

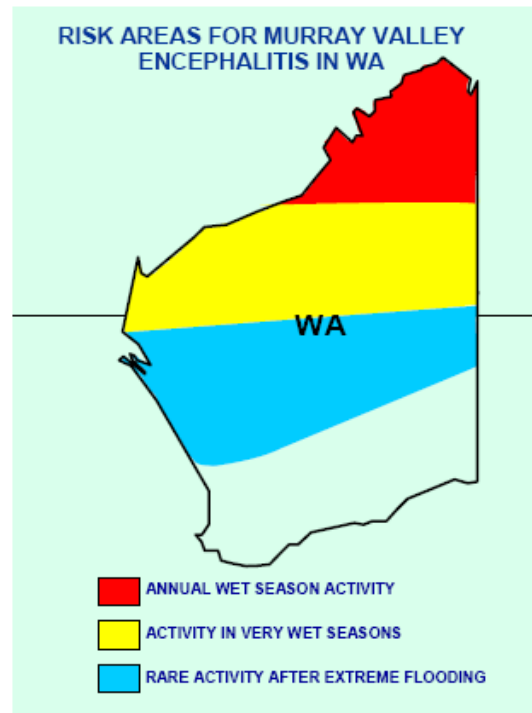
## Sentinel Chicken Surveillance Program Health & Environmental Report Update, October 2013

The **Sentinel Chicken Surveillance Program** is used to provide an early warning of increased flavivirus activity in Australia. The main viruses of concern are Murray Valley Encephalitis (MVE) and Kunjin viruses (KV). MVE virus causes the disease Murray Valley encephalitis (formerly known as Australian encephalitis), a potentially fatal disease in humans.



There are twelve sentinel chicken flocks in Pilbara that are bled monthly during the off season, and fortnightly during the peak season for MVE and KV. Sites include Port Hedland, Karratha, Harding Dam (x2) Marble Bar, Pannawonica, Tom Price, Paraburdoo, Onslow, Ophthalmia Dam Newman, Newman Shire and Exmouth.

**Arbovirus** is a term used to refer to a group of viruses that are transmitted by arthropod vectors, in this case certain species of marsh mosquitoes. The word *arbovirus* is an acronym (**AR**thropod-**BO**rne viruses). Ross River Virus (RRV) and Barmah Forrest Virus (BFV) are the most common arboviral infections in WA and are characteristically less severe in terms of both morbidity and mortality than MVE.

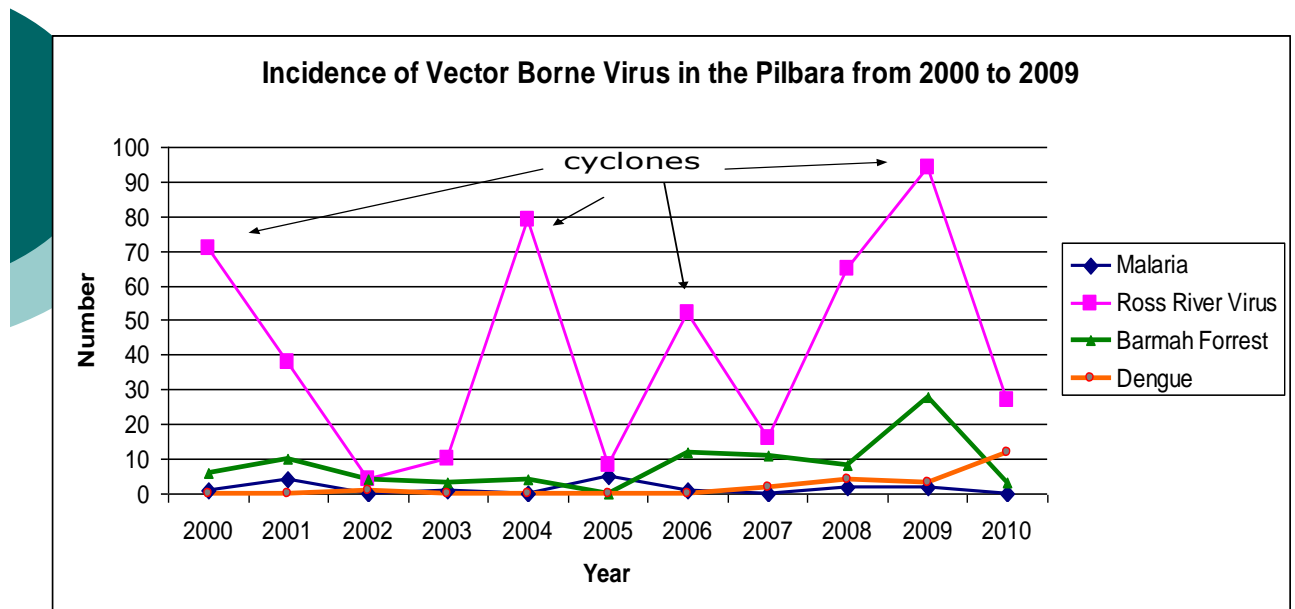


These arboviral diseases are notifiable under the Health Act. This means a doctor who diagnoses either virus in a patient is required to inform the Department of Health, so that more can be learnt about the distribution of the viruses, and so that public health action can be taken if appropriate, such as measures to control mosquitoes and the issuing of public health alerts.

**Number of Murray Valley Encephalitis, Kunjin and other flaviviruses in Western Australia, for the period: 2008 – 2012. <sup>ii</sup>**

Year	Total
2008	1
2009	2
2010	0
2011	8
2012	0

The peak season for RRV and BFV is from January to March after rainfall. MVE and KV appear to take longer to develop and tend to peak around March to June. These arboviruses become more active during the normal wet season but especially after cyclones when environmental conditions (stagnant pools coupled with warm weather) are conducive for mosquito breeding which transmit these diseases.



Throughout 2010 there was a marked increase in the number of cases of dengue fever notified in WA, compared with previous years. The high number of these overseas-acquired cases indicates that as more people are travelling to South East Asian locations, Bali in particular, there is the potential for a greater number of people to become infected with dengue virus.

There are no vaccines or cures for these arboviral diseases; medical treatment is aimed at easing symptoms.<sup>iii</sup>

## PREVENTION

Prevention is by far the best course of action with these diseases. Hence residents or travellers in the North of Western Australia should be careful to avoid being bitten by mosquitoes by:

- Avoid being outdoors, particularly in the mornings and evenings when mosquitoes are biting
- Wear long sleeved loose fitting clothing when outside
- Use DEET based insect repellents when outside
- Ensure containers such as pet bowls, pot plants and old tyres do not have water in them allowing mosquitoes to breed around the home.

### Peak Season for Mosquitoes

The peak season for Ross River Virus and Barmah Forrest Virus is from January to March after rainfall. Murray Valley Encephalitis and Kunjin Virus appear to take longer to develop and tend to peak around March to June. These arboviruses become more active during the normal wet season but especially after cyclones.

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<sup>i</sup> Environmental Health Directorate. 2006. *Murray Valley Encephalitis Environmental Health Guide*. Department of Health, Western Australia

<sup>ii</sup> Communicable Disease Control Directorate. April 2012. *Number and rate of arboviral encephalitis virus notifications in Western Australia, by year of disease onset. Period: 2008 – 2012*. Department of Health WA.

<sup>iii</sup> Department of Health. 2010. *Dengue Fact Sheet Environmental Health Hazards Mosquito-Borne Disease Control*. Government of Western Australia.