

# Communicable Diseases Weekly Report

## Week 20, 13 May to 19 May 2018

In summary, we report:

- [Gonorrhoea](#) – increasing notifications
- [Invasive meningococcal disease](#) – one new case reported
- [Summary of notifiable conditions activity in NSW](#)

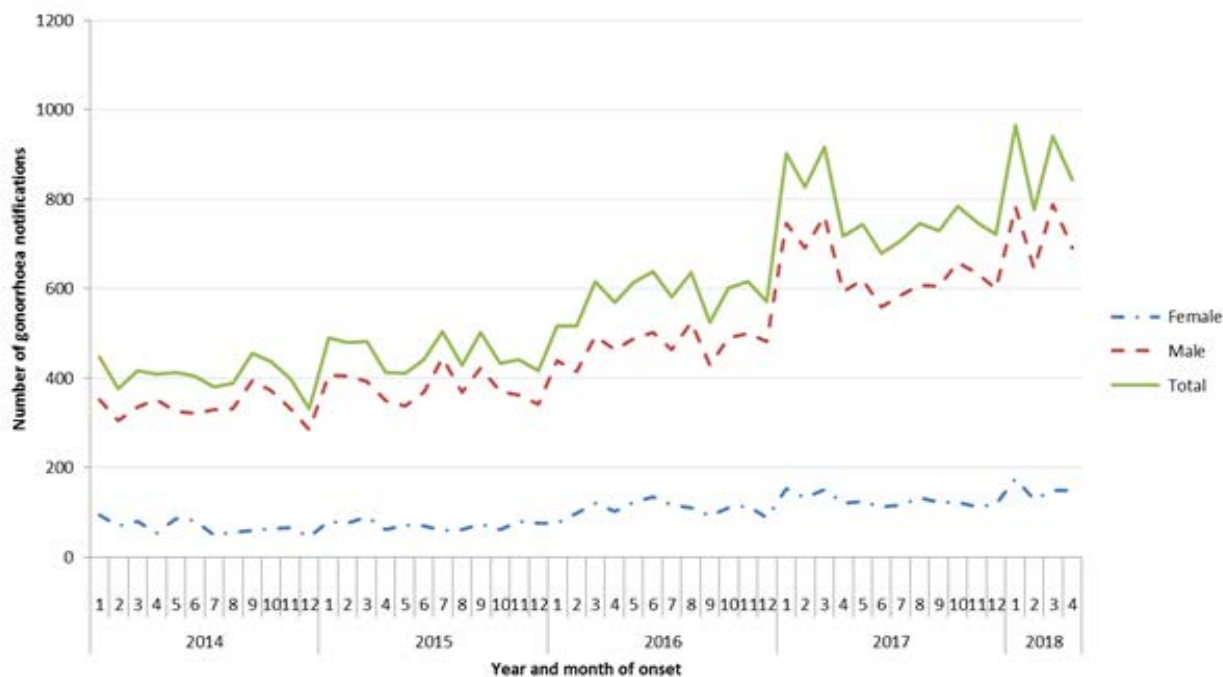
For further information see NSW Health [infectious diseases page](#). This includes links to other NSW Health [infectious disease surveillance reports](#) and a [diseases data page](#) for a range of notifiable infectious diseases.

### Gonorrhoea

The number of gonorrhoea notifications each month in NSW has continued to trend upwards (Figure 1). In 2017, 9,173 gonorrhoea notifications were received, a 31% increase compared to 2016. In 2018, to 19 May, 4143 gonorrhoea notifications were received, higher than the number (3858) of cases notified in the same period in 2017 ([Table 1](#)).

The transmission of gonorrhoea in NSW is thought to be mainly associated with male-to-male sex, with 83% of notifications in 2017 being in men. However, an increasing number of women have been notified with gonorrhoea since 2016, suggesting that heterosexual transmission may be increasing.

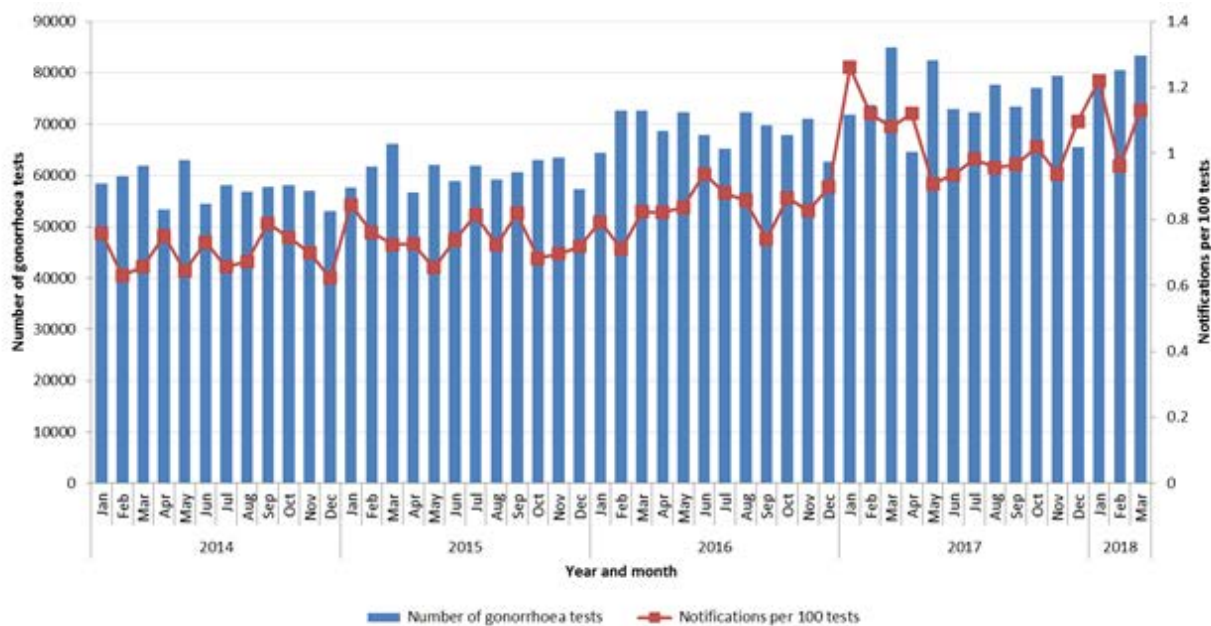
**Figure 1. Number of gonorrhoea notifications by gender, year and month of onset, NSW, 1 January 2014 to 30 April 2018**



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

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 denominator (testing) data in NSW from January 2014 to March 2018 shows that there has been an increase in the number of tests performed during this period. The number of notifications per 100 tests has also increased (Figure 2), 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 tests and notification to test ratio, NSW, 1 January 2014 – 31 March 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) as part of a large clinical trial that commenced on 1 March 2016 may be contributing to the increase in gonorrhoea tests and male gonorrhoea notifications. Following listing of HIV PrEP on the Pharmaceutical Benefits Scheme the trial ceased recruitment on 30 April 2018, by which time 9,476 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 can commonly result in discharge from the penis and pain when urinating. Women can experience vaginal discharge or abnormal bleeding particularly after sex. 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 testes.

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 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 in response to these cases 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](#).

## **Invasive meningococcal disease**

One new case of invasive meningococcal disease (IMD) was notified during this reporting week ([Table 1](#)) in a young adult female from metropolitan Sydney. She was admitted to hospital with headache and vomiting and has responded well to treatment. Testing revealed she was infected with serotype Y meningococcal bacteria. Clearance antibiotics and vaccination have been provided to all close contacts of the case.

The case was vaccinated against serotype Y in 2017 as part of the [NSW Meningococcal W Response Program](#) which provided free meningococcal ACWY vaccine (4vMenCV) to Year 11 and 12 students. The case has been reported to the Therapeutic Goods Administration (TGA) as a vaccine failure.

Antibiotics are provided to all close contacts of IMD cases to clear meningococcal bacteria from the nose and throat of asymptomatic carriers, who may have passed the virulent strain to the case. When infection is due to serogroup A, C, W or Y, close contacts are also offered [meningococcal vaccine](#) to further reduce any risk of further cases arising within the network of close contacts. It is important that everyone is aware of the signs and symptoms of IMD, and seek treatment immediately if they present. For more information see the NSW Health [Meningococcal Disease Advice Poster \(PDF\)](#).

Following the introduction of a serogroup C vaccine in 2003, which is provided free of charge at 12 months of age, the number of cases of IMD caused by serogroup C has decreased substantially. Serogroup B was previously the most common cause of IMD in Australia; however, since 2016 serogroup W has become the predominant type Australia-wide. In NSW, serogroup B remains the predominant strain, accounting for 40 per cent of cases since 2016; while serogroup W has been identified as the cause of 27 per cent of NSW cases between January 2016 and April 2018.

The [NSW Meningococcal W Response Program](#) began in February 2017, and provided free meningococcal ACWY vaccine (4vMenCV) to Year 11 and 12 students, and continues in 2018 for Years 10 and 11 students. This provides protection for these students as well as contributing to herd immunity in the broader population. Free vaccine is also available through general practitioners for 16 to 18 year olds who do not attend school, or who miss school clinics.

The Australian Government has announced that from July 2018 the serogroup C vaccine provided for children at 12 months of age will be replaced with a vaccine that covers four strains – A, C, W and Y (4vMenCV), providing greater protection to Australian children.

A vaccine against some serogroup B strains is also available in Australia. It is recommended for young children and adolescents but is not part of the National Immunisation Program. People with certain high risk conditions that predispose them to developing IMD, such as those without a spleen, are also recommended to be vaccinated against all meningococcal serogroups for which a vaccine is available.

Follow the links for more information on [meningococcal disease](#), [vaccination](#) and [notification data](#).

For more information see the NSW Health [Meningococcal Disease Advice Poster \(PDF\)](#).

## 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 13 May – 19 May 2018, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Bloodborne Diseases	Hepatitis C - Newly Acquired	1	1	14	12	14	35	25
Enteric Diseases	Cryptosporidiosis	10	11	392	955	614	1266	1184
	Giardiasis	66	55	1165	1538	1735	2994	3480
	Hepatitis A	1	3	51	10	20	72	41
	Rotavirus	18	16	375	262	212	2318	750
	Salmonellosis	60	77	1663	2070	2323	3682	4535
	Shigellosis	3	3	86	81	122	235	310
	Typhoid	1	1	29	33	24	55	37
Respiratory Diseases	Influenza	110	86	4069	3430	2871	103851	35540
	Legionellosis	3	2	63	49	61	138	134
	Tuberculosis	2	10	178	187	184	544	534
Sexually Transmissible Infections	Chlamydia	679	584	12456	11792	10243	28977	25990
	Gonorrhoea	185	217	4143	3858	2606	9173	6996
Vaccine Preventable Diseases	Adverse Event Following Immunisation	11	16	106	142	116	271	258
	Meningococcal Disease	1	0	24	27	20	91	70
	Pertussis	76	95	1498	2468	4778	5367	10956
	Pneumococcal Disease (Invasive)	11	8	136	142	132	681	545
Vector Borne Diseases	Barmah Forest	3	0	37	41	21	127	40
	Dengue	3	6	122	136	235	305	485
	Malaria	1	1	23	28	17	68	59
	Ross River	16	19	229	1227	297	1653	595

### \* Notes on Table 1: NSW Notifiable Conditions activity

- 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.
- 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](#).
- Only conditions for which at least one case report was received appear in the table. HIV and chronic blood-borne virus case reports are not included here but are available from the [Infectious Diseases Data](#) webpage.