

## Communicable Diseases Weekly Report

### Week 2, 5 January to 11 January 2020

In summary, we report:

- [Measles](#) – two new locally-acquired cases reported
- [Shigellosis](#) – cases linked to New Year's festival
- [Haemophilus influenzae type b \(Hib\) disease](#) – one new case
- [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.

### Measles

Two new cases of measles were notified in this reporting week ([Table 1](#)). Both case-patients were adult Sydney residents with no history of overseas travel. One of the cases is believed to be linked to a recent case who had spent time in the same location while infectious.

One of the cases had been fully vaccinated (documentation of two measles vaccine doses). Two doses of measles vaccine are believed to provide lifelong protection against measles for 99 per cent of people, but still means that one per cent remain susceptible. Vaccinated people who do develop measles usually have a less severe disease course than unvaccinated people.

Most people with measles in Australia picked up their infection during overseas travel. However the number of recent cases with exposures in and around Sydney means other people may have been exposed locally and could be developing symptoms now or over the coming days and weeks.

These two cases highlight the need for clinicians to consider measles in anyone presenting with fever and a maculopapular rash, irrespective of their vaccination and travel history.

Information on sites visited by these cases while they were potentially infectious, as well as active alerts for previous cases can be found on the NSW Health [Measles alerts page](#).

#### Further information

- NSW Health [measles homepage](#) for general information about measles (including vaccination) and specific information for [travellers](#) and [health professionals](#)
- NSW Health [measles resources page](#), including posters for display in waiting rooms (including multiple language options), fact sheets and decision aids.
- NSW Health [measles alerts](#) and [notification data](#)

### Shigellosis

A total of 36 notifications of shigellosis were received in this reporting week ([Table 1](#)). Twenty were confirmed *Shigella* infections, including 14 confirmed as *Shigella sonnei*, one confirmed as *Shigella flexneri* and five identified by PCR only, but which met the confirmed case definition because of epidemiological links to other cases.

The remaining 16 cases were probable cases only, as they were tested by PCR only and did not have known links to confirmed cases. Cases detected by PCR with no epidemiological links are

classified as probable cases because this test method is unable to differentiate between *Shigella* species and enteroinvasive *Escherichia coli*.

Seven of the confirmed cases are linked to a New Year's festival in northern NSW. These case-patients were all men who have sex with men (MSM) who attended the festival. There are at least three different strains involved in this cluster, including two different multi-drug resistant *Shigella sonnei* strains, and a *Shigella flexneri* strain. Typing is still pending for four of the cases.

NSW Health is working with the community organisation [ACON](#) to ensure the MSM community are made aware of the risk and the need for increased hygiene and health seeking behaviour.

Based on the different strains linked to the outbreak, no standardised advice about antibiotic choice can be made in relation infections linked to the event. It is recommended that doctors continue to follow the [NSW Health advice](#) issued regarding multi-drug resistant (MDR) shigellosis.

Shigellosis is a diarrhoeal disease caused by *Shigella* bacteria. There are four serogroups of *Shigella*: *S. dysenteriae* (Group A), *S. flexneri* (Group B), *S. boydii* (Group C) and *S. sonnei* (Group D). Serogroups A, B and C are further divided into over 30 serotypes.

Symptoms of shigellosis usually start one to three days after exposure, and include diarrhoea (often containing mucous and/or blood), fever, nausea, vomiting and abdominal cramps. The illness usually resolves in 5 to 7 days. Some people who are infected may not have any symptoms, but may still pass the *Shigella* bacteria to others.

Shigellosis is easily transmitted from person to person by the faecal-oral route, as only a small number of organisms are enough to cause illness. Strict personal hygiene is necessary to prevent person to person spread, which occurs if hands are not washed properly or if anything that is contaminated comes in contact with another person's mouth.

Certain types of sexual activity, such as oral-anal sex, facilitate transmission of shigellosis from person to person.

Globally, shigellosis is commonly acquired from ingestion of food contaminated by poor hand hygiene or by flies that have been in contact with human waste.

People with shigellosis can have the bacteria in their faeces and so remain infectious for some weeks after their symptoms have resolved.

Treatment with appropriate antibiotics generally reduces the time a person is infectious to a few days. Antibiotics are therefore recommended for all people with shigellosis, even if symptoms are only mild, in order to reduce the risk of spread to other people. Antibiotic choice should be determined by testing results, because *Shigella* bacteria are often resistant to one or more commonly used antibiotics.

MDR shigellosis is increasing in NSW. An alert was issued to health care providers in July 2018 and updated in July 2019, and NSW Health has been working closely with ACON to communicate with at risk community groups about safe sex, early detection and treatment options.

Further information about the increase in drug resistance is available on the [shigellosis alert page](#).

Shigellosis can be prevented by thorough hand washing after any possible exposures to human faecal material, including after toileting, changing nappies and sexual activity. People who have diarrhoea should not have sex where there is any contact with the anus for seven days until after their symptoms have resolved.

People travelling to countries where shigellosis is common should avoid uncooked foods, including fruit and vegetables unless washed and peeled by the person themselves, and drink only bottled, boiled or treated water.

### Further information

- NSW Health [shigellosis factsheet](#) and [shigellosis notifications data](#)
- NSW Health [Staying healthy while travelling overseas factsheet](#).

## Haemophilus influenzae type b (Hib) disease

One new case of *Haemophilus influenzae* type b (Hib) disease was notified in this reporting week ([Table 1](#)) in an infant from regional NSW. The child was fully vaccinated for their age.

Hib bacteria can live harmlessly in the throats of healthy people and can be unknowingly passed on to others. The bacteria are spread through contact with droplets from the nose or throat of someone carrying the bacterium, usually in household-like settings.

Hib infection causes a febrile illness with one or more of four clinical syndromes: meningitis, epiglottitis, pneumonia or osteomyelitis. If untreated, infections can be fatal or leave patients with long-term complications. See the [Hib factsheet](#) for more details.

Hib was the most common cause of bacterial meningitis in Australian children before the introduction of Hib vaccines to the immunisation schedule in 1993. Hib disease is now rare in NSW. Vaccination against Hib disease is included as part of the National Immunisation Program, with doses due at six weeks and at four, six and 18 months of age.

Hib vaccination is also recommended for people who are immunocompromised, including people with functional or anatomical asplenia and people who have received a haematopoietic stem cell transplant.

More than 95 per cent of young children develop effective protection after receiving their course of Hib vaccines. Although Hib vaccines are believed to provide long-lasting immunity, the exact duration of immunity is not known.

### Further information

- NSW Health [Hib disease factsheet](#) and [Hib data page](#)
- The Australian Immunisation Handbook chapter on [Hib vaccination](#)

## Summary of notifiable conditions activity in NSW

The following table (Table 1) summarises notifiable conditions activity over the reporting period.

**Table 1. NSW Notifiable conditions from 5 January 2020 – 11 January 2020, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2020	2019	2018	2019	2018
Bloodborne	Hepatitis C - Newly Acquired	2	0	2	1	0	28	38
Enteric Diseases	Cryptosporidiosis	23	12	32	24	40	669	708
	Giardiasis	50	29	66	119	97	3269	2937
	Hepatitis A	1	2	2	3	2	61	86
	Paratyphoid	1	1	2	2	2	39	34
	Rotavirus	41	49	77	41	35	1745	808
	STEC/VTEC	1	2	2	6	3	80	57
	Salmonellosis	89	70	138	213	208	3562	3336
	Shigellosis	36	10	43	35	8	869	531
	Typhoid	1	1	2	4	2	63	58
Respiratory Diseases	Influenza	444	239	595	763	398	116384	17409
	Legionellosis	1	0	1	10	4	153	171
	Tuberculosis	6	6	10	15	18	597	507
Sexually Transmissible Infections	Chlamydia	592	315	825	923	976	32383	31181
	Gonorrhoea	228	121	315	365	390	11692	10610
	LGV	2	1	3	2	4	69	85
Vaccine Preventable Diseases	Haemophilus influenzae type b	1	0	1	0	0	11	6
	Measles	2	4	6	3	0	58	18
	Meningococcal Disease	2	0	2	0	4	59	72
	Mumps	1	3	3	4	3	56	72
	Pertussis	112	77	161	353	165	6383	6280
	Pneumococcal Disease (Invasive)	17	7	22	11	16	692	681
Vector Borne Diseases	Barmah Forest	1	0	1	0	2	63	74
	Chikungunya	1	1	1	2	1	32	13
	Dengue	5	6	9	15	26	454	299
	Ross River	3	3	5	17	11	577	571
Zoonotic Diseases	Q fever	6	3	8	15	9	245	228

**\* 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](#), 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.