

Zika Virus

SUSAN KARRAS, MBA, BSN, RN

COMMUNICABLE DISEASE PROGRAM COORDINATOR



What is Zika Virus?



- ▶ Arbovirus
 - ▶ A viral illness that is transmitted by arthropods (mosquitos, tics)
 - ▶ Specific to *Aedes* mosquito species (*Ae aegypti* & *Ae albopictus*)
 - ▶ Tropical and sub-tropical regions (Africa, Americas, Asia, and the Pacific)
 - ▶ Dengue, Chikungunya (differential)
- ▶ First identified in Uganda in 1947 in rhesus monkeys while monitoring yellow fever
- ▶ First human cases identified in Uganda and the United Republic of Tanzania in 1952.
- ▶ First human outbreak in 2007 – Yap Islands
- ▶ First case in the Americas- Brazil 5/2015 (World Cup – 2014)

Aedes Species in the United States

Approximate distribution of *Aedes aegypti* in the United States*



Approximate distribution of *Aedes albopictus* in the United States*



*This map was developed using currently available information. *Aedes albopictus* mosquito populations (a known vector of chikungunya) may be detected in areas not shaded on this map, and may not be consistently found in all shaded areas. The shaded areas are NOT locations of chikungunya transmission.

Zika Illness



- ▶ Signs and Symptoms
 - ▶ Fever , muscle or joint pain, headache (pain behind eyes), rash (maculopapular), red eyes (conjunctivitis)
- ▶ Risks/Complications
 - ▶ Usually is self-limiting
 - ▶ Actively Researched (Changing quickly as scientific data is received)
 - ▶ Fetal exposure can result in microcephaly and other neurological anomalies
 - ▶ Guillain-Barrè Syndrome

Transmission



- ▶ First week of illness, virus is found in blood.
 - ▶ Mosquito bites an infected individual and becomes infected
 - ▶ Infected mosquito further transmits infection by biting others.
- ▶ Active research
 - ▶ Fetal transmission
 - ▶ Sexual transmission (Semen)
 - ▶ Breastfeeding
- ▶ Local active transmission,
- ▶ Travel-associated transmission
- ▶ Importation

Prevention



- ▶ Presently, no vaccine to prevent
- ▶ When traveling to areas with local transmission
 - ▶ If possible, choose lodging with air conditioning or screens on windows and doors
 - ▶ Wear long sleeved shirts and long pants treated with permethrin
 - ▶ Use EPA registered insect repellent
- ▶ Pregnant women are encouraged to postpone travel
- ▶ Women trying to become pregnant are encouraged to strictly follow mosquito prevention measures

- ▶ If ill,
 - ▶ Stay inside for at least first week of illness
 - ▶ Males should wear condoms or abstain

Treatment

- ▶ There is no specific treatment - treat symptoms
 - ▶ Rest
 - ▶ Fluids to prevent dehydration
 - ▶ Analgesics / Antipyretics (Tylenol®) to reduce pain and fever
- ▶ Once infected it is likely that immunity occurs (Hypothesis)

Current Status (as of 2/17/2016)



- ▶ United States
 - ▶ 82 travel-associated cases
 - ▶ 0 locally acquired cases

- ▶ United States Territories
 - ▶ 1 travel-associated case
 - ▶ 9 locally acquired cases (8- Puerto Rico, 1 – Virgin Islands)

- ▶ Testing is delayed at the CDC related to volume
- ▶ IDPH should be on line to provide Zika testing in March

MCDH Zika Activity



- ▶ Along with CDC and IDPH, monitoring closely
- ▶ Guidelines received from CDC and IDPH are being forwarded to McHenry County healthcare providers and facilities
- ▶ Testing requests are being facilitated by screening and forwarding specimens to CDC through IDPH.
 - ▶ Asymptomatic pregnant women who traveled to local transmission area (2-12 weeks)
 - ▶ Symptomatic individuals that traveled and became symptomatic during travel or within 2 weeks of returning
 - ▶ Symptomatic pregnant women who have had sexual relations with man who has traveled and is symptomatic and positive (Changing – case by case)
- ▶ As of 2/19, 4 McHenry County residents are being tested

Questions?