

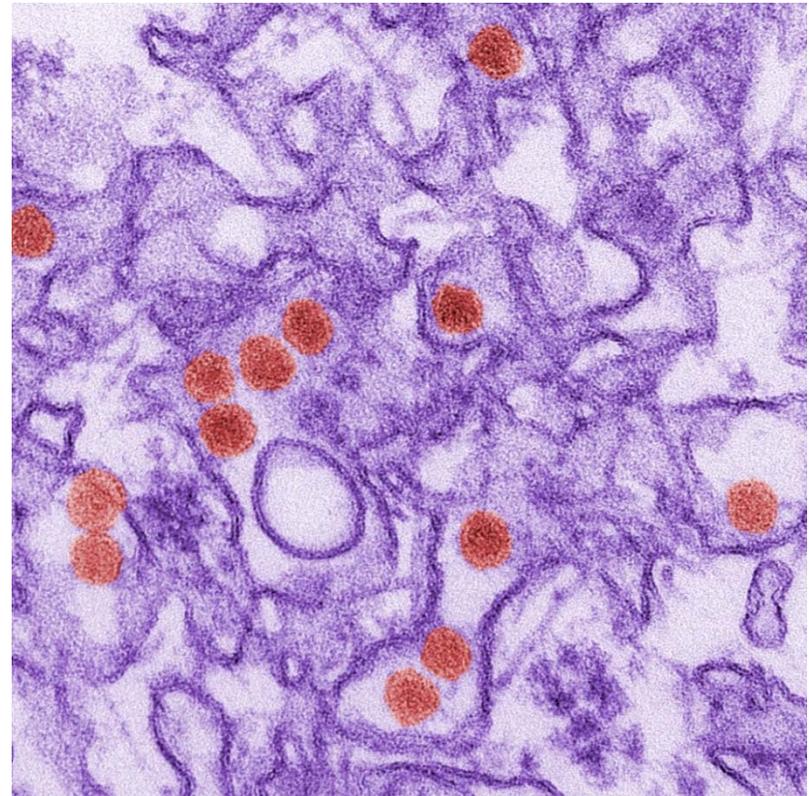
Zika Virus Disease

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Zika

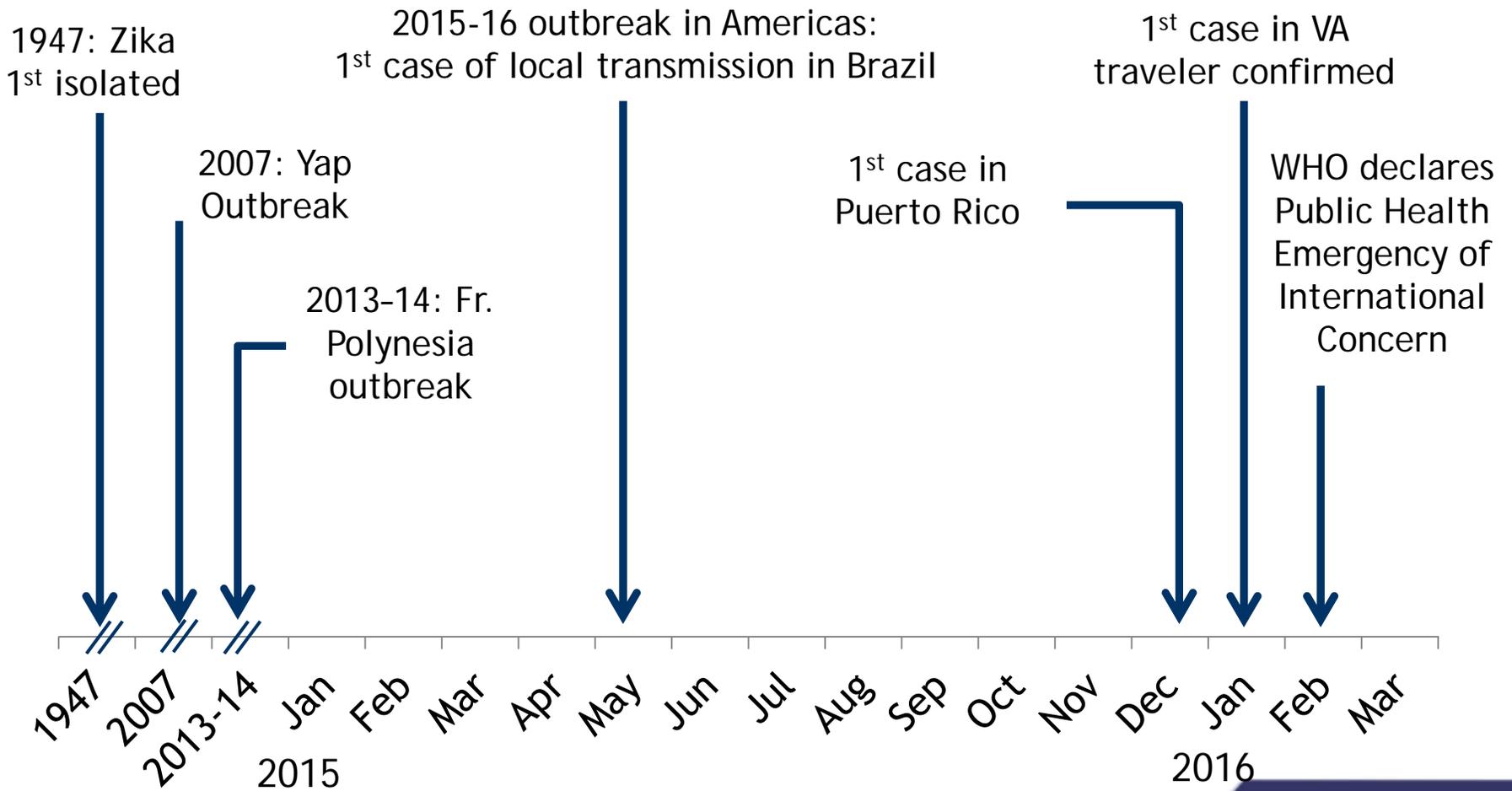
Virus belonging to
Flaviviridae family,
genus Flavivirus

- Related viruses include Dengue fever, Yellow fever, Japanese encephalitis and West Nile viruses



Source: Photo Credit: Cynthia Goldsmith,
downloaded from CDC website

Timeline of Major Zika Events



2015-2016 Outbreak in Americas

1st case of locally-spread Zika virus in Brazil confirmed in May 2015 and subsequent outbreaks in many countries

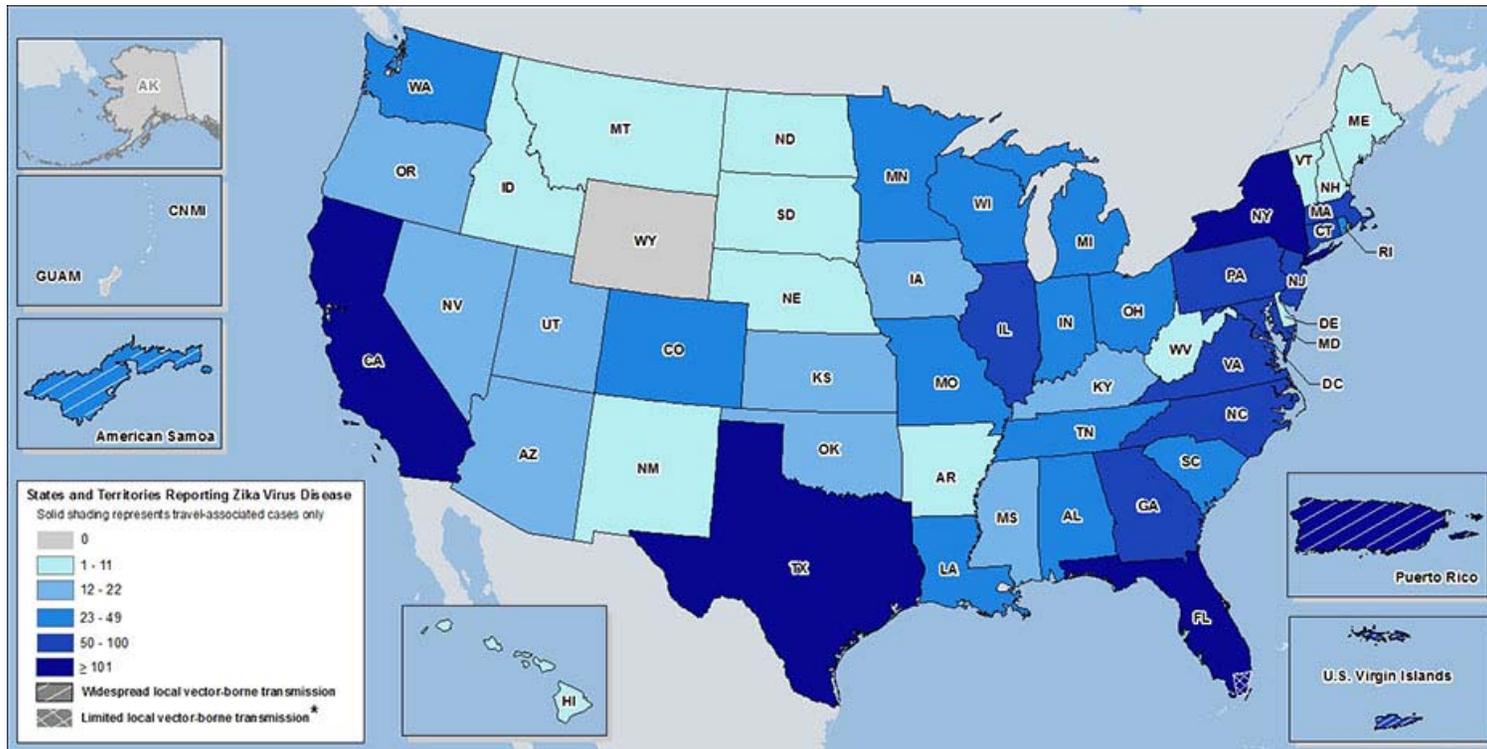


Further spread to other areas with *Aedes* vectors is likely

Number of cases among travelers visiting or returning to US will likely increase

Zika Virus Disease in US, 2015-2016

As of September 13, 2016,
2,921 travel associated cases reported to CDC's
ArboNET from US states
43 locally acquired cases in Florida



Source: CDC (as of September 13, 2016): <http://www.cdc.gov/zika/geo/united-states.html>

Transmission



Primarily transmitted by mosquitoes

- Mainly by *Aedes aegypti* (Yellow fever mosquito)
- Also by *Aedes albopictus* (Asian tiger mosquito)

Mosquitoes infected by feeding on infected persons

- No animal reservoir known

Individual with Zika carries virus in bloodstream about 1 week

Zika Virus Transmission

Transmitted from mother to child:

- During pregnancy or at time of delivery

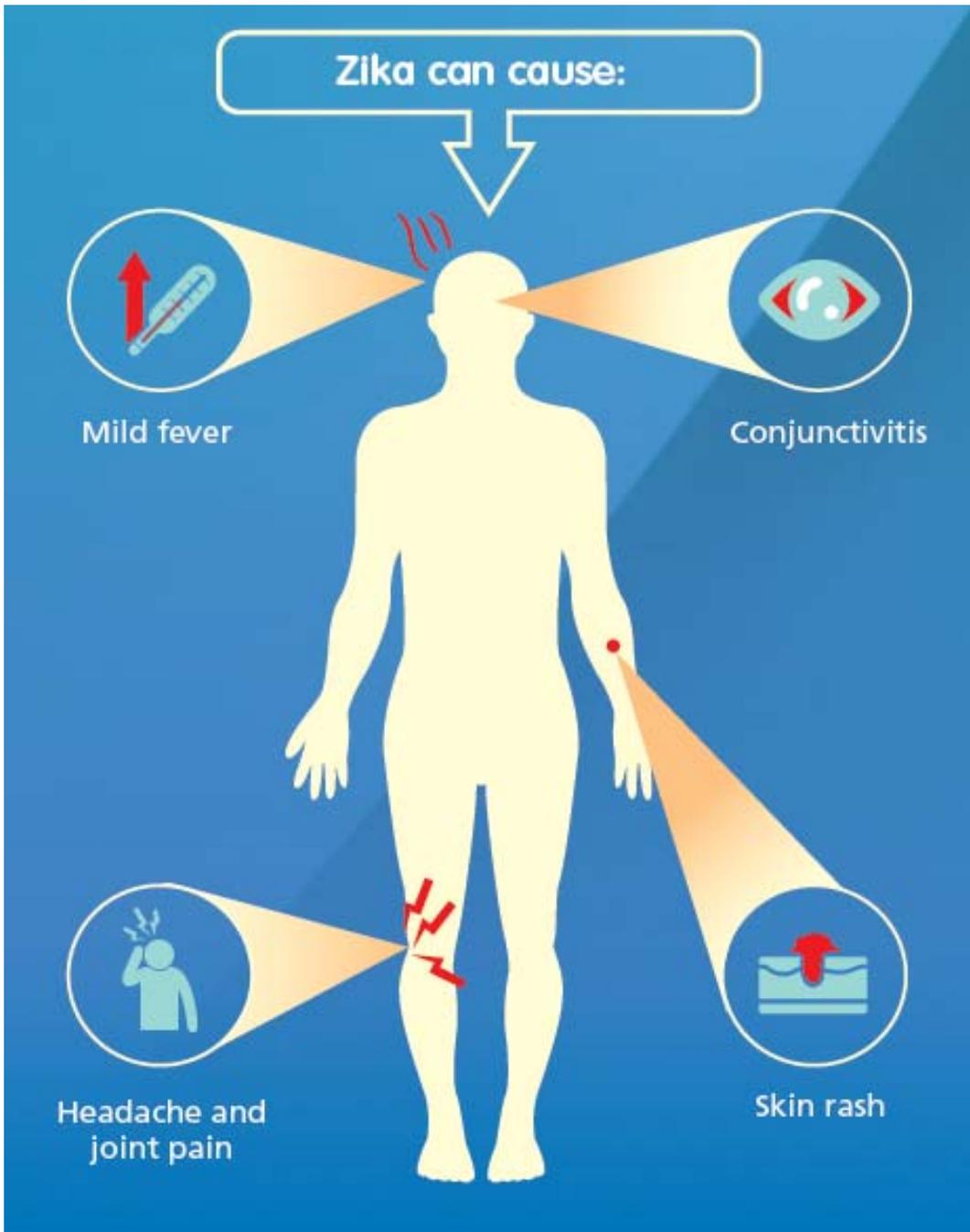
Transmitted by blood or sexual contact

- Both reported
- Recent travelers to Zika-affected areas may be asked to defer donating blood

Sexual Transmission of Zika Virus

24 cases of sexually transmitted Zika virus in U.S.

- ~~All cases spread by symptomatic man to partner~~
- Virus can stay in semen longer than blood
- CDC recommends that women with male partner that has traveled to area with Zika use condoms for
 - 8 weeks if no symptoms of Zika
 - 6 months if Zika/symptoms of Zika
 - Duration of pregnancy



Zika Symptoms:

- About 80% of those infected do not have symptoms
- Those that do become ill generally have mild symptoms
 - Onset 2-7 days after bite
- Treatment supportive: rest, fluids, acetaminophen
- Small number can develop complications

Special Concerns for Pregnant Women and Zika

Zika virus can spread from pregnant woman to fetus

There have been reports of microcephaly (smaller than normal head size) and other poor pregnancy outcomes in babies of mothers who were infected with Zika virus while pregnant



AP Photo/Felipe Dana

In US:

17 liveborn infants with birth defects

5 pregnancy loss with birth defects

Guillain-Barre Syndrome and Zika

- Rare autoimmune disorder
 - Virus triggers person own immune system to damage nerve cells
 - Result muscle weakness and sometime paralysis
 - Most fully recover
 - some have permanent nerve damage
 - rare death
 - Not clear how Zika causes GBS

In the US: 7 cases of Guillain -Barre Syndrome

Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.

Type of Mosquito	Viruses spread	Biting habits
 <i>Aedes aegypti</i> , <i>Aedes albopictus</i>	Chikungunya, Dengue, Zika	Primarily daytime, but can also bite at night
 <i>Culex species</i>	West Nile	Evening to morning

Source: CDC



Aedes lay eggs exclusively in containers of water

They do not lay eggs in “ground” bodies of water

Develop into adults in 10 days

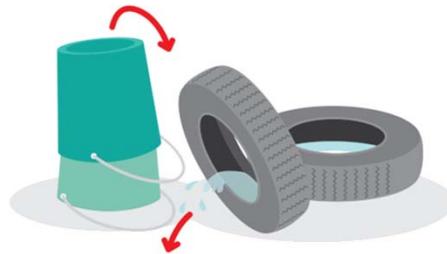
Spend life within 200 yards

Aedes Mosquito Control

TIP

Once a week empty or cover anything that holds water like:

- Tires
- Buckets
- Toys
- Pools and Pool Covers
- Birdbaths
- Trash, Trash Containers, and Recycling Bins



TOSS

Throw away items not being used that could hold standing water.

Keep mosquitoes outside

- Keep screens on all windows
- Repair holes in screens

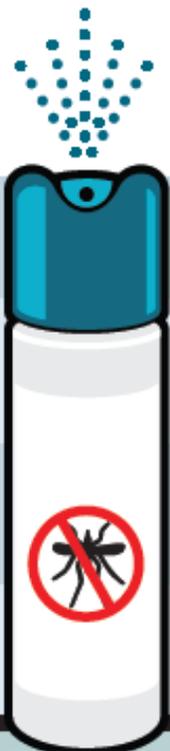


COVER-UP

- Wear long-sleeved shirts and pants
- Exposed skin



Active ingredient	Some brand name examples*
Higher percentages of active ingredient provide longer protection	
DEET	Off!, Cutter, Sawyer, Ultrathon
Picaridin, also known as KBR 3023 , Bayrepel , and icaridin	Cutter Advanced, Skin So Soft Bug Guard Plus, Autan (outside the United States)
Oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD)	Repel
IR3535	Skin So Soft Bug Guard Plus Expedition, SkinSmart



- Do not use insect repellent on babies younger than 2 months of age; OLE or PMD on children less than 3 years
- Use permethrin treated clothing and gear but don't apply permethrin directly on your skin

* The use of commercial names is to provide information about products; it does not represent an endorsement of these products by the Centers for Disease Control and Prevention or the U.S. Department of Health and Human Services.