Pan American Health Organization

World Health Organization

REGIONAL OFFICE FOR THE Americas

Zika Virus Outbreak & Zika Congenital Syndrome

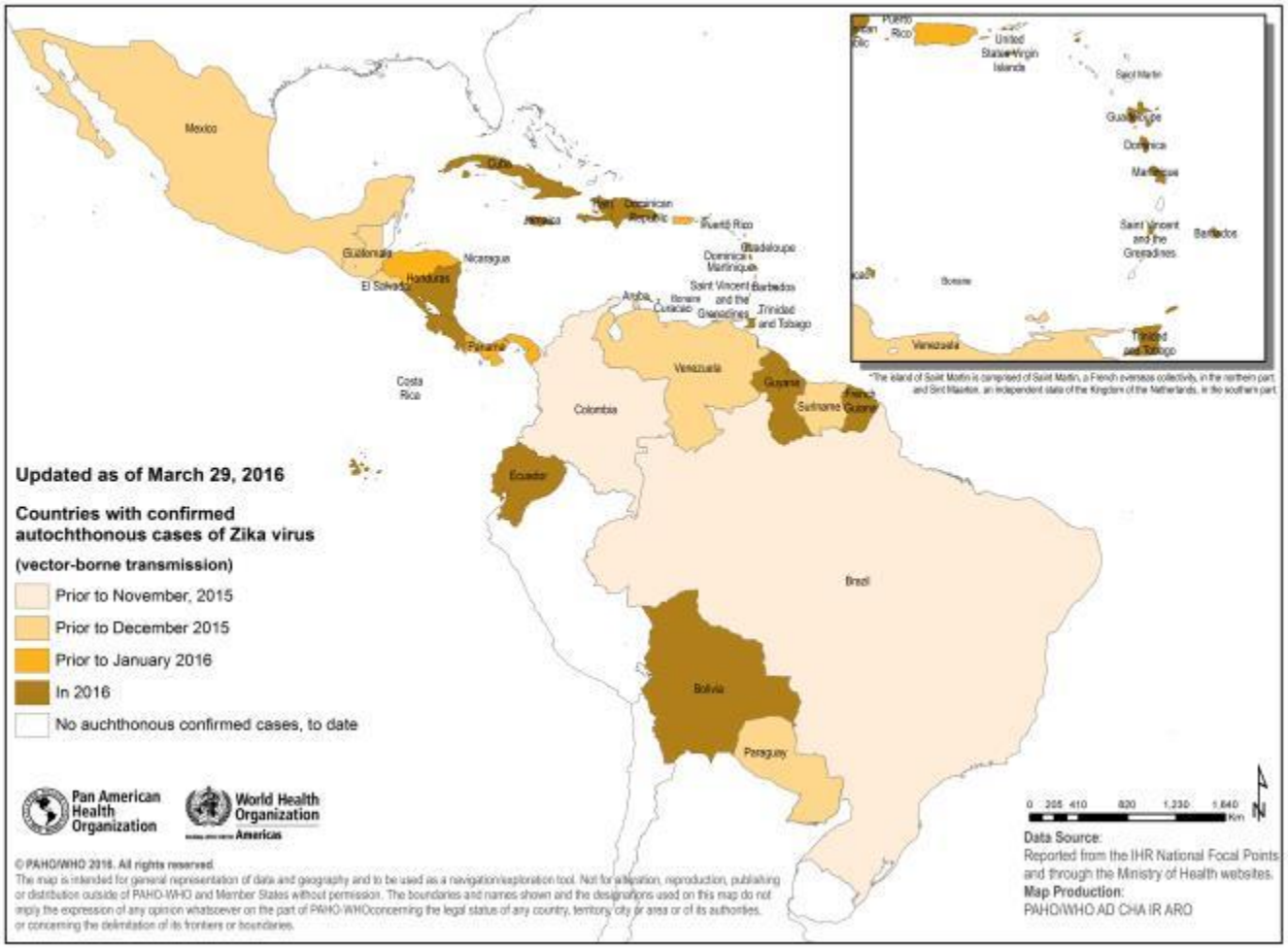
Regional Situation and Response

SPBA, 30 March 2016

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Countries and territories in the Americas with autochthonous, confirmed Zika virus cases, 2015-2016 (as of 29 March 2016)



There are currently **33 countries or territories** reporting local, vector-borne transmission of Zika virus in the Region of the Americas.

PAHO/WHO Alerts

- **Posting of Epidemiological Alerts and technical guidance on www.paho.org**

  - **7 May 2015:** Epi Alert - Risk of Zika virus infection in the Americas Region
  - **10 June 2015:** Technical guidelines on Zika virus laboratory
  - **16 October 2015**: Epi updates including case definition
  - **17 November 2105:** Epi Alert - Increase in microcephaly in the northeast of Brazil
  - **01 December 2015:** Epi Alert - Neurological syndrome, congenital malformations and Zika virus infections, implications for public health in the Americas

First reports in Brazil:
Unusual increase of newborns with microcephaly

Photo credit: Image provided by mother of newborn (Rio de Janeiro, Brazil), with authorization for dissemination exclusively among public health workers.

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

ZIKV and microcephaly (up to 24 March 2016)

- Evidence of the association between microcephaly and Zika virus is growing
- *Lancet* publication from French Polynesia March 2016 strongly supports the hypothesis that Zika virus infection during the first trimester of pregnancy is associated with an increased risk of microcephaly
- Further data will soon be available from Pernambuco, Colombia, Rio de Janeiro, and others

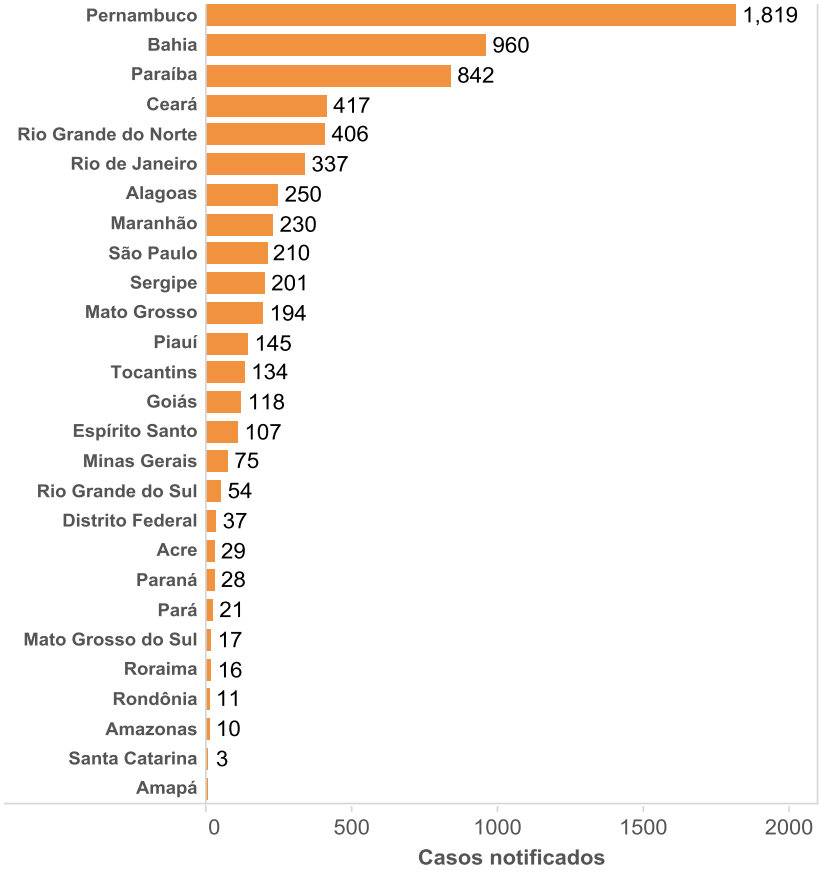
ZIKV Situation at Global Level

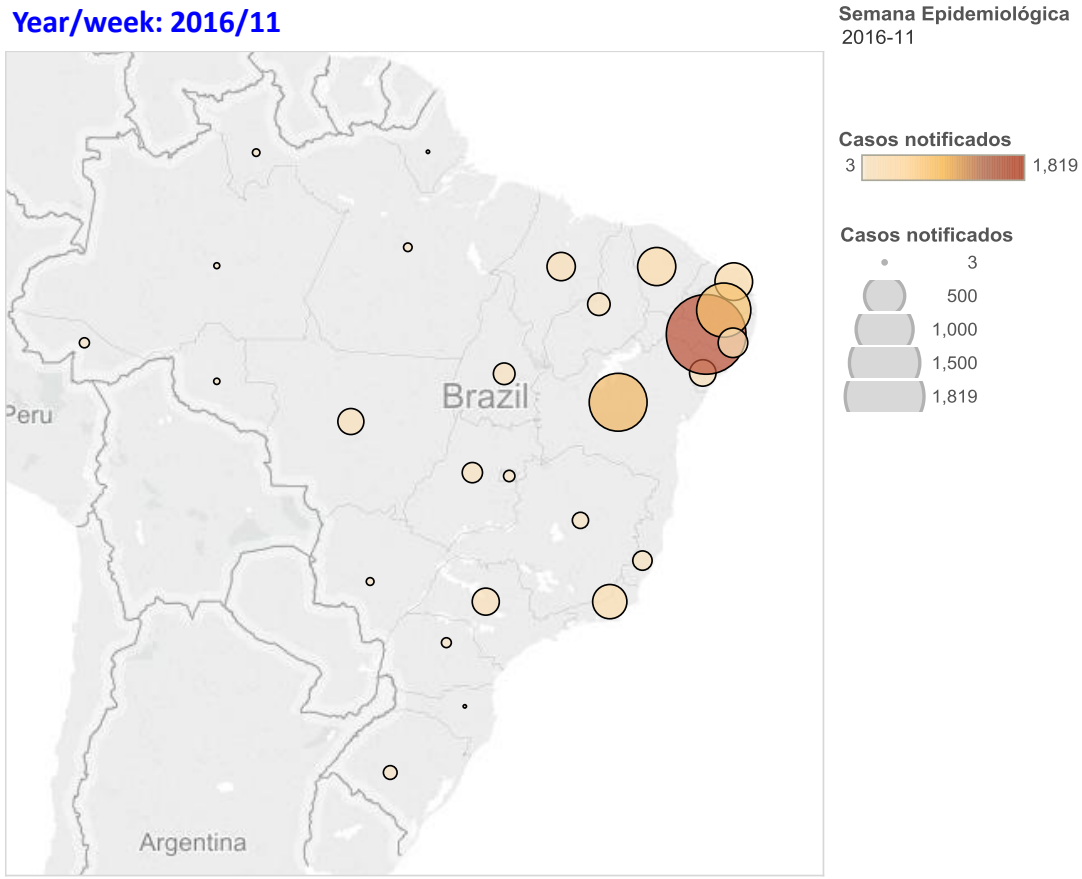
2007- 2016 (as of 24 March 2016)

- **Reported autochthonous Zika virus transmission and microcephaly**:
  - 4 countries: Brazil, French Polynesia, Panama, Martinique

- **Reported or indication of autochthonous Zika virus transmission**:
  - 2 AFRO: Gabon, **Cabo Verde**
  - 30 PAHO/AMRO countries
  - 4 SEARO: Bangladesh, Indonesia, Maldives, Thailand
  - 13 WPRO: American Samoa, Cambodia, Fiji, Malaysia, Marshall Islands, New Caledonia, Philippines, Samoa, Solomon Islands, Tonga, Vanuatu, Laos, Micronesia

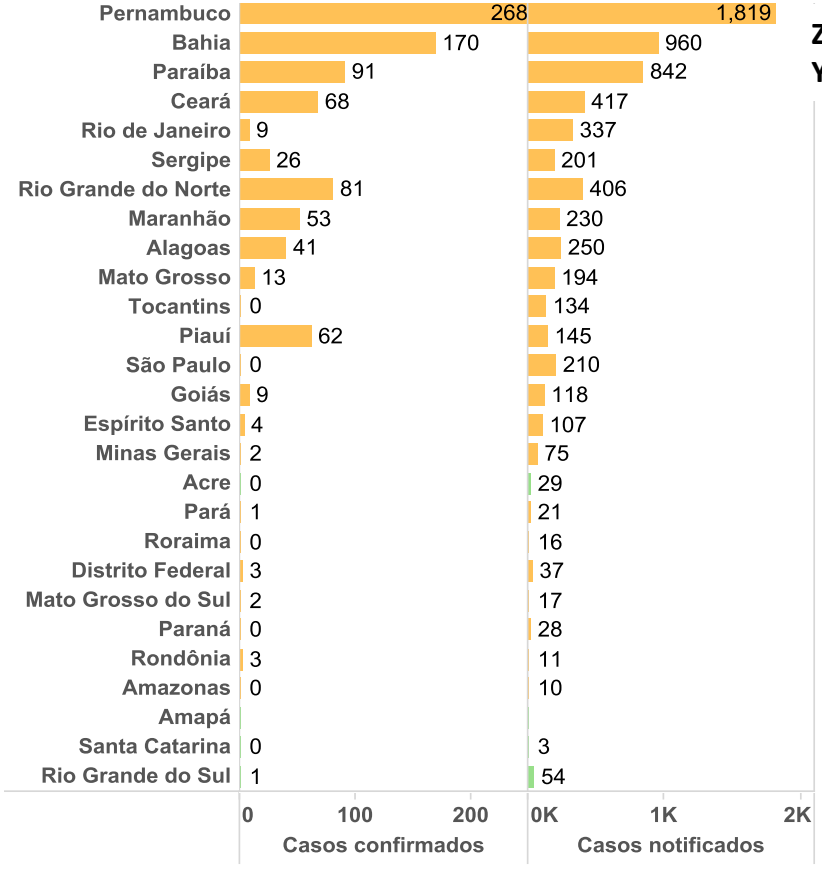
Reported cases of microcephaly in Brazil, by epidemiological week



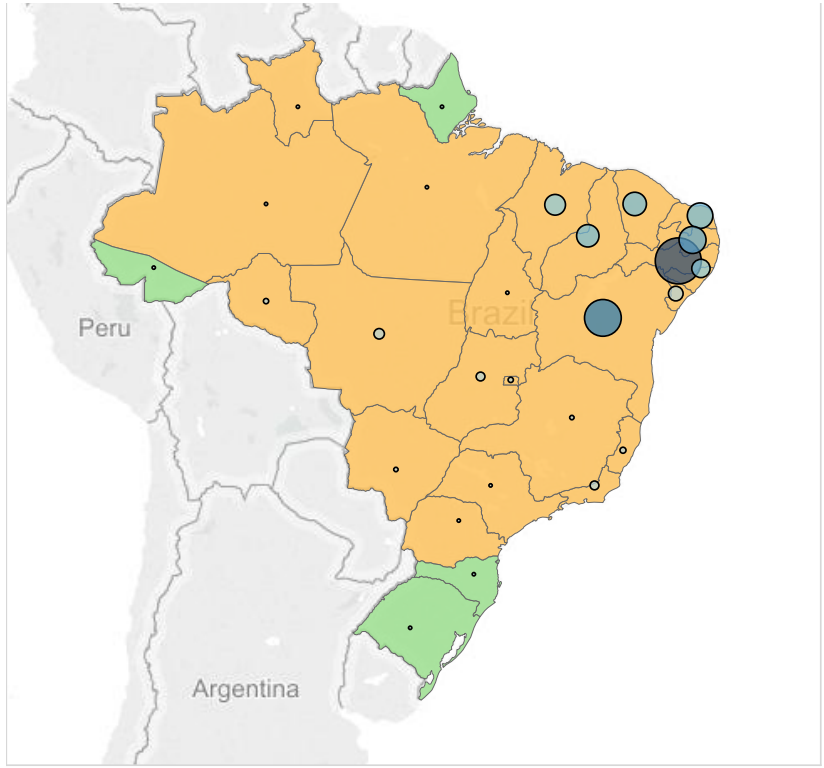


Fonte: Informe epidemiológico de casos de microcefalia no Brasil. Ministério da Saúde. Brasil
Elaboração: Sala de situação Vírus Zika - OPAS/OMS Brasil

Reported cases of microcephaly in Brazil, by epidemiological week



Zika transmission vs confirmed cases of microcephaly
Year/week (2016/11)



emana Epidemiológica
016-11

Transmissão autoctone de Zika
Não
Sim

Casos confirmados (microcefalia)
0 268

0
50
100
150
200
268

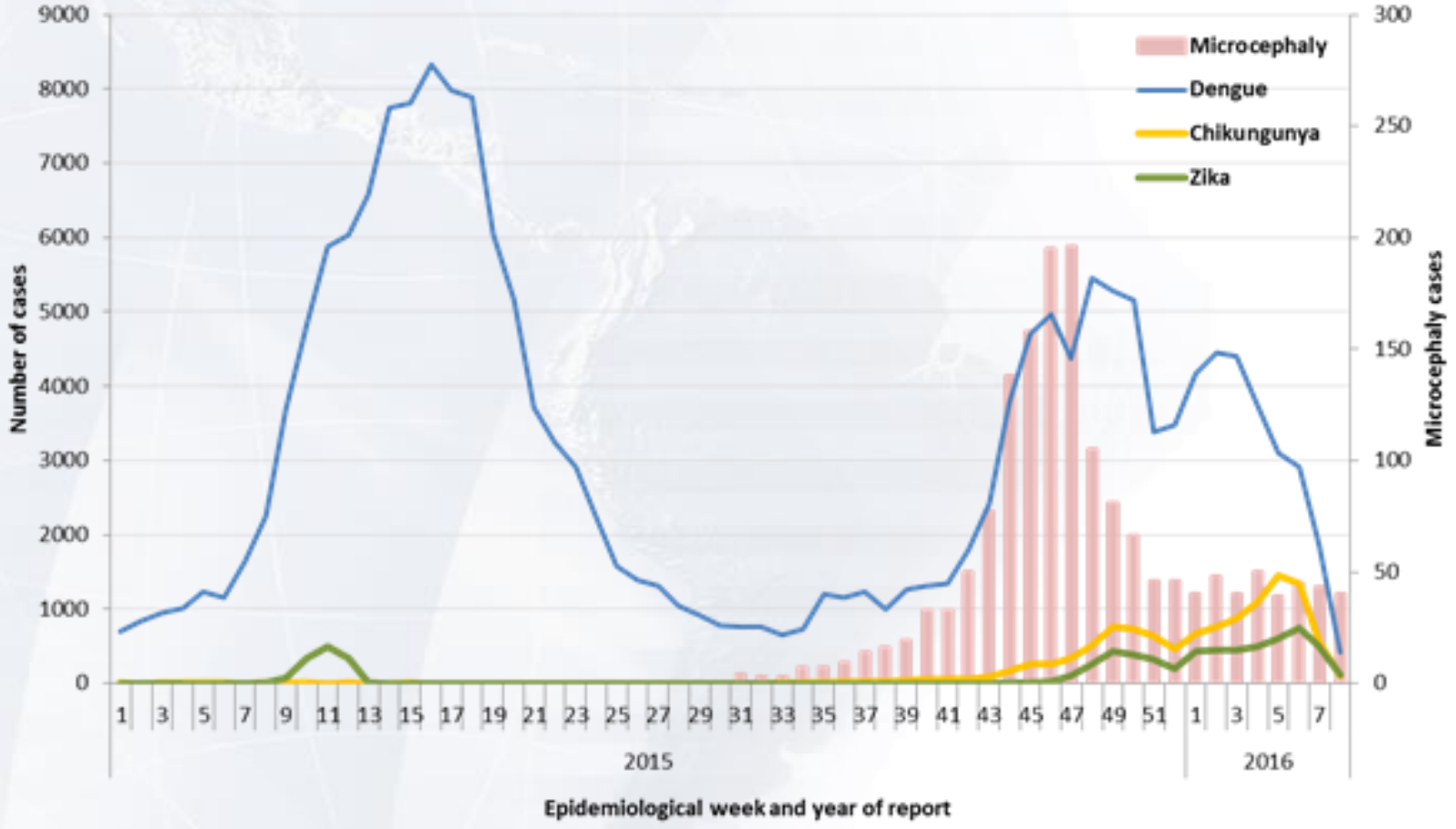
Fonte: Informe epidemiológico de casos de microcefalia no Brasil. Ministério da Saúde. Brasil
Elaboração: Sala de situação Vírus Zika - OPAS/OMS Brasil

Countries and territories in the Americas reporting Guillain-Barré syndrome (GBS) in the context of Zika virus circulation

(up to 24 march 2016)

Increase in GBS	Increase in GBS plus Zika virus lab confirmation in at least one case of GBS	Zika virus lab confirmation in at least one case of GBS
Colombia	Brazil	French Guiana
	El Salvador	Haiti
	Honduras	Martinique
	Suriname	Panama
	Venezuela	Puerto Rico

Reported cases of dengue, chikungunya, Zika virus and microcephaly in Pernambuco state, Brazil by epidemiological week, 2015 to 2016



Zika virus and observed increase in neurological disorders and neonatal malformations

Public Health Emergency of International Concern (PHEIC)

Implications for the Americas


World Health Organization

centre | Publications | Countries | Programmes | Governance | About WHO

Media centre

WHO statement on the first meeting of the International Health Regulations (2005) (IHR 2005) Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations

WHO statement
1 February 2016

The first meeting of the Emergency Committee (EC) convened by the Director-General under the International Health Regulations (2005) (IHR 2005) regarding clusters of microcephaly cases and other neurological disorders in some areas affected by Zika virus was held by teleconference on 1 February 2016, from 13:10 to 16:55 Central European Time.

The WHO Secretariat briefed the Committee on the clusters of microcephaly and Guillain-Barré Syndrome (GBS) that have been temporally associated with Zika virus transmission in some settings. The Committee was provided with additional data on the current understanding of the history of Zika virus, its spread, clinical presentation and epidemiology.

The following States Parties provided information on a potential association between microcephaly and other neurological disorders with Zika virus: Brazil, France, United States of America, and El Salvador.

The Committee advised that the recent cluster of microcephaly cases and other neurological disorders reported in Brazil, following a similar cluster in French Polynesia in 2014, constitutes a Public Health Emergency of International Concern (PHEIC).

The Committee provided the following advice to the Director-General for her consideration to address the PHEIC (clusters of microcephaly and other neurological disorders) and their possible association with Zika virus, in accordance with IHR (2005).

- Multisectorial coordinated approach for vector control and management. Partnering and engaging relevant stakeholders and the community.
- Surveillance strengthening:
  - Surveillance for arboviruses
  - Surveillance of birth defects
  - Surveillance of GBS
- Health services preparedness for the management of potential complications including neurological syndromes and birth defects
- Risk communication and public awareness

February 1st, 2016

Zika virus knowledge gaps to be addressed

Regional research agenda was developed by PAHO:

- Define absolute risk of neurological malformation in fetus by gestational age
- Describe the clinical spectrum of the Zika congenital syndrome
- Understand the role of the different modes of transmission: sexual, vector, vertical
- Characterize the dynamics of arboviruses co-circulating in same sub-regions: DENV, CHIKV, ZIKV, YFV, others, and study the vector competency
- New serological tests to improve detection in context of high circulation of other flaviviruses
- New tools for vector control
- Need of financing and coordination

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Ongoing regional Zika virus research

- PAHO has developed a platform to register published and ongoing research (www.paho.org/zika-research); 50 protocols and 158 primary studies have been registered
- Studies include a wide range of topics (epidemiology, disease pathogenesis, clinical management, public health interventions, vectors and reservoirs, health systems and services response, research and development)
- A number of cohort and case control studies are ongoing in different countries:
  - asymptomatic pregnant women
  - pregnant women with rash / pregnant women ZIKV+
  - children with/without Zika congenital syndrome
  - Guillain-Barre syndrome and other neurological alterations.

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Future of Zika virus in the Region

- New arbovirus in the Region with high risk for establishing an endemic transmission and co-circulating with dengue and chikungunya
- 473 M. of persons at risk to be infected by the Zika virus:
  - Presence of *Aedes aegypti*
  - Altitude < 2,000 m
  - Including areas with permanent and seasonal risk of transmission

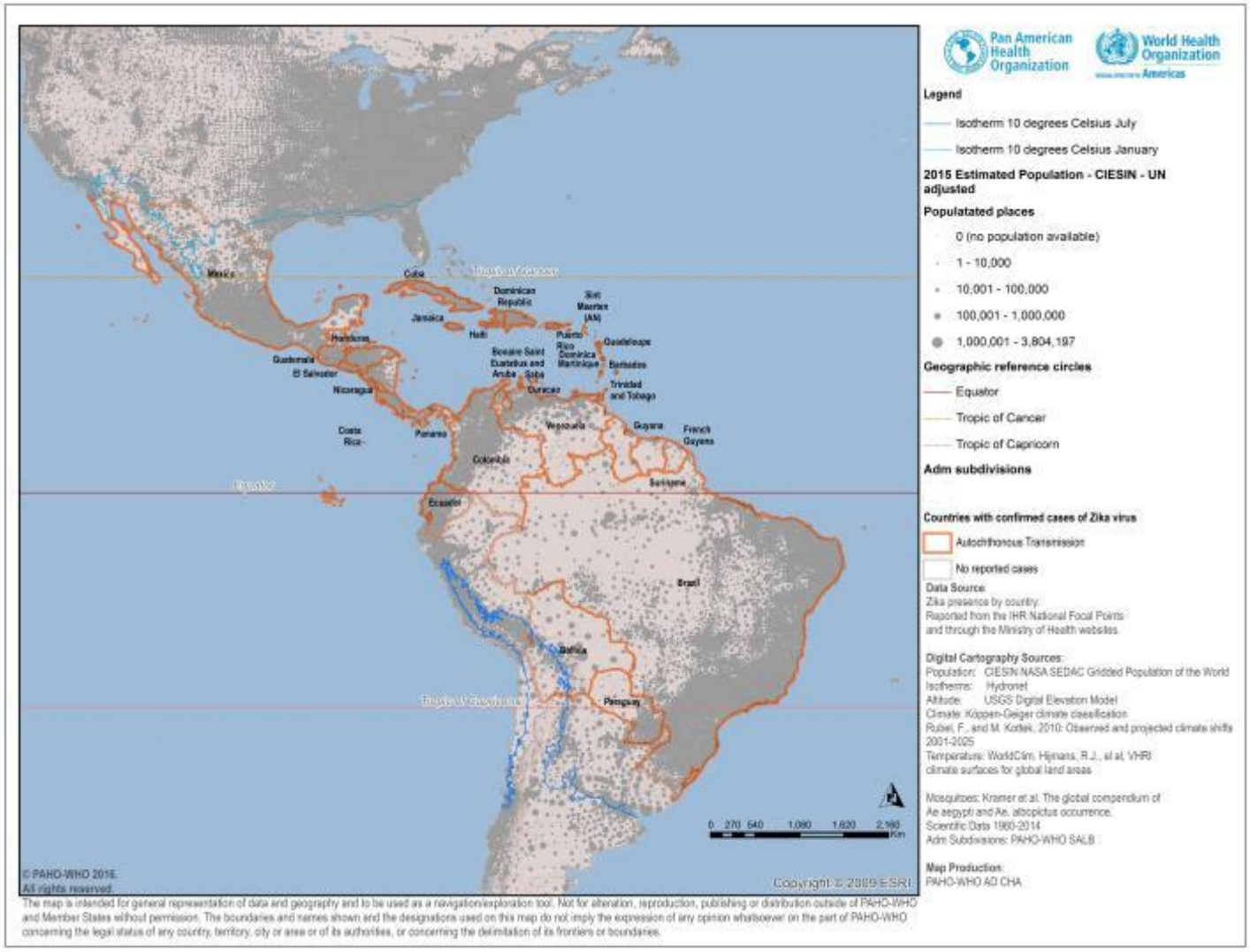
- Role of sexual transmission in the dynamics of the outbreak or maintaining the transmission is not known yet

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Future of Zika virus in the Region

Total population in the Americas (CIESIN estimates)

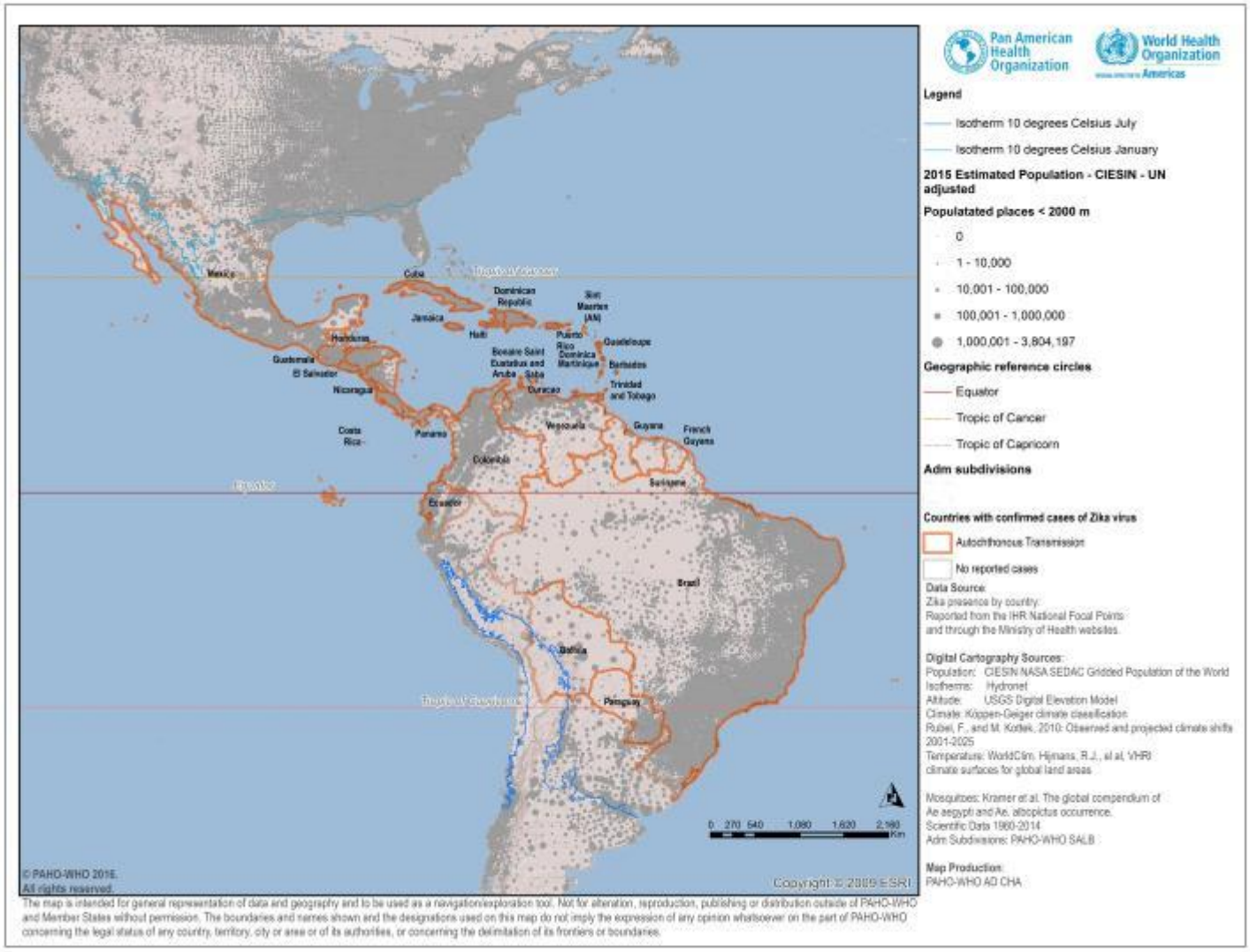


- **988 M** people (988,177,129)

World Health Organization
OFFICE FOR THE Americas

Future of Zika virus in the Region

Total population in the Americas living in areas < 2000 m above sea level



- **899 M** people (898,757,396)

World Health Organization
OFFICE FOR THE Americas

Future of Zika virus in the Region

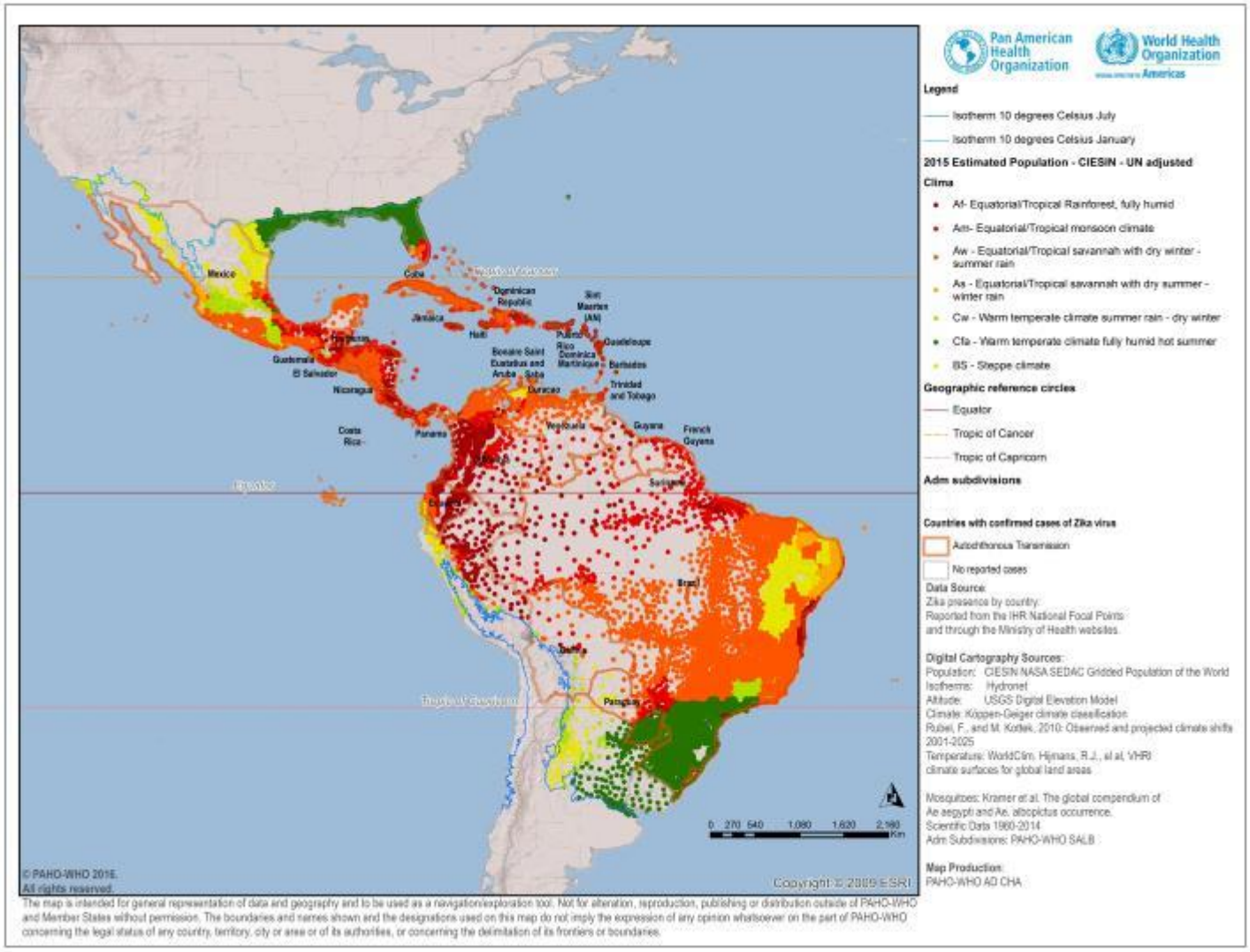
Total population in the Americas living in areas < 2000 m above sea level and within the 10º Celsius isotherms (North & South) delimiting survival of Aedes aegypti during winter

- **576 M** people (575,656,883)

World Health Organization
Office for the Americas

Future of Zika virus in the Region

Total population in the Americas living in areas < 2000 m above sea level and within the 10º Celsius isotherms (North & South) delimiting survival of Aedes aegypti during winter in tropical/temperate climates

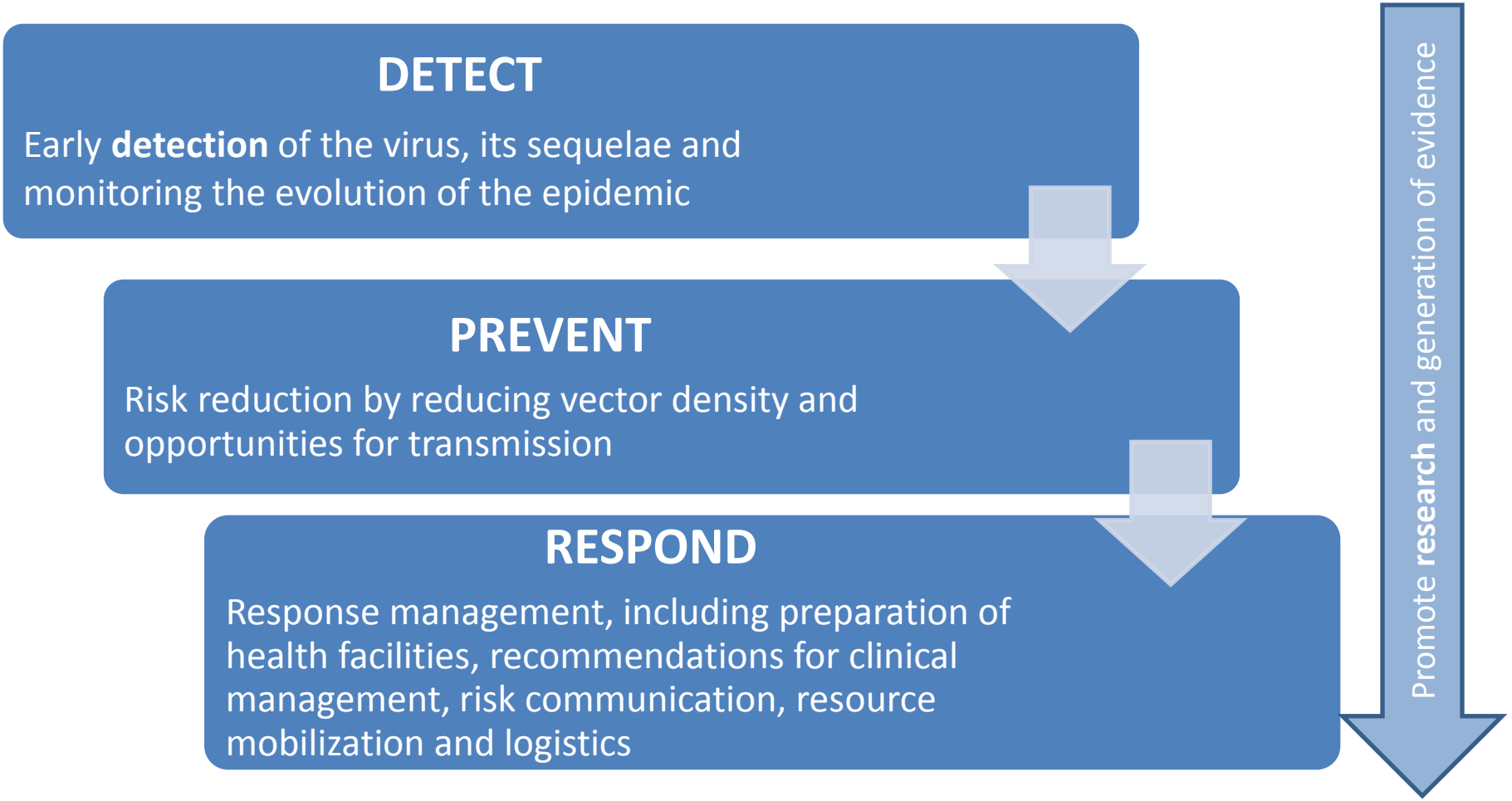


- **520 M** people (520,152,791)

World Health Organization
OFFICE FOR THE Americas

PAHO/WHO Strategy to respond to Zika virus

www.paho.org/zikavirus



PAHO Zika Incident Management System (IMS)

- Activated in December 2015
- Full operations: 1 February 2016
- Reports to PAHO Director
- Supported by Emergency Operations Center platform
- Articulates work of all PAHO technical departments
- Coordinates implementation of Regional Strategy through 28 country offices
- Supports implementation of MS Zika plans
- Linked to the WHO IMS activated at HQ and 5 other regions

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

PAHO and regional Zika response activities

- Regional surveillance under IHR (monitoring Zika virus spread, detecting GBS increase and congenital neurological malformations)
- Publication of Epi updates and maps
- Development / review / publication of technical guidelines (WHO and PAHO)
- Coordination of partners through PAHO country offices and HQ (UN agencies, Global Outbreak and Response Network, other partners)
- Support to national Zika plans through PAHO country offices
- Deployment of multidisciplinary teams to key and prioritized countries; follow-up missions targeting identified gaps
- Strategic Fund for insecticides / larvicides and procurement of laboratory reagents, immunoglobulins

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

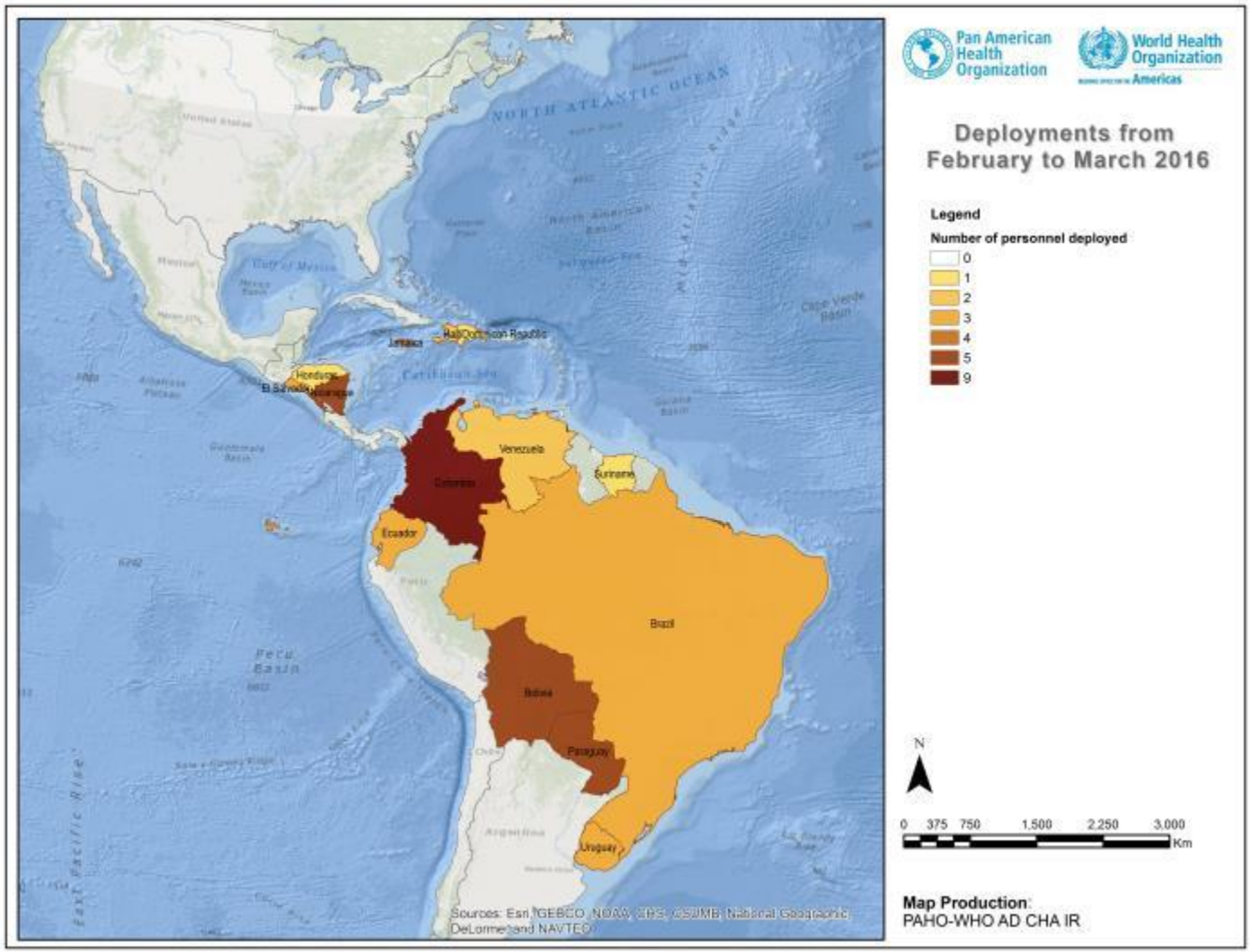
PAHO and regional Zika response activities

- Support to national Zika plans through PAHO country offices
- Deployment of multidisciplinary teams to key and prioritized countries. Follow-up missions targeting identified gaps. Expertise includes:
  - Epi surveillance
  - Laboratory
  - Case management: GBS, microcephaly
  - Organization of health services
  - Reproductive health
  - Risk communication
  - Vector control
  - Research protocols

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

PAHO and regional Zika response activities



Resource Requirements

Area of Work	Total Planned (USD) 31 Dec 2016	Total Required (USD) by 30 June 2016
Detect (Surveillance)	3,000,000	1,600,000
Prevent (Risk Communication)	2,500,000	1,500,000
Prevent (Vector Control)	3,140,000	1,500,000
Research	880,000	300,000
Respond (Health Systems Support/Strengthening)	4,500,000	2,400,000
Coordination and Management	980,000	300,000
TOTAL	**15,000,000**	**7,600,000**

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Funding Status

Status of Funds	Amount (USD)
Total Planned	15,000,000
Total Received *Canada (IHA): CAN$250,000 ; Canada (PHAC): CAN$500,000; Gates Foundation: US$750,000; WHO CFE: US$2,000,000*	2,350,000
Total Pledged *IDB: US$200,000; Spain: Euros 100,000*	310,000
In Discussion (through WHO) *Government of Japan: US$10,000,000 (US$5M for the Americas)*	
Total Funding Gap	**12,340,000**

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

PAHO and regional ZIKV response activities

Some scientists say that this is a new chapter of the history of medicine

- Implications for the PAHO plan of work 2016-17 and beyond
  - We anticipate that due to lack of knowledge of the disease, it will take time to understand fully the spectrum and the needs.
  - We will need to include these identified needs in the plan of action of many PAHO units and departments including surveillance, case management, reproductive services, organization of health services, maternal and child health, and vector control.

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

Pan American Health Organization

World Health Organization

REGIONAL OFFICE FOR THE Americas