

Communicable Diseases Weekly Report

Week 21, 23 to 29 May 2016

In summary, we report:

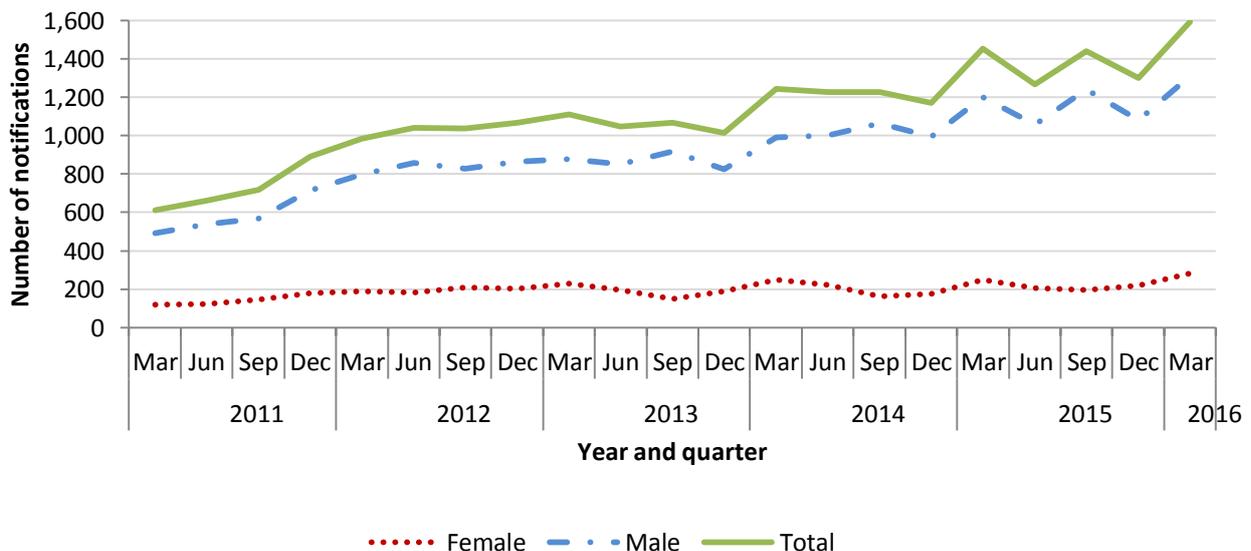
- [Gonorrhoea](#) – increasing notifications
- [Pertussis](#) – decreasing notifications
- [Summary of notifiable conditions activity in NSW](#)

For further information on infectious diseases on-line see [NSW Health Infectious Diseases](#). Also see [NSW Health Infectious Diseases Reports](#) for links to other surveillance reports.

Gonorrhoea

The number of gonorrhoea notifications in NSW continues to increase ([Figure 1](#)). In the first quarter of 2016 (January to March), there were 1,593 gonorrhoea notifications, 10% higher than the same period in 2015. Transmission of gonorrhoea in NSW is thought to be mainly associated with male-to-male sex, with 82% of the 1,593 notifications being in men. More than half of the notifications were from inner-Sydney, with 28% of cases in people living in South Eastern Sydney Local Health District and 24% in Sydney Local Health District.

Figure 1: Gonorrhoea notifications for NSW by gender and quarter, 1 January 2011 to 31 March 2016



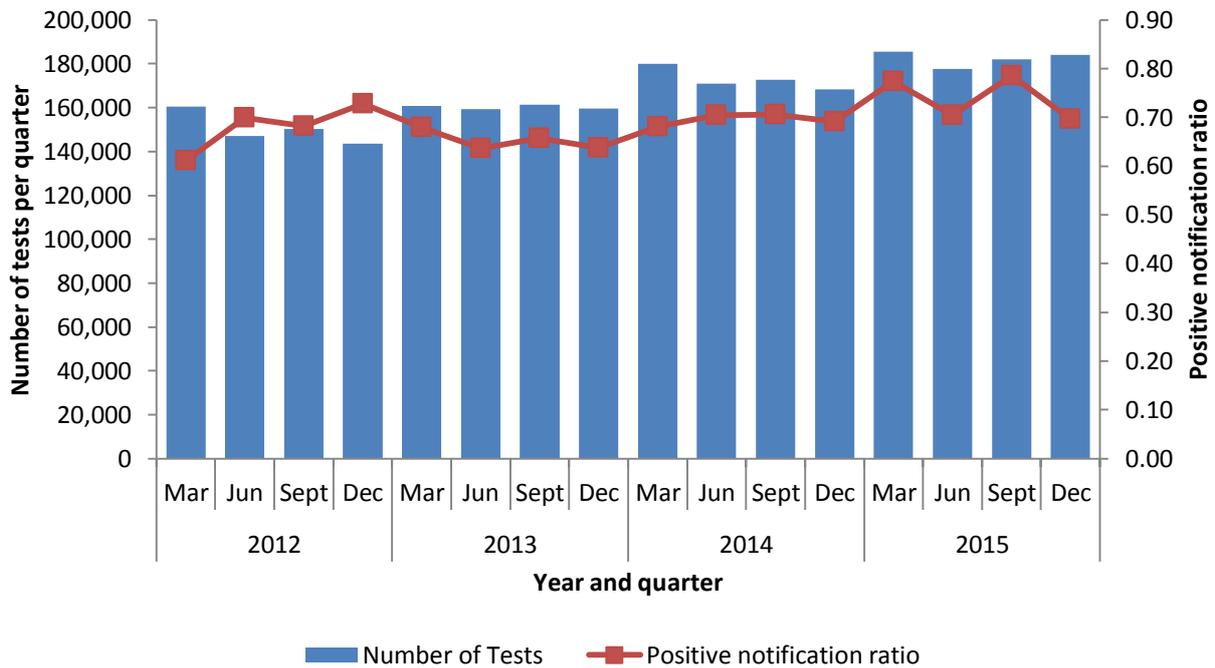
Source: NSW Notifiable Conditions Information Management System (via SAPHaRI)

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. Therefore, the number of people screened for gonorrhoea is likely to affect the number of people diagnosed with this infection. From 2013, NSW has improved access to HIV testing, with concurrent testing for other sexually transmissible infections, for gay and other men who have sex with men. All specimens submitted to a laboratory for chlamydia testing are also tested for gonorrhoea.

Data on the number of gonorrhoea tests done in NSW from January 2012 to December 2015 shows that there has been an increase in the number of tests performed during this period, and that the ratio of notifications to tests done has risen slightly ([Figure 2](#)). This suggests that along with better detection of infections due to increased testing, there may be a small increase in the number of new gonorrhoea infections in NSW over this period.

Figure 2. Gonorrhoea test data with positive notification ratio, by quarter, NSW, January 2012 – December 2016.



Source: NSW Denominator data project, NSW Health.

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. Occasionally the infection can spread via the bloodstream to other parts of the body.

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 the fallopian tubes (known as pelvic inflammatory disease or PID) and this can result in infertility. Infertility can also occur in men if the infection spreads down the urethra into the testes.

Gonorrhoea can be prevented by the use of condoms for vaginal and anal sex and dental dams for oral sex. Gonorrhoea in Australia remains treatable with antibiotics. Sexual partners of cases should be contacted, tested and treated.

Many strains of *Neisseria gonorrhoeae*, both overseas and within Australia, are resistant to a wide range of antibiotics. Of concern is the emergence overseas of some strains of gonococcal bacteria that are highly resistant to the major classes of antibiotics. In Australia, the National Neisseria Network monitors antibiotic resistance in gonococcal bacteria, and this information is used to inform treatment guidelines.

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

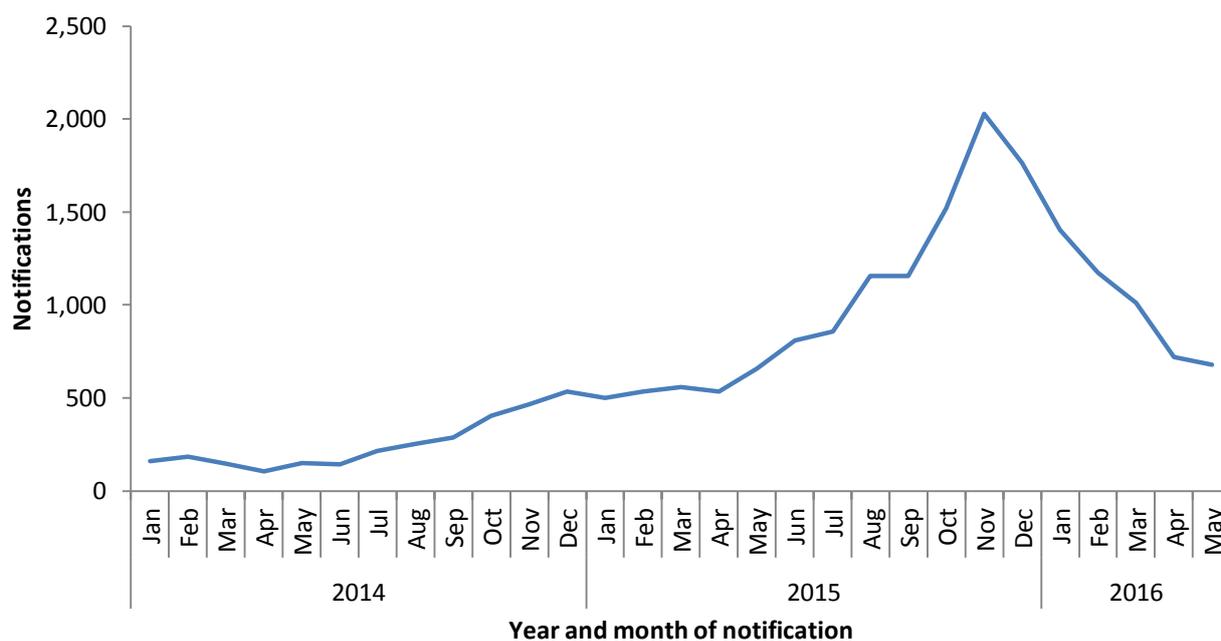
Pertussis

Pertussis notifications in NSW have decreased substantially over the last 6 months, with 678 cases reported for the month of May 2016 ([Figure 3](#)). This compares with 2,027 cases reported in November 2015, which saw a peak after a steady increase in notifications since May 2014. In response to the increasing number of notifications in 2014, the NSW Antenatal Pertussis Vaccination Program commenced in March 2015 to protect infants not old enough to be vaccinated. Health professionals and all NSW schools were provided with information to

encourage early diagnosis and treatment and help reduce the spread of infections in the community. The immunisation schedule was also updated to include an 18-month booster for all children born after 1 October 2014. Although notifications are on the decline, they have not returned to the levels seen before the outbreak, and so it is important that everyone is up to date with their immunisations.

Pertussis, also known as ‘whooping cough’, is a highly contagious bacterial infection affecting the respiratory system which is caused by the bacterium *Bordetella pertussis*. It affects individuals of all ages but is more severe (and can be fatal) in small babies, particularly those too young to be vaccinated or those who are unvaccinated. Elderly people are also at increased risk of developing complications from pertussis.

Figure 3. NSW pertussis notifications for the period January 2014 to May 2016.



Pertussis is a vaccine preventable disease, and is notifiable in NSW. Vaccination against pertussis is recommended for children at 6-8 weeks, 4 and 6 months of age, with a booster at 18 months of age, 4 years of age and in the first year of high school. Boosters are important due to progressive waning of immunity with increasing time since the last dose.

The NSW Antenatal Pertussis Vaccination Program offers free diphtheria, tetanus and pertussis (dTpa – Boostrix®) vaccine to all pregnant women in the third trimester of pregnancy, preferably at 28 weeks gestation. As there is placental transfer of maternal pertussis antibodies to the foetus, infants of mothers vaccinated during pregnancy acquire protective immunity that protects them during the period before they are old enough to be vaccinated at six weeks of age. Boostrix® vaccine is provided free to general practices, Aboriginal Medical Services and antenatal clinics for all pregnant women in the third trimester.

Follow the link for more information about pertussis in [childcare and schools](#).

Follow the link for more information about pertussis [patient management for GPs](#).

Follow the link for more information regarding the [Antenatal Pertussis Vaccination Program](#).

Follow the link for more information regarding [pertussis 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 23 to 29 May 2016, by date received

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	20	20	634	547	225	1038	429
	Giardiasis	75	101	1809	1616	1350	3415	2942
	Hepatitis E	3	0	14	5	12	20	38
	Rotavirus	7	7	206	145	151	1036	714
	Salmonellosis	79	82	2398	2215	2272	4045	4275
	Shigellosis	4	7	125	71	110	172	212
	Typhoid	1	1	25	22	23	41	44
Respiratory Diseases	Influenza	170	137	2932	1784	1178	30302	20888
	Legionellosis	4	4	63	44	35	96	72
	Tuberculosis	8	6	181	163	170	444	475
Sexually Transmissible Infections	Chlamydia	486	469	10677	9308	9657	22549	22900
	Gonorrhoea	121	104	2645	2128	1973	5402	4877
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	10	106	83	144	182	256
	Haemophilus influenzae type b	1	0	3	0	1	5	6
	Meningococcal Disease	1	2	20	13	14	46	37
	Mumps	2	0	11	19	43	63	82
	Pertussis	153	133	4908	2598	772	12079	3051
	Pneumococcal Disease (Invasive)	8	8	147	126	116	494	511
Vector Borne Diseases	Barmah Forest	3	2	19	128	98	185	163
	Dengue	4	6	228	160	197	342	378
	Malaria	2	0	20	19	44	47	87
	Ross River	8	8	295	1205	250	1638	673
Zoonotic Diseases	Psittacosis	1	0	3	1	4	3	13
	Q fever	7	2	99	100	75	265	190

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 other blood-borne virus case reports are not included here but are available from the [Infectious Diseases Data](#) webpage.