

Communicable Diseases Weekly Report

Week 10, 4 March to 10 March 2018

In summary, we report:

- [Shiga Toxigenic *Escherichia coli* infection and Haemolytic Uremic Syndrome](#) – 1 new case
- [NSW STI Strategy 2016-2020: January to June 2017](#) – STI data update
- [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.

Shiga Toxigenic *Escherichia coli* and Haemolytic Uremic Syndrome

One case of Shiga Toxigenic *Escherichia coli* (STEC) infection was notified in this reporting week, a man in his sixties from the Sydney metropolitan area (Table 1). The man subsequently developed haemolytic uraemic syndrome (HUS), a known complication of STEC infections. The man had no apparent high risk exposures such as animal, raw meat or rural exposures.

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 (hence the acronym STEC), which can result in severe disease in humans. STEC strains are carried by animals, particularly cattle.

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 (e.g. 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.

STEC infections are also one cause of haemolytic uraemic syndrome (HUS), 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 (thrombocytopenia). 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 and farm animals, 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);
- washing all fruit and vegetables before eating; and
- not eating or drinking unpasteurised dairy products.

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

NSW STI Strategy 2016-2020: January to June 2017

Sexually transmissible infections (STIs) remain a significant public health burden in NSW. [The NSW Sexually Transmissible Infections Strategy 2016-2020](#) provides a framework to respond to changes in STI epidemiology across NSW. The Strategy outlines four goals:

1. Reduce gonorrhoea and syphilis infections and reduce the burden of disease of chlamydia infection
2. Sustain the low rates of STIs amongst sex workers
3. Sustain the virtual elimination of congenital syphilis
4. Maintain high coverage of HPV vaccination.

The [NSW Sexually Transmissible Infections Strategy 2016-2020: January to June 2017 Data Report](#) is now available. These data reports form the primary mechanism for reporting progress against the Strategy's targets (Table 1).

Table 1. Key STI data to 30 June 2017

<i>Reduce gonorrhoea infections</i>				
		Jan-June 2017	Change since 2016	
Gonorrhoea notification rate		120 per 100,000 population (annualised)	33% higher (90 per 100,000 population)	
Number of tests		450,553	7.6% higher than Jan-Jun 2016 (418,631)	
<i>Reduce infectious syphilis infections</i>				
		Jan-June 2017	Change since 2016	
Infectious syphilis notification rate		12.9 per 100,000 population (annualised)	16% higher (11.1 per 100,000 population)	
<i>Reduce pelvic inflammatory disease (PID) associated with chlamydia: Hospitalisations</i>				
		2016	Change since 2015	
Hospital admissions for chlamydia associated PID		225	11.4% higher (202)	
<i>Reduce pelvic inflammatory disease (PID) associated with chlamydia: Chlamydia notifications</i>				
		Jan-June 2017	Change since 2016	
Chlamydia notification rate		387 per 100,000 population (annualised)	15% higher (337 per 100,000 population)	
Number of tests		301,330	8.5% higher than Jan-Jun 2016 (277,747)	
<i>Maintain levels of condom use for preventing the transmission of STIs</i>				
		2017	Change since 2016	
Proportion reporting condomless intercourse with casual partners	Men who have sex with men	69%	Increased by 12 per cent (57%)	
	Young people aged 15-29 years	17.6%	Increased by 1 per cent (16.6%)	
<i>Increase comprehensive STI testing in priority populations in accordance with risk</i>				
		Jan-June 2017	Change since Jan-June 2016	
Comprehensive STI testing rates	Men who have sex with men	PFSHSs ¹	87%	Increased by 1 per cent (86%)
		GP ²	77%	Increased by 3 per cent (74%)
	Young people		27%	Increased by 2 per cent (25%)
	Female sex workers		91%	Increased by 2 per cent (89%)

¹ PFSHSs: Publicly funded sexual health services.

² GP: General practice.

In summary, from January to June 2017:

Gonorrhoea

- The annualised gonorrhoea notification rate was 120 notifications per 100,000 population, 33% higher compared to the full year of 2016 (90 per 100,000 population). The highest age-specific rates continue to occur in the 25-29 years age group; however the largest relative rate increases occurred in the 15-19 years and 50-59 years age groups compared with the full year of 2016.
- The annualised gender specific gonorrhoea notification rate for males in the first six months of 2017 was 200 per 100,000 males, a 34% increase compared to the full year of 2016. The annualised female gender specific rate in the first half of 2017 was 39 per 100,000 females, an 18% increase compared to the full year of 2016.

Chlamydia

- The annualised chlamydia notification rate was 387 notifications per 100,000 population, 15% higher than the rate for the full year of 2016 (337 per 100,000). The highest age-specific rates of chlamydia notifications continue to occur in people 20-24 years of age.
- The annualised chlamydia notification rate was higher in males than females (403 per 100,000 males compared to 354 per 100,000 females). This was due to a 19% increase in the rate in males compared with a 5% increase in the rate in females.

Infectious syphilis

- The annualised infectious syphilis notification rate was 12.9 per 100,000 population, 16% higher than the rate for the full year of 2016 (11.1 per 100,000 population). Between January and June 2017, 95% of infectious syphilis notifications were in males.
- Males notified with infectious syphilis were most commonly 25-39 years of age. Most men reported acquiring syphilis via male-to-male sex.

The NSW STI Programs Unit and ACON will continue to intensify efforts to promote condom use amongst gay and bisexual men and young people, respectively. Targeted strategies are being implemented to improve comprehensive STI testing among priority populations, including communications and education for GPs to incorporate STI screening and treatment as part of routine care. Further efforts are also being prioritised to increase the rate of testing and re-testing following treatment for gonorrhoea and chlamydia, in accordance with STI testing guidelines.

More detailed data can be found in the [NSW Sexually Transmissible Infections Strategy 2016-2020 January to June 2017 Data Report](#).

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 4 March – 10 March 2018, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Enteric Diseases	Cryptosporidiosis	31	34	217	567	261	1266	1184
	Giardiasis	66	68	601	808	926	2994	3480
	Haemolytic Uremic Syndrome	1	0	1	0	2	2	4
	Hepatitis A	3	6	24	9	11	72	41
	Hepatitis E	1	0	1	4	9	20	16
	Rotavirus	9	20	205	148	136	2318	750
	STEC/VTEC	1	0	12	14	14	53	65
	Salmonellosis	98	84	931	1140	1423	3687	4544
	Shigellosis	1	4	43	52	64	235	310
	Typhoid	2	2	13	20	19	55	37
Other Diseases	Acute Rheumatic Fever	1	1	3	4	1	19	16
Respiratory Diseases	Influenza	248	249	2710	1696	1230	103851	35540
	Legionellosis	3	5	31	27	18	138	134
	Tuberculosis	6	3	71	93	98	532	534
Sexually Transmissible Infections	Chlamydia	640	690	6178	6071	5158	28976	25991
	Gonorrhoea	178	192	2035	2013	1269	9173	7000
Vaccine Preventable Diseases	Adverse Event Following Immunisation	6	6	22	46	41	269	258
	Pertussis	58	83	752	1348	3014	5367	10956
	Pneumococcal Disease (Invasive)	3	9	67	70	52	682	545
Vector Borne Diseases	Barmah Forest	3	2	16	18	11	127	40
	Chikungunya	1	0	3	4	6	47	39
	Dengue	6	3	81	86	93	306	485
	Ross River	19	9	89	833	133	1653	594
Zoonotic Diseases	Q fever	4	1	40	52	51	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.