

Department of Defense
Armed Forces Health Surveillance Branch
Global Zika Virus Surveillance Summary
(29 JUN 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 #24

29 JUN 2016 (next report 6 JUL 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.

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 is available at three labs (NIDDL, BAMC, and USAFSAM). The Triplex EUA assay is available at 15 DoD labs (BAMC, CRDAMC, EAMC, LPMC, USAMRIID, WBAMC, MAMC, Brian Allgood ACH, NHRC, USAFSAM, WAMC, NAMRU-3, TAMC, WRNMMC, and NIDDL).

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 29 JUN 2016, confirmed autochthonous vector-borne transmission of Zika virus (ZIKV) has been reported in **40 (+1, Anguilla)** [countries and territories](#) in the Western Hemisphere. In AFRICOM, Cape Verde reported 7,580 cases as of 8 JUN. 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 48 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. 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.

As of 22 JUN, CDC (ArboNet) and state health departments report **809 (+64)** travel-related cases, 11 locally-acquired, non-vector-borne (sexually transmitted) cases, and one laboratory acquired case in 46 states and the District of Columbia since MAY 2015; no autochthonous vector-borne cases have been reported. As of 9 JUN, Puerto Rico DOH reports **2,162 (+436)** confirmed cases (1 death), with **299 (+108)** cases in pregnant women. The U.S. Virgin Islands DOH reported 26 confirmed cases as of 21 JUN. American Samoa DOH has reported 29 confirmed cases, including 14 cases in pregnant women, as of 23 JUN.

The CDC’s U.S. [pregnancy registry](#) has recorded **265 (+31)** pregnant women with laboratory evidence of a ZIKV infection in the 50 states and the District of Columbia. As of 16 JUN, there have been **four (+1)** infants born with birth defects and **four (+1)** fetal deaths due to birth defects. CDC is tracking an additional **216 (+27)** pregnant women in the U.S. territories, **with one fetal death due to birth defects**.

On 17 JUN, CDC said none of the 5,961 donated blood units tested at the Gulf Coast Regional Blood Center in Texas since 23 MAY have tested positive for ZIKV. In Puerto Rico, [CDC reports](#) 68 of 12,777 (0.5%) of blood donors tested ZIKV positive between 3 APR and 11 JUN. During the latest week of testing, 1.1% of blood donors were positive; the percentage has been increasing over time.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (29 JUN 2016).

All information has been verified unless noted otherwise. Additional sources include: Pacific Public Health Surveillance Network and Gulf Coast Regional Blood Center.

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ZIKA AND MICROCEPHALY: As of **23 JUN**, Brazil (1,616 cases), Cape Verde (**11 (+5)** cases), Colombia (**11 (+5)** cases), French Polynesia (8 cases), the Marshall Islands (1 case), Martinique (4 cases), El Salvador (1 case), French Guiana (1 case), Panama (5 cases), and Puerto Rico (1 case) have reported microcephaly and other fetal malformations potentially associated with ZIKV infection or suggestive of a congenital infection. The U.S. (**8 (+2)**), Spain (2), and Slovenia (1) have reported travel associated microcephaly cases. NEJM published a preliminary analysis of the ZIKV outbreak in Colombia, with the main finding that infection during the third trimester of pregnancy is not linked to structural abnormalities in the fetus. [CDC has said](#), “a causal relationship exists between prenatal Zika virus infection and microcephaly and other serious brain anomalies.”

ZIKA AND GUILLAIN-BARRÉ SYNDROME: According to [WHO on 16 JUN](#), 13 countries (12 in the Western Hemisphere and French Polynesia) have reported Guillain-Barré syndrome (GBS) cases that may be associated with the introduction of ZIKV. There have been **four (+1)** GBS cases linked to ZIKV reported in the continental U.S. and **14 (+2)** cases in Puerto Rico.

USG RESPONSE: **CDC published a presentation, [Zika Virus: Information for Clinicians](#), on 23 JUN**. On 17 JUN, the agency [published guidance](#) for Americans living in areas with ongoing ZIKV transmission. On 14 JUN, CDC issued its draft [interim plan for response activities](#) that would occur after locally acquired ZIKA transmission has been identified in the continental United States and Hawaii. CDC published [interim guidance for interpretation of ZIKV antibody test results](#) in its 3 JUN MMWR. On 25 MAY, CDC released a [Health Alert Network \(HAN\) notice](#) on urine testing to further explain the [interim guidance for Zika virus testing of urine](#) issued on 10 MAY (with an [erratum](#) on 13 MAY). ZIKV disease is a [notifiable disease](#) in the U.S. Additional data, guidance, and information from CDC is available on its [ZIKV](#) web pages.

GLOBAL RESPONSE: **WHO issued a revised [Strategic Response Plan](#) on 17 JUN that places a greater focus on preventing and managing medical complications caused by ZIKV infection**. Following the third meeting of the [WHO Emergency Committee](#) concerning ZIKV and observed increases in neurological disorders and neonatal malformations on 14 JUN, WHO said that the clusters of microcephaly cases and other neurological disorders continue to constitute a Public Health Emergency of International Concern (PHEIC). The Committee found the risk of further international spread of ZIKV from the Olympic and Paralympic games is very low and reaffirmed its previous advice that there should be no general restrictions on travel and trade with countries, areas, and/or territories with ZIKV transmission. The Committee provided additional advice to the Director-General on controlling ZIKV during mass gatherings. WHO updated its [interim guidance for preventing sexual transmission](#) on 7 JUN.

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. For additional information, visit the [WHO](#) and [PAHO](#) Zika web pages.

MEDICAL COUNTERMEASURES: **According to a study published in Nature on 28 JUN, two vaccine candidates, including one developed at the Walter Reed Army Institute of Research, protected 100% of tested mice from ZIKV infection four and eight weeks after a single injection.**

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (29 JUN 2016).

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

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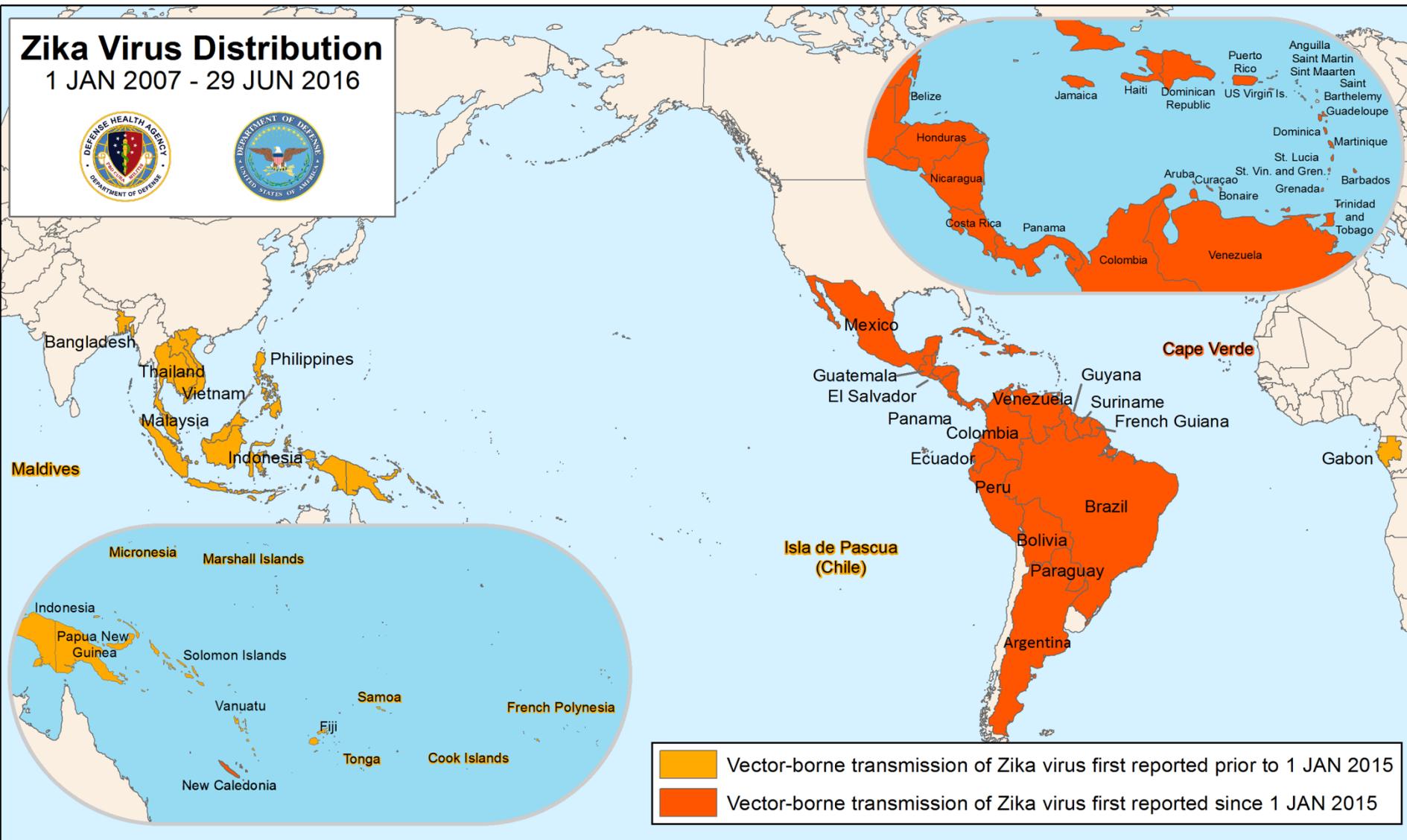
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Zika Virus Distribution

1 JAN 2007 - 29 JUN 2016



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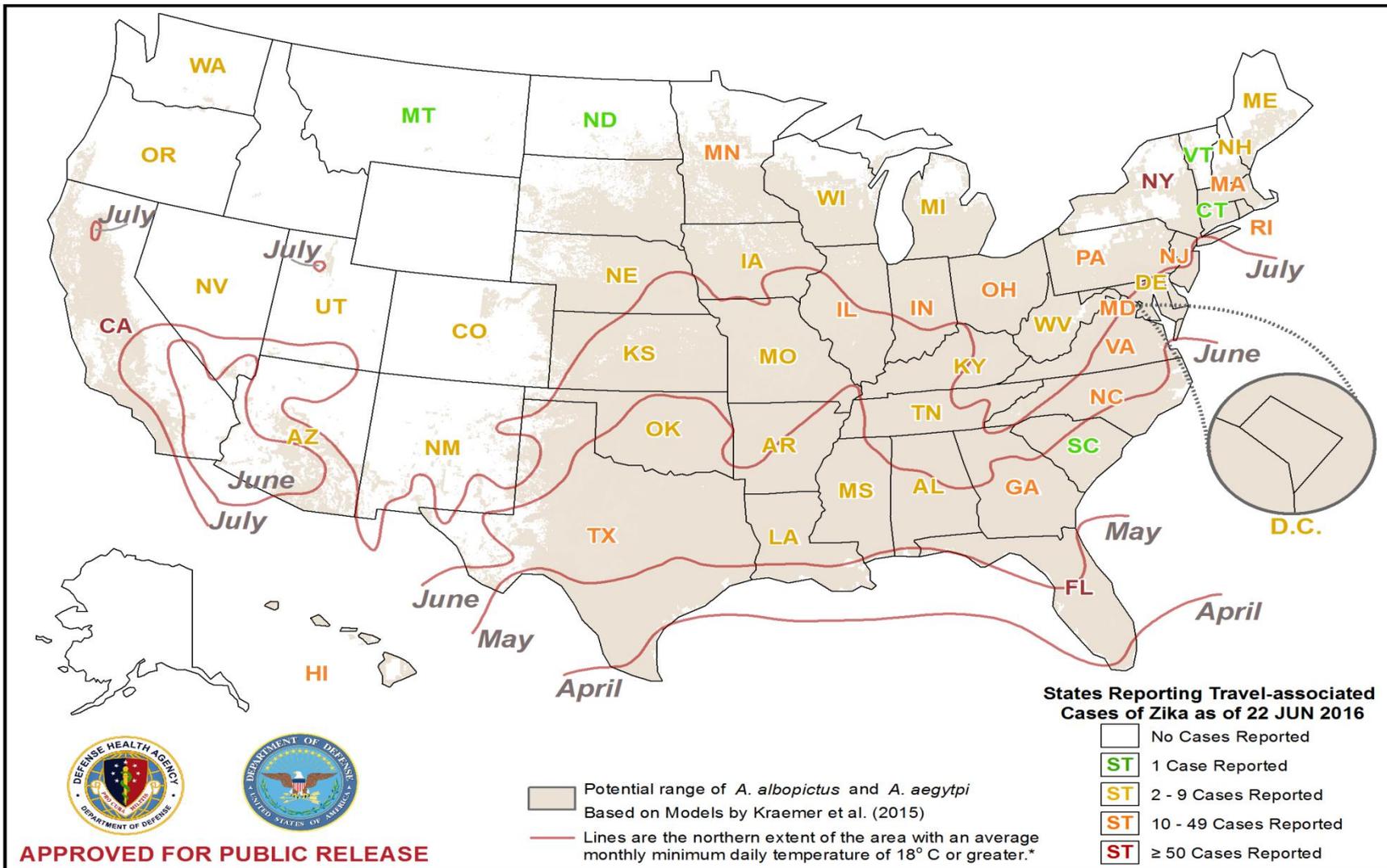
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Overlap of States Reporting Imported Zika Cases with Locations of Major DoD Installations, and the Estimated Range of Mosquito Vectors and Transmission Suitability 29 JUN 2016



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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Western Hemisphere Countries and Territories with Autochthonous Transmission of Zika Virus: 01 JAN 2015 – 24 JUN 2016

	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS†
Total	57,160	388,716	1,639	12 Countries

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS†
Anguilla	1	0		
Argentina	20	68		
Aruba	17	0		
Barbados	18	770		
Belize	2	0		
Bolivia	124	0		
Bonaire	3	0		
Brazil	40,086	159,939	1,616**	Yes
Colombia	8,078	85,021	11**	Yes
Costa Rica	107	519		
Cuba	1	0		
Curaçao	73	0		
Dominica	47	437		
Dominican Republic	73	3,313		Yes
Ecuador	418	0		
El Salvador	46	10,476	1	Yes
French Guiana	483	7,830	1	Yes
Grenada	2	0		
Guadeloupe	379	13,030		
Guatemala	1,415	0		
Guyana	6	0		

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS†
Haiti	5	2,125		Yes
Honduras	44	22,715		Yes
Jamaica	24	1,640		
Martinique	12	30,000	4	Yes
Mexico	419	0		
Nicaragua	274	0		
Panama	283	1,039	5††	Yes
Paraguay	8	275		
Peru	78	0		
Puerto Rico	2,162	0	1	Yes
Saint Barthelemy	21	69		
Saint Lucia	9	127		
Saint Martin	200	830		
Saint Vincent and the Grenadines	8	0		
Sint Maarten	7	0		
Suriname	697	2,524		Yes
Trinidad and Tobago	40	0		
U.S. Virgin Islands	26	49		
Venezuela	1,444	45,920		Yes

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

**Brazil is currently investigating 3,007 suspected microcephaly cases as of 18 JUN; Colombia is currently investigating 102 suspected microcephaly cases as of 18 JUN.

† 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 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 24 JUN, and Zika cases reported by the health departments in Puerto Rico as of 9 JUN and USVI as of 21 JUN; and GBS cases and microcephaly cases reported to WHO as of 23 JUN, except for microcephaly cases reported by the MOHs of Brazil as of 18 JUN, Colombia as of 18 JUN, and French Guiana as of 20 JUN.

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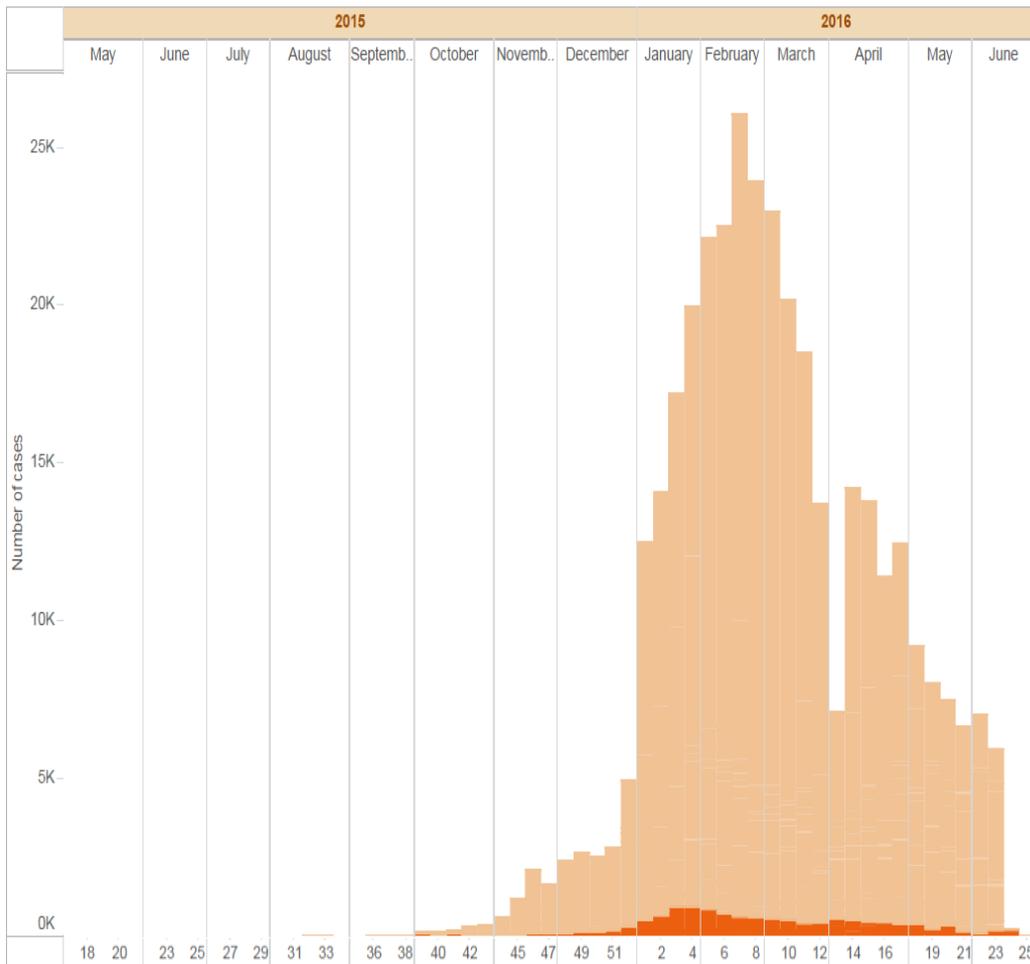
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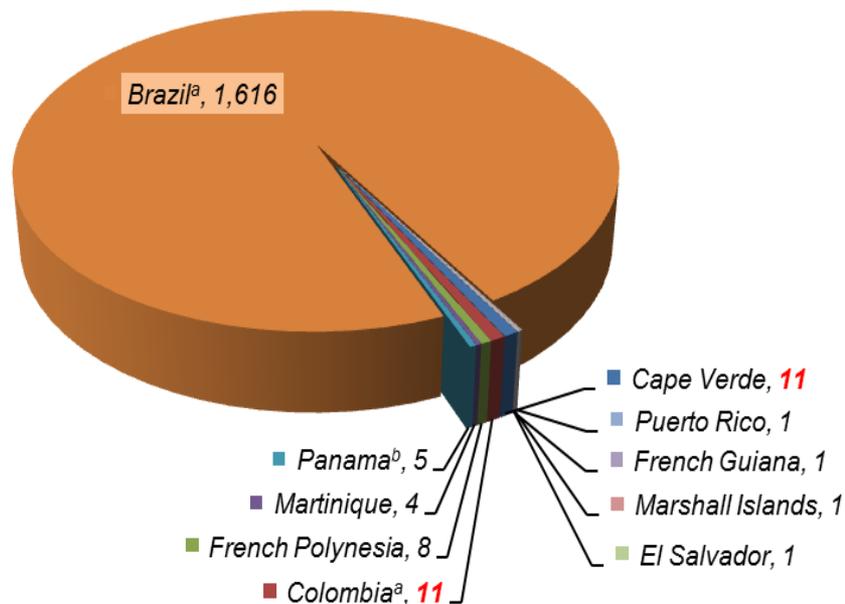
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Suspected and confirmed ZIKV cases in the Americas by Epidemiological Week, 1 MAY 2015 - 24 JUN 2016



Countries and Territories reporting microcephaly and/or CNS malformation cases potentially associated with ZIKV infection as of 23 JUN 2016



a) Brazil is currently investigating 3,007 suspected microcephaly cases as of 18 JUN; Colombia is currently investigating 102 suspected microcephaly cases as of 18 JUN.

b) [WHO reports](#) that it "is not possible to establish a link between" ZIKV infection and microcephaly in one of the 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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