World Health Organization

SITUATION REPORT

ZIKA VIRUS
MICROCEPHALY
GUILLAIN-BARRÉ SYNDROME
28 JULY 2016

- As of 27 July 2016, 67 countries and territories (Fig. 1, Table 1) have reported evidence of mosquito-borne Zika virus transmission since 2007 (64 of these countries and territories have reported evidence of mosquito-borne Zika virus transmission since 2015):
  - 50 countries and territories with a first reported outbreak from 2015 onwards (Table 1).
  - Four countries are classified as having possible endemic transmission or have reported evidence of local mosquito-borne Zika infections in 2016.
  - 13 countries and territories have reported evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or with the outbreak terminated.
- One country and one territory have reported mosquito-borne Zika virus transmission for the first time in the week to 27 July 2016, Antigua and Barbuda; and Turks and Caicos (United Kingdom of Great Britain and Northern Ireland).
- Since February 2016, 11 countries have reported evidence of person-to-person transmission of Zika virus, probably via a sexual route (Table 2).
- One case of Zika virus infection, whose mode of transmission is currently being investigated, was recently reported in Utah, United States of America (USA). The case is a family contact of an individual who died in June. The blood samples of the deceased case were found to have high levels of Zika virus, more than 100 000 times higher than what has been found in samples from other infected persons.[1] Result of the investigation on the mode of transmission is pending.
- Two non travel-related Zika infections are currently being investigated in Florida, United States of America.
- As of 27 July 2016, 14 countries or territories have reported microcephaly and other central nervous system (CNS) malformations potentially associated with Zika virus infection or suggestive of congenital infection. Paraguay is the latest country to report microcephaly with two cases of microcephaly associated with laboratory confirmed Zika virus infection recently documented. Three of the 14 total countries reported microcephaly cases born from mothers in countries with no endemic Zika virus transmission but who reported recent travel history to Zika-affected countries in the WHO Region of the Americas (Table 3).

[1] http://www.cdc.gov/media/releases/2016/s0718-zika-utah-investigation.html

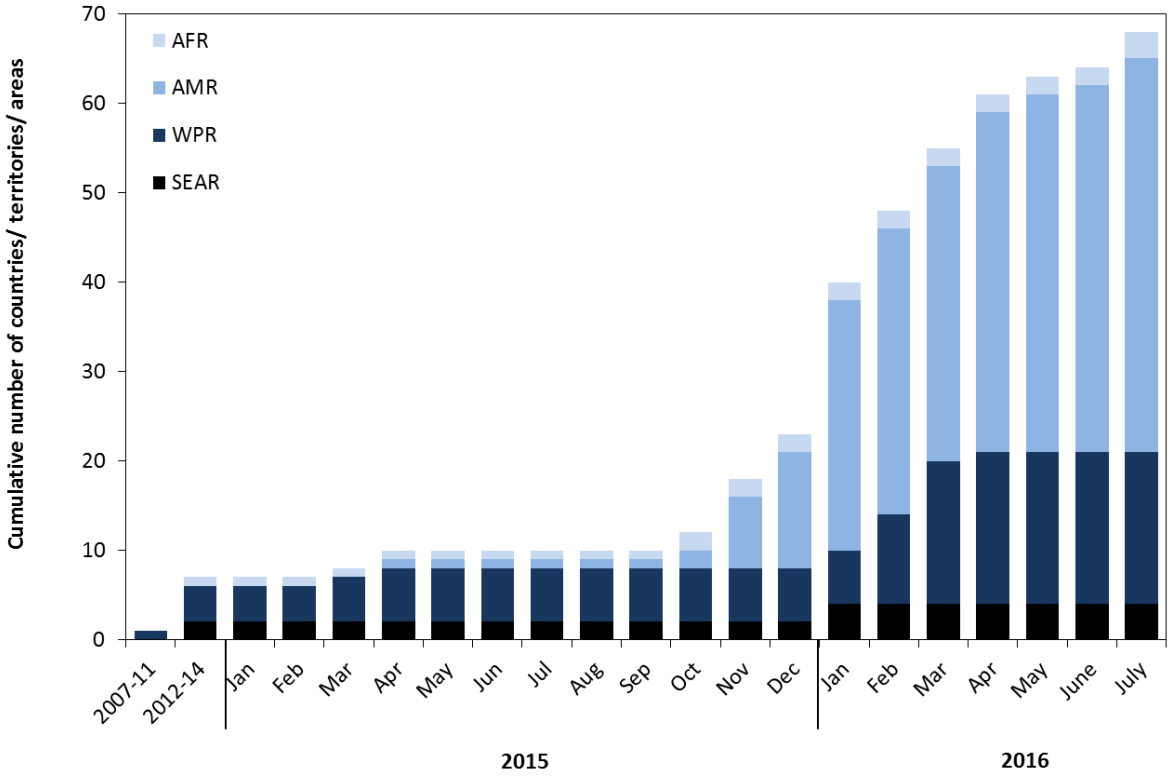
- In Spain, the first baby with microcephaly linked with in-utero Zika infection was born. This microcephaly case was first reported at the end of May.
- As of 27 July 2016, the United States Centers for Disease Control and Prevention (US-CDC) reported 12 live-born infants with birth defects and six pregnancy losses with birth defects with laboratory evidence of Zika virus infection.[2]
- As of 27 July 2016, 15 countries and territories worldwide have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases (Table 4).
- Based on research to date, there is scientific consensus that Zika virus is a cause of microcephaly and GBS.
- In Guinea-Bissau, on 29 June 2016, Institute Pasteur Dakar (IPD) confirmed that three of 12 samples tested positive for Zika by PC-R. All 12 samples tested negative against IgM Zika. One additional sample from a recent case also tested positive for Zika virus infection. All four samples were sent to IPD on 1 July for gene sequencing and the results are pending. Twenty-two additional samples were collected and sent for testing; the results are still pending. The government of Guinea-Bissau with support from the WHO Country Office (WCO) is demonstrating strong leadership in response to these findings. A national Zika-inter-ministerial committee which is chaired by the Prime Minister and vice-chaired by the Minister of Health was established. The joint mission to Guinea-Bissau has arrived in the country to support the Ministry of Health's response and to conduct an in-depth investigation of the situation. Technical material and financial support are also being provided by partners including US-CDC, Portuguese cooperation, IPD and UNICEF.
- A roster of WHO technical experts will be available to answer media queries during the Olympics.
- The global Strategic Response Framework launched by WHO in February 2016 encompasses surveillance, response activities and research. An interim report[3] describing some of the key activities being undertaken jointly by WHO and international, regional and national partners in response to this public health emergency was published on 27 May 2016. A revised strategy for the period of July 2016 to December 2017 was published on 17 June.[4]
- WHO has developed advice and information on diverse topics in the context of Zika virus.[5] WHO's latest information materials, news and resources to support corporate and programmatic risk communication and community engagement are available online.[6]

[2] https://www.cdc.gov/zika/geo/pregnancy-outcomes.html
[3] http://apps.who.int/iris/bitstream/10665/207474/1/WHO_ZIKV_SRF_16.2_eng.pdf?ua=1
[4] http://apps.who.int/iris/bitstream/10665/246091/1/WHO-ZIKV-SRF-16.3-eng.pdf?ua=1&ua=1
[5] http://www.who.int/csr/resources/publications/zika/en/
[6] http://www.who.int/emergencies/zika-virus/en/ ; http://www.who.int/risk-communication/zika-virus/en/

Risk assessment

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. At this stage, based on the evidence available, there is no overall decline in the outbreak.

Figure 1. Cumulative number of countries, territories and areas by WHO region[7] reporting mosquito-borne Zika virus transmission in years (2007–2014), and monthly from 1 January 2015 to 27 July 2016



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

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

Classification	WHO Regional Office	Country / territory / area	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; Barbados; Belize; Bolivia (Plurinational State of), BONAIRE, SINT EUSTATIUS and SABA – Netherlands*; Brazil; 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 Virgin Islands; Venezuela (Bolivarian Republic of)	**42**
	WPRO	American Samoa; Fiji; Marshall Islands; Micronesia (Federated States of); Samoa; Tonga	**6**
Subtotal			**50**
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			**67**

**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 (Fig. 2):

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 2. Country categorization according to dates of first and last report of confirmed Zika virus

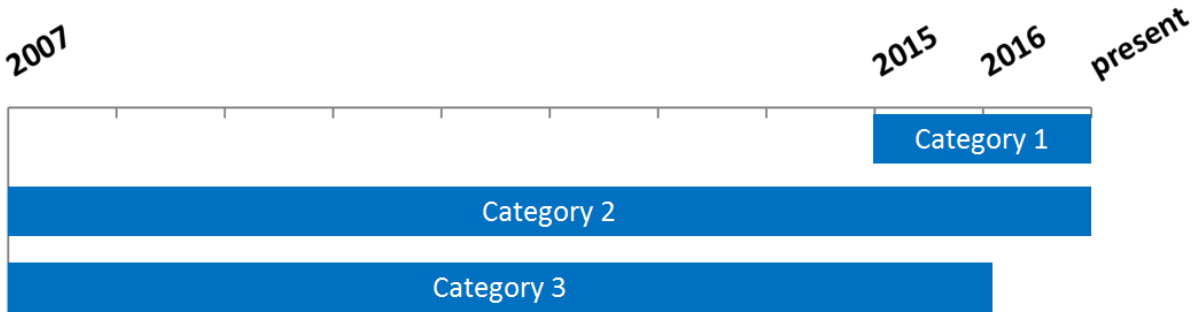
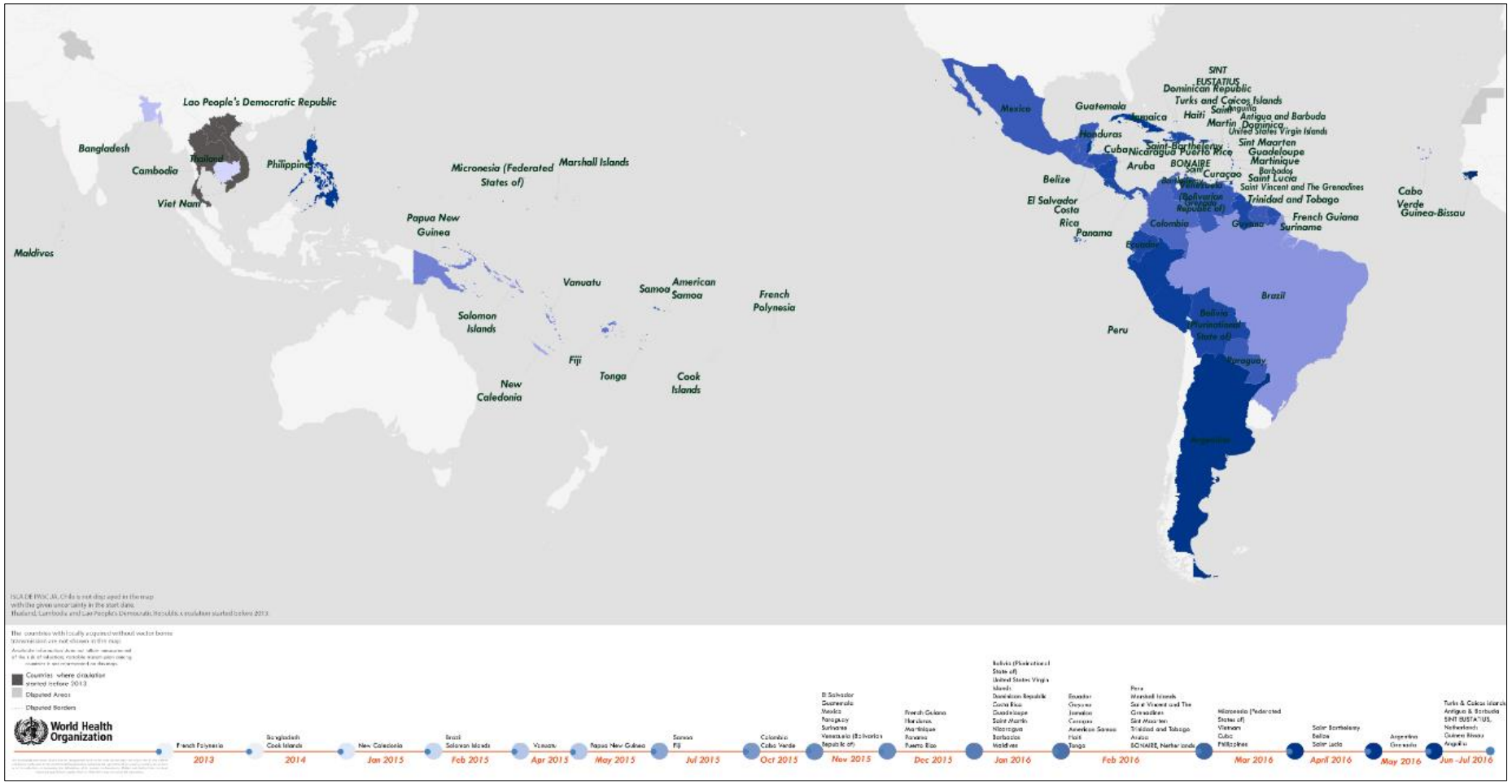


Table 2. Countries reporting non mosquito-borne Zika virus transmission since February 2016

Classification	WHO Regional Office	Country / territory / area	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**

Figure 3. 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, territories and areas 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 suggestive of congenital infections or potentially associated with a Zika virus infection	Probable location of infection
Brazil	1749[8]	Brazil
Cabo Verde	9	Cabo Verde
Colombia	21[9]	Colombia
El Salvador	2	El Salvador
French Guiana	2[10]	French Guiana
French Polynesia	8	French Polynesia
Marshall Islands	1	Marshall Islands
Martinique	8[11]	Martinique
Panama	5	Panama
Paraguay	2[12]	Paraguay
Puerto Rico	1	Puerto Rico
Slovenia	1[13]	Brazil
Spain	2	Colombia, Venezuela (Bolivarian Republic of)
United States of America*	18[14]	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, territories or areas reporting Guillain-Barré syndrome (GBS) potentially associated with Zika virus infection

Classification	Country / territory / area
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	Guadeloupe[15], 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.*

[8] http://portalsaude.saude.gov.br/index.php/cidadao/principal/agencia-saude/24769-microcefalia-1-749-casos-confirmados-no-brasil

[9] http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiolgico/2016%20Bolet%C3%ADn%20epidemiol%C3%B3gico%20semana%2027.pdf

[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-21-juillet-2016

[11] 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

[12] http://www.mspbs.gov.py/v3/paraguay-reporta-sus-dos-primeros-casos-de-microcefalia-asociados-al-zika/

[13] http://www.nejm.org/doi/pdf/10.1056/NEJMoa1600651

[14] http://www.cdc.gov/zika/geo/pregnancy-outcomes.html

[15] 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

Table 5. Strategic Response Framework and Joint Operational Response Plan: summary of key response interventions

Objectives	Activities
Public health risk communication and community engagement activities	▪ Coordinate and collaborate with partners on risk communication messaging and community engagement for Zika. ▪ Develop communication and knowledge packs and associated training on Zika virus and all related and evolving issues for communication experts. ▪ Engage communities to communicate risks associated with Zika virus disease and promote vector control, personal protection measures, reduce anxiety, address stigma, and dispel rumours and cultural misperceptions. ▪ Disseminate material on Zika and potentially associated complications for key audiences such as women of reproductive age, pregnant women, health workers, clinicians, and travel and transport sector stakeholders. ▪ Conduct social science research to understand perceptions, attitudes, expectations and behaviours regarding fertility decisions, contraception, abortion, pregnancy care and care of infants with microcephaly and persons with GBS. ▪ Support countries to monitor impact of risk communications.
Vector control and personal protection against mosquitoes	▪ Regularly update and disseminate guidelines/recommendations on emergency *Aedes spp*. mosquito control and surveillance. ▪ Support insecticide resistance monitoring activities. ▪ Support countries in vector surveillance and control, including provision of equipment, insecticides, personal protection equipment (PPE) and training.
Care for those affected and advice for their caregivers	▪ Assess and support existing capacity and needs for health system strengthening, particularly around antenatal, birth and postnatal care, neurological and mental health services, and contraception and safe abortion. ▪ Map access barriers limiting women's capacity to protect themselves against unintended pregnancy. ▪ Develop guidance for: families affected by microcephaly, GBS or other neurological conditions; women suspected or confirmed to have Zika virus infection, including women wanting to get pregnant, pregnant women and women who are breastfeeding; health workers on Zika virus health care, blood transfusion services, tools for triage of suspected Zika virus, chikungunya and dengue cases; and for health services management following a Zika virus outbreak. ▪ Provide technical support to countries on health service delivery refinements and national level planning to support anticipated increases in service needs. ▪ Procure and provide equipment and supplies to prepare their healthcare facilities in provision of specialized care for complications of Zika virus for prioritized countries and territories.