



Current Diseases in Arizona

- ❖ West Nile Virus
- ❖ Saint Louis Encephalitis
- ❖ Western Equine Encephalitis

West Nile

- ❖ West Nile encephalitis is an infection of the brain caused by West Nile virus, a close relative of St. Louis encephalitis virus.
- ❖ It is thought to have been introduced into the New York City area in 1999 and by 2003 had spread across most of the country to California.
- ❖ The virus arrived in Arizona in 2004.



Culex quinquefasciatus Southern House Mosquito

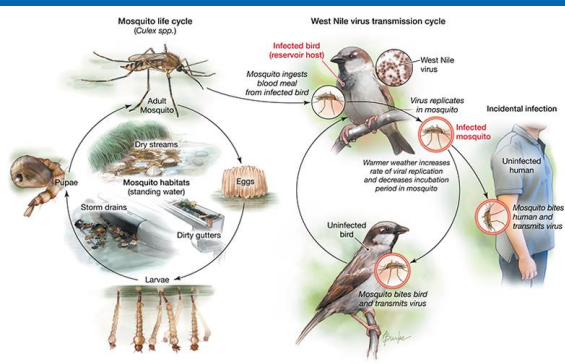


Vectorbase.org

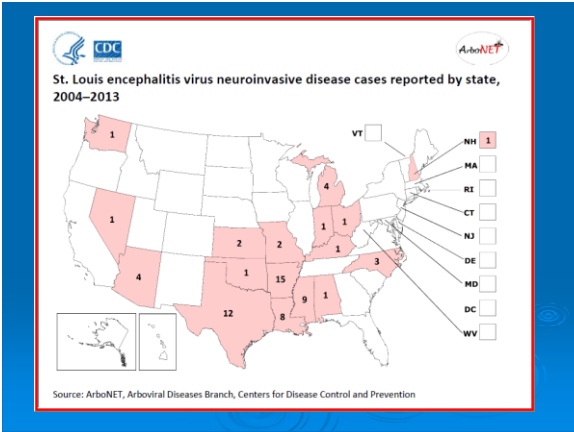
Culex tarsalis Western Encephalitis Mosquito

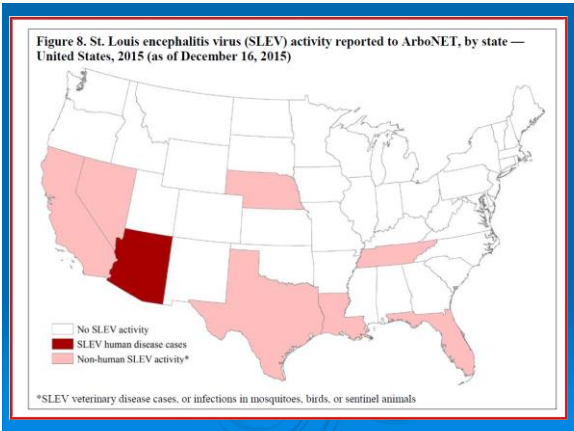


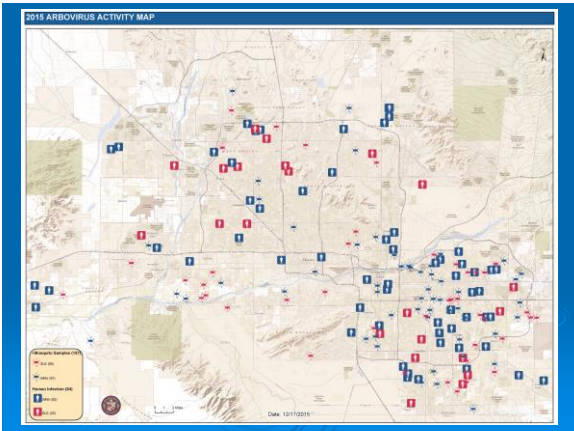
WNV A Disease of Birds











SLEV 2015 Timeline

- One confirmed human case in 2014
- By June 2015, seven confirmed human cases
- CDC assistance was requested by AZ Dept. Health Services and MC Public Health Dept.
 - 3 Epidemiologist assisted with Medical Investigations
 - Dr. Janet McAllister tested for insecticidal resistance
 - Dr. Nick Komar investigated the bird side of the project

SLEV 2015 Timeline

- First known outbreak of concurrent WNV and SLEV disease.
- Late in the season, first known case of a blood recipient confirmed positive from a positive donor
- 62 confirmed human cases of WNV
- 22 confirmed human cases SLEV
- PCR confirmed samples; WNV – 97, SLEV – 83

Notes from the Field

Concurrent Outbreaks of St. Louis Encephalitis Virus and West Nile Virus Disease — Arizona, 2015

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Future Diseases in Arizona

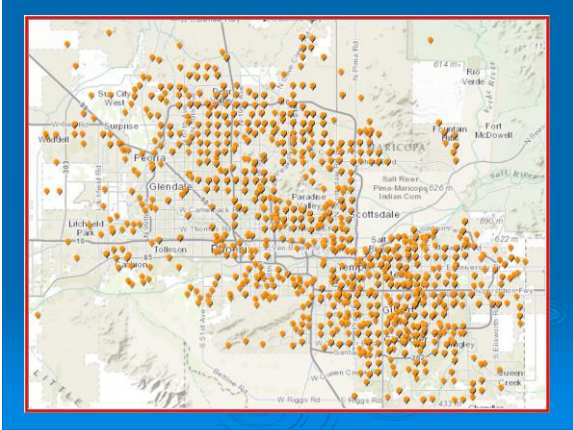
- Chikungunya
- Dengue
- Zika

Aedes aegypti
Yellow Fever Mosquito



Aedes aegypti Feeding Preferences

- An aggressive biter, especially in early morning and late afternoon
- Prefers shady areas, or cloudy weather
- Bite around the ankles and lower leg
- Normally feeds on humans but new data suggests it will feed on several different vertebrate hosts

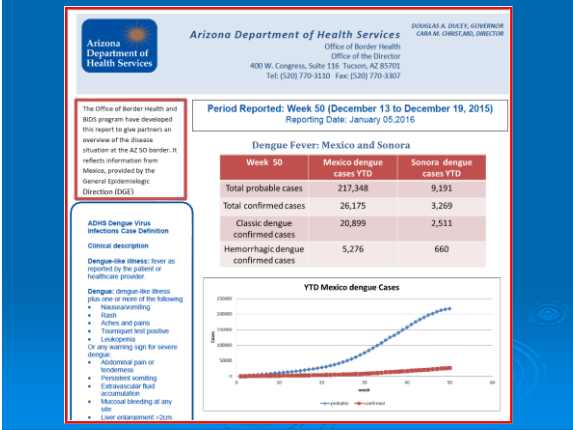


Dengue

- Dengue is a mosquito-borne infection that causes a severe flu-like illness, and sometimes a potentially lethal complication called dengue hemorrhagic fever.
- Called "Bone Breaking Fever" due to bone inflammation.
- Has 4 unique serotypes
- About two fifths of the world's population are now at risk.

Dengue in the America's







Chikungunya Virus

- The most common symptoms of chikungunya virus infection are fever and joint pain.
- Other symptoms may include headache, muscle pain, joint swelling, or rash.

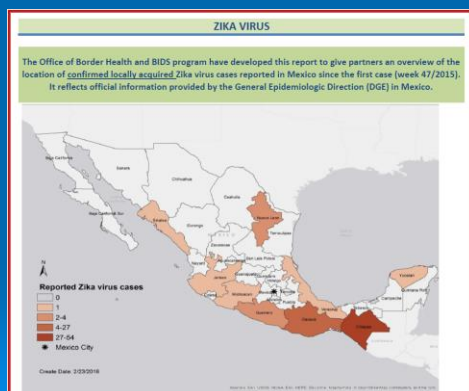
Facts about Microcephaly

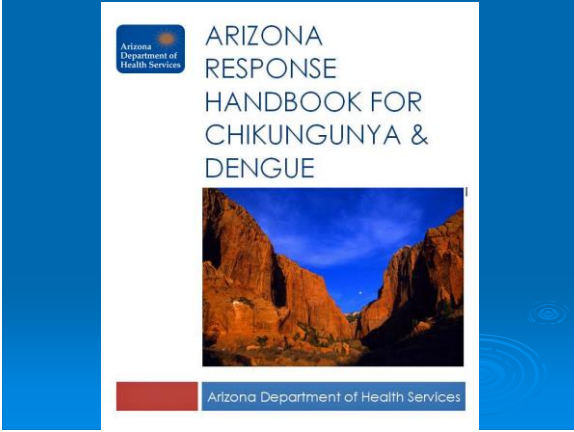
- Microcephaly is a condition where a baby's head is much smaller than expected.
- Microcephaly can occur because a baby's brain has not developed properly during pregnancy or has stopped growing after birth, which results in a smaller head size.



Zika and Sexual Transmission

- Zika virus can be spread by a man to his sex partners.
- In known cases of likely sexual transmission, the men had Zika symptoms. But the virus can be spread before, during, and after men have symptoms.
- The virus can be present in semen longer than in blood.





Arizona Response Handbook for Chikungunya & Dengue

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