

Communicable Diseases Weekly Report

Week 21, 19 May to 25 May 2019

In summary, we report:

- [HIV](#) – Quarter 1 2019 data report available
- [Shiga toxinogenic Escherichia coli and haemolytic uraemic syndrome](#) – new cases
- [Summary of notifiable conditions activity in NSW](#)

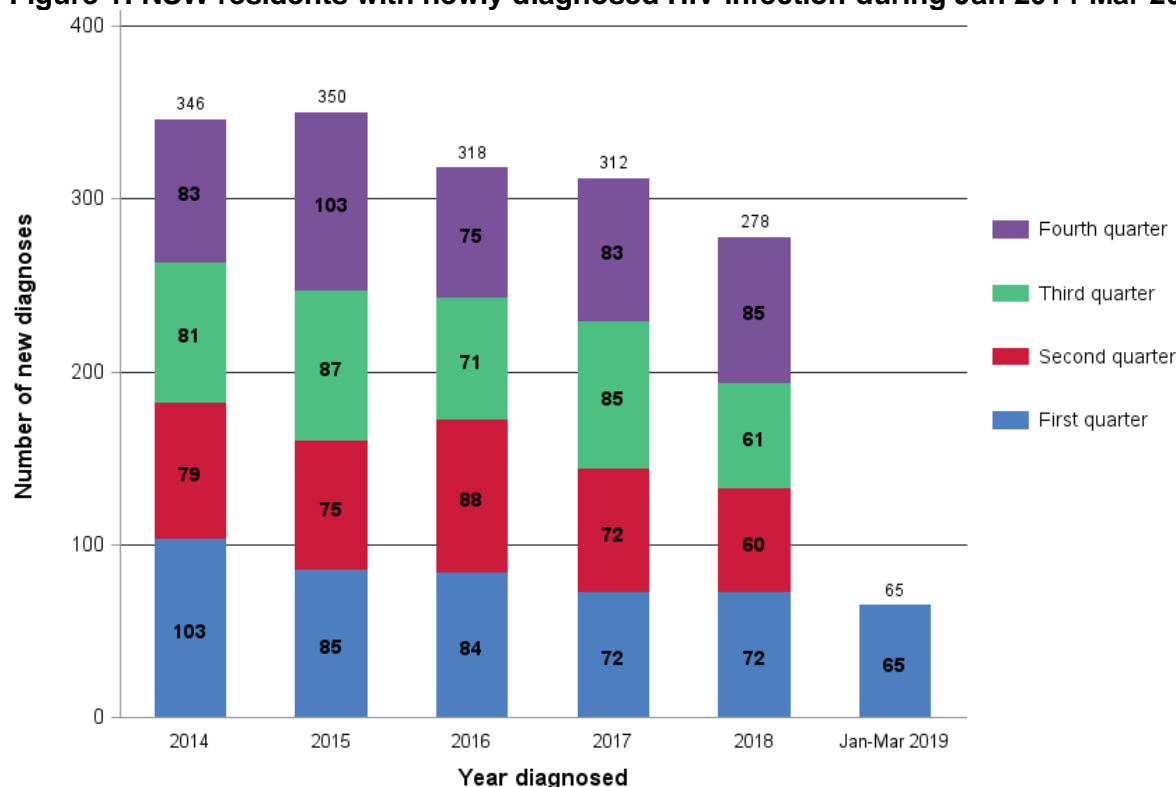
For further information see NSW Health [infectious diseases page](#). This includes links to other NSW Health [infectious disease surveillance reports](#) and a [diseases data page](#) for a range of notifiable infectious diseases.

HIV

[Reports on progress](#) against the NSW *HIV Strategy 2016-2020* are published every three months. The NSW HIV surveillance [Data report - Quarter 1 2019](#) is now available.

In January to March (Q1) 2019, 65 NSW residents were notified to NSW Health with newly diagnosed HIV infection (Figure 1), 22% fewer than the Q1 2014-2018 average of 83.2

Figure 1: NSW residents with newly diagnosed HIV infection during Jan 2014-Mar 2019



Fifty-two (80%) of those newly diagnosed in 2018 were men who have sex with men (MSM) and 10 (15%) were reported to have had heterosexual exposure to HIV. This is 22% fewer MSM, and 24% fewer heterosexual people compared to the new diagnosis averages of Q1 2014-2018.

The differences in trends of the number of new diagnoses of Australian and overseas born MSM in Q1 2019 continue to reflect a divergent epidemic. Seventeen (33%) MSM newly diagnosed in Q1

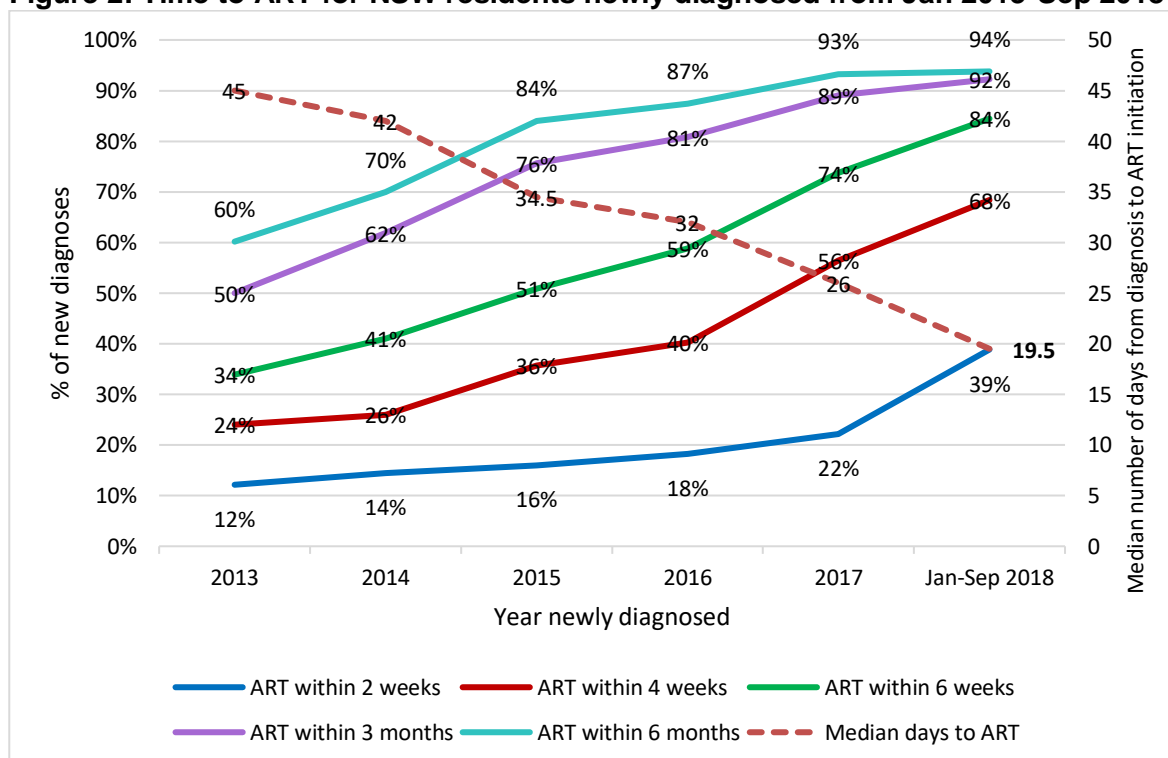
2019 were born in Australia, a 48% reduction compared to Q1 2014-2018; this is the lowest number in any quarter since 1985. Thirty-five (67%) were born overseas, an increase of 4% compared to the Q1 2014-2018 average of 33.8.

Fifteen (43%) overseas-born MSM had evidence of late or advanced stage infection, 60% higher than Q1 2014-2018. Most of these men were younger, between 20 and 40 years old, which emphasises the need to ensure that this group feels comfortable engaging with healthcare and tests regularly.

HIV testing in NSW has continued to increase with 159,694 serology tests performed during Q1 2019 in 15 laboratories across NSW, 2% more than Q1 2018 (156,486). However, despite the increase in testing and innovation in access to testing, over two thirds of MSM newly diagnosed in Q1 2019 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 19.5 days for those diagnosed in January to September 2018. Of 193 people newly diagnosed in this period and so now followed up six months post diagnosis, 39% initiated ART within two weeks, 84% within 6 weeks and 94% within 6 months of diagnosis (Figure 2). Of those on ART by 6 months, 88% had an undetectable viral load, which means they can no longer transmit HIV to others.

Figure 2: Time to ART for NSW residents newly diagnosed from Jan 2013-Sep 2018



The continued decline in HIV notifications in the context of high HIV testing rates suggests that HIV transmission in NSW is decreasing. This is consistent with the high treatment rate and high uptake of pre-exposure prophylaxis (PrEP). These indicators reflect 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 and encouraging testing. The ‘Discreet life’ campaign that targets men who travel overseas for sex and MSM who identify as heterosexual is one such platform, encouraging these men to test more frequently and raise their understanding of effective prevention measures.

Shiga toxigenic *Escherichia coli* and haemolytic uraemic syndrome

Two cases of Shiga toxigenic *Escherichia coli* (STEC) infection were notified in this reporting week (Table 1). One case was in a man in his sixties from metropolitan Sydney who was reported to have consumed raw meat and raw offal at a family function prior to his illness. The man also developed

Salmonella Bovismorbificans and *Campylobacter* infection likely from the high risk foods served at this same event. He has since recovered.

The second case was in a woman in her sixties from regional NSW who was reported to have consumed unpasteurised cow's milk from her family property prior to her illness. The woman subsequently developed haemolytic uraemic syndrome (HUS), a known complication of STEC infections, and unfortunately passed away due to her illness.

Escherichia coli (*E. coli*) are bacteria commonly found in the gastrointestinal tract of people and animals. Many types of *E. coli* are harmless but some can produce toxins, called Shiga toxins, which can result in severe disease in humans. STEC strains are carried by animals, particularly cattle, without signs of illness.

People are infected when they come into contact with the faeces of an infected animal or person, either directly or indirectly through consuming contaminated food (for example, undercooked hamburgers, unwashed salad vegetables, unpasteurised milk or milk products), drinking or swimming in contaminated water, person-to-person contact, or contact with animals on farms or petting zoos.

STEC infection causes a diarrhoeal illness, often with abdominal cramps, nausea and vomiting. The Shiga toxin may cause bleeding in the bowel so people with STEC gastroenteritis often have bloody diarrhoea. Haemolytic uraemic syndrome (HUS) is a severe and sometimes life-threatening illness characterised by haemolytic anaemia (a type of anaemia where the red blood cells break up), acute kidney failure (uraemia), and a low platelet count which makes bleeding more likely. Children with STEC infections are more likely to develop HUS than adults.

STEC infections may be prevented by safe food handling and food storage, and good hand hygiene. This includes:

- washing your hands thoroughly with running water and soap before eating and preparing food, after touching pets, farm animals, their enclosures or feeding containers, and after using the toilet or changing nappies;
- only using clean knives and cutting boards when preparing ready-to-eat foods;
- thoroughly cooking all foods made from minced meat (e.g. hamburger patties and sausages) or internal organs (offal);
- washing all fruit and vegetables before eating; and
- not eating or drinking unpasteurised dairy products.

For further information on personal hygiene and petting zoos see the [NSW Health fact sheet](#).

For further information see the [STEC and HUS fact sheet](#) and [STEC notification data page](#).

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 19 May 2019 – 25 May 2019, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2019	2018	2017	2018	2017
Enteric Diseases	Cryptosporidiosis	7	13	371	403	967	708	1266
	Giardiasis	61	57	1488	1312	1616	2937	3135
	Haemolytic Uremic Syndrome	1	0	3	2	2	4	2
	Rotavirus	9	16	249	390	276	808	2319
	STEC/VTEC	2	1	30	25	26	57	53
	Salmonellosis	60	65	1885	1715	2118	3342	3681
	Shigellosis	16	27	370	92	83	531	236
	Typhoid	1	3	36	30	34	58	55
Respiratory Diseases	Influenza	1911	1314	15448	4199	3691	17423	103852
	Legionellosis	3	1	74	69	50	171	138
	Tuberculosis	19	9	228	192	192	510	542
Sexually Transmissible Infections	Chlamydia	622	598	13025	13089	12294	31197	29005
	Gonorrhoea	213	262	4801	4363	4008	10622	9160
Vaccine Preventable Diseases	Meningococcal Disease	1	1	12	26	27	72	91
	Mumps	2	0	22	37	61	72	127
	Pertussis	133	105	2524	1585	2537	6281	5366
	Pneumococcal Disease	15	9	173	161	153	686	683
Vector Borne Diseases	Barmah Forest	3	2	33	38	46	74	127
	Dengue	17	8	185	135	143	299	306
	Malaria	1	1	25	23	30	66	68
	Ross River	19	19	316	266	1273	570	1653
Zoonotic Diseases	Psittacosis	1	0	4	4	6	7	9
	Q fever	1	2	112	76	93	227	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](#) and the [HIV Surveillance Data Reports](#) webpages.