Communicable Diseases Weekly Report

Epi-Week 6 3 February 2014 – 9 February 2014

In summary, we report:

- **Shigellosis** – continuing increased activity
- **Australian bat lyssavirus** – two bats recently tested positive
- **Middle East respiratory syndrome coronavirus** - update
- **Summary of notifiable conditions activity in NSW**

For further information on infectious diseases and alerts see the Infectious Diseases webpage.

Follow the A to Z of Infectious Diseases link for more information on specific diseases.

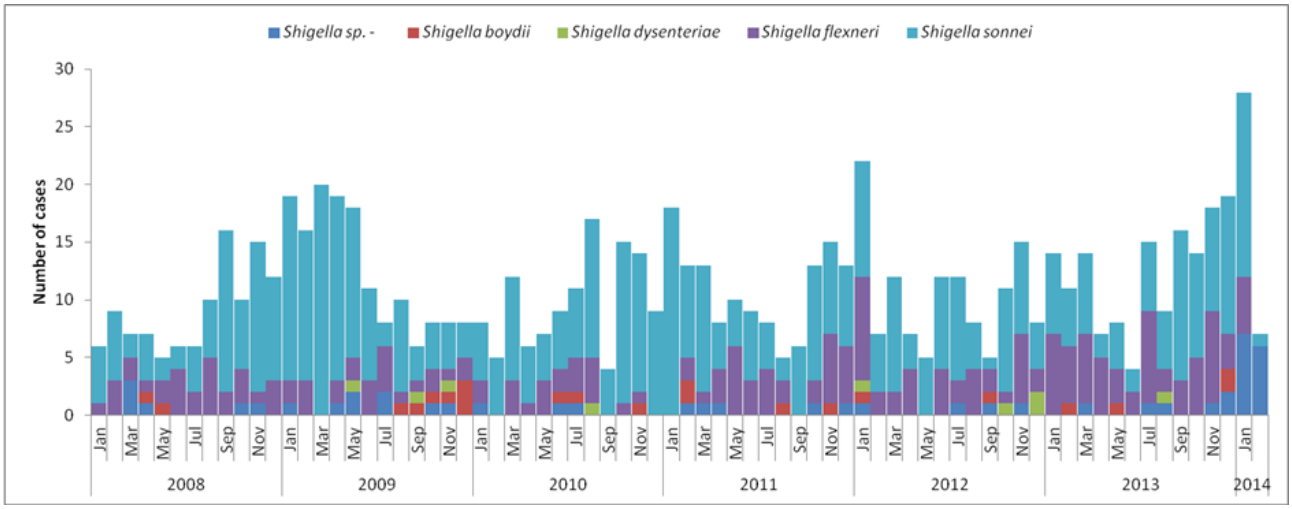
For links to other surveillance reports, including influenza reports, see the NSW Health Infectious Diseases Reports webpage.

Shigellosis

Thirteen cases of shigellosis were notified this reporting week (Table 1). Year to date in 2014 there have been 47 cases notified compared to 18 for the same period in 2013. The increase in reported cases has continued since November 2013 and reflects an increase in cases acquired in Australia (Figure 1). There has not been an increase in reports of shigellosis associated with overseas travel.

Shigellosis is a diarrhoeal disease caused by *Shigella* bacteria. There are four species of Shigella bacteria. Symptoms include diarrhoea (often containing blood and mucous), fever, nausea, vomiting and abdominal cramps. The symptoms usually begin around 1-3 days after exposure. The illness usually lasts 4-7 days, but can last longer. Infection can be more severe in people whose immune system is weak.

Figure 1. Number of cases of shigellosis not associated with overseas travel in NSW 1 Jan 2008 to 12 Feb 2014 by species



Of the cases since 1 November 2013 that are not associated with travel, 77% are in men. The majority of the increase in *Shigella sonnei* infections has been biotype G. This biotype was the cause of a large outbreak of shigellosis in men who have sex with men in central Sydney in 2008.

This outbreak of shigellosis has the potential to spread to more people and to other parts of Australia with the upcoming Mardi Gras festival in Sydney. Additionally, there is a current outbreak of *Shigella sonnei* biotype F in men who have sex with men in Victoria, which may also spread amongst people attending Mardi Gras. People with suspected *Shigella* infection should seek medical attention for testing and antibiotic treatment if *Shigella* is detected.

Shigellosis spreads easily from person to person by the faecal-oral route, as only a small number of organisms is enough to cause illness. Strict personal hygiene is necessary to prevent person to person spread, which occurs if hands are not washed properly or if anything that is contaminated comes in contact with a person's mouth. Certain types of sexual activity, such as oral-anal sex, facilitate transmission of *Shigella* from person to person. Globally, shigellosis is commonly acquired from ingestion of food contaminated by poor hand hygiene or by flies that have been in contact with human waste.

People with *Shigella* infection can have the bacteria in their faeces, and so remain infectious, for some weeks after their symptoms have resolved. Treatment with appropriate antibiotics generally reduces the time a person is infectious to a few days. Antibiotics are therefore recommended for all people with shigellosis, even if symptoms are only mild, in order to reduce the risk of spread to other people.

Shigellosis can be prevented by thorough hand washing after any possible exposures to human faecal material, including after toileting, changing nappies and sexual activity. People who have shigellosis should not have sex where there is any contact with the anus.

People travelling to countries where shigellosis is common, should avoid uncooked foods, including fruit and vegetables unless washed and peeled by the person themselves, and drink only bottled, boiled or treated water.

Follow the links for further information on shigellosis and *Shigella* notifications.

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Australian bat lyssavirus

Biosecurity NSW have reported this week that a flying fox found in a Sydney backyard tested positive for Australian bat lyssavirus (ABLV). Last month there was an ABLV positive bat in the Hunter area that had scratched a wildlife worked.

Every year in NSW hundreds of bats are submitted for ABLV testing usually after contact with pets or humans. This the first bat to test positive in Sydney since 2010. This highlights the importance of avoiding bat bites and scratches.

Lyssavirus infection can result in a rabies-like illness which if not prevented is fatal. There have been three human cases of ABLV infection in Australia and all three people affected died, including an eight year old boy in Queensland in 2013. People should avoid all contact with bats as there is always the possibility of being scratched or bitten and thereby being infected with ABLV. Although not all bats have lyssavirus infection, evidence of ABLV infection has been found in all four species of flying foxes found in Australia and in Australian insectivorous bats, so it should be assumed that all bats and flying foxes are infectious, regardless of whether or not the animal is behaving abnormally.

The best protection against ABLV infection is to avoid contact with bats. Only people who have been fully vaccinated against rabies, use protective equipment, and have been trained in bat handling should touch bats.

Currently there are increased reports of bats found foraging in backyard fruit trees leading to netting entanglements. When a bat is injured or tangled in fence wire or netting people should not attempt to rescue it but should contact an expert bat handler by calling the Wildlife Information Rescue and Education Service (WIRES) on 1300 094 737.

Anyone who is bitten or scratched by any type of bat should thoroughly clean the wound with soap and water for at least five minutes and apply an antiseptic such as povidone-iodine or alcohol. Urgent medical advice should be sought so that, if necessary, rabies immunoglobulin can be injected into the wound in the case of a bite, and a course of 4 doses of rabies vaccine given for both bites and scratches .Medical practitioners should contact their local public health unit for advice and to arrange immunisation.

Follow the link for more information on ABLV and ABLV immunisation (external link).

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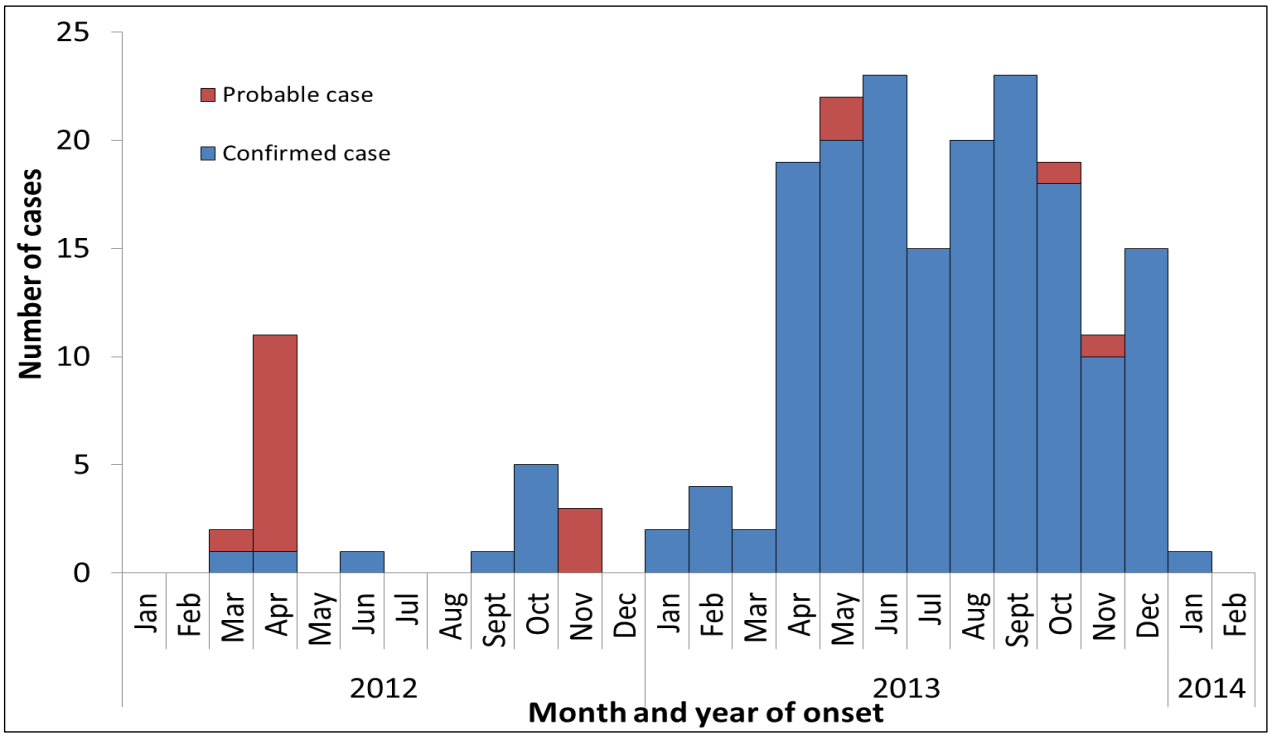
Middle East respiratory syndrome coronavirus

As of 4 February 2014, the World Health Organization (WHO) has reported 181 laboratory confirmed cases of Middle East respiratory syndrome coronavirus (MERS-CoV) world-wide. Seventy-nine (44%) cases have died from their illness.

The first cases were reported in September 2012, with disease onsets in March and April 2012. The majority of cases have occurred between April and October 2013 (Figure 3).

Figure 3. Confirmed cases of MERS-CoV reported by the WHO to 4 February 2013



Source: Australian Government Department of Health

All cases have had a history of residence in or travel to the Middle East, or contact with travelers returning from these areas. Affected countries in the Middle East include Jordan, Kingdom of Saudi Arabia, the United Arab Emirates, Qatar, Oman and Kuwait.

Most cases are sporadic but there have been known secondary cases where the infection has spread in households to family members, within health care facilities and one in a workplace that was not a health care facility. However, the virus does not appear to be highly infectious and transmission from person to person in healthcare settings can be prevented by infection control measures.

MERS-CoV disease starts with an influenza like illness followed by shortness of breath and rapid progression to pneumonia. Multi-organ failure occurs in severe cases. Mild illness and asymptomatic cases have also been reported. Cases with severe symptoms have tended to be older, male and to have underlying medical conditions.

There is evidence that dromedary camels may play a role in the spread of MERS-CoV.

WHO does not recommend the application of any travel restrictions to affected countries but has provided travel advice for people making pilgrimages in Saudi Arabia (external link).

Follow the link for further information on MERS-CoV, including links to information provided by the Australian Department of Health, WHO and the Centres for Disease Control and Prevention.

Follow the link for advice for health professionals about the clinical presentation, testing and appropriate infection control for people suspected to have MERS-CoV infection.

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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 3 February to 9 February 2014, by date received. *

		This week	Last week	Year to date			Full Year	
				2014	2013	2012	2013	2012
Enteric Diseases	Cryptosporidiosis	14	13	80	210	71	1132	655
	Giardiasis	75	37	252	326	306	2244	2013
	Hepatitis A	1	3	9	14	3	62	41
	Hepatitis E	1	0	2	4	1	16	10
	Listeriosis	1	0	3	11	7	33	36
	Rotavirus	7	4	43	84	95	508	1761
	STEC/VTEC	3	2	14	6	4	24	14
	Salmonellosis	131	113	627	710	535	3485	2941
	Shigellosis	13	8	47	18	32	136	131
	Typhoid	2	2	9	11	3	58	43
Respiratory Diseases	Influenza	68	54	346	204	90	8401	8040
	Legionellosis	1	1	6	12	27	102	106
	Tuberculosis	1	5	33	52	58	421	456
Sexually Transmissible Infections	Chlamydia	472	415	2533	2929	3013	21066	21259
	Gonorrhoea	94	107	557	606	560	4269	4115
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	4	16	47	27	503	264
	Mumps	2	2	9	11	14	86	110
	Pertussis	43	30	204	462	1371	2377	5997
	Pneumococcal Disease (Invasive)	5	3	25	49	35	491	564
Vector Borne Diseases	Barmah Forest	4	1	25	68	37	441	344
	Dengue	6	5	39	40	51	288	285
	Malaria	5	1	12	17	7	93	68
	Ross River	9	5	40	75	70	512	597
Zoonotic	Q fever	4	1	24	21	20	151	124

*** 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.

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