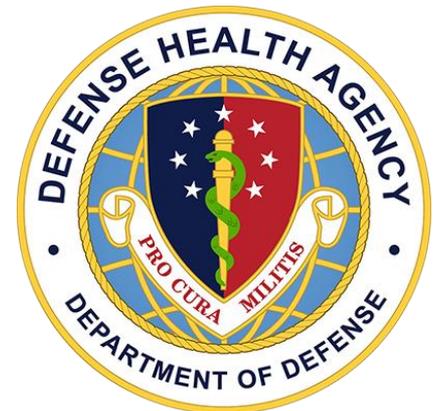


Department of Defense  
Armed Forces Health Surveillance Branch  
Global Zika Virus Surveillance Summary  
(27 JUL 2016)



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# DEPARTMENT OF DEFENSE (AFHSB)

## Global Zika Virus Surveillance Summary #28

### 27 JUL 2016 (next report 3 AUG 2016)



**DoD SURVEILLANCE:** As per the AFHSB [updated guidance](#) for detecting and reporting DoD cases of ZIKV disease, 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 NIDDL, BAMC, and USAFSAM. The Triplex EUA assay is available at BAMC, CRDAMC, EAMC, LRMC, USAMRIID, WBAMC, MAMC, Brian Allgood ACH, NHRC, USAFSAM, WAMC, NAMRU-3, TAMC, WRNMMC, NIDDL, and NAMRU-6.

[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 27 JUL 2016, confirmed autochthonous vector-borne transmission of Zika virus (ZIKV) has been reported in 42 [countries and territories](#) in the Western Hemisphere. 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 these 51 (+1, Saba) [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. Eleven countries have reported person-to-person transmission, most likely through sexual contact.

On 25 JUL, following a significant decrease in the number of new cases being detected, the Colombia Ministry of Health (MOH) declared an end to the Zika epidemic, but not transmission, in that country and lifted its recommendation that women delay pregnancy because of the virus. Elsewhere in the Americas, Costa Rica, Ecuador, Guadeloupe, Guatemala, Jamaica, Mexico, Nicaragua, Puerto Rico, Saint Barthelemy, Saint Martin, and Venezuela have reported increasing incidence of ZIKV infections during the four weeks leading up to 14 JUL. As of 30 JUN, an epi-curve published by PAHO showed 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.

As of 20 JUL, CDC (ArboNet) reports 1,388 (+96) travel-related cases, 15 (+1) 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 26 JUL, the Florida Department of Health (DOH) is investigating two (+1) “possible non-travel related” Zika cases, one each in Miami-Dade and Broward counties.

In Utah, the caretaker of the fatal travel-related case, who was also confirmed as positive, was not infected by vector or sexual transmission. The CDC is investigating transmission by other body fluids.

As of 7 JUL, Puerto Rico DOH reports 5,582 (+1,145) confirmed cases (1 death), with 672 (+119) cases in pregnant women. As of 21 JUL, the U.S. Virgin Islands DOH reported 56 (+9) confirmed cases. According to CDC on 22 JUL, American Samoa has reported 44 (+12) confirmed cases, including 6 (-9) cases in pregnant women and one case of fetal demise. As of 14 JUL, the CDC’s U.S. [pregnancy registry](#) has recorded 400 (+54) pregnant women with laboratory evidence of a ZIKV infection in the 50 states and the District of Columbia. Twelve (+3) infants were born with birth defects, and there were six fetal deaths due to birth defects. CDC is tracking an additional 378 (+75) pregnant women in the U.S. territories, with one fetal death due to birth defects.

As of 22 JUL, Gulf Coast Regional Blood Banks in Texas have tested 26,153 units for ZIKV, and none were positive. The American Red Cross has tested

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (20 JUL 2016).

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

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**CASE REPORT (cont'):** 18,016 units in CONUS; none were positive. In Puerto Rico up to 4 JUL, 1.8 percent of donors screened positive for ZIKV, the highest percentage since blood donor screening was initiated.

On 15 JUL, the New York City Department of Health and Mental Hygiene [reported](#) suspected female-to-male transmission of ZIKV following “condomless vaginal intercourse.” [The Lancet](#) reported research on 11 JUL that ZIKV had been found in vaginal secretions.

**ZIKA AND MICROCEPHALY:** As of 26 JUL, Brazil (1,709 (+72)) cases), Cape Verde (11 cases), Colombia (21 cases), French Polynesia (8 cases), the Marshall Islands (1 case), Martinique (6 cases), El Salvador (3 (+2) cases), 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. (18 (+3)), Spain (2), and Slovenia (1) have reported travel associated microcephaly cases. [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 21 JUL](#), 15 countries (14 in the Western Hemisphere and French Polynesia) have reported Guillain-Barré syndrome (GBS) cases that may be associated with the introduction of ZIKV. Five GBS cases are linked to ZIKV in the continental U.S. and 21 (+2) cases in Puerto Rico.

**USG RESPONSE:** CDC released two guidance updates on 25 JUL: [Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure](#) and [Interim Guidance for Prevention of Sexual Transmission of Zika Virus](#). On 23 JUL, FDA issued [Donor Screening Recommendations to Reduce the Risk of Transmission of Zika Virus by Human Cells, Tissues, and Cellular and Tissue-Based Products](#). Based on its analysis of the country-specific risk of ZIKV importation and sustained transmission, [CDC reported](#) on 13 JUL that travel to the 2016 Olympic and Paralympic Games, does not “pose a unique or substantive risk for mosquito-borne transmission of ZIKV in excess of that posed by non-Games travel” for most countries. On 14 JUN, CDC issued its draft [interim plan for response activities](#) that would occur after local ZIKV transmission has been identified in the continental United States and Hawaii. 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. PAHO has created a [searchable database](#) of published primary research and protocols. For additional information, visit the [WHO](#) and [PAHO](#) Zika web pages.

**MEDICAL COUNTERMEASURES:** On 26 JUL, Inovio Pharmaceuticals announced that it had started a phase I trial of its Zika DNA vaccine (GLS-5700). The trial will test safety, tolerability, and immunogenicity in 40 human volunteers. On 28 JUN, Nature reported on two other vaccine candidates, including one developed at the Walter Reed Army Institute of Research (WRAIR), that protected 100% of tested mice from ZIKV infection four and eight weeks after a single injection. WRAIR will co-develop its vaccine with [Sanofi Pasteur](#).

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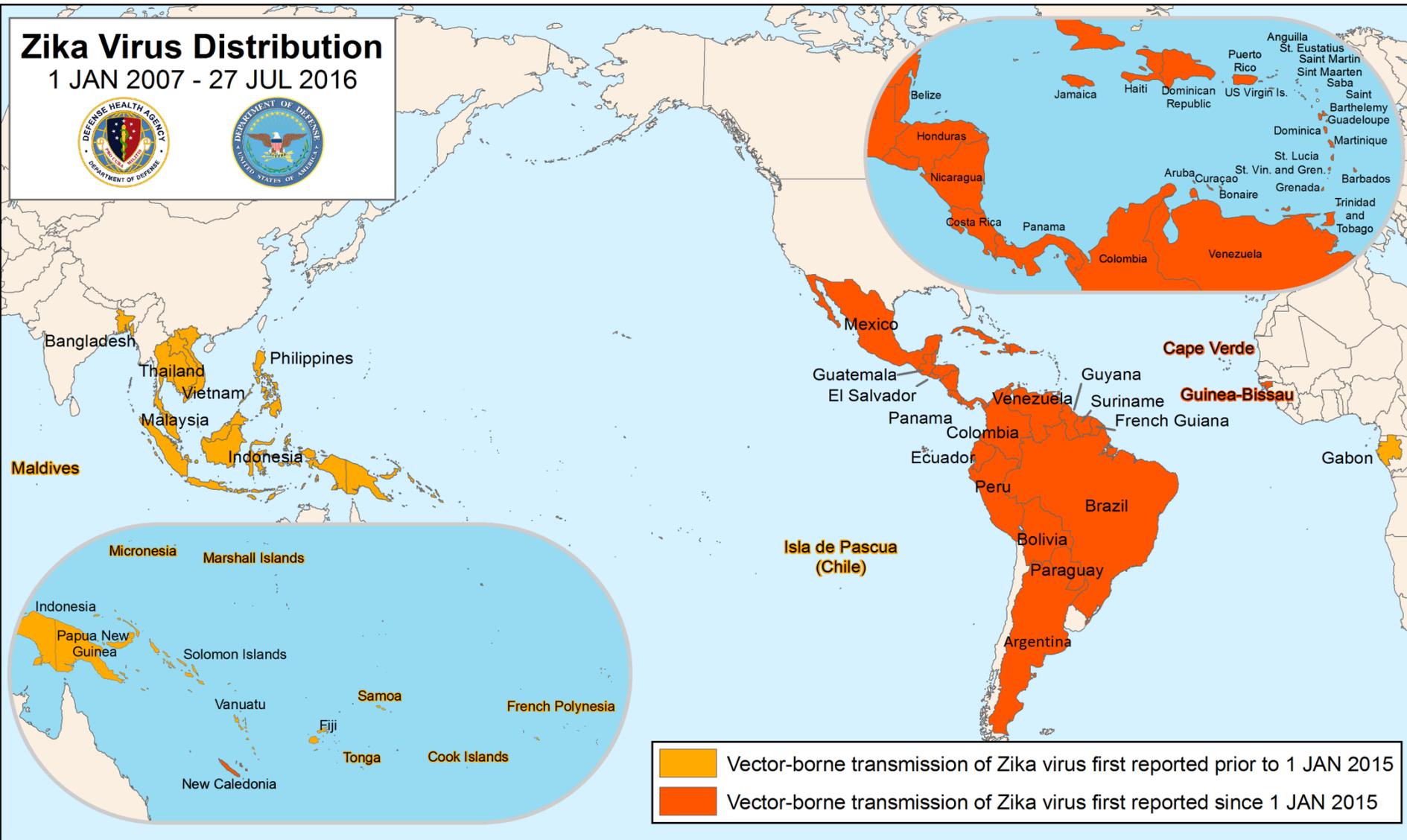
## Global Zika Virus Surveillance Summary #28

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### Zika Virus Distribution

1 JAN 2007 - 27 JUL 2016



 Vector-borne transmission of Zika virus first reported prior to 1 JAN 2015

 Vector-borne transmission of Zika virus first reported since 1 JAN 2015

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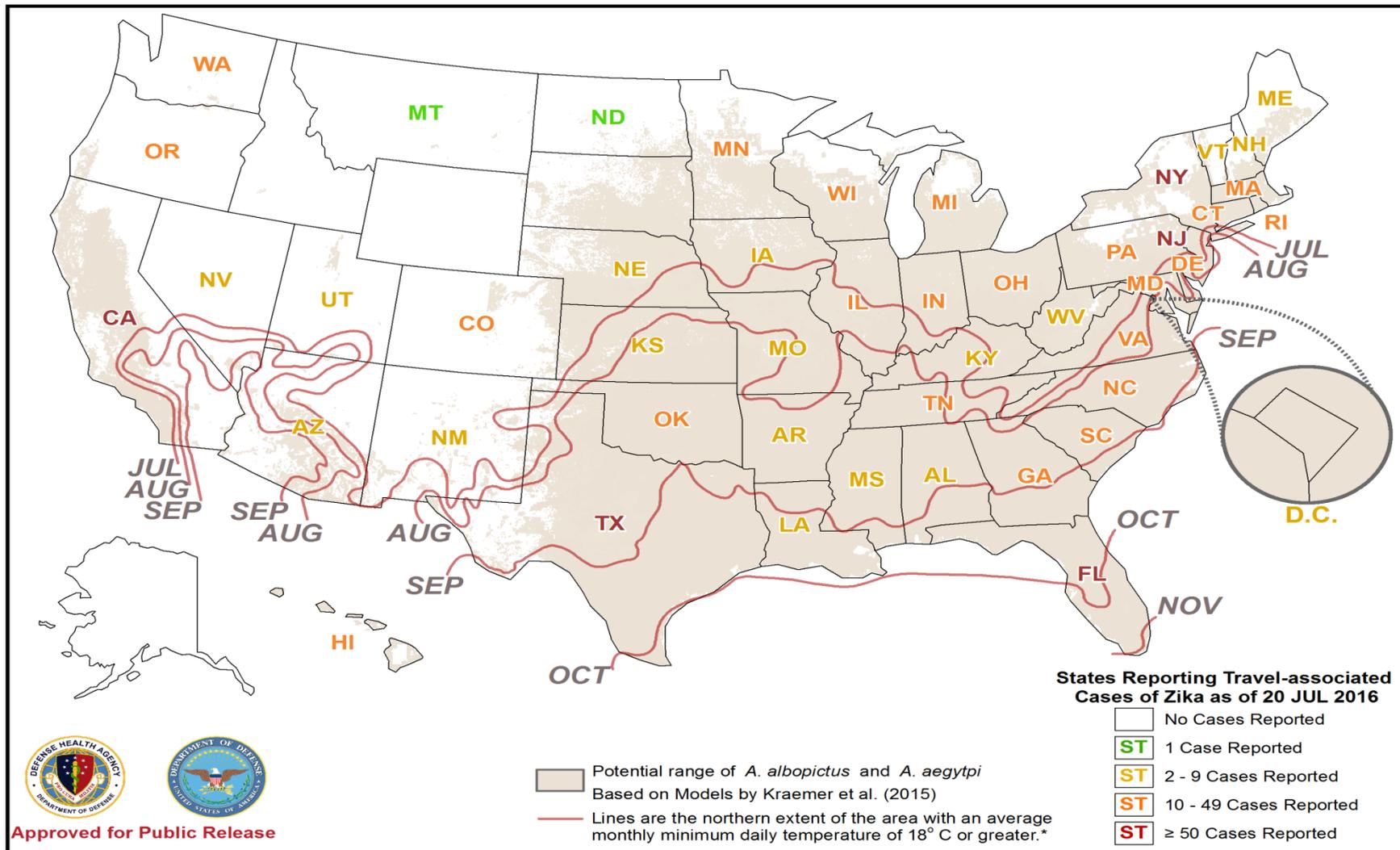
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# DEPARTMENT OF DEFENSE (AFHSB)

## Overlap of States Reporting Imported Zika Cases and the Estimated Range of Mosquito Vectors and Transmission Suitability

27 JUL 2016



This version of the map shows that after JUL 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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# DEPARTMENT OF DEFENSE (AFHSB)

## Global Zika Virus Surveillance Summary #28

### 27 JUL 2016



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

	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS†
<b>Total</b>	<b>88,678</b>	<b>432,670</b>	<b>1,746</b>	<b>14 Countries</b>

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS†
Anguilla	1	0		
Argentina	23	1,712		
Aruba	21	0		
Barbados	18	770		
Belize	5	0		
Bolivia	126	0		
Bonaire, St. Eustatius, Saba	9	0		
Brazil	66,180	165,932	1,709**	Yes
Colombia	8,682	89,962	21**	Yes
Costa Rica	238	816		
Cuba	1	0		
Curaçao	208	0		
Dominica	65	708		
Dominican Republic	154	4,660		Yes
Ecuador	1,082	1,348		
El Salvador	51	10,806	3	Yes
French Guiana	483	9,090	1	Yes
Grenada	2	0		
Guadeloupe	379	23,330		Yes
Guatemala	408	1,853		

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS†
Guyana	6	0		
Haiti	5	2,125		Yes
Honduras	131	26,998		Yes
Jamaica	44	2,456		Yes
Martinique	12	33,460	6	Yes
Mexico	927	0		
Nicaragua	614	0		
Panama	295	1,262	5††	Yes
Paraguay	8	275		
Peru	86	0		
Puerto Rico	5,582	0	1	Yes
Saint Barthelemy	61	270		
Saint Lucia	13	319		
Saint Martin	200	1,580		
Saint Vincent and the Grenadines	8	0		
Sint Maarten	25	0		
Suriname	697	2,676		Yes
Trinidad and Tobago	149	0		
U.S. Virgin Islands	56	400		
Venezuela	1,632	49,885		Yes

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

\*\*Brazil is currently investigating 3,182 suspected microcephaly cases as of 16 JUL; Colombia is currently investigating 196 suspected microcephaly cases as of 16 JUL.

† 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 cases due to a lack of information, specifically trimester of infection.

Sources: Zika cases reported to PAHO as of 21 JUL, and Zika cases reported by the Puerto Rico DOH as of 7 JUL; and GBS cases and microcephaly cases reported to WHO as of 21 JUL, except for microcephaly cases reported by the MOHs of Brazil and Colombia as of 16 JUL.

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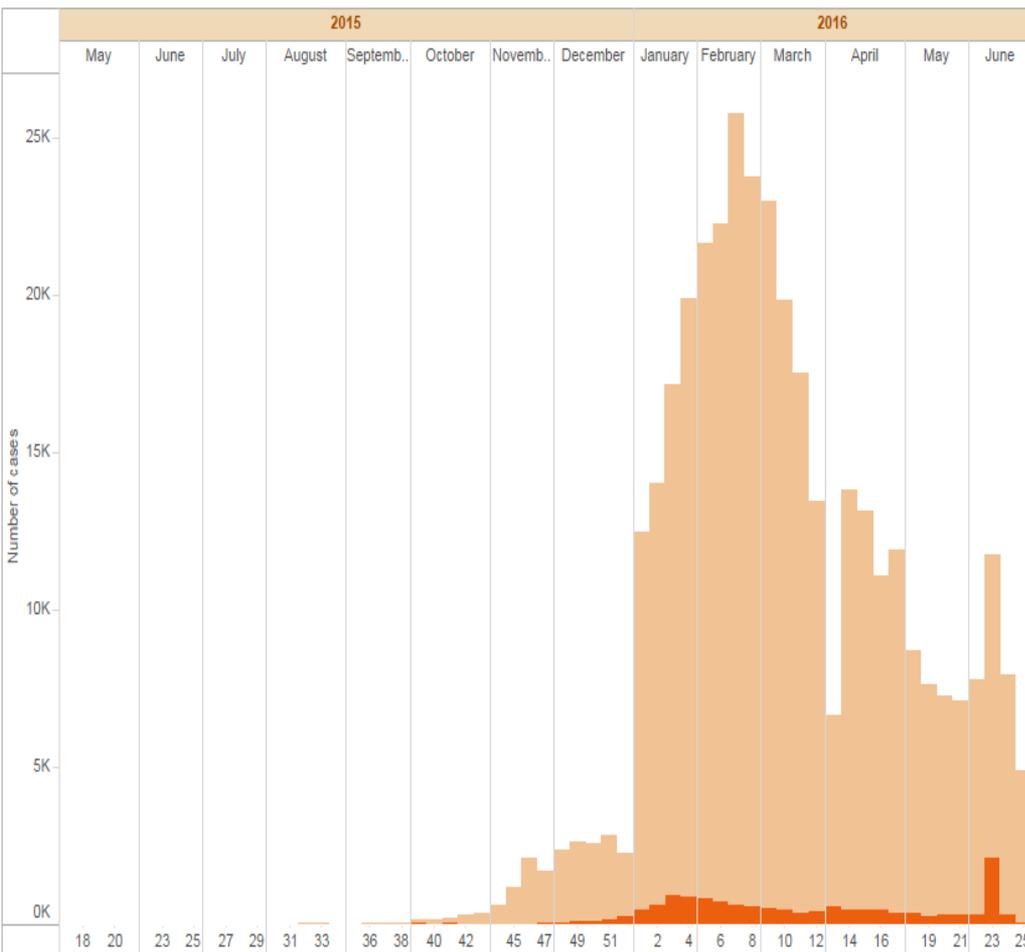
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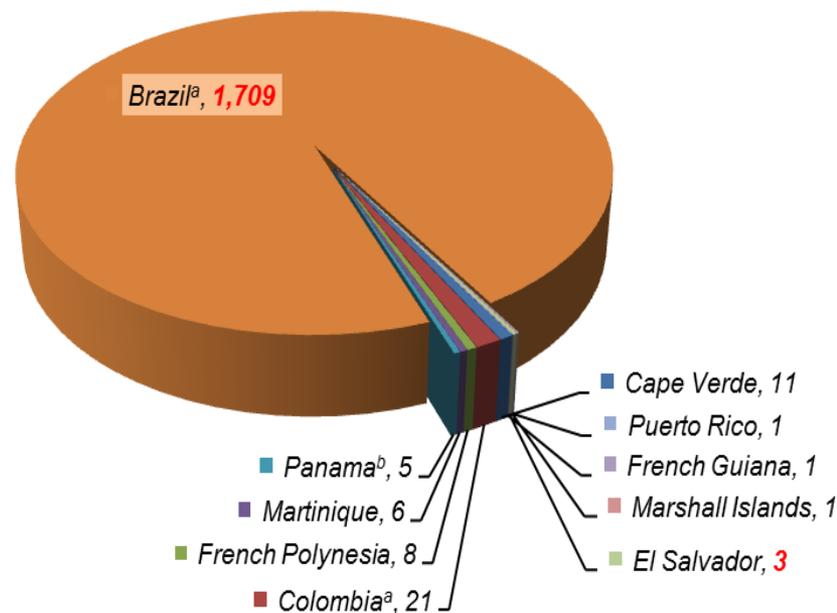
### 27 JUL 2016



**Suspected and confirmed ZIKV cases in the Americas by Epidemiological Week, 1 MAY 2015 – 30 JUN 2016**



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



a) Brazil is currently investigating **3,182** suspected microcephaly cases as of **16 JUL**; Colombia is currently investigating **196** suspected microcephaly cases as of **16 JUL**.

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

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