

Communicable Diseases Weekly Report

Week 37 7 to 13 September 2015

In summary, we report:

- [Brucellosis](#) - one new case reported
- [MERS update](#) – Summary of local testing and Hajj alert
- [Emergency Department surveillance](#) – decreasing influenza-like illness activity
- [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.

Brucellosis

One new case of brucellosis was reported this week (Table 1). The case was a young adult male who presented with fever and rigors following exposure to animal tissues and blood during a pig hunt in northern NSW. The case was confirmed by *Brucella* spp. antibody agglutination testing (BAT); culture is not currently available to determine the species.

Human brucellosis typically begins with a flu-like illness. This may include fever, headache, weakness, drenching sweats, chills, weight loss, joint and muscle pain, and generalised aches. Inflammation of the liver and spleen, and gastrointestinal or respiratory symptoms may also occur. In males, the testicles may become inflamed. *Brucella suis* infections are particularly associated with an increased risk of spontaneous abortion in pregnant women. Rarely, the heart valves become infected and this can be fatal. Symptoms usually start 5-60 days after infection and typically last for days or months. Symptoms can occasionally last for a year and can be recurrent.

Hunting of feral pigs is the main risk factor for human brucellosis infection acquired in NSW, and it is also a risk for hunting dogs. NSW Health works closely with the Department of Primary Industries (DPI) who report that a number of pig-hunting dogs with exposures in northern NSW have been diagnosed with *B. suis* so far this year. NSW Health and DPI recommend that infected dogs be euthanized as they pose a potential risk to humans and other animals.

This is the third notification of brucellosis in a feral pig hunter from the same area in 2015 to date, highlighting the importance of educating hunters on precautionary measures. When coming into contact with pigs (especially feral pigs in Queensland and northern NSW) or feral pig products:

- Cover all cuts or abrasions with waterproof dressings
- Wear gloves, overalls and face masks when slaughtering animals or handling carcasses
- Wash hands and arms in soapy water after handling animals or carcasses. Wash off all urine, faeces, blood and other body fluids, and thoroughly clean all working areas with soapy water
- Avoid opening the swollen joints and testicles of feral pig carcasses as these may be brucellosis related
- Slaughter and butcher feral pig carcasses away from areas that are used for handling meat for human consumption
- Avoid feeding domestic animals raw feral pig meat.
- Ensure that feral pig meat (or other game) is thoroughly cooked prior to consumption.

Follow the links for the [brucellosis factsheet](#) and for information on [brucellosis notifications](#). Follow the link for [advice on brucellosis for dog owners](#) from DPI.

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MERS update

From September 2012 to 9 September 2015, the World Health Organization (WHO) has been notified of 1,542 laboratory-confirmed Middle East respiratory syndrome (MERS) cases including at least 544 related deaths. MERS is caused by infection with the MERS coronavirus (MERS-CoV). For the latest updates see [WHO Coronavirus infections website](#).

WHO reported that between 1 and 5 September 2015, the Kingdom of Saudi Arabia had notified them of 25 additional MERS cases. Ten of these cases were associated with the large MERS nosocomial outbreak in a hospital in Riyadh city. A number of other case clusters have recently been reported, including in Medina and Jeddah, cities frequently visited by Hajj pilgrims.

Jordan has also been reporting new cases linked to a MERS nosocomial outbreak in a hospital in Amman city linked to a case from Saudi Arabia who sought care there.

The WHO's emergency committee regarding MERS met recently and noted that current measures in MERS-affected countries are not yet sufficient to control its threat and until this is achieved, individual countries and the global community will remain at significant risk for further outbreaks. Of particular concern was the fact that the current outbreak in Saudi Arabia is occurring close to the start of the Hajj (the annual religious event in Saudi Arabia which is attended by millions of pilgrims).

This year the Hajj pilgrimage is expected to fall between 20 and 25 September 2015. Australian pilgrims are expected to be returning to Australia soon thereafter.

MERS-CoV does not seem to pass easily from person to person but transmission is more likely in certain settings, such as occurs when providing unprotected care to a patient. The role of hospitals as amplifiers of MERS infections is now well known, making the strict and timely application of appropriate infection prevention and control measures vital.

Healthcare workers need to be prepared for the possibility of cases in people who have travelled from the Middle East in the previous 14 days to enable early detection and the application of infection control precautions.

There have been no cases of MERS-CoV reported in Australia. Since the last update on local testing in Week 27 (up to 5 July 2015), there have been nine patients assessed for possible MERS infection in NSW. Of these, seven patients were negative for MERS coronavirus by polymerase chain reaction (PCR) testing, and two patients were not recommended for MERS-CoV testing because of an incompatible clinical illness or the lack of an appropriate travel history.

A total of 29 people are known to have been assessed for MERS-CoV in NSW during 2014 and 2015. The majority of these people have presented with a compatible illness and a history of travel to affected countries in the Middle East. None of these persons have tested positive for MERS-CoV.

For more information see the [MERS alert page](#).

Follow the link for [Hajj travel advice](#) (and for Umrah).

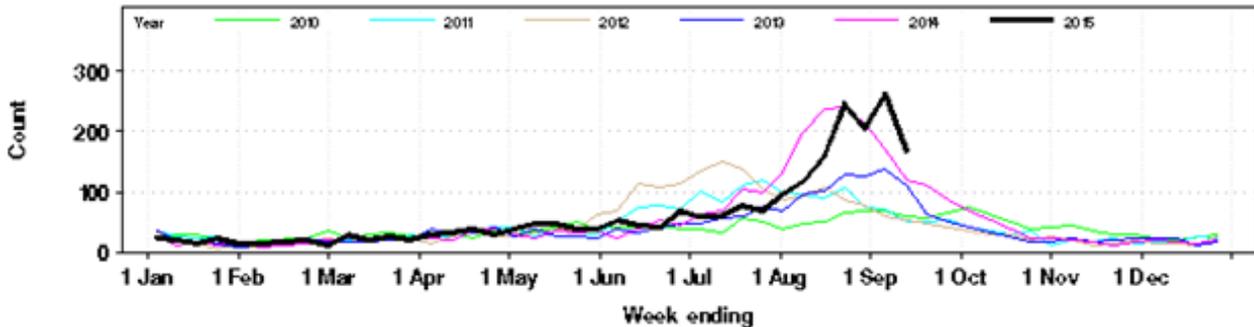
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Emergency Department surveillance update

The Public Health Rapid, Emergency Department and Syndromic Surveillance (PHREDSS) system is managed by the Centre for Epidemiology and Evidence, NSW Ministry of Health. It includes monitoring of presentations for a range of syndromes, discharge diagnoses and outcomes from ED. This includes data from 59 NSW emergency departments (EDs), representing approximately 85% of metropolitan ED presentations and approximately 60% of rural ED presentations.

In this reporting period, ED monitoring of influenza-like illness * showed a continuing declining trend in activity, as shown in Figure 1.

Figure 1. Total weekly counts of ED presentations for influenza-like illness, for 2015 (black line), compared with each of the five previous years, all age groups, up to the week ending 13 September 2015.

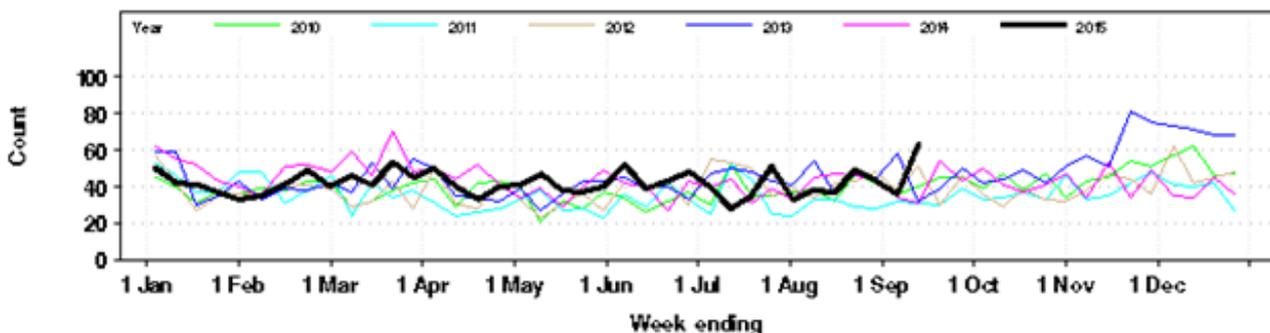


* Note that this data reflects provisional clinical diagnoses of “ILI syndrome” made by treating doctors in ED. This diagnostic category includes: ‘influenza-like illness’ or ‘influenza’ (including pneumonia with influenza).

Also of note was a rise in ED presentations for fever or unspecified infection that were admitted children aged under one year. In NSW in November 2013, the number of ED presentations and admissions for fever or unspecified infection in children aged under 1 year increased above usual levels and was associated with increased parechovirus activity – see <http://www.health.nsw.gov.au/Infectious/alerts/Pages/parechovirus-alert.aspx>.

In this reporting week the number of presentations for fever or unspecified infection in children aged under 1 year increased to 199, which was above the usual range for this time of year. Overall, admissions of this group from ED increased to 63, which was also above the usual range for this time of year (Figure 2). There were no critical care ward admissions.

Figure 2. Total weekly counts of ED presentations for fever or unspecified infection that were admitted, for 2015 (black line), compared with each of the 5 previous years (coloured lines), children aged under 1 year, up to the week ending 13 September 2015.



It is not yet known if this rise is related to parechovirus activity or if it will be a sustained increasing trend in presentations. Infections with influenza or a range of other viruses which circulate in winter can also contribute to the increases in presentations in this category.

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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 7 to 13 September 2015, by date received.*

		Weekly		Year to date			Full Year	
		This week	Last week	2015	2014	2013	2014	2013
Enteric Diseases	Cryptosporidiosis	12	2	678	303	998	429	1132
	Giardiasis	50	58	2520	2172	1716	2942	2242
	Hepatitis A	1	0	61	52	51	80	62
	Rotavirus	38	18	389	396	323	714	508
	Salmonellosis	44	39	3015	3251	2583	4302	3483
	Shigellosis	1	2	127	159	90	209	136
Respiratory Diseases	Influenza	2761	3526	22850	18738	6705	20888	8403
	Legionellosis	1	1	76	51	80	72	109
	Tuberculosis	5	3	268	335	312	474	443
Sexually Transmissible Infections	Chlamydia	375	376	15532	16904	15500	22894	21088
	Gonorrhoea	42	51	3547	3531	3185	4875	4264
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	2	129	204	438	256	509
	Meningococcal Disease	1	1	32	23	32	37	48
	Pertussis	249	234	6098	1620	1720	3051	2379
	Pneumococcal Disease (Invasive)	17	12	349	374	377	511	490
	Rubella	2	0	8	7	11	10	12
Vector Borne Diseases	Chikungunya	1	0	30	16	17	27	22
	Dengue	3	8	239	320	228	378	303
	Ross River	12	8	1481	456	412	677	512
Zoonotic	Brucellosis	1	0	9	3	1	3	4
	Q fever	4	1	151	136	118	190	163

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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