

Department of Defense  
Armed Forces Health Surveillance Branch  
Zika Virus in the Americas Surveillance Summary  
(16 MAR 2016)



**Approved for Public Release**

*For questions or comments, please contact:*

[dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil](mailto:dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil)



# DEPARTMENT OF DEFENSE (AFHSB)

## Zika Virus in the Americas Surveillance Summary #9

### 16 MAR 2016 (next report 9 MAR 2016)



**DoD SURVEILLANCE:** On 8 FEB, AFHSB released guidelines for [Detecting and Reporting DoD Cases of Acute Zika Virus Disease](#); it is being updated. Confirmed cases should be reported in DRSi as “Any Other Unusual Condition Not Listed,” with “Zika” entered in the comment field along with pertinent travel history and pregnancy status.

FDA granted an [Emergency Use Authorization](#) (EUA) for the CDC’s IgM Zika assay (ZIKA MAC\_ELISA) for paired sera and cerebrospinal fluid on 26 FEB. **After validation and training are completed, the assay will be available at:** NMRC/NIDDL, USAFSAM, Brooke AMC, and Tripler-AMC. An EUA is pending for a RT-PCR assay. The [Naval Infectious Diseases Diagnostics Laboratory](#) has Zika virus (ZIKV) PCR testing available for diagnosis using a [laboratory developed test](#) (LDT). Testing can be requested through Composite Health Care System (CHCS) in the National Capital Region (NCR); others should use the NIDDL’s [test request form](#). NAMRU-6, in Lima, Peru, also has an LDT PCR diagnostic assay available. There are no commercially available diagnostic tests.

The Armed Forces Pest Management Board issued updated [vector control guidance](#) for *Aedes* mosquitoes on 2 MAR. The [Armed Services Blood Program Office](#) implemented the American Association of Blood Banks’ [guidance](#) for reducing the risk of Zika, dengue, and chikungunya virus transmission through blood products on 12 FEB.

**CASE REPORT:** From 1 MAY 2015 to **16 MAR 2016**, confirmed autochthonous transmission of ZIKV has been reported in **32 (+1)** (Cuba) countries and territories in the Western Hemisphere. PAHO believes ZIKV will continue to spread in the hemisphere and could reach all areas where *Aedes* mosquitoes are found (excludes Canada and continental Chile). U.S. health officials say limited outbreaks are possible but widespread outbreaks in the continental U.S. are unlikely.

Outside of the Americas, ongoing ZIKV transmission is reported from American Samoa, Cape Verde, the Marshall Islands, **New Caledonia**, Samoa, and Tonga, with additional confirmed cases reported from Fiji, the Philippines, **Thailand**, and Laos. Past outbreaks were reported from other areas of Africa, Southeast Asia, and the Pacific Islands and sporadic cases may continue to occur. Several European countries, China, Canada, Australia, and Israel have reported travel-related ZIKV infections.

### Western Hemisphere Countries and Territories Reporting Autochthonous Zika Virus Infections as of 16 MAR 2016



Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (9 MAR 2016).

All information has been verified unless noted otherwise. Additional sources include: Pacific Public Health Surveillance Network.

For questions or comments, please contact: [dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil](mailto:dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil)



# DEPARTMENT OF DEFENSE (AFHSB)

## Zika Virus in the Americas Surveillance Summary #9

16 MAR 2016



**CASE REPORT (cont'd):** As of 15 MAR, CDC and several states report at least 211 (+46) travel-related and six locally-acquired sexually transmitted ZIKV cases in 35 (+7) U.S. states and the District of Columbia since MAY 2015, including 18 (+1) pregnant women; no autochthonous vector-borne cases have been reported. Among the pregnant women reported, there has been one case of microcephaly, two cases of intrauterine fetal demise, three terminations, seven ongoing pregnancies, and three healthy infants delivered; the additional two pregnancies are under investigation. Puerto Rico reports 225 (+65) confirmed cases, including 14 pregnant women. CDC has developed a U.S. Pregnancy Registry to identify and track the health of pregnant women with confirmed ZIKV infection, their pregnancy outcomes, and the health of their infants for one year.

**ZIKA AND MICROCEPHALY:** As of 12 MAR, Brazil is investigating 4,201 (-30) suspect microcephaly cases, including 183 (+43) deaths; Brazil has completed investigating 2,197 (+510) suspect cases; 854 (39%) were confirmed as microcephaly suggestive of congenital infection and 1,343 (61%) were ruled out. Hawaii and Slovenia have each reported a microcephaly case linked to ZIKV infection acquired in Brazil. On 4 MAR, Colombian researchers reported three cases of congenital brain abnormalities, including one microcephaly case, associated with ZIKV infection; these cases remain under investigation. Investigators continue to work on establishing a definitive causal link between ZIKV infection during pregnancy and subsequent congenital neurological malformations. [The Lancet published a study on 15 MAR that estimated a microcephaly rate of 95 cases per 10,000 women infected during the first trimester from modeling based on eight microcephaly cases identified during the 2013-2015 Zika epidemic in French Polynesia.](#) Although there are a number of limitations to the study, researchers reported in an 8 MAR [MMWR article](#) temporal and geospatial evidence linking the occurrence of a febrile rash illness consistent with Zika virus disease during the first trimester of pregnancy to a 4.6-fold increased prevalence of microcephaly among newborns in Northeast Brazil. A study in the [New England Journal of Medicine](#) on 4 MAR suggests ZIKV infection during pregnancy may be associated with “grave outcomes, including fetal death, placental insufficiency, fetal growth restriction, and CNS injury.” A study published on 4 MAR in [Cell Stem Cell](#) shows ZIKV is capable of infecting and damaging neural stem cells in vitro. Laboratory results, including PCR and tissue sample testing [performed by CDC](#), confirmed the presence of ZIKV RNA in four malformation deaths in Rio Grande Norte.

**ZIKA AND GUILLAIN-BARRÉ SYNDROME:** According to [WHO on 10 MAR](#), eight countries or territories are currently reporting an increase in Guillain-Barré syndrome (GBS) cases associated with the introduction of ZIKV and/or GBS case(s) linked to ZIKV infection: Brazil, Colombia, El Salvador, Suriname, Venezuela, Panama, Puerto Rico, and Martinique. The U.S. reports one (-1) confirmed ZIKV-related case of GBS. The causal link between ZIKV and GBS is under investigation. On 29 FEB, The Lancet published a [case-control study](#) linking GBS to ZIKV infection during the 2013-2014 outbreak in French Polynesia.

**CDC GUIDANCE:** On 15 JAN, CDC began issuing public health, clinical, and laboratory guidance on ZIKV. These documents are available through the CDC's [Zika Virus](#) web page. On 9 MAR, CDC issued [Top 10 Zika Response Planning Tips: Brief Information for State, Tribal, Local, and Territorial Health Officials](#). On 29 JAN, Zika virus disease became a [notifiable disease](#) in the U.S. On 3 FEB, the CDC Emergency Operations Center (EOC) moved to [Level 1 for the Zika response](#), its highest level.

**TRAVEL ADVISORY:** On 11 MAR, CDC, which had been issuing regional travel notices, issued individual Alert Level 2, Practice Enhanced Precautions travel notices for [37 countries and territories](#) that include subnational risk assessments based on elevation. According to CDC, there is minimal ZIKV transmission risk at locations above 6,500 feet (2,000 meters) elevation. A level 2 alert has been posted for travelers to the [2016 Olympic games](#) in Rio de Janeiro.

**GLOBAL RESPONSE:** On 15 MAR, WHO published [interim guidance](#) on entomological surveillance for *Aedes* mosquitoes. On 3 MAR, WHO published a [report](#) on Zika diagnostic, treatment, and prevention products in development and published a [statement](#) on 9 MAR on research and development priorities for Zika medical products. The second meeting of the WHO [Emergency Committee](#) on clusters of microcephaly cases and other neurological disorders in some areas affected by ZIKV met on 8 MAR. The Committee said that the clusters of microcephaly cases and other neurological disorders continue to constitute a Public Health Emergency of International Concern (PHEIC), and that there is increasing evidence of a causal relationship with Zika virus. On 16 FEB, the WHO launched a global [Strategic Response Framework and Joint Operations Plan](#) to guide the international response. For additional information, visit the [WHO](#) and [PAHO](#) Zika web pages.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (9 MAR 2016).

All information has been verified unless noted otherwise. Sources include: Brazil MOH and Nature.

For questions or comments, please contact: [dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil](mailto:dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil)

Approved for Public Release



# DEPARTMENT OF DEFENSE (AFHSB)

## Zika Virus in the Americas Surveillance Summary #9

### 16 MAR 2016



#### Western Hemisphere Countries and Territories with Autochthonous Transmission of Zika Virus: 01 JAN 2015 – 15 MAR 2016

Country/Territory	Confirmed	Suspected	Deaths	Microcephaly Cases	Reporting GBS
Aruba	4	0	0	NR	No
Barbados	7	316	0	NR	No
Bolivia	12	0	0	NR	No
Bonaire	1	0	0	NR	No
Brazil	534	72,062	4	5,055*	Yes†
Colombia	2,090	49,383	3	NR	Yes†
Costa Rica	8	0	0	NR	No
Cuba	1	0	0	NR	NR
Curaçao	1	0	0	NR	No
Dominican Republic	18	555	0	NR	No
Ecuador	66	93	0	NR	No
El Salvador	3	9,456	0	NR	Yes†
French Guiana	260	1,935	0	NR	No
Guadeloupe	77	717	0	NR	No
Guatemala	210	756	0	NR	No
Guyana	1	0	0	NR	No
Haiti	5	329	0	NR	No
Honduras	2	12,807	0	NR	No
Jamaica	1	0	0	NR	No
Martinique	12	9,240	0	NR	Yes†
Mexico	151	0	0	NR	No
Nicaragua	93	0	0	NR	No
Panama	112	0	0	NR	Yes†
Paraguay	6	0	0	NR	No
Puerto Rico	225	0	0	NR	Yes†
Saint Martin	17	72	0	NR	No
Saint Vincent and the Grenadines	1	0	0	NR	No
Sint Maarten	2	0	0	NR	No
Suriname	2	2,352	4	NR	Yes†
Trinidad and Tobago	3	0	0	NR	No
U.S. Virgin Islands	7	75	0	NR	No
Venezuela	352	15,495	1	NR	Yes†
<b>Total</b>	<b>4,284</b>	<b>175,643</b>	<b>12</b>	<b>5,055*</b>	<b>8 Countries</b>

Sources: Zika cases reported to PAHO as of **15 MAR**, except for microcephaly reported by the Brazil MOH as of **12 MAR**; Zika cases reported by the health department in the U.S. Virgin Islands as of **8 MAR**; and GBS cases reported to WHO as of **10 MAR**.

\* Confirmed (854) and suspected (4,201) microcephaly cases; excludes investigated and ruled out (1,343) as of **12 MAR**

† Reported increase in GBS cases associated with the introduction of ZIKV and/or GBS case(s) linked to ZIKV infection

All information has been verified unless noted otherwise. Sources include PAHO, Brazil MOH, USVI DOH, WHO, and Cuban Health Ministry.

For questions or comments, please contact: [dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil](mailto:dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil)



# DEPARTMENT OF DEFENSE (AFHSB)

## Zika Virus in the Americas Surveillance Summary #9

16 MAR 2016



### Additional Resources and Media Reports

#### Zika Web Sites

- [Military Health System Zika Page](#)
- AFHSB Guidance
  - [Detecting and Reporting DoD Cases of Acute Zika Virus Disease](#)
- Armed Forces Pest Management Board
  - [Aedes Mosquito Vector Control](#)
- CDC
  - [Zika home page](#)
  - [Information for health care providers](#)
  - [Zika virus disease Q&A](#)
  - [Travel notices](#)
  - [Zika and pregnancy](#)
- [PAHO Zika Page](#)
- [WHO](#)
  - [Weekly SITREP \(10 MAR\)](#)
  - [Zika home page](#)
  - [Publications and technical guidance](#)
- [ECDC](#)
- Agencia Brasil (official government news agency)

#### Information and News

- [Association between Zika virus and microcephaly in French Polynesia, 2013–15: a retrospective study \(The Lancet, 15 MAR\)](#)
- [Entomological surveillance for Aedes spp. in the context of Zika virus \(WHO, 15 MAR\)](#)
- [WHO and experts prioritize vaccines, diagnostics and innovative vector control tools for Zika R&D \(WHO, 9 MAR\)](#)
- [WHO statement on the 2nd meeting of IHR Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations \(WHO, 8 MAR\)](#)
- [Increase in reported prevalence of microcephaly in infants born to women living in areas with confirmed Zika virus transmission during the first trimester of pregnancy — Brazil, 2015 \(CDC, 8 MAR\)](#)
- [Zika virus infects human cortical neural progenitors and attenuates their growth \(Cell Stem Cell, 4 MAR\)](#)
- [Zika virus infection in pregnant women in Rio de Janeiro — preliminary report \(NEJM, 4 MAR\)](#)
- [Top 10 Zika response planning tips: brief information for state, tribal, local, and territorial health officials \(CDC, 4 MAR\)](#)
- [Current Zika product pipeline \(WHO, 3 MAR\)](#)
- [Guillain-Barré Syndrome outbreak associated with Zika virus infection in French Polynesia: a case-control study \(The Lancet, 29 FEB\)](#)
- [Zika MAC-ELISA Emergency Use Authorization \(CDC, 27 FEB\)](#)
- [Zika virus infection among U.S. pregnant travelers — August 2015–February 2016 \(CDC, 27 FEB\)](#)
- [Transmission of Zika virus through sexual contact with travelers to areas of ongoing transmission — Continental United States, 2016 \(CDC, 27 FEB\)](#)
- [Collection and submission of body fluids for Zika virus testing \(CDC, 25 FEB\)](#)
- [Update: interim guidelines for prevention of sexual transmission of Zika virus — United States, 2016 \(CDC, 23 FEB\)](#)
- [Update: interim guidelines for healthcare providers caring for infants and children with possible Zika virus infection — United States, February 2016 \(CDC, 19 FEB\)](#)
- [Zika outbreak: WHO's global emergency response plan \(WHO, 16 FEB\)](#)
- [Recommendations for donor screening, deferral, and product management to reduce the risk of transfusion-transmission of Zika virus \(FDA, 16 FEB\)](#)
- [Guillain-Barré syndrome – Colombia and Venezuela \(WHO, 12 FEB\)](#)
- [Notes from the Field: evidence of Zika virus infection in brain and placental tissues from two congenitally infected newborns and two fetal losses — Brazil, 2015 \(CDC, 10 FEB\)](#)
- [Ocular findings in infants with microcephaly associated with presumed Zika virus congenital infection in Salvador, Brazil \(JAMA, 9 FEB\)](#)
- [Interim guidelines for prevention of sexual transmission of Zika virus — United States, 2016 \(CDC, 5 FEB\)](#)
- [Update: interim guidelines for health care providers caring for pregnant women and women of reproductive age with possible Zika virus exposure — United States, 2016 \(CDC, 5 FEB\)](#)
- [BPL 16-02, Guidance regarding Zika, dengue and chikungunya viruses \(Armed Forces Blood Program Office, 3 FEB\)](#)
- [American Association of Blood Banks, Bulletin #16-03, Zika, dengue, and chikungunya viruses \(AABB, 1 FEB\)](#)

For questions or comments, please contact: [dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil](mailto:dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil)

Approved for Public Release