

Department of Defense
Armed Forces Health Surveillance Branch
Global Zika Virus Surveillance Summary
(25 MAY 2016)



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For questions or comments, please contact:

dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil



DEPARTMENT OF DEFENSE (AFHSB)

Global Zika Virus Surveillance Summary #19

25 MAY 2016 (next report 1 JUN 2016)



DoD SURVEILLANCE: On 17 MAY, AFHSB issued updated guidance for [Detecting and Reporting DoD Cases of Acute Zika Virus Disease](#) that includes changes to clinical criteria, case definitions, and laboratory testing, as well as a list of DoD laboratory POCs. Confirmed and probable 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. As of 29 APR, ZIKV has been found in mosquitoes tested by DoD entomologists.

The CDC Zika IgM MAC-ELISA and CDC Zika Triplex rRT-PCR are available under an [Emergency Use Authorization \(EUA\)](#) at DoD laboratories. The IgM assay is currently being or has been distributed to six DoD labs, with three labs (NIDDL, BAMC, and USAFSAM) having received approval to commence patient testing. The Triplex EUA assay is currently being or has been distributed to 16 DoD labs; 15 labs have received approval to start patient testing (BAMC, CRDAMC, EAMC, LRMC, USAMRIID, WBAMC, MAMC, Brian Allgood ACH, NHRC, USAFSAM, WAMC, NAMRU-3, TAMC, WRNMMC, and NIDDL). **In addition, FDA has granted EUAs to commercially available tests developed by Focus Diagnostics and Altona Diagnostics.**

On 10 MAY, CDC released an MMWR including [interim guidance for Zika virus testing of urine](#) and an [erratum](#) on 13 MAY. On the basis of the newly available data, CDC recommends Zika virus rRT-PCR be performed on urine collected <14 days after onset of symptoms in patients with suspected Zika virus disease in conjunction with serum testing.

[Strategy for Control of Zika Virus Transmitting Mosquitoes on Military Installations](#) is available from the [Armed Forces Pest Management Board](#). 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 **25 MAY 2016**, confirmed autochthonous vector-borne transmission of Zika virus (ZIKV) has been reported in 39 [countries and territories](#) in the Western Hemisphere. In AFRICOM, Cape Verde reported **7,557 cases (+69 since 5 MAR)** as of **8 MAY**. **WHO reported on 20 MAY that the ZIKV circulating in Cape Verde is the Asian strain, which is the same strain circulating in the Americas; it was most likely imported from Brazil.** In PACOM, American Samoa, Samoa, Fiji, Kosrae (Federated States of Micronesia), Marshall Islands, New Caledonia, Papua New Guinea, and Tonga are reporting active ZIKV transmission. CDC has issued Alert Level 2, Practice Enhanced Precautions travel notices for 47 of these [areas](#) and for travelers to the [2016 Summer Olympics and Paralympics](#) in Rio de Janeiro. According to CDC, locations above 6,500 feet elevation in these countries and territories present minimal transmission risk. Additional countries with sporadic, likely vector-borne, transmission include the Philippines, Thailand, Vietnam, and Laos. Past vector-borne outbreaks have been reported from other areas of Africa, Southeast Asia, and the Pacific Islands, where sporadic transmission may continue to occur. Ten countries have reported person-to-person transmission, most likely through sexual contact (Germany, Portugal, Canada, Peru, Argentina, Chile, France, Italy, New Zealand, and the U.S.)

As of **23 MAY**, CDC (ArboNet) and state health departments report **553 (+55)** travel-related and ten locally-acquired, non-vector-borne (sexually transmitted) ZIKV cases in **46 (+1, Wisconsin)** states and the District of Columbia since MAY 2015; no autochthonous vector-borne cases have been reported. **Based on data from the U.S. Pregnancy Registry, as of 12 MAY, 157 pregnant women in the 50 states and District of Columbia and 122 pregnant women in Puerto Rico have laboratory evidence of a ZIKV infection.** As of **5 MAY**, Puerto Rico DOH reported **1,108 (+183)** confirmed ZIKV cases with one death.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (11 MAY 2016).

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

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ZIKA AND MICROCEPHALY: In a 13 APR NEJM article, CDC researchers said, “a causal relationship exists between prenatal Zika virus infection and microcephaly and other serious brain anomalies” based on a review of available data. As of **21 MAY**, Brazil is investigating **3,257** suspected microcephaly cases, including **285** deaths. Investigation is completed for **4,366** suspect cases; of these **1,434** (33%) were confirmed as microcephaly suggestive of congenital infection and **208** (15%) tested ZIKV positive; **2,932** (67%) cases were ruled out. In addition to Brazil, Cape Verde (three cases), Colombia (five cases), French Polynesia (eight cases), Martinique (**three (+1)** cases), and Panama (four cases) report microcephaly and other fetal malformations potentially associated with ZIKV infection or suggestive of a congenital infection according to [WHO](#) and the Colombia MOH on **19 MAY**. However, [WHO reports](#) that it “is not possible to establish a link between” ZIKV infection and microcephaly in one of the four Panama cases because of a lack of information and because the infection may have occurred too late in the pregnancy. Puerto Rico confirmed its first ZIKV-related microcephaly case in a fetus on 13 MAY. Hawaii has two cases: one from an infection acquired in Brazil and one in the newborn of a Marshall Islands resident who gave birth in the state. Slovenia reported one microcephaly case linked to ZIKV infection acquired in Brazil. On 5 MAY, Catalan health officials announced the first case of microcephaly in Spain in a fetus whose mother was co-infected with dengue and Zika while traveling in Latin America.

ZIKA AND GUILLAIN-BARRÉ SYNDROME: According to [WHO on 19 MAY](#), 12 countries in the Western Hemisphere and French Polynesia have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases that may be associated with the introduction of ZIKV. There has been one GBS case linked to ZIKV reported in the continental U.S. and **seven (-1)** cases in Puerto Rico. On 10 APR, Brazilian researchers reported two cases of acute disseminated encephalomyelitis (ADEM) that may be associated with ZIKV infection.

USG RESPONSE: On 15 JAN, CDC began issuing public health, clinical, and laboratory guidance on ZIKV; these are available on its [Zika Virus](#) web pages. In a [technical statement released on 24 MAY](#), CDC said it does not recommend routine use of insecticides (disinsection) inside commercial passenger airplanes to prevent the spread of ZIKV. On 15 MAY, CDC published updated guidance on [diagnostic testing](#) and the [collection and submission of body fluids](#). On 22 APR, CDC with OSHA and NIOSH issued interim guidance for [protecting workers from occupational exposure to ZIKV](#). ZIKV disease is a [notifiable disease](#) in the U.S. On 30 MAR, FDA announced the availability of an [investigational test to screen blood donations](#) for ZIKV in areas with active mosquito-borne transmission of ZIKV.

GLOBAL RESPONSE: WHO published [pregnancy management in the context of Zika virus infection](#) on 13 MAY. WHO previously issued guidance on [laboratory testing for ZIKV](#), [interim guidance](#) on entomological surveillance for *Aedes* mosquitoes, and a [report](#) on Zika diagnostic, treatment, and prevention products currently in development. 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 and concluded that the clusters of microcephaly cases and other neurological disorders continue to constitute a Public Health Emergency of International Concern (PHEIC). On 16 FEB, the WHO launched a global [Strategic Response Framework and Joint Operations Plan](#) to guide the international response. An [epi-curve published by PAHO](#) shows a downward trend in suspected and confirmed cases reported since early FEB 2016 in the countries where the ZIKV outbreak started in the fall of 2015. PAHO has created a [searchable database](#) of published primary research and protocols. WHO Regional Office in Europe [assessed](#) the risk of ZIKV spread in Europe during late spring and summer to be low to moderate. **ECDC published an updated ZIKV Rapid Risk Assessment on 20 MAY**. For additional information, visit the [WHO](#) and [PAHO](#) Zika web pages.

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All information has been verified unless noted otherwise. Additional sources include: Brazil MOH and Generalitat de Catalunya .

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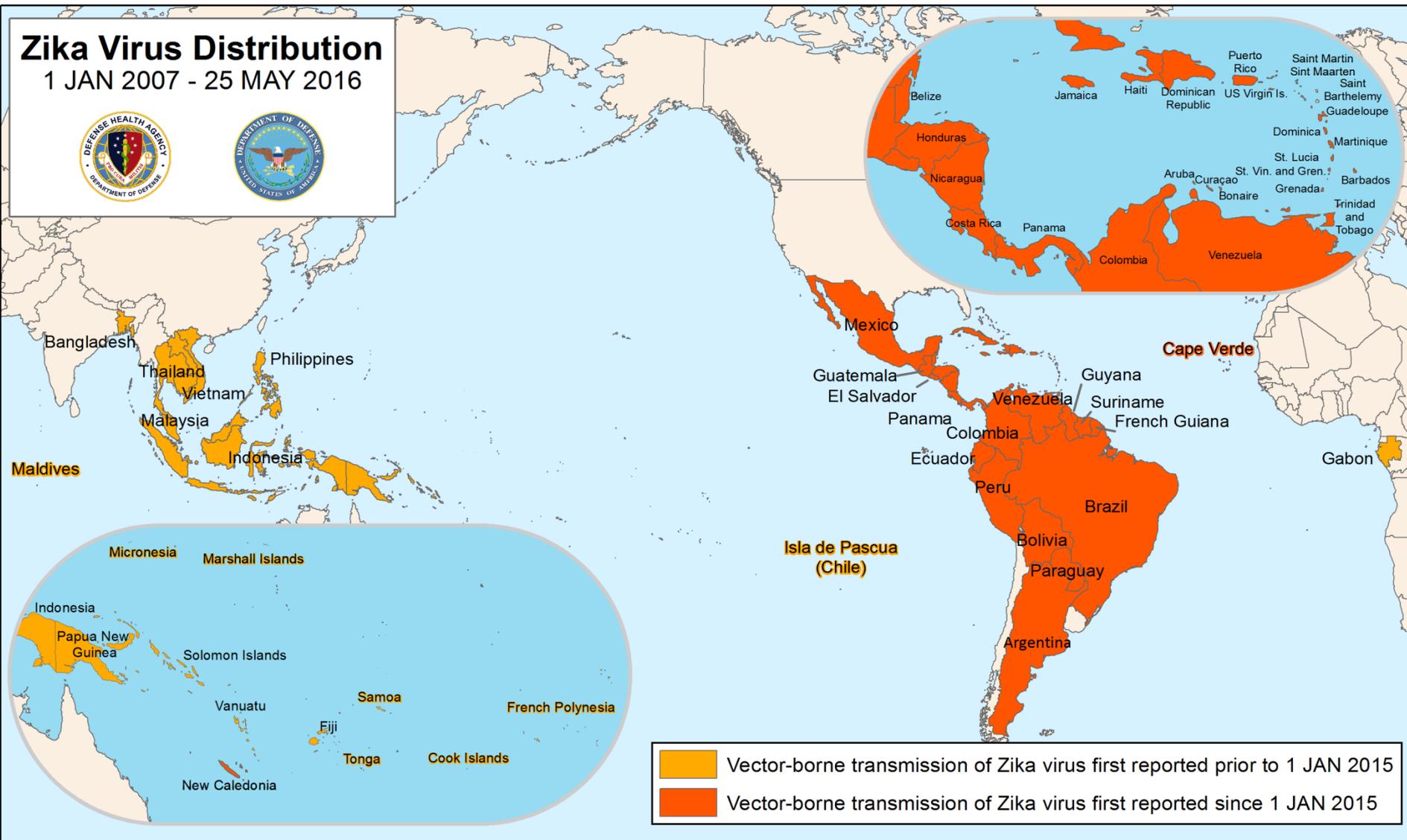
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Zika Virus Distribution

1 JAN 2007 - 25 MAY 2016



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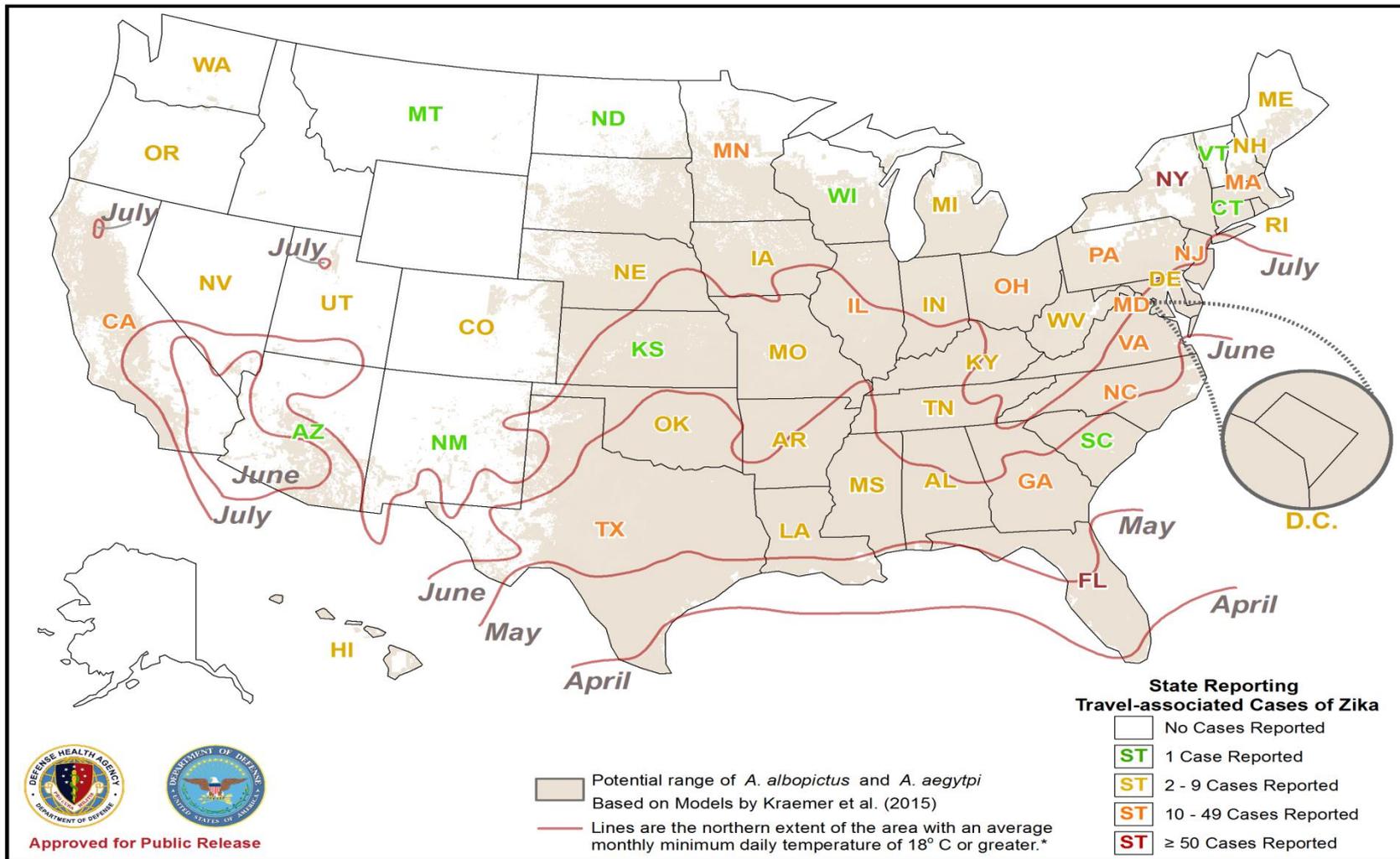
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Overlap of States Reporting Imported Zika Cases with Locations of Major DoD Installations, and the Estimated Range of Mosquito Vectors and Transmission Suitability 25 MAY 2016



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*The contour lines provide a rough estimate of the northern extent of areas at risk of Zika virus transmission by *Aedes* mosquitos by month. Transmission is less likely north of the July contour line. After July, the northern extent begins to move southward.

Based on Sang et al, Predicting Unprecedented Dengue Outbreak Using Imported Cases and Climatic Factors in Guangzhou, 2014. PLoS Negl Trop Dis 9(5);e0003808.

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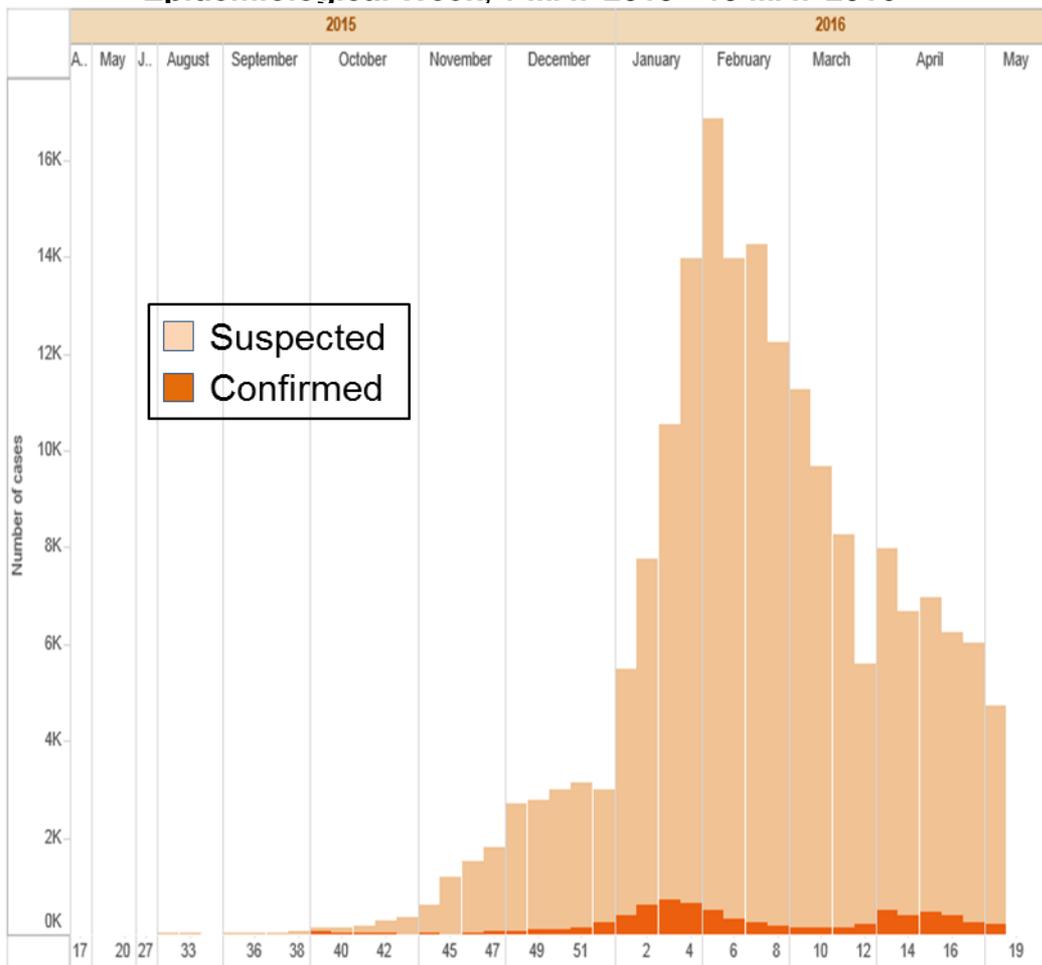
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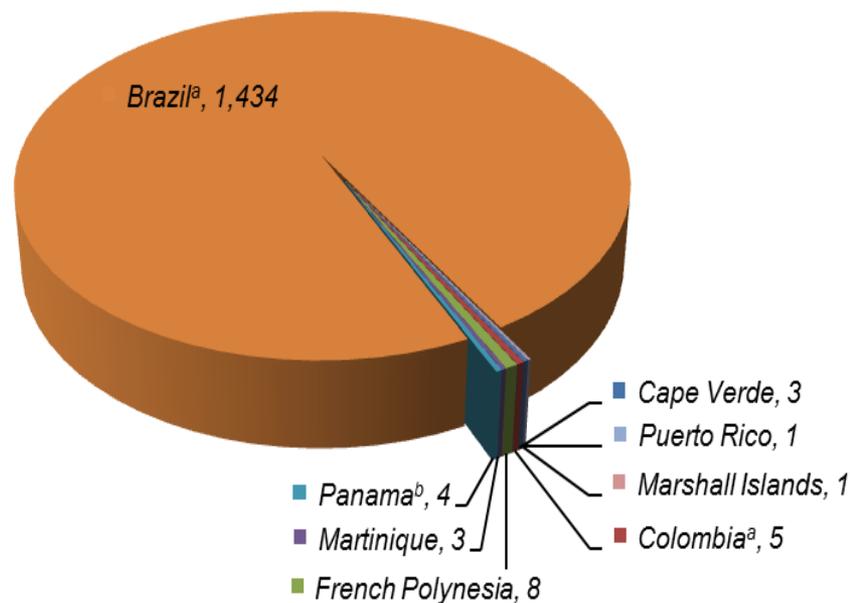
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Suspected and confirmed ZIKV cases in the Americas by Epidemiological Week, 1 MAY 2015 - 19 MAY 2016



Countries and Territories reporting microcephaly and/or CNS malformation cases potentially associated with ZIKV infection as of 21 MAY 2016



a) Brazil is currently investigating 3,275 suspected microcephaly cases as of 21 MAY; Colombia is currently investigating 50 suspected microcephaly cases as of 12 MAY.

b) [WHO reports](#) that it "is not possible to establish a link between" ZIKV infection and microcephaly in one of the three reported Panama cases because of a lack of information and because the infection may have occurred too late in the pregnancy.

Source: PAHO, http://ais.paho.org/phis/viz/ed_zika_epicurve.asp

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Western Hemisphere Countries and Territories with Autochthonous Transmission of Zika Virus: 01 JAN 2015 – 21 MAY 2016

	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS
Total	40,880	269,912	1,447	12 Countries

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS
Argentina	2	0		
Aruba	17	0		
Barbados	7	316		
Belize	1	0		
Bolivia	12	0		
Bonaire	3	0		
Brazil	31,616	88,545	1,434**	Yes†
Colombia	4,867	75,926	5**	Yes†
Costa Rica	32	319		
Cuba	1	0		
Curaçao	73	0		
Dominica	28	203		
Dominican Republic	73	2,370		Yes†
Ecuador	79	209		
El Salvador	46	11,198		Yes†
French Guiana	483	5,760		Yes†
Grenada	1	0		
Guadeloupe	379	3,885		
Guatemala	261	915		
Guyana	6	0		

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS
Haiti	5	1,777		Yes†
Honduras	2	19,868		Yes†
Jamaica	8	646		
Martinique	12	23,860	3	Yes†
Mexico	288	0		
Nicaragua	197	0		
Panama	251	0	4††	Yes†
Paraguay	7	102		
Peru	4	0		
Puerto Rico	1,108	0	1	Yes†
Saint Barthelemy	1	10		
Saint Lucia	2	0		
Saint Martin	83	255		
Saint Vincent and the Grenadines	2	0		
Sint Maarten	7	0		
Suriname	527	2,488		Yes†
Trinidad and Tobago	16	0		
U.S. Virgin Islands	21	36		
Venezuela	352	31,224		Yes†

* Number of microcephaly and/or CNS malformation cases suggestive of congenital infections or potentially associated with ZIKV infection

**Brazil is currently investigating 3,257 suspected microcephaly cases as of 21 MAY; Colombia is currently investigating 50 suspected microcephaly cases as of 19 MAY.

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

†† WHO reports that it "is not possible to establish a link between" ZIKV infection and microcephaly in one of the three reported Panama cases because of a lack of information and because the infection may have occurred too late in the pregnancy.

Sources: Zika cases reported to PAHO as of 19 MAY, and Zika cases reported by the health departments in Puerto Rico as of 5 MAY and USVI as of 10 MAY; and GBS cases and microcephaly cases reported to WHO as of 19 MAY, except for microcephaly cases reported by the Brazil MOH as of 21 MAY and Colombia MOH as of 12 MAY.

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