World Health Organization

SITUATION REPORT

ZIKA VIRUS
MICROCEPHALY
GUILLAIN-BARRÉ SYNDROME
1 SEPTEMBER 2016

(DATA AS OF 31 AUGUST 2016)

KEY UPDATES

- Countries and territories reporting mosquito-borne Zika virus infections for the first time in the past week:
  - British Virgin Islands and Singapore
- Countries and territories reporting microcephaly and other central nervous system (CNS) malformations potentially associated with Zika virus infection for the first time in the past week:
  - None
- Countries and territories reporting Guillain-Barré syndrome (GBS) cases associated with Zika virus infection for the first time in the past week:
  - None
- Operational updates from the WHO Regional Office for the Americas:
  - WHO provided technical advice on the detection of and response to congenital syndromes, and the care of pregnant women and newborn children in the Dominican Republic.
- The 2016 Summer Paralympic Games will be held in Rio de Janeiro, Brazil, from 7 to 18 September. WHO continues to provide technical support to the Ministry of Health to ensure the 2016 Summer Paralympic Games are as safe as possible for all athletes, volunteers, visitors and residents.
- Genetic sequencing of Zika virus isolates from four samples collected in Guinea-Bissau has preliminarily identified that these are related to the African lineage of the virus.

ANALYSIS

- Overall, the global risk assessment has not changed.
- The geographic expansion of Zika virus, after having slowed in April through June, has increased somewhat in July and August. This is likely due to increased activity of the mosquito vector in the Northern Hemisphere during the warmer summer months.
- While some countries such as those in South America are reporting downward trends in Zika transmission, other areas including those recently affected (e.g., Saint Barthelemy in the Caribbean) and those affected earlier (e.g., Puerto Rico) are experiencing upward trends. As most countries do not report absolute numbers of Zika cases, it is not possible to make generalizations about the global trend of the Zika outbreak.

- Although the African lineage preliminarily identified in Guinea-Bissau has not been associated with microcephaly and other neurologic complications, further surveillance is needed as there have been very few confirmed cases of the African lineage. At this point it is still too early to dismiss this possible threat.

SITUATION

- 72 countries and territories (Fig. 1, Table 1) have reported evidence of mosquito-borne Zika virus transmission since 2007 (69 with reports from 2015):
  - 55 with a first reported outbreak from 2015 onwards (Fig. 2, Table 1).
  - Four with having possible endemic transmission or evidence of local mosquito-borne Zika infections in 2016.
  - 13 with evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or with the outbreak terminated.
- Since February 2016, 11 countries have reported evidence of person-to-person transmission of Zika virus (Table 2).
- 20 countries or territories have reported microcephaly and other CNS malformations potentially associated with Zika virus infection or suggestive of congenital infection (Table 3). Four of the 20 countries reported microcephalic babies born from mothers in countries with no endemic Zika virus transmission but who reported recent travel history to Zika-affected countries.
- Outcomes of pregnancies with laboratory evidence of possible Zika virus in the United States of America[1]:
  - 16 total liveborn infants with birth defects
  - Five total pregnancy losses with birth defects
- Outcomes of pregnancies with laboratory evidence of possible Zika virus in territories of the United States of America:
  - One total liveborn infant with birth defects
  - One total pregnancy loss with birth defects
- 18 countries and territories have reported an increased incidence of GBS and/or laboratory confirmation of a Zika virus infection among GBS cases (Table 4).
- In Guinea-Bissau, the gene sequencing results of the four confirmed Zika cases sent in July have preliminarily confirmed that the cases are of the African lineage, i.e., not the predominant global outbreak Asian lineage. The investigation of five reported cases of microcephaly is ongoing.
- The 2016 Summer Paralympic Games will be held in Rio de Janeiro, Brazil, from 7 to 18 September. WHO, particularly through the Regional Office for the Americas, continues to provide technical support to the Ministry of Health to ensure the 2016 Summer Paralympic Games are as safe as possible for all athletes, volunteers, visitors and residents.

[1] https://www.cdc.gov/zika/geo/pregnancy-outcomes.html

Table 1. Countries and territories reporting mosquito-borne Zika virus transmission

Classification	WHO Regional Office	Country / territory	Total
Category 1: Countries with a first reported outbreak from 2015 onwards	**AFRO**	Cabo Verde; Guinea-Bissau	**2**
	AMRO/PAHO	Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bolivia (Plurinational State of), Bonaire, Sint Eustatius and Saba – Netherlands*; Brazil; British Virgin Islands; Cayman Islands; Colombia; Costa Rica; Cuba; Curaçao; Dominica; Dominican Republic; Ecuador; El Salvador; French Guiana; Grenada; Guadeloupe; Guatemala; Guyana; Haiti; Honduras; Jamaica; Martinique; Mexico; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saint Barthélemy; Saint Lucia; Saint Martin; Saint Vincent and the Grenadines; Sint Maarten; Suriname; Trinidad and Tobago; Turks and Caicos; United States of America; United States Virgin Islands; Venezuela (Bolivarian Republic of)	**46**
	WPRO	American Samoa; Fiji; Marshall Islands; Micronesia (Federated States of); Samoa; Singapore; Tonga	**7**
Subtotal			**55**
Category 2: Countries with possible endemic transmission or evidence of local mosquito-borne Zika infections in 2016	**SEARO**	Indonesia; Thailand	**2**
	WPRO	Philippines; Viet Nam	**2**
Subtotal			**4**
Category 3: Countries with evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or outbreak terminated	**AFRO**	Gabon	**1**
	PAHO/AMRO	ISLA DE PASCUA – Chile**	**1**
	SEARO	Bangladesh; Maldives	**2**
	WPRO	Cambodia; Cook Islands**; French Polynesia**; Lao People's Democratic Republic; Malaysia; New Caledonia; Papua New Guinea; Solomon Islands; Vanuatu	**9**
Subtotal			**13**
Total			**72**

**This includes confirmed Zika virus cases reported in BONAIRE – Netherlands, SINT EUSTATIUS and SABA – Netherlands.*

***These countries and territories have not reported Zika virus cases in 2015 or 2016.*

Categories are defined as follows:

Category 1: Countries with a first reported outbreak from 2015 onwards

- *A laboratory confirmed, autochthonous, mosquito-borne case of Zika virus infection in an area where there is no evidence of circulation of the virus in the past (prior 2015), whether it is detected and reported by the country itself or by another state party diagnosing returning travellers* ***OR***
- *A laboratory confirmed, autochthonous, mosquito-borne case of Zika virus infection in an area where transmission has been previously interrupted. The assumption is that the size of the susceptible population has built up to a sufficient level to allow transmission again; the size of the outbreak will be a function of the size of the susceptible population* ***OR***
- *An increase of the incidence of laboratory confirmed, autochthonous, mosquito-borne Zika virus infection in areas where there is on-going transmission, above two standard deviations of the baseline rate, or doubling the number of cases over a 4-week period. Clusters of febrile illnesses, in particular when epidemiologically-linked to a confirmed case, should be microbiologically investigated.*

Category 2: Countries with possible endemic transmission or evidence of local mosquito-borne Zika infections in 2016 with the reporting period beginning in 2007

- *Countries or territories that have reported an outbreak with consistent presence of laboratory confirmed, autochthonous, mosquito-borne cases of Zika virus infection 12 months after the outbreak* ***OR***
- *Countries or territories where Zika virus has been circulating for several years with consistent presence of laboratory confirmed, autochthonous, mosquito-borne cases of Zika virus infection or evidence of local mosquito-borne Zika infections in 2016. Reports can be from the country or territory where infection occurred, or from a third party where the case is first recorded according to the International Health Regulations (IHR 2005). Countries with evidence of infection prior to 2007 are listed in http://www.who.int/bulletin/online_first/16-171082.pdf*

Category 3: Countries with evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or outbreak terminated **with the reporting period beginning in 2007**

- *Absence of confirmed cases over a 3-month period in a specific geographical area with climatic conditions suitable for year-round arbovirus transmission, or over a 12-month period in an area with seasonal vector activity.*

Figure 1. Cumulative number of countries and territories by WHO region[2] reporting mosquito-borne Zika virus transmission in years (2007–2014), and monthly from 1 January 2015 to 31 August 2016

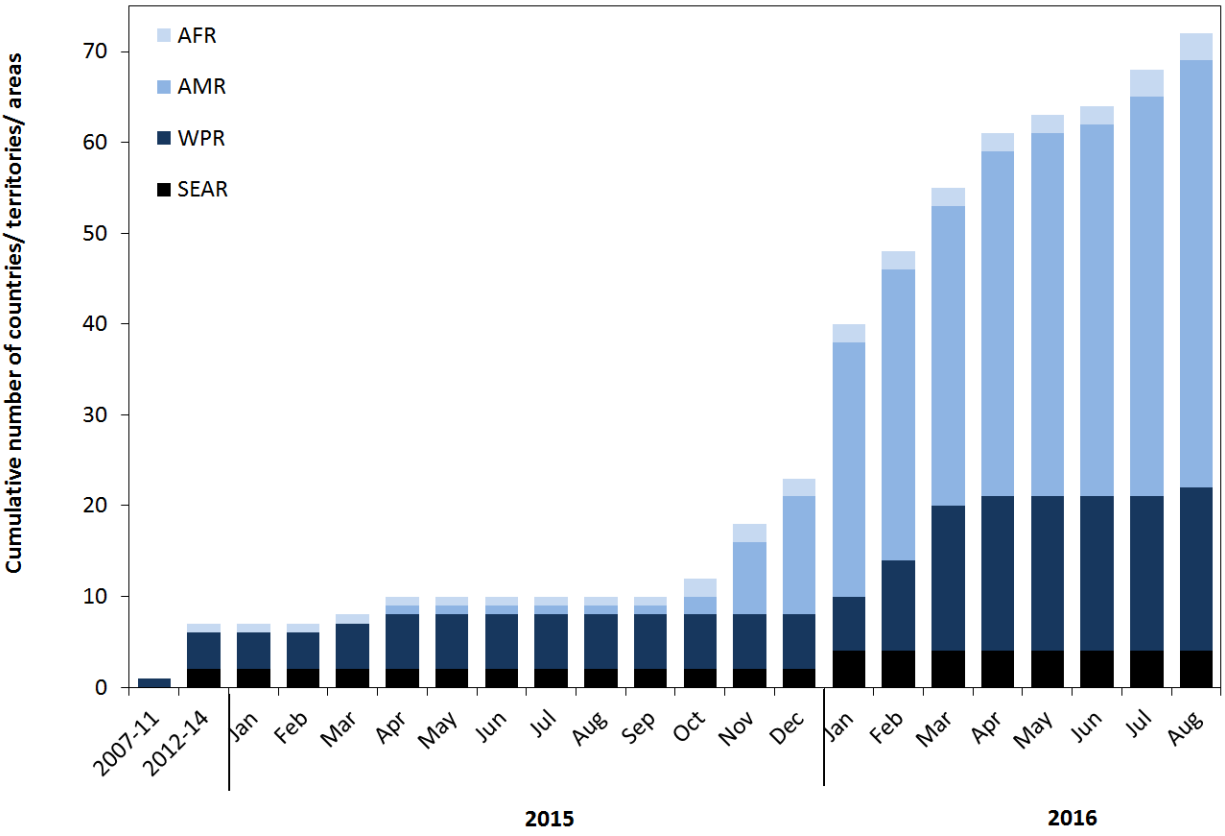
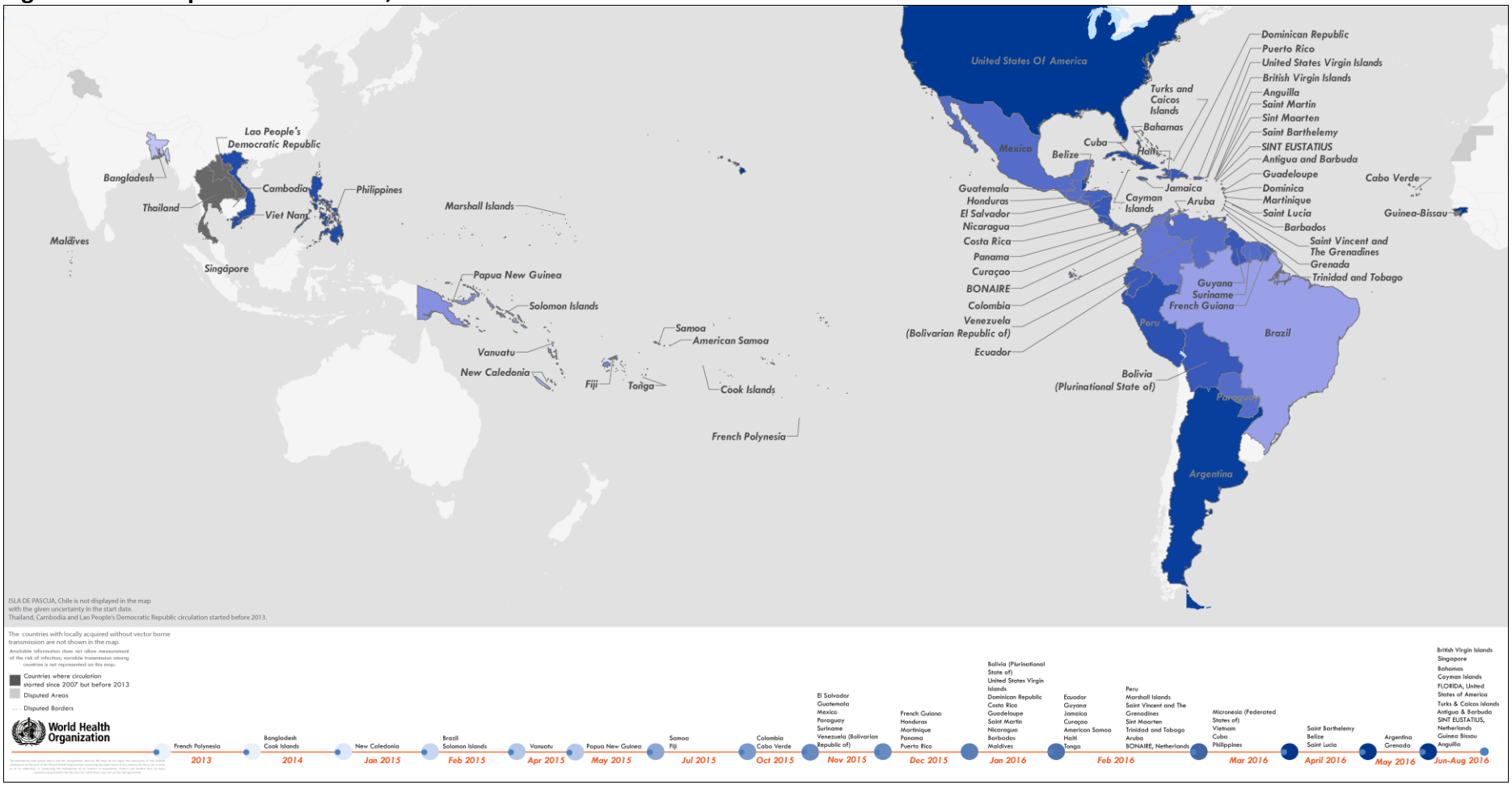


Table 2. Countries reporting non mosquito-borne Zika virus transmission since February 2016

Classification	WHO Regional Office	Country / territory	Total
Countries with evidence of person-to-person transmission of Zika virus, other than mosquito-borne transmission	**AMRO/PAHO**	Argentina, Canada, Chile, Peru, United States of America	**5**
	EURO	France, Germany, Italy, Portugal, Spain	**5**
	WPRO	New Zealand	**1**
Total			**11**

[2] http://www.who.int/about/regions/en/

Figure 2. Global spread of Zika virus, 2013-2016



ISLA DE PASCUA – Chile is not displayed in the map given uncertainty about the date of onset of the outbreak there. Circulation of Zika virus in Thailand, Cambodia and Lao People's Democratic Republic started before 2013. Countries where sexual transmission occurred are not represented in this map. Available information does not permit measurement of the risk of infection in any country; the variation in transmission intensity among countries is therefore NOT represented on this map. Zika virus is not necessarily present throughout the countries/territories shaded in this map.

Table 3. Countries and territories reporting microcephaly and/or CNS malformation cases potentially associated with Zika virus infection

Reporting country or territory	Number of microcephaly and/or CNS malformation cases uggestive of congenital Zika infections or potentially associated with a Zika virus infection	Probable location of infection
Brazil	1845[3]	Brazil
Cabo Verde	9	Cabo Verde
Canada	1	Undetermined
Costa Rica	1	Costa Rica
Colombia	34[4]	Colombia
Dominican Republic	3	Dominican Republic
El Salvador	4	El Salvador
French Guiana	3[5]	French Guiana
French Polynesia	8	French Polynesia
Haiti	1	Haiti
Honduras	1	Honduras
Marshall Islands	1	Marshall Islands
Martinique	10[7]	Martinique
Panama	5	Panama
Paraguay	2[6]	Paraguay
Puerto Rico	1	Puerto Rico
Slovenia	1[7]	Brazil
Spain	2	Colombia, Venezuela (Bolivarian Republic of)
Suriname	1	Suriname
United States of America*	21[8]	Undetermined**

** US-CDC has modified the way information is displayed. To protect the privacy of the women and children affected by Zika, US-CDC is not reporting individual state, tribal, territorial or jurisdictional level data.*
***The probable locations of three of the infections were Brazil (1 case), Haiti (1 case) and Mexico, Belize or Guatemala (1 case).*

Table 4. Countries and territories reporting Guillain-Barré syndrome (GBS) potentially associated with Zika virus infection

Classification	Country / territory
Reported increase in incidence of GBS cases, with at least one GBS case with confirmed Zika virus infection	Brazil, Colombia, Dominican Republic, El Salvador*, French Guiana, French Polynesia, Honduras, Jamaica, Martinique, Suriname**, Venezuela (Bolivarian Republic of)
No increase in GBS incidence reported, but at least one GBS case with confirmed Zika virus infection	Costa Rica, Grenada[9], Guadeloupe[10], Guatemala, Haiti, Panama, Puerto Rico

**GBS cases with previous history of Zika virus infection were reported by the International Health Regulations (2005) National Focal Point in United States of America.*
***One case living in continental Netherlands was diagnosed in mid-January 2016 at the Erasmus Academic Medical Center and reported by the Netherlands.*

[3] http://www.combateaedes.saude.gov.br/images/sala-de-situacao/informe_microcefalia_epidemiologico40.pdf
[4] http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiolgico/2016%20Boletin%20epidemiologico%20semana%2033.pdf
[5] http://www.invs.sante.fr/Publications-et-outils/Points-epidemiologiques/Tous-les-numeros/Antilles-Guyane/2016/Situation-epidemiologique-du-virus-Zika-aux-Antilles-Guyane.-Point-au-21-juillet-2016
[6] http://www.mspbs.gov.py/v3/paraguay-reporta-sus-dos-primeros-casos-de-microcefalia-asociados-al-zika/
[7] http://www.nejm.org/doi/pdf/10.1056/NEJMoa1600651
[8] http://www.cdc.gov/zika/geo/pregnancy-outcomes.html
[9] http://health.gov.gd/index.php?option=com_content&view=article&id=434:nine-confirmed-zika-cases-in-grenada&catid=83:latest-news&Itemid=932&lang=en
[10] http://www.invs.sante.fr/Publications-et-outils/Points-epidemiologiques/Tous-les-numeros/Antilles-Guyane/2016/Situation-epidemiologique-du-virus-Zika-aux-Antilles-Guyane.-Point-au-23-juin-2016