

Communicable Diseases Weekly Report

Epi-Week 32: 04 August – 10 August 2014

In summary, we report:

- Q fever three new cases, all in farmers: reminder that a vaccine is available
- Dengue infection three new cases reported; continuing risk linked to Bali travel
- 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.

Q fever

Three new cases of Q fever were notified in this reporting week (Table 1). All three cases were farmers with a history of contact with farm animals in Mid North Coast and Hunter New England Local Health Districts.

Q fever is an illness caused by the bacterium *Coxiella burnetii* and is spread to humans from infected animals, particularly farm animals such as cattle, sheep and goats. Kangaroos can also be a source of infection for humans. The bacteria survive for long periods in the environment as they are resistant to heat, drying and many disinfectants so inhalation of small particles from contaminated dust or hay may result in Q fever disease.

Q fever is usually an acute, short-term infection but it can sometimes lead to a chronic illness. At least 50% of infected people have no or few symptoms. However, acute Q fever can be a severe flu-like illness with high fever with profuse sweats, severe fatigue, and muscle and joint pains. Hepatitis and pneumonia can sometimes occur. Acute illness usually lasts one to three weeks. Most people make a full recovery, although 10-15% will have post Q fever fatigue syndrome and will be unable to work at full capacity 12 months after their initial infection.

A minority of people with Q fever develop chronic disease, most commonly inflammation of the heart (endocarditis). People who already have heart valve disease are at increased risk of heart complications from Q fever. Q fever is treated with common antibiotics. A cardiac assessment, which may include echocardiography, is required to assess whether there are underlying abnormalities of the heart valves which increase the risk of developing chronic Q fever endocarditis.

Q fever vaccine (Q-Vax®) is available to protect people against Q fever. Vaccination is recommended for all people who are working in, or intend to work in, a high-risk occupation, including farmers. Workplaces at risk should have a vaccination program. Pre-vaccination screening with both a blood test and a skin test is required before Q fever vaccination.

People who work with animals or materials that may carry Q fever bacteria should use appropriate protective equipment and be aware of the steps required to stop the spread of the bacteria.

Follow the link for more information on Q fever vaccination and vaccine recommendations.

Follow the link for more information on Q fever notifications data.

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Dengue

Three new cases of dengue fever were reported in this reporting week (Table 1); two cases were acquired in Bali, Indonesia, while the third case was acquired in India. Locations in Indonesia (particularly Bali) are most commonly associated with dengue infection in NSW travellers, accounting for 43% of cases reported so far this year. Fiji and Thailand are the next most common sources for dengue cases.

Dengue is a viral infection that is caused by four dengue viruses (types 1-4). It is spread by two types of mosquito: the Dengue mosquito (*Aedes aegypti*) and the Asian Tiger mosquito (*Aedes albopictus*). These mosquitoes become infected when they feed on someone who has dengue virus in their bloodstream. Once the mosquito is infected, the virus multiplies inside the mosquito over several days and can infect other people when the mosquito feeds again.

People who travel to dengue-affected areas are at risk. Affected areas include many tropical countries throughout Asia, the Pacific, parts of sub-Saharan Africa and the Middle East.

In the past, dengue has been found in the Northern Territory, New South Wales and north Queensland but it is currently limited to north Queensland. Outbreaks have occasionally occurred in and around Cairns and Townsville in recent years.

There is currently no vaccine against dengue. Travellers to dengue-affected areas should avoid being bitten by mosquitoes. The dengue mosquito prefers to live and bite people indoors, and peak biting activity is during daylight hours. The mosquito hides under furniture and tends to bite around the feet and ankles. People may not notice they are being bitten.

Travellers to dengue-affected areas should stay in accommodation with screened windows and doors, wear loose fitting clothing that covers the arms and legs and apply insect repellent containing DEET or Picaridin to exposed skin, especially during daylight hours and in the early evening. Insecticidal surface sprays inside the home can kill the adult mosquitoes.

For additional advice on steps to avoid being bitten by mosquitoes see the <u>Mosquitoes are a</u> Health Hazard Factsheet.

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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 04 August to 10 August 2014, by date received.*

Enteric Diseases Cryptosporidiosis 3 Giardiasis 53 Rotavirus 9 Salmonellosis 49 Shigellosis 2 Respiratory Diseases Influenza 1776	Last week 7 49 14 54 2 1364	2014 283 1883 269 2918 139	2013 975 1544 261 2393 78	2012 513 1409 521 1902	2013 1132 2242 508 3483	2014 1760
Giardiasis 53 Rotavirus 9 Salmonellosis 49 Shigellosis 2	49 14 54 2	1883 269 2918	1544 261 2393	1409 521 1902	2242 508	1760
Rotavirus 9 Salmonellosis 49 Shigellosis 2	14 54 2	269 2918	261 2393	521 1902	508	2014 1760 2941
Salmonellosis 49 Shigellosis 2	54 2	2918	2393	1902		
Shigellosis 2	2				3483	2941
Barrieda Birarra		139	78	9.9		
Respiratory Diseases Influenza 1776	1364			00	136	131
****		7255	2873	5596	8401	8037
Tuberculosis 10	5	256	259	278	440	469
Sexually Transmissible Infections Chlamydia 423	452	14268	13533	13802	21089	21267
Gonorrhoea 62	91	2965	2786	2600	4266	4116
Vaccine Preventable Diseases Adverse Event Following Immunisation 4	3	172	410	202	509	269
Mumps 2	1	57	65	86	89	110
Pertussis 47	53	1173	1490	4242	2378	6000
Pneumococcal Disease (Invasive) 8	10	287	315	331	489	564
Vector Borne Diseases Barmah Forest 3	2	131	312	226	440	352
Dengue 3	4	285	202	201	302	288
Ross River 13	15	396	385	468	513	598
Zoonotic Q fever 3	1	104	104	87	163	131

* 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 (external link).
- 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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