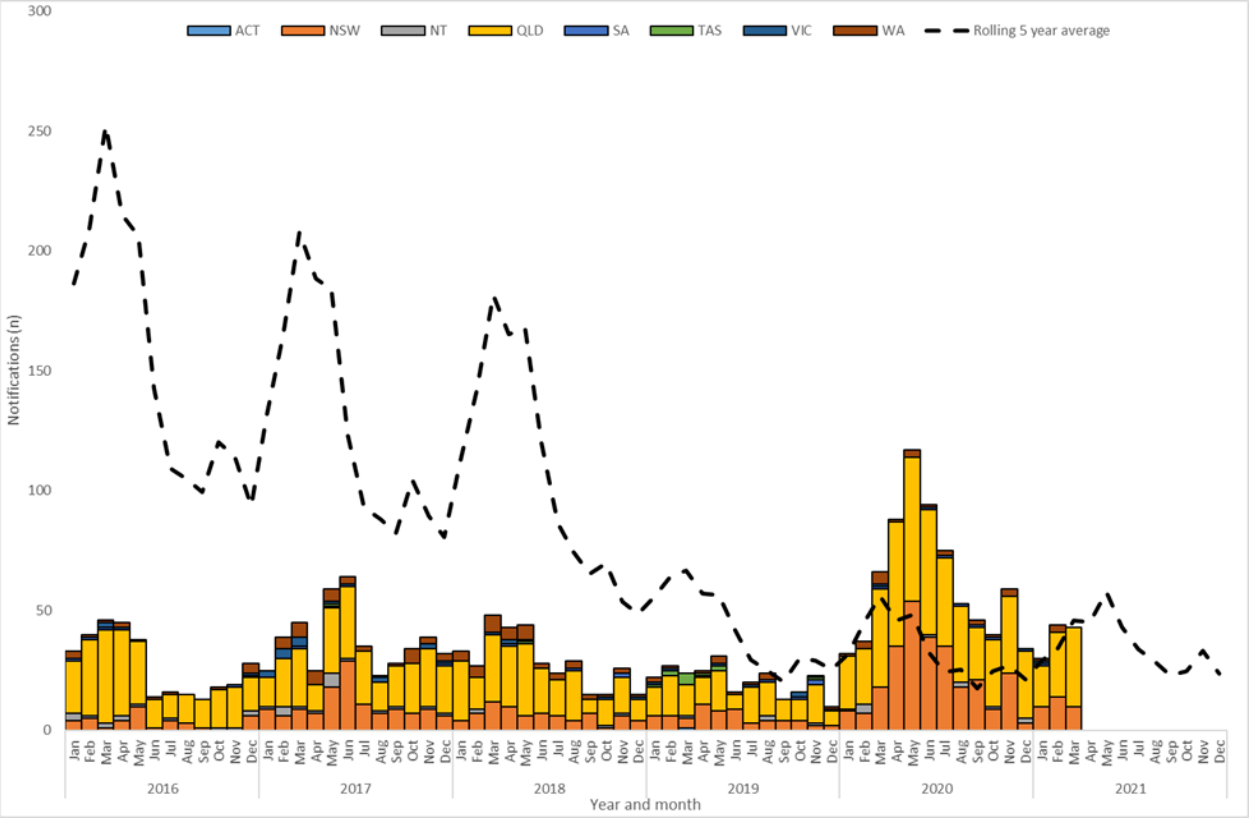
For further information on national activities related to STIs, including syphilis, refer to the Department's website.

Barmah Forest virus

Between 15 and 28 March 2021, there were 25 notifications of Barmah Forest virus (BFV) infection, compared with 18 during the previous period and 32 during the same period last year. During the past quarter there were 120 notifications, 1.1 times the quarterly rolling mean of 104.8 notifications (Figure 1).

Seasonal increases in notifications for BFV are expected during the warmer months, and nationally peak between January and June. The timing of the increase varies for different geographical regions.

Figure 1: Notifications of Barmah Forest virus, Australia, 1 January 2016 to 28 March 2021, by state or territory and month and year of diagnosis (notification received date)



Legionellosis

In the past 12 months (29 March 2020 to 28 March 2021), there have been 542 cases of legionellosis reported to the National Notifiable Diseases Surveillance System (NNDSS), comprising 53.0% *Legionella longbeachae* (287/542) and 42.1% *Legionella pneumophila* (228/542). This is 1.3 times higher than the historical five-year mean (n=411.2), which comprised a greater proportion of *L. pneumophila* (56.4%) compared to *L. longbeachae* (40.6%) infections. Legionellosis notifications were reported in all jurisdictions of Australia in the past 12 months, although the distribution of species varied by jurisdiction (Figure 1 and Figure 2).

In the past fortnight (15 March 2021 to 28 March 2021), 24 cases of legionellosis were notified compared to 32 cases in the same reporting period in the previous year. Of the 24 cases reported in the past fortnight, 22 cases had a species reported, with 15 cases identified as *L. pneumophila* (68%) and seven cases identified as *L. longbeachae* (32%). It is difficult to determine the extent to which the increase in legionellosis notifications is associated with increased testing of individuals with influenza-like symptoms or pneumonia in response to the COVID-19 pandemic over the past 12 months, or other factors.

Figure 1. Notifications of *Legionella longbeachae*, Australia, 1 January 2016 to 28 March 2021, by state or territory and month and year of notification

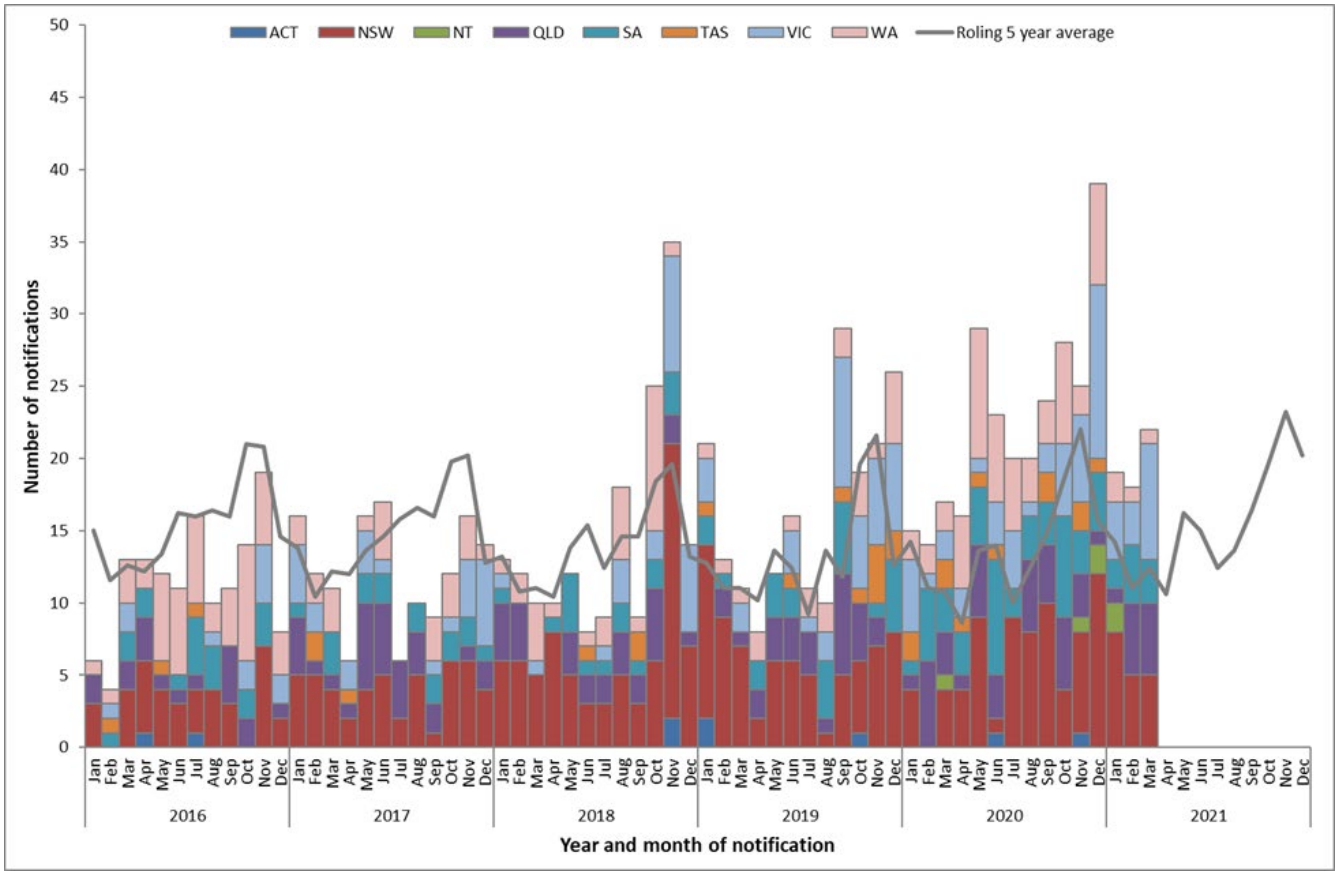
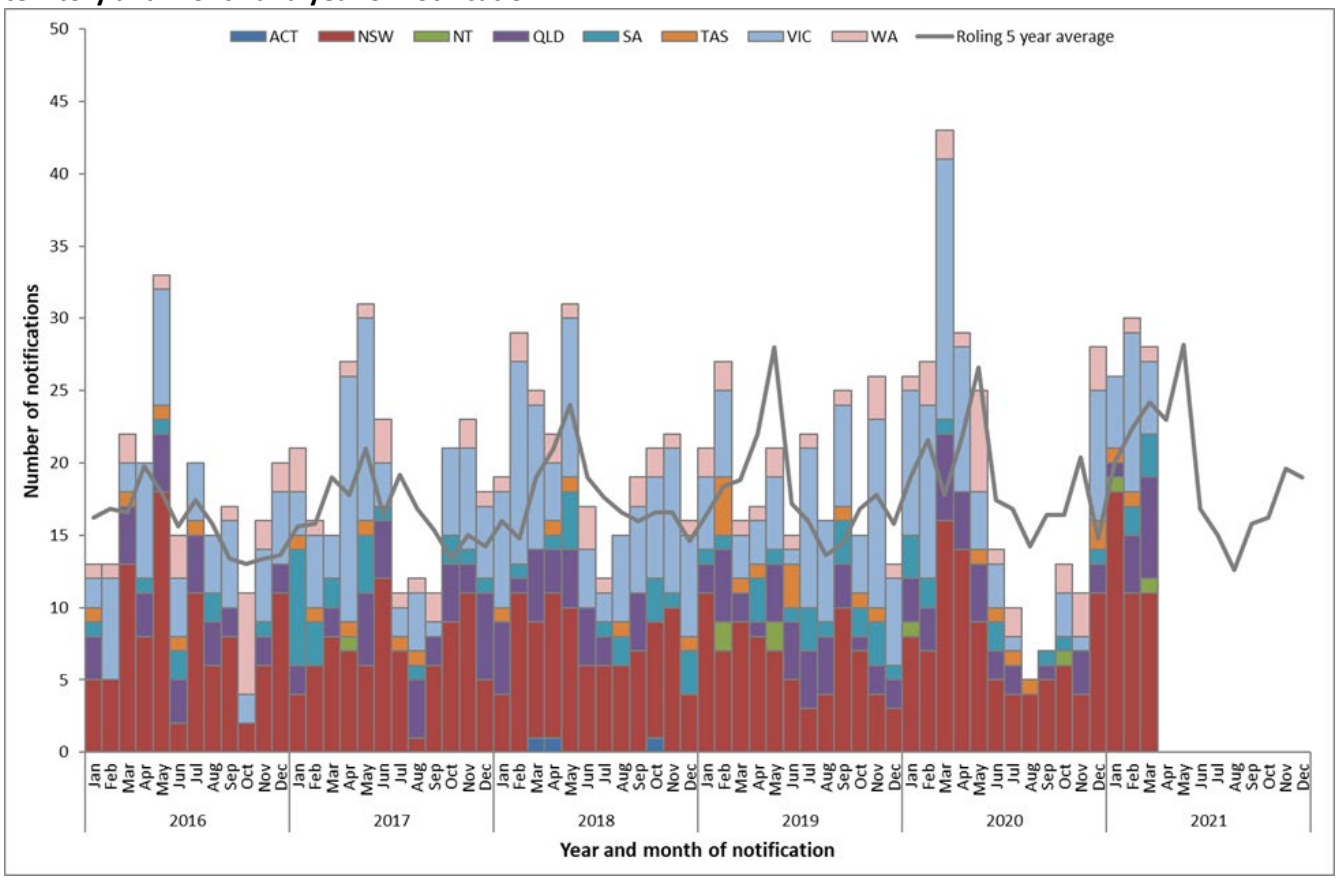


Figure 2. Notifications of *Legionella pneumophila*, Australia, 1 January 2016 to 28 March 2021, by state or territory and month and year of notification



Leptospirosis

In the past 12 months (29 March 2020 to 28 March 2021), there have been 134 cases of leptospirosis reported to the National Notifiable Diseases Surveillance System (NNDSS). This is higher than the mean number of cases reported for the historical five-year mean (n=116.0). In the past fortnight (15 March 2021 to 28 March 2021), 9 cases of leptospirosis were notified compared to 3 cases in the same reporting period in the previous year. In the past quarter (29 December 2020 to 28 March 2021), 67 cases of leptospirosis were notified compared to the quarterly rolling five year mean of 35.6 notifications. Of the 67 cases notified in the past quarter, the highest number of notifications occurred in Queensland (39/67, 58%), followed by the Northern Territory (13/67, 19%) and New South Wales (9/67, 13%). Increased mouse and rat populations following recent wet weather in eastern Australian may be a contributing factor leading to increased case notifications in some areas.

Interpretative Notes

Selected diseases are chosen each fortnight based on either exceeding two standard deviations from the 90 day and/or 365 day five year rolling mean or other disease issues of significance identified during the reporting period. All diseases reported are analysed by notification receive date. Data are extracted each Monday of a CDNA week.

Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

[1]The past quarter (90 day) surveillance period includes the date range (29/12/2020 to 28/03/2021).

[2]The quarterly (90 day) five year rolling mean is the average of 5 intervals of 90 days up to 28/03/2021. The ratio is the notification activity in the past quarter (90 days) compared with the five year rolling mean for the same period.

[3]The past year (365 day) surveillance period includes the date range (29/03/2020 to 28/03/2021).

[4]The yearly (365 day) five year rolling mean is the average of 5 intervals of 365 days up to 28/03/2021. The ratio is the notification activity in the past year (365 days) compared with the five year rolling mean for the same period.

The five year rolling mean and the ratio of notifications compared with the five year rolling mean should be interpreted with caution. Changes in surveillance practice, diagnostic techniques and reporting may contribute to increases or decreases in the total notifications received over a five year period. Ratios are to be taken as a crude measure of current disease activity and may reflect changes in reporting rather than changes in disease activity.

ADT FN06/2021

Disease group	Disease name	Disease code	Notification received date: State or Territory: ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Totals for Australia: This reporting period 15/03/2021 28/03/2021	Previous reporting Period 01/03/2021 14/03/2021	Same reporting period last year 15/03/2020 28/03/2020	Current year YTD 01/01/2021 28/03/2021	Historical 90 Day Period: Past Quarter 29/12/2020 28/03/2021	Quarterly rolling 5 year mean	Ratio past quarter/5 year mean*	Exceeds quarterly rolling mean +2 SD by	Historical Yearly Period: Past Year 29/03/2020 28/03/2021	Yearly rolling 5 year mean 29/03/2015 28/03/2020	Ratio past year/5 year mean*	Exceeds yearly rolling mean +2 SD by
Bloodborne diseases	Hepatitis B (newly acquired)	039	-	-	-	-	-	-	-	-	-	4	5	18	20	37.4	0.5	-	108	151.8	0.7	-
	Hepatitis B (unspecified)	052	1	79	-	18	2	4	35	15	154	308	198	1,125	1,159	1,435.4	0.8	-	4,804	5,958.8	0.8	-
	Hepatitis C (newly acquired)	040	-	-	-	22	-	-	-	1	23	35	23	172	175	171.2	1.0	-	673	718.6	0.9	-
	Hepatitis C (unspecified)	053	4	103	1	58	-	9	46	42	263	353	316	1,748	1,801	2,359.8	0.8	-	7,196	9,760.8	0.7	-
	Hepatitis D	050	-	-	-	-	-	-	-	-	-	4	-	18	19	15.4	1.2	-	75	66.8	1.1	-
Gastrointestinal diseases	Botulism	045	-	-	-	-	-	-	-	-	-	-	-	1	1	0.8	1.3	-	2	1.2	1.7	-
	Campylobacteriosis	005	28	376	13	388	82	40	72	107	1,106	1,501	1,167	9,326	9,729	8,305.2	1.2	-	31,528	29,566.4	1.1	-
	Cryptosporidiosis	061	-	11	10	20	3	-	5	5	54	66	213	512	521	1,574.6	0.3	-	1,510	4,015.0	0.4	-
	Haemolytic uraemic syndrome (HUS)	055	-	-	-	-	-	-	-	-	-	1	1	3	3	4.0	0.8	-	14	16.2	0.9	-
	Hepatitis A	038	-	-	-	1	-	-	-	-	1	1	14	4	4	83.6	0.0	-	34	241.0	0.1	-
	Hepatitis E	051	-	-	-	-	-	-	-	-	-	-	8	-	-	17.6	-	-	8	48.8	0.2	-
	Listeriosis	018	-	3	-	-	-	-	-	-	3	2	3	13	15	22.8	0.7	-	46	70.0	0.7	-
	Paratyphoid	080	-	-	-	-	-	-	-	-	-	-	5	-	-	38.6	-	-	6	87.0	0.1	-
	STEC	054	-	5	-	3	8	-	5	4	25	43	28	176	183	155.6	1.2	-	510	479.6	1.1	-
	Salmonellosis	030	8	160	18	267	24	11	55	67	610	619	607	3,971	4,128	5,587.0	0.7	-	10,325	15,997.6	0.6	-
	Shigellosis	031	-	7	6	7	1	-	1	3	25	19	102	135	138	658.4	0.2	-	743	2,117.4	0.4	-
	Typhoid Fever	035	-	-	-	-	-	-	-	-	-	-	12	3	3	66.0	0.0	-	27	153.8	0.2	-
Quarantinable diseases	Avian influenza in humans (AIH)	076	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	COVID-19	081	-	45	-	71	19	-	1	10	146	159	3,749	902	987	809.6	1.2	-	25,396	858.6	29.6	20,697.6
	Cholera	008	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	1.4	-	-
	MERS-CoV	079	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Plague	025	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Rabies	028	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Severe acute respiratory syndrome (SARS)	071	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Smallpox	069	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Viral haemorrhagic fever (NEC)	036	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Yellow fever	041	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
Sexually transmissible infections	Chlamydial infection	007	64	1,128	68	887	209	59	34	399	2,848	3,220	3,833	19,083	19,632	26,402.6	0.7	-	83,419	100,257.6	0.8	-
	Donovanosis	010	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Gonococcal infection	011	17	386	61	208	71	3	86	122	954	1,045	1,400	6,585	6,800	7,816.0	0.9	-	27,248	28,159.8	1.0	-
	Syphilis < 2 years	066	-	31	8	25	4	-	57	43	168	171	238	1,163	1,193	1,163.4	1.0	-	5,024	4,477.8	1.1	-
	Syphilis > 2 years or unspecified duration	067	1	3	1	6	2	-	34	1	48	62	104	376	392	542.8	0.7	-	1,802	2,193.6	0.8	-
	Syphilis congenital	047	-	-	-	-	-	-	-	1	1	-	-	5	5	1.2	4.2	0.5	18	7.0	2.6	5.5
Vaccine preventable diseases	Diphtheria	009	-	-	-	-	-	-	-	-	-	-	1	1	1	2.2	0.5	-	7	7.8	0.9	-
	Haemophilus influenzae type b	012	-	1	1	-	-	-	1	-	3	1	-	6	6	4.8	1.3	-	21	19.0	1.1	-
	Influenza (laboratory confirmed)	062	-	-	3	8	1	1	10	-	23	39	2,220	178	190	13,649.0	0.0	-	1,815	166,378.8	0.0	-
	Measles	021	-	-	-	-	-	-	-	-	-	-	-	-	-	43.0	-	-	-	128.8	-	-
	Mumps	043	-	-	-	-	1	-	-	1	2	1	14	9	9	171.4	0.1	-	63	623.8	0.1	-
	Pertussis	024	-	3	-	-	1	-	15	1	20	30	340	142	152	3,610.0	0.0	-	1,411	15,665.0	0.1	-
	Pneumococcal disease (invasive)	065	1	13	1	10	5	3	9	4	46	44	49	225	241	267.8	0.9	-	1,031	1,901.0	0.5	-
	Poliovirus infection	026	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Rotavirus	077	2	10	1	16	6	-	NN	8	49	46	67	259	268	765.2	0.4	-	1,067	4,754.6	0.2	-
	Rubella	029	-	-	-	-	-	-	-	-	-	1	-	1	2	4.4	0.5	-	3	13.8	0.2	-
	Rubella congenital	046	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	0.2	-	-
	Tetanus	033	-	-	-	-	-	-	-	-	-	-	-	2	2	1.4	1.4	-	7	3.8	1.8	0.2
	Varicella zoster (chickenpox)	073	12	NN	1	-	13	1	14	22	63	52	115	350	370	785.6	0.5	-	2,257	3,609.6	0.6	-
	Varicella zoster (shingles)	074	23	NN	10	-	100	15	40	76	264	291	575	1,997	2,085	3,044.8	0.7	-	12,858	11,030.2	1.2	-
	Varicella zoster (unspecified)	075	3	NN	9	378	48	16	3	129	586	537	469	4,307	4,608	3,485.8	1.3	-	15,253	14,231.4	1.1	-
Vectorborne diseases	Barmah Forest virus infection	048	-	7	-	18	-	-	-	-	25	18	32	117	120	104.8	1.1	-	728	380.6	1.9	157.9
	Chikungunya virus infection	078	-	-	-	-	-	-	-	-	-	-	-	2	2	20.2	0.1	-	6	87.6	0.1	-
	Dengue virus infection	003	-	-	-	-	-	-	-	-	-	-	49	1	1	392.8	0.0	-	33	1,409.8	0.0	-
	Flavivirus infection (unspecified)	001	-	-	-	-	-	-	-	-	-	-	-	2	2	10.2	0.2	-	12	33.0	0.4	-
	Japanese encephalitis virus infection	059	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	1.2	-	-
	Malaria	020	-	-	-	-	-	-	1	-	1	2	16	9	10	97.6	0.1	-	66	349.2	0.2	-
	Murray Valley encephalitis virus infection	049	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	0.6	-	-
	Ross River virus infection	002	-	33	9	26	4	2	40	24	138	223	258	1,461	1,507	1,467.8	1.0	-	7,063	4,344.8	1.6	-
	West Nile/Kunjin virus infection	060	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	1.6	-	-
Zoonoses	Anthrax	058	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Australian bat lyssavirus infection	063	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Brucellosis	004	-	1	-	-	-	-	-	-	1	-	1	3	3	5.8	0.5	-	16	19.6	0.8	-
	Leptospirosis	017	-	1	1	7	-	-	-	-	9	11	3	66	67	35.6	1.9	13.0	134	116.0	1.2	-
	Lyssavirus infection (NEC)	064	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		-
	Ornithosis	023	-	-	-	-	-	-	-	-	-	-	-	6	7	4.0	1.8	-	65	18.4	3.5	33.1
	Q fever	027	-	8	-	9	-	-	-	-	17	30	16	121	122	143.4	0.9	-	454	545.4	0.8	-
	Tularaemia	070	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	2	-		2.0
Other bacterial infections	Legionellosis	015	-	7	-	7	2	-	6	2	24	31	32	151	167	106.6	1.6	7.4	542	411.2	1.3	25.7
	Leprosy	016	-	-	1	-	-	-	-	-	1	-	-	1	1	1.0	1.0	-	7	11.8	0.6	-
	Meningococcal disease (invasive)	022	-	-	-	2	1	1	1	-	5	3	2	17	18	49.0	0.4	-	79	262.2	0.3	-
	Tuberculosis	034	-	23	2	5	-	-	12	4	46	42	45	308	315	331.6	0.9	-	1,571	1,419.6	1.1	-
			164	2,444	225	2,467	607	165	583	1,091	7,752	9,015	16,330	55,081	57,184				247,087			

Footnotes:

* Ratio of the 90 day prior surveillance period to the past 90 day 5 year rolling mean, or ratio of the year period prior surveillance period to the year period 5 year rolling mean.

NN = Not Notifiable, NEC = Not Elsewhere Classified

The data in this report are reliant on the provision of data from states and territories to the Australian Government Department of Health. Backlogs in notifications at the state or territory level may contribute to delays in reporting to the NNDSS. Notifications for some high volume conditions are only uploaded quarterly by some jurisdictions, which can result in apparent large variability over time. The NNDSS is a dynamic dataset, with data in this report representing data available on **(30/03/2021)**. Data in this report are subject to retrospective revision and may vary from data reported in published NNDSS reports and reports of notification data by states and territories.