



KEY UPDATES

- Countries and territories reporting mosquito-borne Zika virus infections for the first time in the past week:
 - None
- 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
- The fifth meeting of the Emergency Committee (EC) on Zika virus, microcephaly and other neurological disorders was held on 18 November 2016.¹ The Director-General accepted the recommendations of the EC and declared the end of the Public Health Emergency of International Concern (PHEIC). However, Zika virus and associated consequences remains a significant enduring public health challenge. Research has demonstrated the link between Zika virus infection and microcephaly, furthering the need for a robust technical mechanism to manage the global response and research agenda.^{2,3} The coordination and response to Zika virus is being escalated into a sustained programme of work with dedicated resources to address the long-term nature of the disease and its consequences. Recommendations from previous EC meetings will remain in place for three months while WHO implements the transition plan to shift activities into a longer-term programme. Building on established mechanisms and guided by the Zika Strategic Response Plan, WHO continues to coordinate and support more than 60 partners in the areas of detection, prevention, care and support, and research to strengthen preparedness and response in countries and territories where the *Aedes* mosquitoes are established.

¹ <http://www.who.int/mediacentre/news/statements/2016/zika-fifth-ec/en/>

² <http://www.who.int/emergencies/zika-virus/causality/en/>

³ <http://www.who.int/reproductivehealth/zika/zika-virus-research-agenda/en/>

ANALYSIS

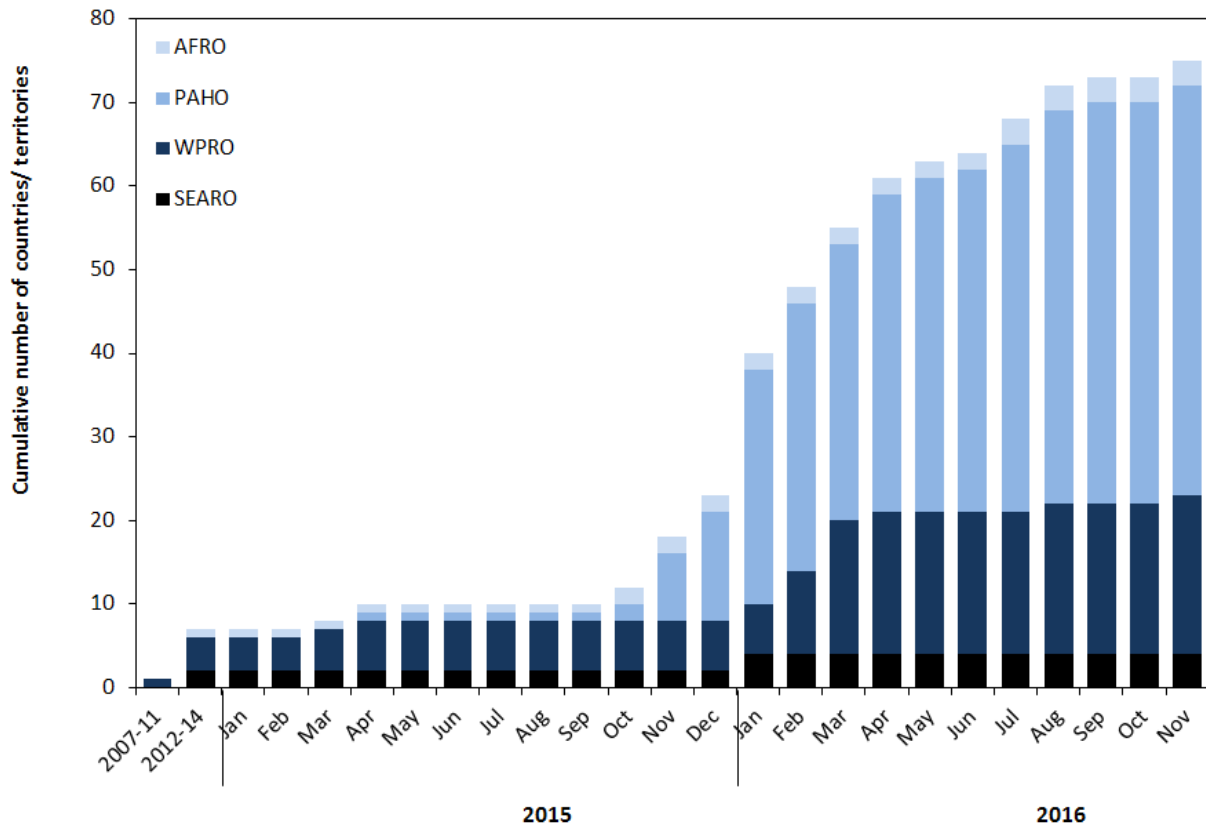
- Overall, the global risk assessment has not changed. Zika virus continues to spread geographically to areas where competent vectors are present. Although a decline in cases of Zika infection has been reported in some countries, or in some parts of countries, vigilance needs to remain high.

SITUATION

- Seventy-five countries and territories (Fig. 1, Table 1) have reported evidence of mosquito-borne Zika virus transmission since 2007 (69 with reports from 2015 onwards), of which:
 - Fifty-eight with a reported outbreak from 2015 onwards (Fig. 2, Table 1).
 - Seven with having possible endemic transmission or evidence of local mosquito-borne Zika infections in 2016.
 - Ten with evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or with the outbreak terminated.
- Twelve countries have reported evidence of person-to-person transmission of Zika virus (Table 2).
- Twenty-eight countries or territories have reported microcephaly and other CNS malformations potentially associated with Zika virus infection, or suggestive of congenital infection (Table 3).
- Nineteen countries or territories have reported an increased incidence of GBS and/or laboratory confirmation of a Zika virus infection among GBS cases (Table 4).
- The results from the seroneutralisation test are pending for the three microcephaly cases detected in Guinea-Bissau that were positive for Zika and Chikungunya immunoglobulin G (IgG).
- Operational updates:
 - From 8 through 10 November, members from the Independent Oversight and Advisory Committee (IOAC) for the WHO Health Emergencies Programme (WHE) visited Colombia to assess WHO's performance in the current Zika outbreak. The Colombia visit was supported by the WHO Secretariat, PAHO Health Emergencies Department (PHE), PAHO Zika Incident Management and involved all three levels of WHO.
 - PAHO/WHO continues to provide technical support to countries still in the process of implementing Mosquito Awareness Week including Costa Rica, Guatemala and Uruguay.
 - In Saint Lucia, PAHO/WHO and partners have organized:
 - A meeting with public sector stakeholders on Zika, prevention of vector-borne diseases, social mobilization tools, and risk communication.
 - An orientation session for faith based organization leaders on mosquito transmitted diseases, their role in prevention and mitigation, and social mobilization.

- In Suriname, PAHO/WHO and partners have coordinated:
 - A National Strategy for all-hazard risk communication with the Ministry of Health.
 - A risk communication workshop for district health officials and hospital authorities and orientation for local authorities from different sectors.
 - An orientation session with media on health emergencies and their role in mitigation.

Figure 1. Cumulative number of countries and territories by WHO region⁴ reporting mosquito-borne Zika virus transmission for the first time by year (2007–2014), and by month from 1 January 2015 to 23 November 2016



⁴ <http://www.who.int/about/regions/en/>

Table 1. Countries and territories that have reported mosquito-borne Zika virus transmission

Classification	WHO Regional Office	Country / territory	Total
Category 1: Countries with a 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; Montserrat; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saint Barthélemy; Saint Kitts and Nevis; 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)	48
	WPRO	American Samoa; Fiji; Marshall Islands; Micronesia (Federated States of); Palau; Samoa; Singapore; Tonga	8
Subtotal			58
Category 2: Countries with possible endemic transmission or evidence of local mosquito-borne Zika infections in 2016	SEARO	Indonesia; Maldives; Thailand	3
	WPRO	Malaysia; New Caledonia; Philippines; Viet Nam	4
Subtotal			7
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**	1
	WPRO	Cambodia**; Cook Islands**; French Polynesia**; Lao People's Democratic Republic; Papua New Guinea; Solomon Islands; Vanuatu	7
Subtotal			10
Total			75

[#]The wording has been revised in recognition of the fact that a country that has had a first outbreak since 2015 and in which that outbreak has since terminated, may again report a new outbreak or cases which would qualify the country to be re-included in category 1.

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

Category 1: Countries with a 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/volumes/94/9/16-171082.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.

Table 2. Countries reporting person-to-person 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, Netherlands, Portugal, Spain	6
	WPRO	New Zealand	1
Total			12

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

Reporting country or territory	Number of microcephaly and/or CNS malformation cases suggestive of congenital Zika virus infections or potentially associated with a Zika virus infection	Probable location of infection
Argentina	1	Argentina
Bolivia	3 ⁵	Bolivia
Brazil	2159 ⁶	Brazil
Cabo Verde	9	Cabo Verde
Canada	1	Undetermined
Colombia	58 ⁷	Colombia
Costa Rica	1	Costa Rica
Dominican Republic	10 ⁸	Dominican Republic
El Salvador	4	El Salvador
French Guiana	14 ⁹	French Guiana
French Polynesia	8	French Polynesia
Grenada	1	Grenada
Guadeloupe	1	Guadeloupe
Guatemala	15 ¹⁰	Guatemala
Haiti	1	Haiti
Honduras	1	Honduras
Marshall Islands	1	Marshall Islands
Martinique	14 ⁶	Martinique
Panama	5	Panama
Paraguay	2 ¹¹	Paraguay
Puerto Rico	3 ¹²	Puerto Rico
Slovenia	1 ¹³	Brazil
Spain	2	Colombia, Venezuela (Bolivarian Republic of)
Suriname	2	Suriname
Thailand	2	Thailand
Trinidad and Tobago	1	Trinidad and Tobago
United States of America	31 ¹⁴	Undetermined*
Viet Nam	1	Viet Nam

*The probable locations of three of the infections were Brazil (one case), Haiti (one case) and Mexico, Belize or Guatemala (one case).

⁵ <https://www.minsalud.gob.bo/1774-santa-cruz-ministerio-de-salud-confirma-tres-casos-de-zika-en-recien-nacidos>

⁶ <http://portalsaude.saude.gov.br/images/pdf/2016/novembro/21/Informe-Epidemiologico-n---52--SE-45-2016--17nov2016-17h00.pdf>

⁷ <http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiologico/2016%20Bolet%3%ADn%20epidemiol%3%B3gico%20semana%2045.pdf>

⁸ http://digepisalud.gob.do/documentos/?drawer=Boletines%20epidemiol%3%B3gicos*Boletines%20semanales*2016

⁹ <http://invs.santepubliquefrance.fr/fr/Publications-et-outils/Points-epidemiologiques/Tous-les-numeros/Antilles-Guyane/2016/Situation-epidemiologique-du-virus-Zika-aux-Antilles-Guyane.-Point-au-6-octobre-2016>

¹⁰ <http://www.mspas.gob.gt/index.php/en/mspas/noticias/1239-comunicado-ante-la-epidemia-del-virus-zika.html?tmpl=component&print=1&layout=default&page=>

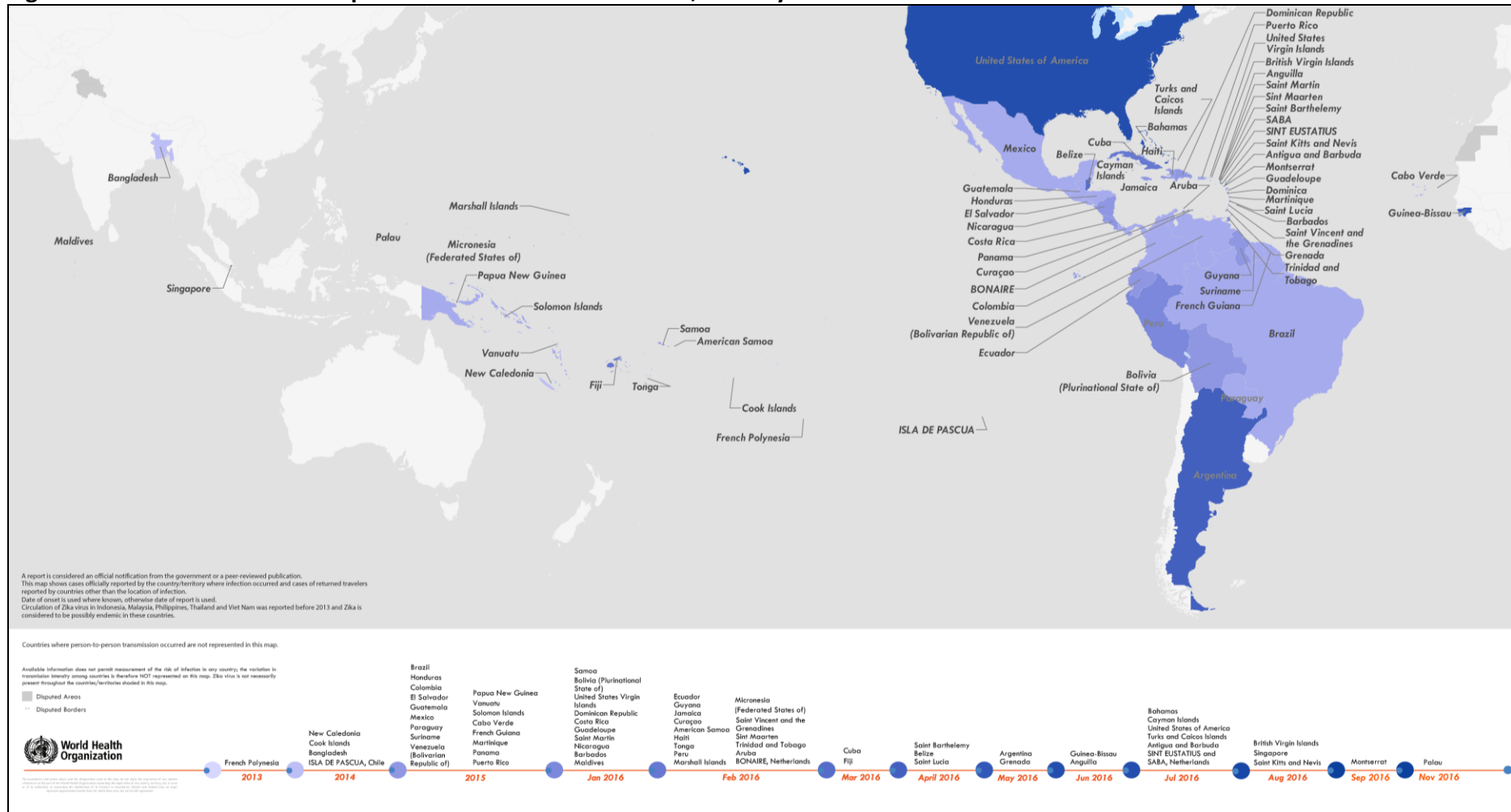
¹¹ <http://www.mspbs.gov.py/v3/paraguay-reporta-sus-dos-primeros-casos-de-microcefalia-asociados-al-zika/>

¹² <http://www.salud.gov.pr/Estadisticas-Registros-y-Publicaciones/Informes%20Arbovirales/Informe%20ArboV%20semana%2041-2016.pdf>

¹³ <http://www.nejm.org/doi/pdf/10.1056/NEJMoa1600651>

¹⁴ <http://www.cdc.gov/zika/geo/pregnancy-outcomes.html>

Figure 2. New detection of mosquito-borne Zika virus infections, January 2013–November 2016



A report is considered an official notification from the government or a peer-reviewed publication. This map shows cases officially reported by the country/territory where infection occurred, and cases of returned travellers reported by countries other than the location of infection. Date of onset is used where known, otherwise date of report is used. Circulation of Zika virus in Indonesia, Malaysia, Philippines, Thailand and Viet Nam was reported before 2013, and Zika is considered to be possibly endemic in these countries. Countries where person-to-person 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 4. Countries and territories that have reported 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, Guadeloupe ¹⁵ , Guatemala, Honduras, Jamaica, Martinique, Puerto Rico ¹⁶ , 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 ¹⁷ , Haiti, Mexico, Panama

*GBS cases with previous history of Zika virus infection were reported by the International Health Regulations (2005) National Focal Point in the United States of America.

**One case living in continental Netherlands was diagnosed in mid-January 2016 and reported by the Netherlands.

¹⁵ <http://invs.santepubliquefrance.fr//Publications-et-outils/Points-epidemiologiques/Tous-les-numeros/Antilles-Guyane/2016/Situation-epidemiologique-du-virus-Zika-aux-Antilles-Guyane.-Point-au-15-septembre-2016>

¹⁶ http://www.salud.gov.pr/Estadisticas-Registros-y-Publicaciones/Informe%20Sndrome%20GillainBarr/Informe%20de%20Casos%20del%20S%C3%ADndrome%20de%20Guillain-Barr%C3%A9_7Oct2016.pdf

¹⁷ 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