

Communicable Diseases Weekly Report

Week 9, 26 February to 4 March 2017

In summary, we report:

- [HIV](#) – 2016 report released
- [Legionella](#) – 4 new notifications
- [Summary of notifiable conditions activity in NSW](#)

For further information on infectious diseases on-line see [NSW Health Infectious Diseases](#).

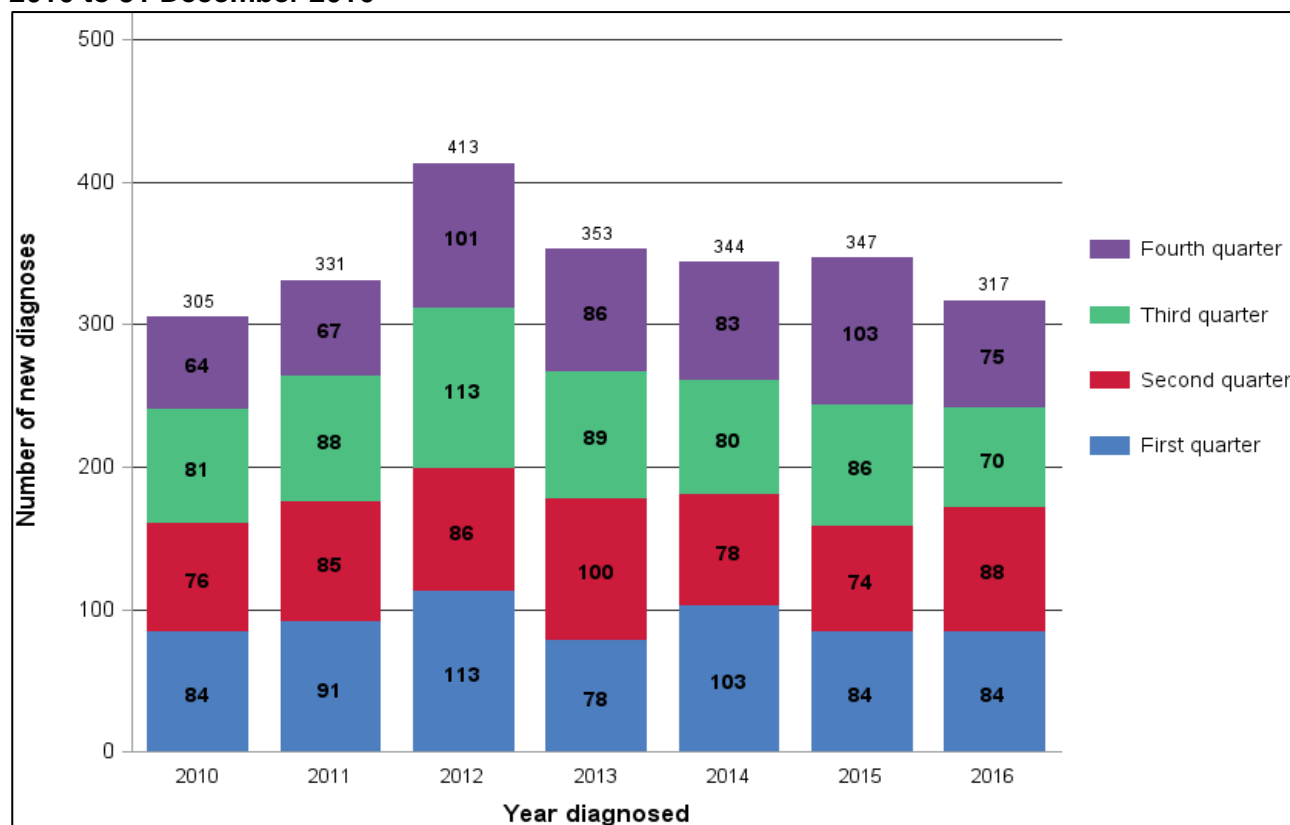
Also see [NSW Health Infectious Diseases Reports](#) for links to other surveillance reports.

HIV

The NSW HIV Strategy 2016 – 2020 [Quarter 4 & Annual 2016 Data Report](#) is now available. Online publication of the report was accompanied by a [media release](#) issued on 4 March 2017.

In 2016 there were 317 NSW residents notified with newly diagnosed HIV infection (Figure 1), 9 per cent (%) fewer than the previous six year annual average (n=349). Among the 317 new diagnoses in 2016, 259 (82%) reported being men who have sex with men (MSM), 8% less than the average annual new diagnoses count for MSM in 2010-2015 (n=282). In the fourth quarter of 2016, 75 NSW residents were newly diagnosed, 11% fewer than the average for quarter 4 in 2010-2015 (n=84). Of 75 new diagnoses in quarter 4 2016, 76% (n=57) reported being MSM, 14% less than the average new diagnoses count in MSM in quarter 4 in 2010-2015 (n=66).

Figure 1: Number of NSW residents notified with newly diagnosed HIV infection, 1 January 2010 to 31 December 2016



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 February 2017

2016 had the lowest age and sex standardised population rate of new diagnoses in NSW on record at 4.30 new diagnoses per 100,000 population, with 2010 having the next lowest rate of 4.39 per 100,000 population.

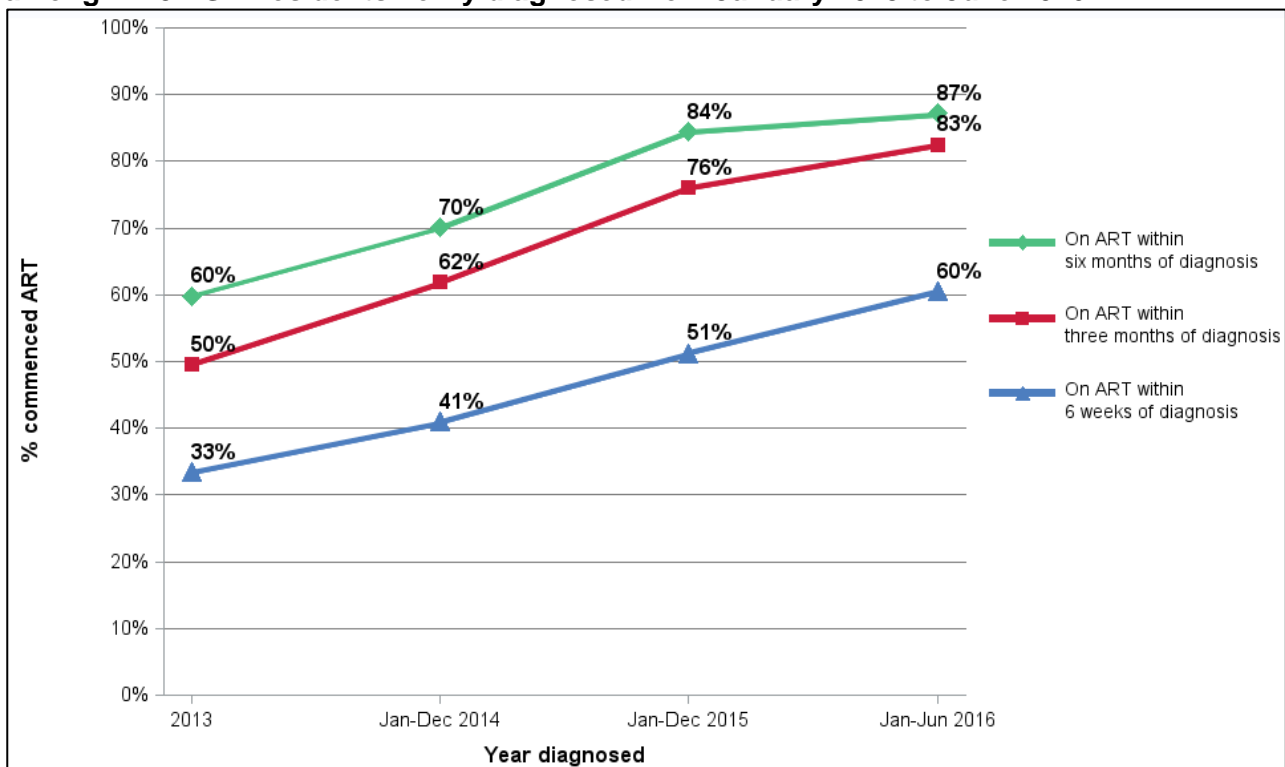
Of 317 the people newly diagnosed in 2016, 3.2% (n=10) were reported to be Aboriginal or Torres Strait Islander people; this is a slightly higher proportion than previous years (2.2% of new diagnoses 2010-2015) and is being monitored closely.

With respect to local health district (LHD) of residence at diagnosis in 2016, for the first time the new diagnoses count in Sydney LHD (n=93) exceeded that of South-Eastern Sydney (SES) LHD (n=83).

Of 259 MSM newly diagnosed in 2016, 50% (n=130) had evidence that they had acquired their HIV infection within 12 months of being diagnosed compared with 52% (av. n=147) of MSM newly diagnosed in 2010-2015, while 17% (n=44) had evidence of advanced stage infection, compared with 12% (av. n=35) of MSM newly diagnosed in 2010-2015.

Early antiretroviral treatment (ART) initiation is a key action of the NSW HIV Strategy as ART greatly reduces the risk of HIV transmission to others. Since 2013, increasing proportions of people newly diagnosed in NSW have commenced ART within 6 weeks of diagnosis. Of 1216 NSW residents newly diagnosed with HIV infection from 1 January 2013 to 30 June 2016, 44% (n=541) had commenced ART within six weeks of diagnosis. This comprises 33% of 353 people newly diagnosed in 2013, 41% of 344 diagnosed in 2014, 51% of 347 diagnosed in 2015 and 60% of 172 diagnosed January to June 2016 (Figure 2). The latest available six months post diagnosis follow up data are for 88 people newly diagnosed in quarter 2 2016, of whom 64% (n=56) had commenced ART within six weeks.

Figure 2: ART commencement status at six weeks, three and six months post diagnosis, among 1215 NSW residents newly diagnosed from January 2013 to June 2016



Data source: Notifiable Conditions Information Management System, Health Protection NSW, extracted 7 February 2017

HIV testing has continued to increase with 536,444 HIV serology tests performed in 15 laboratories in NSW in 2016, which was 7%, 15%, 20% and 28% greater than in 2015, 2014, 2013 and 2012 respectively.

ART is also effective in preventing HIV acquisition. On 1 March 2016, the population level HIV pre-exposure prophylaxis (PrEP) impact study (EPIC-NSW) commenced in NSW. By 31 December 2016, 4385 people at high risk of HIV infection were enrolled in the study.

The fall in the number of new notifications in 2016, in the context of continuing increases in HIV testing particularly among high risk groups, is reassuring and suggests that HIV transmission may be declining. Earlier diagnosis through more frequent testing, higher treatment coverage and the scale up of HIV PrEP should all be contributing to preventing HIV transmission.

However, 50% of new HIV diagnoses among gay and bisexual men continue to be made at an early stage of infection, emphasising the importance of strengthening efforts to increase PrEP provision in people at high risk of HIV.

More detailed data can be found in the NSW HIV Strategy 2016 – 2020 [Quarter 4 & Annual 2016 Data Report](#).

Legionella

There were four notifications of *Legionella pneumophila* in this reporting week (Table 1).

Cases were aged between 50 and 80 years, three cases were males. Most reported having a significant underlying health condition or other risk factor for *Legionella* infection, such as smoking. All of the cases required hospitalisation. Two cases reported exposures outside NSW, the remaining cases did not have any common exposure sites.

When Legionnaires' disease cases are identified, NSW Health public health unit staff interview patients and their families about their illness and possible exposures, including all locations where they travelled, worked, stayed or visited during the two to 10 days before the onset of illness. These locations are then mapped and compared closely with the exposures reported by other patients who have recently been diagnosed with Legionnaires' disease.

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*.

Legionellosis is not spread from person to person, but can occur from inhaling contaminated water aerosols or dust. *L. longbeachae* is found in potting mix, compost and soils and infection is associated with gardening and the use of potting mix. To prevent legionellosis it is recommended that people handling potting mix wet the mix beforehand to reduce dust, wear gloves and a mask, and wash their hands after handling potting mix or soil.

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 legionellosis.

Follow the link for more information on the [regulatory control of Legionnaires' disease](#).

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

Summary of notifiable conditions activity in NSW

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

Table 2. NSW Notifiable conditions from 26 February to 4 March 2017, by date received*

| | | Weekly | | Year to date | | | Full Year | |
|-----------------------------------|--------------------------------------|-----------|-----------|--------------|------|------|-----------|-------|
| | | This week | Last week | 2017 | 2016 | 2015 | 2016 | 2015 |
| Enteric Diseases | Cryptosporidiosis | 89 | 88 | 475 | 230 | 242 | 1184 | 1040 |
| | Giardiasis | 89 | 91 | 717 | 822 | 757 | 3481 | 3413 |
| | Hepatitis A | 1 | 0 | 8 | 11 | 27 | 41 | 72 |
| | Hepatitis E | 1 | 0 | 4 | 9 | 2 | 16 | 20 |
| | Listeriosis | 2 | 0 | 4 | 8 | 6 | 36 | 26 |
| | Rotavirus | 10 | 10 | 133 | 127 | 84 | 746 | 1033 |
| | Salmonellosis | 125 | 126 | 1043 | 1307 | 1214 | 4543 | 4022 |
| | Shigellosis | 3 | 3 | 53 | 53 | 44 | 309 | 172 |
| Respiratory Diseases | Influenza | 158 | 173 | 1535 | 1071 | 711 | 35537 | 30301 |
| | Legionellosis | 4 | 4 | 23 | 13 | 19 | 133 | 96 |
| | Tuberculosis | 6 | 6 | 72 | 92 | 68 | 535 | 444 |
| Sexually Transmissible Infections | Chlamydia | 578 | 558 | 5310 | 4661 | 4371 | 25999 | 22547 |
| | Gonorrhoea | 230 | 181 | 1807 | 1140 | 1024 | 7010 | 5399 |
| | LGV | 1 | 0 | 2 | 6 | 6 | 57 | 20 |
| Vaccine Preventable Diseases | Adverse Event Following Immunisation | 10 | 11 | 42 | 32 | 34 | 253 | 186 |
| | Haemophilus influenzae type b | 1 | 0 | 2 | 0 | 0 | 5 | 5 |
| | Meningococcal Disease | 2 | 1 | 13 | 9 | 6 | 76 | 47 |
| | Mumps | 2 | 3 | 19 | 6 | 12 | 65 | 65 |
| | Pertussis | 124 | 125 | 1233 | 2783 | 1114 | 10956 | 12079 |
| | Pneumococcal Disease (Invasive) | 9 | 7 | 63 | 46 | 43 | 543 | 494 |
| Vector Borne Diseases | Barmah Forest | 4 | 0 | 15 | 10 | 33 | 35 | 184 |
| | Dengue | 5 | 5 | 71 | 85 | 94 | 481 | 344 |
| | Malaria | 1 | 1 | 13 | 9 | 10 | 59 | 47 |
| | Ross River | 61 | 47 | 713 | 106 | 472 | 541 | 1636 |
| Zoonotic Diseases | Q fever | 3 | 6 | 43 | 47 | 45 | 231 | 264 |

* 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.