Communicable Diseases Weekly Report

Week 50,   8 December to 14 December 2019

In summary, we report:

- Measles – second case linked to the Pacific Islands
- HIV – quarter 3 data report available
- 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

One new case of measles was notified in this reporting week (Table 1), in a person with recent travel to the Pacific Islands. Large outbreaks of measles are continuing in Samoa, Tonga, Fiji, American Samoa, and New Zealand.

There have been 57 cases of measles in NSW for the year to 14 December 2019. This is three times the number of cases seen in the same period of 2018, and the highest number of cases since 2014, the year Australia was declared as having eliminated endemic measles.

Measles is a vaccine preventable disease caused by the measles virus. It spreads through the air via droplets produced when an infected person coughs, sneezes, or breathes. It can remain in the air for short periods of time, and is considered the most contagious illness of humans.

Beginning in 2017, there has been an ongoing resurgence of measles worldwide, with a three-fold increase in the number of cases reported to the WHO in 2019 to the end of November compared to the same period in 2018. Significant increases have been seen on all continents and while these increases have been driven in part by large outbreaks in specific countries including Brazil, Venezuela, Ukraine, Madagascar, Democratic Republic of Congo, the Philippines and India, large outbreaks have also occurred in several countries where the disease had previously been eliminated including the United States, United Kingdom, and New Zealand. The current situation is such that travel to any part of the world could place susceptible people at risk of measles.

People planning international travel, or receiving international visitors over the Christmas period are advised to ensure they are fully protected against measles. Two doses of measles vaccine, given in Australia as measles-mumps-rubella (MMR), provides lifelong protection against measles in 99 percent of people.

Symptoms to watch out for include cough, runny nose and sore red eyes, as well as fever. This is followed a few days later by a red, spotty, non-itchy rash which starts on the head and neck and progresses to the rest of the body.

It is important for all people with recent travel to be aware of the symptoms of measles as, while cases among vaccinated people are rare, they can occur; often with a slightly modified illness.

Clinicians are advised to suspect measles in anyone presenting with a fever and maculopapular rash, and consider measles in returned travellers presenting with fever.

Further information

- NSW Health measles homepage for general information about measles (including vaccination) and specific information for travellers and health professionals

- NSW Health measles resources page, including posters for display in waiting rooms (including multiple language options), fact sheets and decision aids.
- NSW Health measles alerts and notification data
- World Health Organization – Measles – Global situation – 27 November 2019
- New Zealand Ministry of Health – Public Health Surveillance Measles reports.
- ReliefWeb – Pacific measles outbreaks – 15 December 2019.

HIV

Reports on progress against the NSW *HIV Strategy 2016-2020* are published every three months. The NSW HIV surveillance Data report - Quarter 3 2019 is now available.

In January to September 2019, 204 NSW residents were notified to NSW Health with newly diagnosed HIV infection (Figure 1), 13% less than the January to September 2014-2018 average of 234.4.

Figure 1: NSW residents with newly diagnosed HIV infection during Jan 2014-Sep 2019
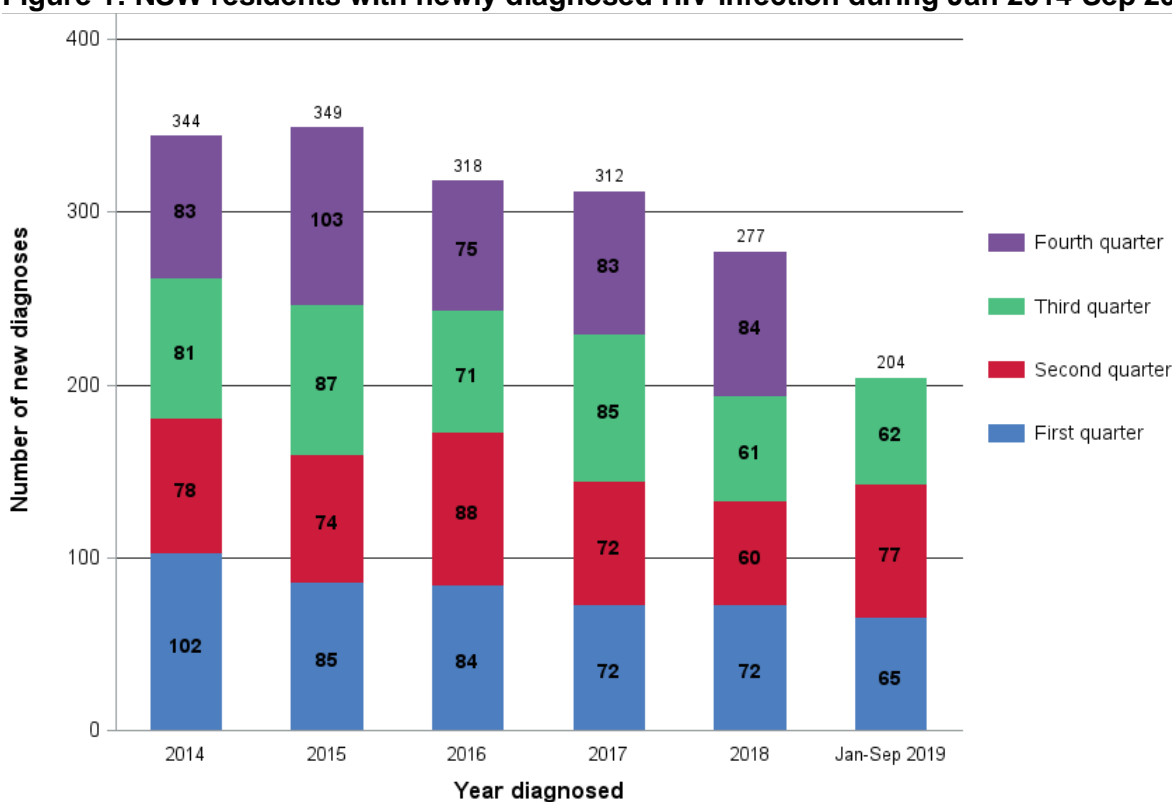
One hundred and fifty-nine (78%) of those newly diagnosed in January to September 2019 were men who have sex with men (MSM) and 37 (18%) were reported to have had heterosexual exposure to HIV. This is 16% fewer MSM and four percent fewer heterosexual people compared to the five year new diagnosis averages for the same period.

Sixty-one (30%) of the new diagnoses in January to September 2019 had evidence that their infection occurred in the 12 months preceding diagnosis (early stage infection), a 37% decrease compared to the January to September average for 2014-2018. This decline in early stage infection was seen in both Australian and overseas-born MSM, with reductions of 38% and 31%, respectively.

There were 100 HIV notifications of overseas-born MSM in January to September 2019, an 8% increase compared to the five year average for the same period. Of these 100, 46 (46%) were diagnosed with late stage infection, an increase of 33% relative to the comparison period. Most of these men were aged between 20 and 40 years, had lived in Australia for four years or less and likely acquired their infection overseas. This emphasises the need to ensure that people arriving from overseas feel comfortable engaging with healthcare and test as soon as possible after arrival in NSW.

HIV testing in NSW has continued to increase with 464,244 serology tests performed during January to September 2019 in 15 laboratories across NSW, 4% more than the same period in 2018 (447,858). However, despite the increase in testing and innovation in access to testing, around two thirds of MSM newly diagnosed in 2019 to 30 September had not had an HIV test in the 12 months prior to their diagnosis.

The time from HIV diagnosis to anti-retroviral treatment (ART) initiation continues to decline, with the median falling to 14 days. Of 65 people newly diagnosed in January to March 2019 now followed up six months post diagnosis, 51% initiated ART within two weeks, 89% within 6 weeks and 97% within 6 months of diagnosis (Figure 2). Of those on ART by 6 months, 95% had an undetectable viral load. The risk of sexual HIV transmission from those with an undetectable viral load is effectively zero.

Figure 2: Time to ART for NSW residents newly diagnosed from Jan 2013-Mar 2019
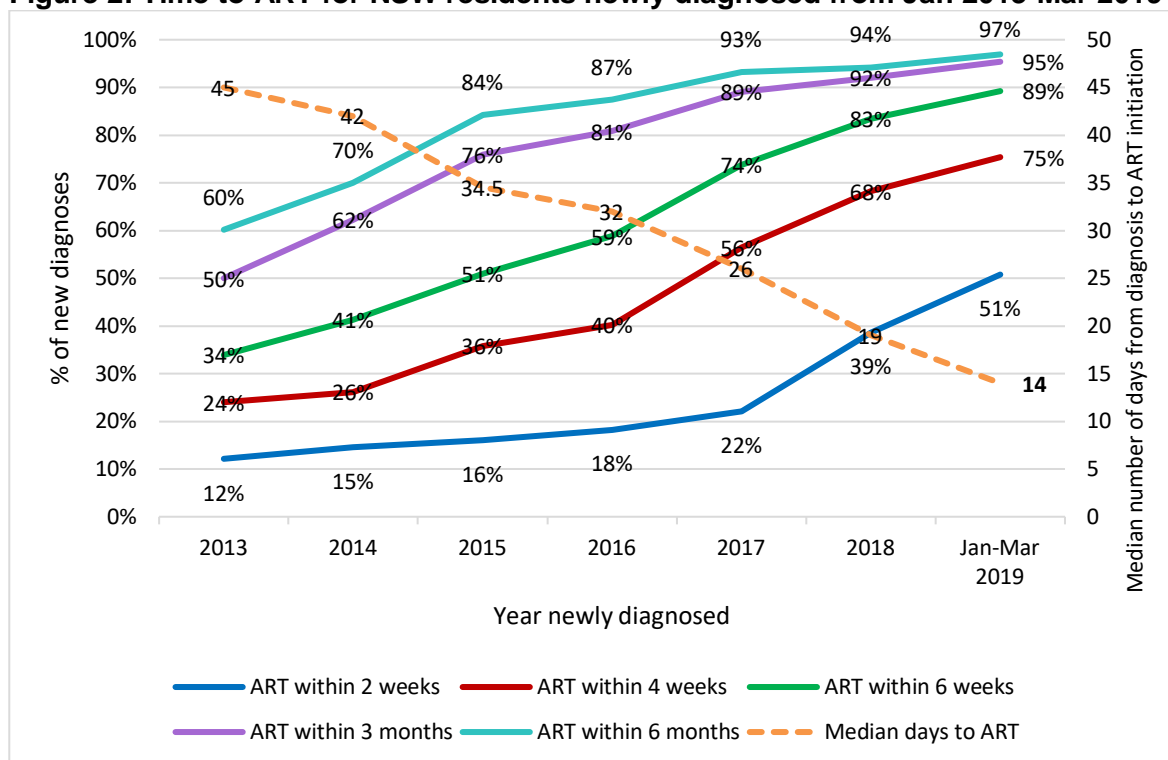
The continued decline in HIV notifications of early stage infections in the context of high HIV testing and treatment rates, and high uptake of pre-exposure prophylaxis (PrEP), suggests that HIV transmission in NSW is decreasing. This reflects the joint efforts of all NSW partners in the HIV response.

NSW continues to focus on reducing infections in diverse groups by raising HIV awareness, encouraging testing and making healthcare more accessible. One such initiative is the Dried Blood Spot (DBS) program, which provides a mail ordered self-sample test without the need to visit a doctor. The DBS pilot has been successful so far, with 44% of those who registered for a DBS test between November 2016 and September 2019 never previously tested or tested more than two years ago.

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 8 December – 14 December 2019, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2019	2018	2017	2018	2017
Bloodborne	Hepatitis C - Newly Acquired	1	1	27	36	40	38	40
Enteric Diseases	Cryptosporidiosis	26	29	639	694	1249	708	1266
	Giardiasis	53	70	3184	2860	3057	2937	3134
	Paratyphoid	1	0	38	32	17	34	17
	Rotavirus	85	81	1555	793	2286	808	2319
	STEC/VTEC	2	4	74	57	48	57	52
	Salmonellosis	73	63	3414	3192	3575	3337	3678
	Shigellosis	16	19	835	508	228	531	236
Respiratory Diseases	Influenza	279	253	115757	17005	103672	17409	103840
	Legionellosis	2	3	147	164	133	171	138
	Tuberculosis	7	12	566	489	523	508	544
Sexually Transmissible Infections	Chlamydia	535	702	31121	30266	28118	31181	28986
	Gonorrhoea	204	199	11242	10303	8842	10610	9149
	LGV	2	0	63	82	49	85	50
Vaccine Preventable Diseases	Measles	1	1	58	17	32	18	32
	Meningococcal Disease	1	1	58	70	90	72	91
	Mumps	2	1	54	69	123	72	127
	Pertussis	170	125	6173	5982	5243	6280	5363
	Pneumococcal Disease (Invasive)	15	13	668	663	671	681	682
Vector Borne Diseases	Barmah Forest	1	0	62	72	125	74	127
	Chikungunya	2	0	28	13	47	13	47
	Dengue	3	8	441	292	297	299	306
	Malaria	1	1	68	65	68	66	68
	Ross River	3	5	564	559	1641	571	1653
Zoonotic Diseases	Q fever	3	4	237	227	204	228	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, the HIV Surveillance Data Reports and the Hepatitis B and C Strategies Data Reports webpages.
- Notification is dependent on a diagnosis being made by a doctor, hospital or laboratory. Changes in awareness and testing patterns influence the proportion of patients with a particular infection that is diagnosed and notified over time, especially if the infection causes non-specific symptoms.