



ZIKA VIRUS – Town Hall

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History

- First discovered in rhesus monkeys 1947 in Uganda, near the Zika Forest
- Subsequently described in humans in 1952 in Uganda and United Republic of Tanzania
- Cases in Africa and Asia during 1950-1970's
- First outbreak outside of Asia or Africa in 2007 in Yap
- Outbreak in French Polynesia starting in 10/2013

ORIGINAL ARTICLE

Zika Virus Outbreak on Yap Island, Federated States of Micronesia

Mark R. Duffy, D.V.M., M.P.H., Tai-Ho Chen, M.D., W. Thane Hancock, M.D., M.P.H., Ann M. Powers, Ph.D., Jacob L. Kool, M.D., Ph.D., Robert S. Lanciotti, Ph.D., Moses Pretrick, B.S., Maria Marfel, B.S., Stacey Holzbauer, D.V.M., M.P.H., Christine Dubray, M.D., M.P.H., Laurent Guillaumot, M.S., Anne Griggs, M.P.H., Martin Bel, M.D., Amy J. Lambert, M.S., Janeen Laven, B.S., Olga Kosoy, M.S., Amanda Panella, M.P.H., Brad J. Biggerstaff, Ph.D., Marc Fischer, M.D., M.P.H., and Edward B. Hayes, M.D.

N Engl J Med 2009; 360:2536-2543 | June 11, 2009 | DOI: 10.1056/NEJMoa0805715

<http://www.nejm.org/doi/full/10.1056/NEJMoa0805715>

<http://who.int/mediacentre/factsheets/zika/en/>

http://ecdc.europa.eu/en/press/news/_layouts/forms/News_DispForm.aspx?List=8db7286c-fe2d-476c-9133-18ff4cb1b568&ID=954



Areas with Zika Transmission – February 2015



**Lab-confirmed ZIKV disease cases
United States, 2015–2016 – 28 states**
544 US- travel
157 Pregnant
10 sexual transmission
1 GB



Zika Infection

- Incubation period: estimated 3-5 days, up to 14 days
- Only about 20% of people infected have symptoms
- Duration of illness: brief, typically ~1 week
- Viremia lasts for ≤ 1 week
- Illness is generally mild, but a couple of important potential complications
 - Guillain-Barre Syndrome (GBS)
 - Pregnancy complications, especially microcephaly



Clinical Presentation

	Zika	Dengue	Chikungunya
Fever	++	+++	+++
Rash	+++	+	++
Conjunctivitis	++	-	-
Arthralgia	++	+	+++
Myalgia	+	++	+
Headache	+	++	++
Hemorrhage	-	++	-
Shock	-	+	-



Zika & Pregnancy

- Increased rates of microcephaly noted in Brazil in late 2015, 10-20x normal (reported) incidence
- Weight of evidence implicates Zika virus as a cause of microcephaly
- CDC currently recommending pregnant women consider deferring travel to areas with ongoing transmission
- Pregnant women who have traveled to affected areas warrant Zika testing
- Zika can be transmitted to a pregnant women from a partner that has traveled to a Zika endemic area



Zika Transmission

- Primarily by mosquitoes
- Sexual transmission – now documented up to 6 months after infection
- Blood transfusion – at least 1 patient, possibly transmitted prior to symptom onset
- Virus isolated from breast milk, but no known cases transmitted
- Organ or tissue donation – no confirmed cases but theoretically possible
- NOT like Ebola – No special PPE or isolation needed for Zika patients (just normal Standard Precautions)



Diagnostic Testing

- PCR can detect virus in first week after illness onset
- Serological testing can detect illness for longer
 - IgM detectable starting Day #4 after illness onset
 - Significant interactions with other viruses (WNV, YFV, Dengue) making test interpretation sometimes difficult
 - More complex serological tests can be done to help distinguish Zika from other infections; less helpful if previously infected/vaccinated
- Testing now available at DHMH public health laboratory



Treatment

- No specific antiviral treatment
- No vaccine
- Supportive — rest, fluids, antipyretics, anti-nausea meds
- Acetaminophen for fever and pain
- Avoid aspirin and NSAIDS until dengue ruled out to avoid hemorrhagic complications



What we are doing

- Zika Awareness week- in all counties- education and public engagement most important tool
- Continued Public and Provider education
- Engaging and informing the public in every way possible
- Avoid mosquito bites
- Pregnant women avoid travel to Zika endemic areas
- Pregnant women avoid unprotected sex with males traveled to Zika endemic areas
- Mosquito abatement
- Zika Kits

