

Communicable Diseases Weekly Report

Week 9, 25 February to 3 March 2018

In summary, we report:

- [Legionellosis](#) – three new cases
- [HIV](#) – early stage infections decreasing
- [Listeriosis](#) – one case this reporting week
- [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.

[Legionellosis](#)

There were three notifications of legionellosis (Legionnaires' disease) this reporting week ([Table 1](#)). Two of the case were confirmed to be due to *Legionella pneumophila* serogroup 1 (LP1); one in a man aged in his 50s from South Western Local Health District (LHD), and the other in a man in his 80s who is a resident of South Eastern Sydney LHD. The third case, in a man in his 30s from Sydney LHD, was due to a serogroup of *Legionella pneumophila* not yet specified.

Public health unit staff have carefully interviewed these cases about their illnesses and possible exposures. Where two cases have reported a common exposure, public health unit staff have worked with local councils to review possible sources of infection (such as cooling towers) in the area to assess whether they may have been a risk for infection and, if necessary, require them to be cleaned. No clusters of three or more cases with overlapping exposures in their incubation periods have been identified involving these recent cases.

Legionellosis is a type of pneumonia and the symptoms include fever, chills, cough and shortness of breath. Some people also have muscle aches, headache, tiredness, loss of appetite and diarrhoea. Risk factors for legionellosis include increasing age (most cases are aged over 50 years), smoking, and immunosuppression as a result of chronic medical conditions, cancer or taking high-dose corticosteroid medicines. People with legionellosis often have severe symptoms and infection is associated with a 10 to 15 per cent mortality rate.

Legionellosis is caused by infection with *Legionella* bacteria. There are around 50 different species of *Legionella* bacteria but most infections in NSW are caused by *L. pneumophila* or *L. longbeachae*. *L. pneumophila* is found in water and can contaminate air conditioning cooling towers, spas, plumbing systems and other bodies of warm water. Outbreaks are sometimes associated with contaminated cooling towers that are part of air conditioning systems in large buildings. Regular inspection, disinfection and maintenance of cooling towers and plumbing systems limit the growth of bacteria and prevent outbreaks of Legionnaires' disease.

The NSW *Public Health Act 2010* and the Public Health Regulation 2012 control various man-made environments and systems which are conducive to the growth of *Legionella* bacteria and which are capable, under the right conditions, of transmitting the bacteria to people through the air. To further strengthen the regulation of cooling towers, NSW Health amended the Public Health Regulation to require monthly testing for *Legionella* and total bacteria in all cooling towers from 1 January 2018. Further regulatory changes are being finalised to require that all cooling tower systems have risk management plans and third party auditing.

Follow the links for more information on [Legionnaires' disease](#), on the [regulatory control of Legionnaires' disease](#), and on [notifications of Legionnaires' disease](#).

HIV

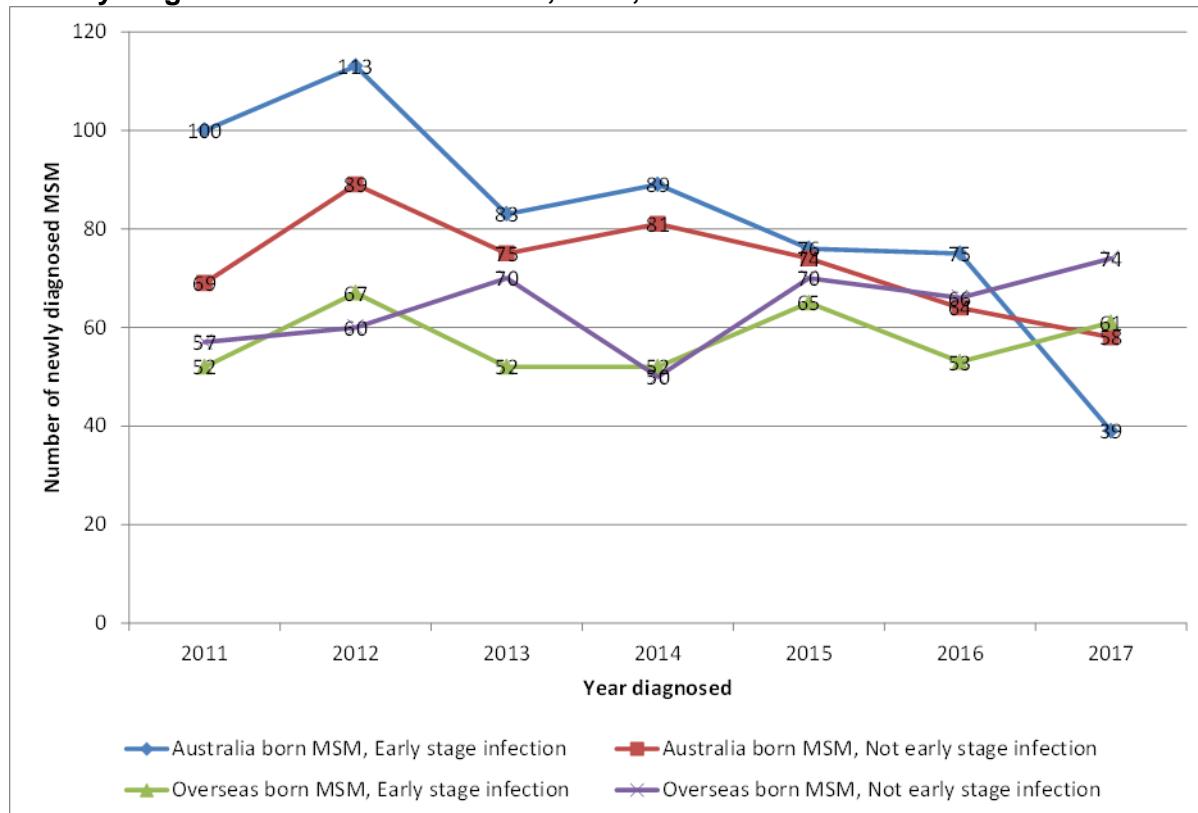
[Reports on progress](#) against the NSW HIV Strategy 2016-2020 are published every three months, and the [Quarter 4 and Annual Data Report 2017](#) report is now available.

In 2017, 11% fewer NSW residents were diagnosed with HIV than the previous six year average (313 versus 351.5). The number of early stage infections (those with evidence that infection occurred in the year prior to diagnosis) decreased by 29% in 2017 compared to the average for the previous six years (114 versus 161).

New diagnoses in men who have sex with men (MSM) in 2017 were 19% less than the previous six year average (232 versus 286.3), but this reduction has occurred only among Australian born MSM. The number of new diagnoses among Australian born MSM in 2017 was 41% less than the previous six year average. The number of diagnoses made in early stage infection in this group was 56% less than the previous six year average (Figure 1). In the setting of continued high levels of HIV testing, this demonstrates a decrease in HIV transmission in Australian born MSM.

Conversely, the number of new diagnoses among overseas born MSM was 13% higher in 2017 compared to the previous six year average; the number of early stage infections was slightly higher in 2017 (61 versus 56.8). In 2017, the number of new diagnoses in overseas born MSM (n=135) exceeded that of Australian born MSM (n=97) for the first time.

Figure 1. Number of new diagnoses in MSM born in Australia versus overseas and evidence of early diagnoses versus no evidence, NSW, 2011-2017



Early stage infection: a sero-conversion like illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or presentation with an AIDS defining illness at diagnosis.

Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 5 February 2018

Sixty-seven people were diagnosed with HIV in 2017 following heterosexual exposure. This is 29% higher than the average number of heterosexual notifications for the previous six years. The increase occurred mainly in Australian born men who had likely acquired HIV outside Australia.

HIV testing in NSW continued to scale up with a 6% increase in HIV serology testing in 2017 compared to 2016 (569,605 versus 536,407). With respect to progress on rapid initiation of antiretroviral therapy (ART) post diagnosis, of all 144 people diagnosed in January to June 2017,

57% initiated ART within four weeks, 77% within six weeks, and 97% within six months of diagnosis.

ART is also effective in preventing HIV-negative people from acquiring the infection. On 1 March 2016, the population level HIV pre-exposure prophylaxis (PrEP) study (EPIC-NSW) commenced in NSW. Since then, to 31 December 2017, 8,206 participants have enrolled. To mid-February 2018, there have been no HIV transmissions reported in people who have continued to take their PrEP medication. Despite an increase in the number of overseas born EPIC-NSW participants in the second half of 2017, this group is still under-represented in the study and more effort is needed to engage them.

The continued increase in HIV notifications among overseas born MSM and heterosexual people who are diagnosed a year or more after they were infected indicates the need to support and encourage these population groups to be tested for HIV. Increasing the availability of testing on dried blood spot samples, where the sample is self-collected and sent to the laboratory in the post, may make testing easier for some in these groups.

Efforts to reduce new HIV infections in the Australian born MSM community must continue, and renewed efforts are needed to increase access to innovative HIV testing, prevention and care services in all groups who are vulnerable to the HIV transmission risk.

A fact-sheet on HIV and many other resources can be found from the [NSW Health Ending HIV landing page](#). More detailed data can be found in the [NSW HIV Strategy 2016-2020 Quarter 4 & Annual 2017 Data Report](#).

Listeriosis

One case of listeriosis was notified in this reporting period ([Table 1](#)). This case was referred to in last week's *Communicable Diseases Weekly Report* ([Week 8](#)). The case was in a woman in her 80s from the Illawarra Shoalhaven LHD.

This case did not report eating rockmelon during her exposure period and is not part of the recent listeriosis outbreak associated with contaminated rockmelon. Her food history included a number of high risk foods including pre-cooked chicken stored at room temperature, and sushi with raw fish.

Listeriosis is a rare illness caused by eating food contaminated with a bacterium called *Listeria monocytogenes*. This bacterium is widespread throughout nature, being commonly carried by many species of both domestic and wild animals.

Eating foods that contain *Listeria* bacteria does not cause illness in most people, but in some higher risk groups can result in severe illness and death. Outbreaks of listeriosis have been associated with the consumption of unpasteurised milk, soft cheeses, pre-prepared salads (for example, from salad bars), unwashed raw vegetables, pâté, cold diced chicken and pre-cut fruit and fruit salad. *Listeria* survives refrigeration but is sensitive to cooking temperatures.

People at increased risk of listeriosis include pregnant women, older people and people with weakened immune systems; for example, people on cancer treatment or corticosteroids, or people with diabetes, kidney disease, liver disease or people living with HIV infection. Listeriosis may be severe in these individuals.

People at increased risk are reminded to avoid all foods that pose a risk of listeriosis, including:

- Pre-cut melons such as rockmelon or watermelon
- Pre-packed cold salads including coleslaw and fresh fruit salad
- Pre-cooked cold chicken, cold delicatessen meats, pâté
- Raw seafood, uncooked smoked seafood (e.g. smoked salmon)
- Unpasteurised milk or milk products, soft cheeses (e.g. brie, camembert, ricotta or blue-vein)
- Sprouted seeds or raw mushrooms.

Fruit and vegetables eaten raw should be thoroughly washed prior to eating to reduce the risk of *listeria* contamination.

For further information on which people are at increased risk of listeriosis and which foods to avoid see the [listeriosis fact sheet](#) and the NSW Food Authority [Food safety during pregnancy](#) brochure.

Follow the link for further NSW Health [listeriosis data](#).

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 25 February to 3 March 2018, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Enteric Diseases	Cryptosporidiosis	34	28	186	476	230	1266	1184
	Giardiasis	68	74	535	732	822	2994	3480
	Hepatitis A	6	0	21	8	11	72	41
	Listeriosis	1	1	15	4	8	20	36
	Rotavirus	17	28	193	141	127	2318	750
	Salmonellosis	84	87	832	1051	1307	3687	4544
	Shigellosis	4	5	44	52	54	235	310
	Typhoid	2	1	11	15	16	55	37
Other Diseases	Acute Rheumatic Fever	1	1	2	4	1	19	16
Respiratory Diseases	Influenza	246	297	2459	1541	1070	103862	35540
	Legionellosis	3	5	27	23	14	138	134
	Tuberculosis	3	6	65	81	92	531	534
Sexually Transmissible Infections	Chlamydia	657	756	5389	5464	4656	28978	25992
	Gonorrhoea	192	220	1873	1828	1138	9196	7002
Vaccine Preventable Diseases	Adverse Event Following Immunisation	6	1	16	43	32	269	258
	Meningococcal Disease	3	2	11	12	9	91	70
	Mumps	1	1	20	20	7	128	67
	Pertussis	80	80	691	1240	2783	5367	10956
	Pneumococcal Disease (Invasive)	8	9	63	64	46	683	545
Vector Borne Diseases	Barmah Forest	2	1	13	18	11	127	40
	Dengue	3	4	75	75	86	306	485
	Malaria	6	1	15	13	9	68	59
	Ross River	8	15	69	785	107	1653	594
Zoonotic Diseases	Leptospirosis	1	1	2	4	4	20	16
	Q fever	1	0	36	48	47	210	231

* 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.