

Communicable Diseases Weekly Report

Week 9, 24 February to 2 March 2019

In summary, we report:

- [Measles](#) – three new cases
- [Gonorrhoea](#) – rising number of notifications
- [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

Measles continues to be present in NSW, with three new cases in Sydney in this reporting week ([Table 1](#)). Two of these were NSW residents and one was an international visitor who developed symptoms shortly after arriving in Sydney. The international visitor acquired their infection while travelling in South East Asia, prior to visiting Australia. One NSW resident, a young adult with no evidence of vaccination, acquired the infection following contact with a known case in Pakistan. A source for the second NSW resident, an infant who had received their first dose of vaccine but was too young to have completed the course, has not been identified. There are no known links between any of these cases.

Between 15 December 2018 and 2 March 2019, a total of 19 people have spent time in NSW while infectious with measles, 14 NSW residents, two international visitors, and three interstate residents.

Measles is a highly contagious viral infection that is spread through the air by coughing and sneezing, or through direct contact with secretions from the nose and mouth. Symptoms typically start with fever, conjunctivitis (sore, red eyes) runny nose and cough. A rash that is red and spotty but usually not itchy then appears around 2-7 days later, starting on the face then spreading downwards. Infected people can pass measles on to others from 24hrs before their symptoms start until 4 days after the rash appears. Symptoms can begin anywhere from 7-18 days after contact with a person who has measles.

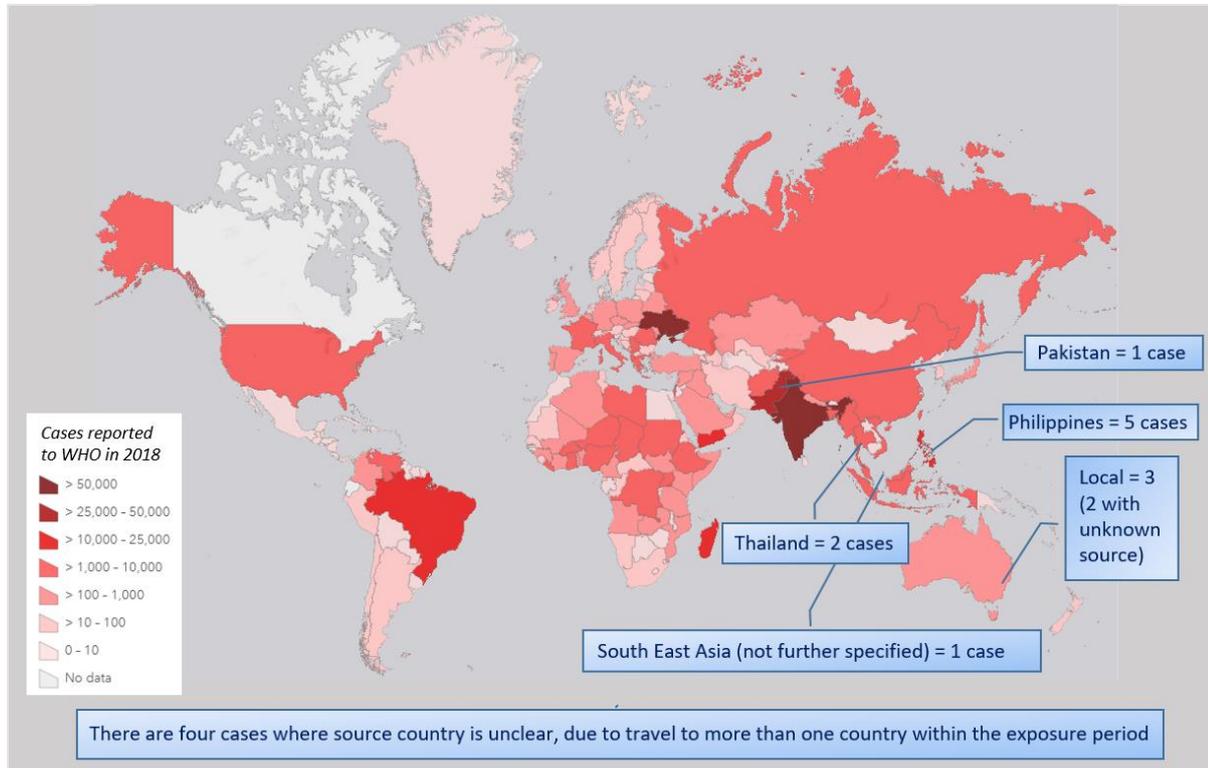
Measles is a vaccine preventable disease. The measles vaccine is safe and highly effective with 99% of people who receive two doses of measles vaccine developing lifelong protection against the infection. As measles is highly contagious it is important that all people who can be vaccinated receive these two doses. This will help stop the spread of measles within the community if it is introduced, and protect other people who cannot be vaccinated, such as children below 12 months of age; a concept known as herd immunity.

Children are offered measles vaccines at 12 months (as measles-mumps-rubella (MMR) vaccine) and 18 months of age (as measles-mumps-rubella-varicella (MMRV) vaccine) under the National Immunisation Program and free MMR vaccines are available to anyone in NSW born during or after 1966 who does not have evidence of immunity to measles. People born before 1966 are likely to have had measles as children and are generally considered to be immune.

Measles is rare in Australia, but remains common and is currently causing outbreaks in many countries around the world, including several destinations popular with Australians travelling for leisure, or to visit family and friends. Returned travellers and visitors who have not been fully vaccinated against measles are at risk of infection and bringing measles in to Australia.

Figure 1 shows the number of measles cases reported by countries to the World Health Organization (WHO) in 2018, and the place where measles infection was acquired for the 14 NSW residents and two international residents diagnosed with measles in NSW since December 2018. Three of these cases acquired their infection in NSW. One, an unvaccinated young adult, was a known contact of a case who acquired their infection in Thailand. A source case was unable to be identified for two cases in infants, who were too young to be fully vaccinated.

Figure 1: Number of confirmed measles cases by country as reported to WHO by member countries January to December 2018, with place of acquisition for NSW measles cases with onset between 15 December 2018 and 28 February 2019



Ensuring you have received two doses of measles vaccine provides the best possible protection against measles for yourself and the community.

For further information see the [Alerts](#) page or the [Measles factsheet](#).

The [World Health Organization](#) provides information on measles around the world.

Gonorrhoea

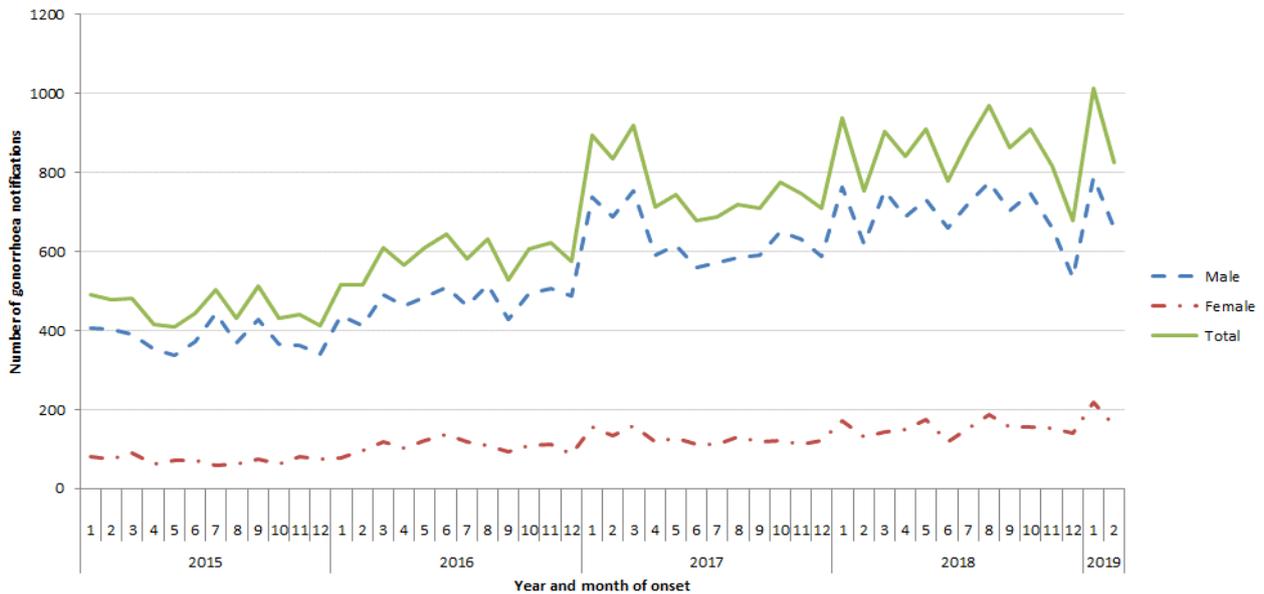
The number of gonorrhoea notifications in NSW has continued to increase (Figure 2). In 2018, 10,625 gonorrhoea notifications were received, a 16% increase compared to 2017. In 2019, to 2 March, 1,971 gonorrhoea notifications were received, slightly higher than the number (1,877) of cases notified in the same period in 2018 ([Table 1](#)).

The transmission of gonorrhoea in NSW is thought to be mainly associated with male-to-male sex, with 82% of notifications in 2018 being in men. However, an increasing number of women have been notified with gonorrhoea since 2016, suggesting that heterosexual transmission may be increasing.

People with gonorrhoea often have no symptoms, particularly women and those with gonorrhoea of the throat or rectum. Therefore, the number of people screened for gonorrhoea is likely to affect the number of people diagnosed with this infection. From 2013, NSW improved access to HIV testing with concurrent testing for other sexually transmissible infections for gay and bisexual men. All specimens submitted for chlamydia testing are also tested for gonorrhoea. Laboratory data shows an increasing trend in the number of gonorrhoea tests performed in NSW from January 2014 to December 2018. The number of notifications per 100 tests has also increased (Figure 3), suggesting

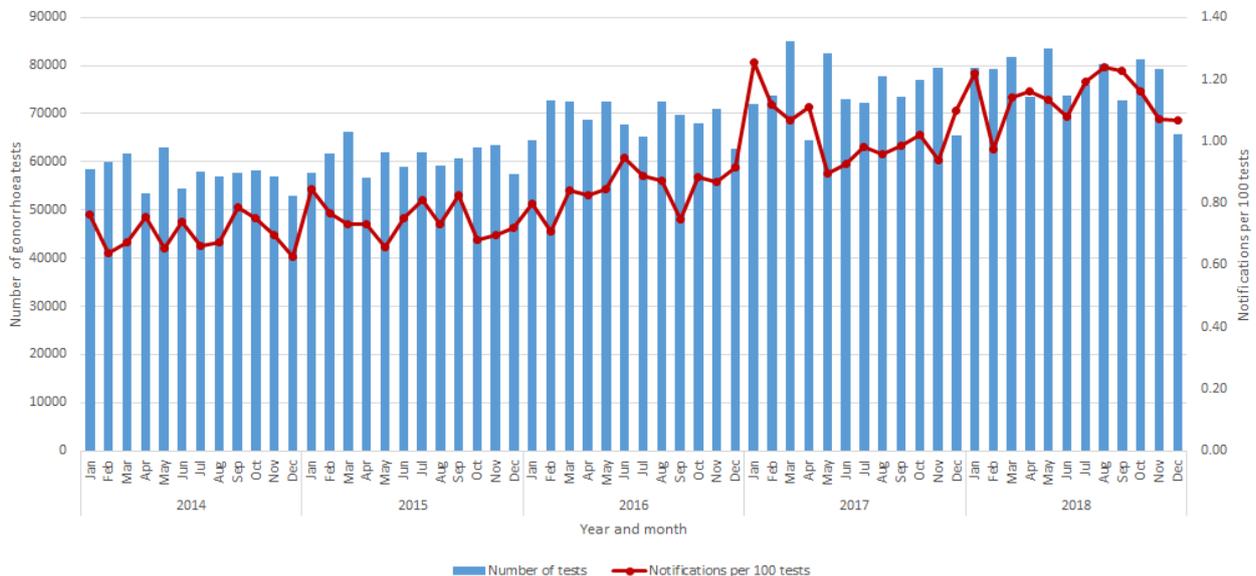
that along with better detection of infections, there may have been an increase in gonorrhoea transmission (incidence) in NSW over this period.

Figure 2. Number of gonorrhoea notifications by gender, year and month of onset, NSW, 1 January 2015 to 28 February 2019



Source: NSW Notifiable Conditions Information Management System (via SAPHaRI)
 Note: 'Total' includes transgender persons, and persons whose gender was not reported

Figure 3. Number of gonorrhoea tests and notification to test ratio, NSW, 1 January 2014 – 31 December 2018



Source: NCIMS and NSW Denominator project, NSW Health

Sexual health screening of gay and bisexual men who are considering taking antiretroviral drugs to prevent HIV (pre exposure prophylaxis, or PrEP) may be contributing to the increase in gonorrhoea tests and male gonorrhoea notifications. PrEP was rolled out rapidly and at scale across NSW via a large clinical trial that commenced on 1 March 2016. Following listing of HIV PrEP on the Pharmaceutical Benefits Scheme the trial ceased recruitment on 30 April 2018, by which time 9,477 NSW participants had been recruited.

Gonorrhoea is predominantly a sexually transmissible infection caused by the bacterium *Neisseria gonorrhoeae*. It is spread through contact with mucous membranes of infected people and infections can occur in the throat, anus, urethra, cervix and eyes. Infection with gonorrhoea in men commonly results in discharge from the penis and pain when urinating. Women can experience an abnormal vaginal discharge. Gonorrhoea often does not cause any symptoms. If untreated, gonorrhoea can result in infections of the skin, joints, blood stream, heart valves and lining of the brain (meningitis). Untreated gonorrhoea in women can lead to infection in the womb and fallopian tubes (pelvic inflammatory disease or PID) and this can result in infertility. Infertility can also occur in men if the infection spreads down the urethra and into the epididymis.

Gonorrhoea can be prevented by the use of condoms for vaginal and anal sex and dental dams for oral sex.

Many strains of *Neisseria gonorrhoeae*, both overseas and within Australia, are resistant to a wide range of antibiotics. The detection in early 2018 of two cases in Australia of infection due to a strain of gonococcal bacteria that is highly resistant to the two antibiotics currently used to treat gonorrhoea, as well as to other antibiotics known to be effective in treating gonorrhoea, is of great concern. Public health authorities across Australia are working with the *National Neisseria Network* and other experts to reduce the risk that extensively-drug resistant strains of gonococcal bacteria become established in Australia.

Follow the links for more information on [gonorrhoea](#) and [gonorrhoea notifications](#).

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 24 February – 2 March 2019, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2019	2018	2017	2018	2017
Enteric Diseases	Cryptosporidiosis	30	28	202	189	479	708	1266
	Giardiasis	91	83	672	587	733	2798	3135
	Hepatitis A	1	2	17	21	8	86	71
	Rotavirus	8	4	107	199	139	806	2319
	STEC/VTEC	1	3	19	11	12	57	53
	Salmonellosis	109	107	933	844	1047	3343	3681
	Shigellosis	22	17	171	42	52	528	235
	Typhoid	6	8	46	24	30	116	110
Respiratory Diseases	Influenza	530	530	4472	2493	1539	17422	103852
	Legionellosis	2	3	38	28	23	167	138
	Tuberculosis	16	11	91	83	82	514	542
Sexually Transmissible Infections	Chlamydia	624	680	5623	5609	5468	31190	29006
	Gonorrhoea	232	229	1971	1877	1822	10625	9161
Vaccine Preventable Diseases	Measles	3	1	14	0	6	18	32
	Pertussis	74	73	1150	708	1230	6281	5366
	Pneumococcal Disease (Invasive)	8	6	60	68	63	688	683
Vector Borne Diseases	Rubella	2	0	3	0	0	1	5
	Dengue	2	7	65	79	77	290	306
	Malaria	2	1	12	15	13	65	68
Zoonotic Diseases	Ross River	12	8	82	68	785	569	1652
	Q fever	3	2	51	42	48	224	210

* 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](#) and the [HIV Surveillance Data Reports](#) webpages.