



# Zika en Colombia

Martha Lucia Ospina Martinez MD, MPH  
Directora General – INS Colombia  
Junio 26, 2017



**Abril 1947**

Se identifica virus ZIKA en Uganda



**Febrero 2014**

Se confirma 1<sup>er</sup> caso en Isla de Pascua, Chile



**1951-1961**

Evidencia de infección en humanos en África y Asia

## 2015 inminencia de llegada a Colombia



Fuente: Universidad de Lancaster

BBC



INSTITUTO  
NACIONAL DE  
SALUD



**Abril 1947**

Se identifica virus ZIKA en Uganda



**Febrero 2014**

Se confirma 1<sup>er</sup> caso en Isla de Pascua, Chile



**Mayo 14, 2015**

Análisis de alerta epidemiológica  
en Comité Estratégico, MinSalud



**Mayo 23, 2015**

Confirmación de circulación  
del Zika en Brasil



**Mayo 7, 2015**

Alerta epidemiológica  
sobre ZIKA, OPS-OMS

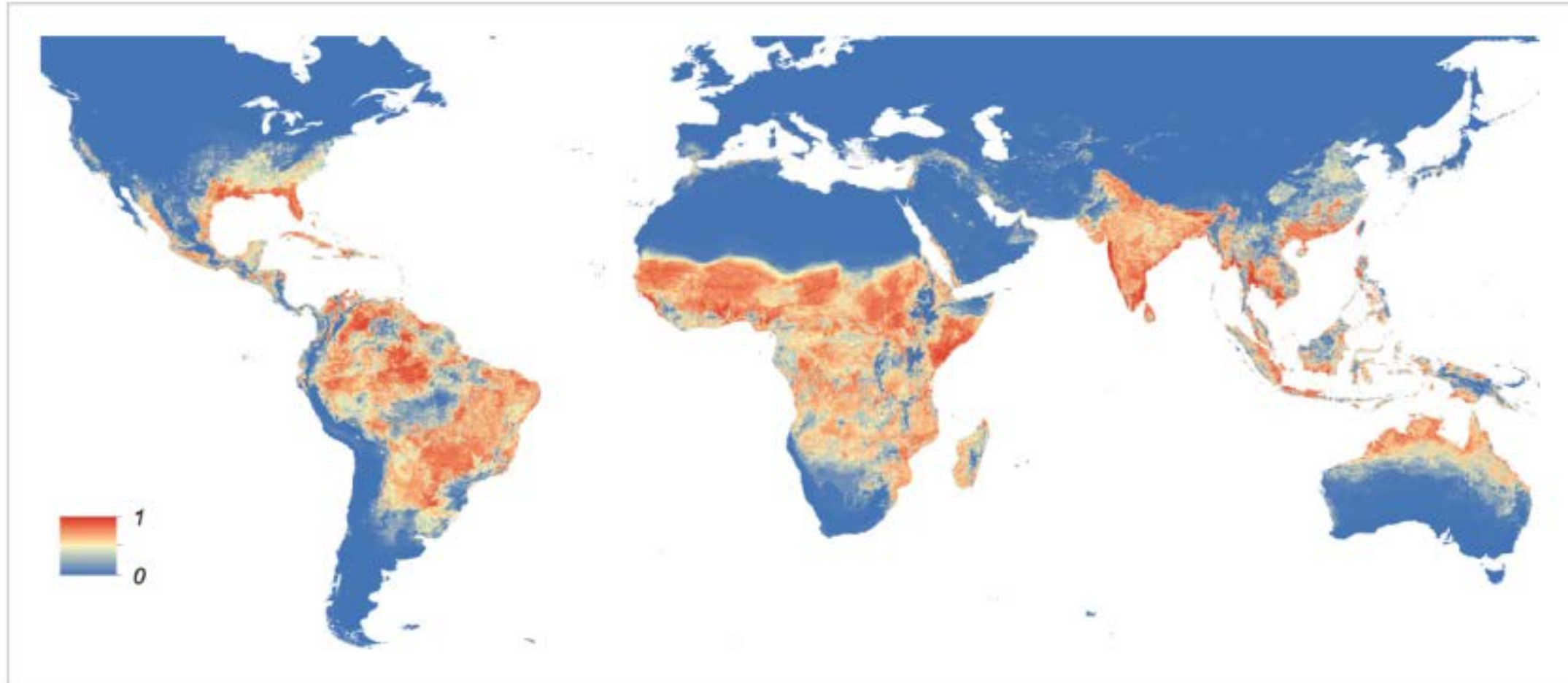


**1951-1961**

Evidencia de infección en  
humanos en África y Asia



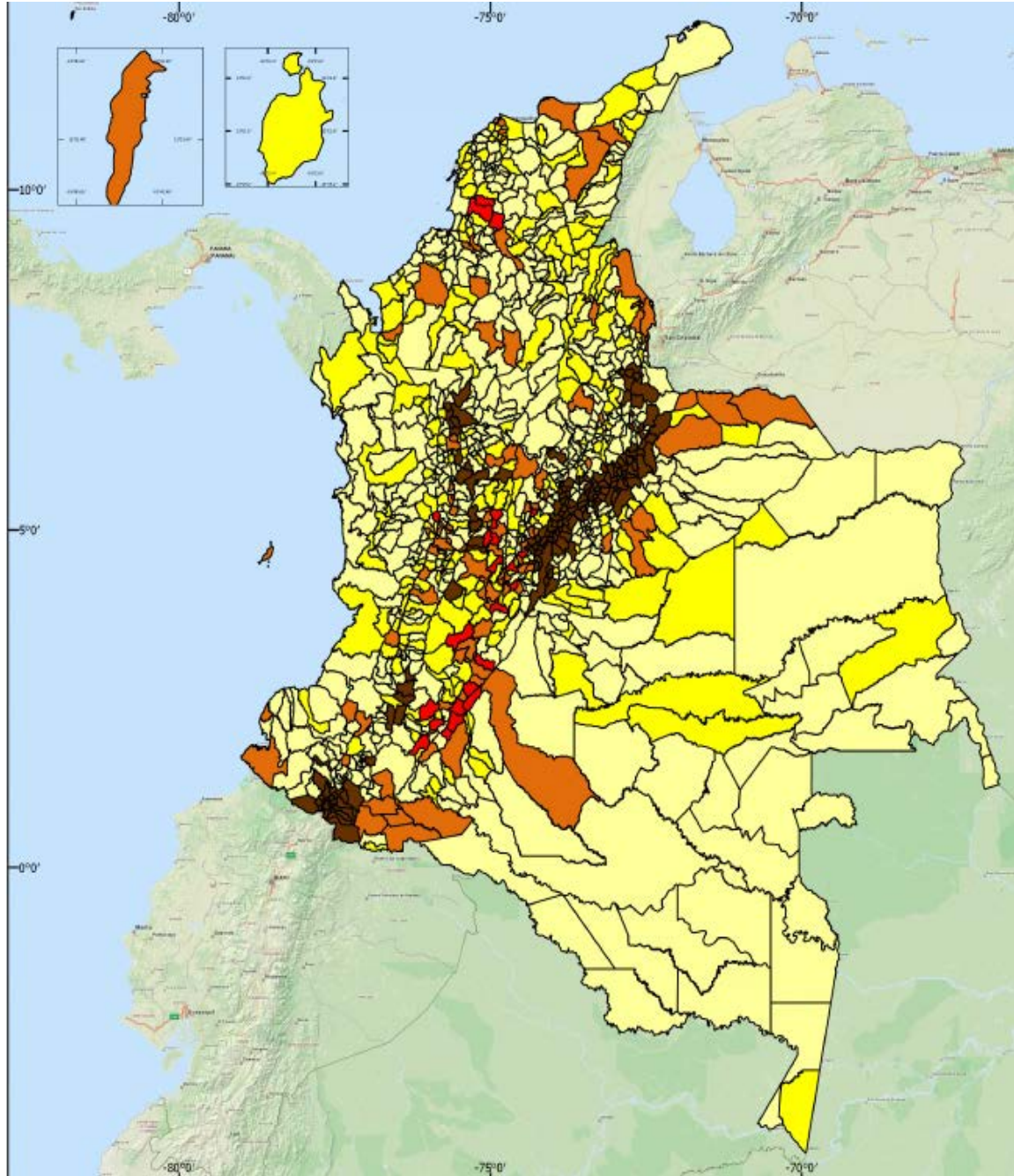
## Distribució mundial de *Aedes aegypti*



**Figure 1.** Global map of the predicted distribution of *Ae. aegypti*. The map depicts the probability of occurrence (from 0 blue to 1 red) at a spatial resolution of 5 km x 5 km.

FUENTE: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4493616/>

## Situación de riesgo de endemidad de *aedes aegypti* en Colombia



Muy grave = 27 municipios

Grave = 94 municipios

Moderada = 233 municipios

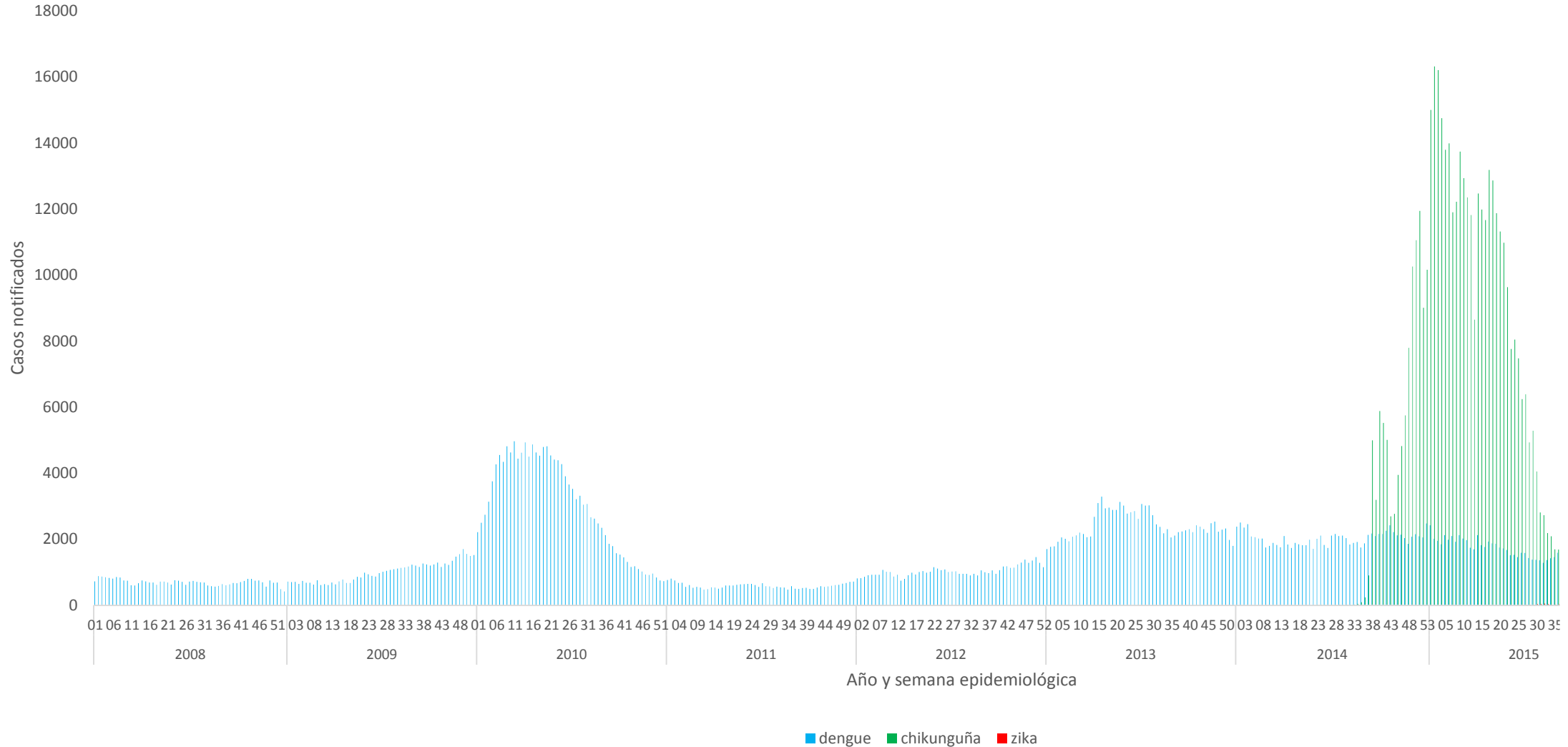
Tolerable = 597 municipios

> 2.200 msnm = 171 municipios

Elaborado por: Grupo ETV – INS DEYD – Minsalud

# Notificación de casos Dengue, Chikungunya y Zika, Colombia, 2008-2015

Notificación de casos dengue, chikunguña y zika, Colombia, 2014-2017



\* casos semana epidemiológica 01 a 45 de 2016

### ESTIMACIONES EPIDEMIA POR ZIKA VIRUS COLOMBIA

Total de personas que viven en municipios susceptibles en Colombia	26.294.312
Incidencia observada en la isla Yap	2,50%
Casos estimados esperados de Zika en Colombia	657.358



1. MONITOREO Y SEGUIMIENTO ALERTAS INTERNACIONALES

2. EVALUACION DEL RIESGO

3. COMUNICACIÓN DEL RIESGO

4. RESPUESTA E INTERVENCION

1) LINEAMIENTOS (G. CONOCIMIENTO)

DIRECTRICES DE VIGILANCIA

PROTOCOLOS DE LABORATORIO

PROTOCOLOS CLINICOS

PROTOCOLOS ADMINISTRATIVOS

LINEAMIENTOS DE SALUD PUBLICA

2) INSUMOS

3) CAPACITACION TH



INSTITUTO  
NACIONAL DE  
SALUD



**Abril 1947**

Se identifica virus ZIKA en Uganda



**Febrero 2014**

Se confirma 1<sup>er</sup> caso en Isla de Pascua, Chile



**Mayo 14, 2015**

Análisis de alerta epidemiológica en Comité Estratégico, MinSalud

**Junio 3, 2015**

MinSalud posible llegada a Colombia del Zika

**Octubre 16, 2015**

Confirmación del 1<sup>er</sup> caso en Colombia

**12. Diciembre 1, 2015**

Alerta epidemiológica de OPS-OMS sobre **anomalías congénitas**

**10. Noviembre 17, 2015**

OPS-OMS alerta por incremento de **microcefalia**

**11. Noviembre 25, 2015**

FioCruz, Brasil, informa de Zika y **alteraciones neurológicas**

**Sept. 29, 2015**

Presencia de casos con síndrome febril con etiología desconocida en Turbaco

**Mayo 23, 2015**

Confirmación de circulación del Zika en Brasil



**Mayo 7, 2015**

Alerta epidemiológica sobre ZIKA, OPS-OMS



**1951-1961**

Evidencia de infección en humanos en África y Asia

MINSALUD

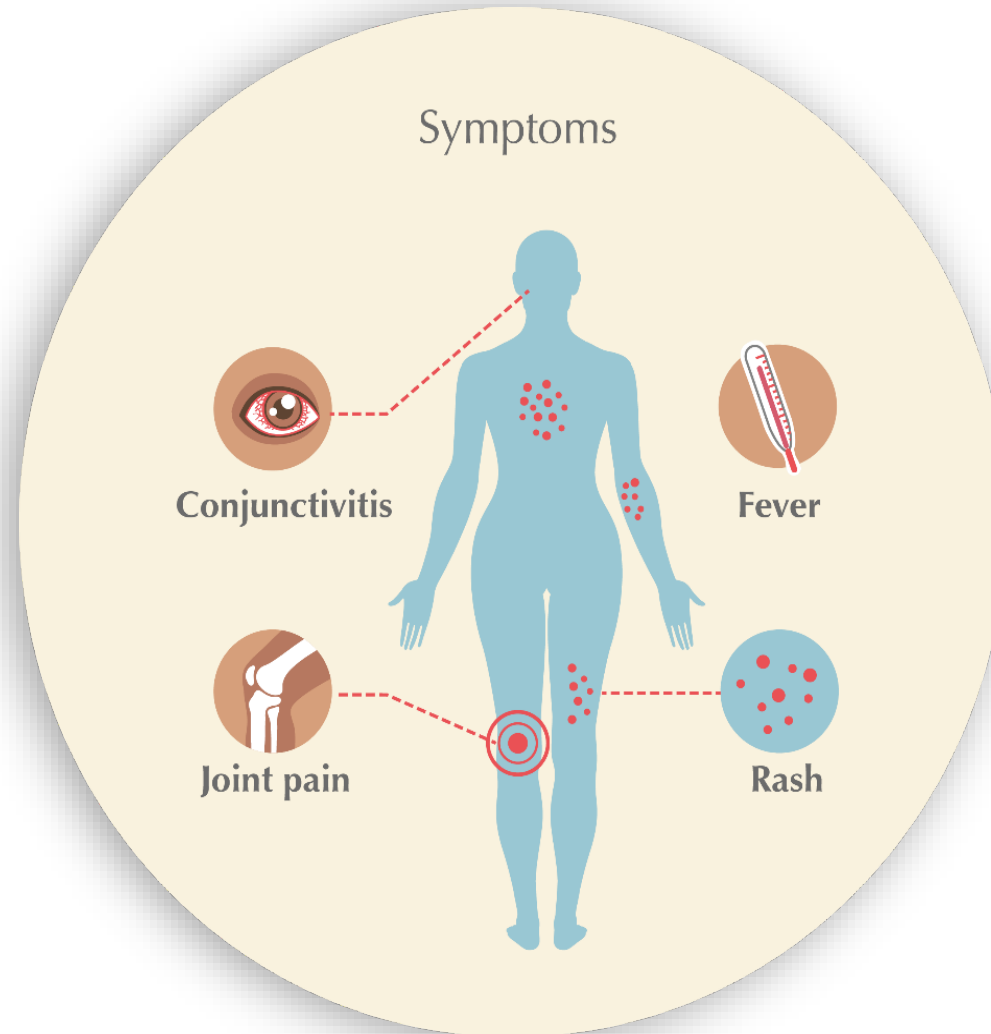


# Desenlaces en la infección por virus Zika

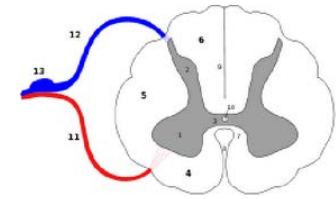
## Rutas de infección



## Infección en adultos

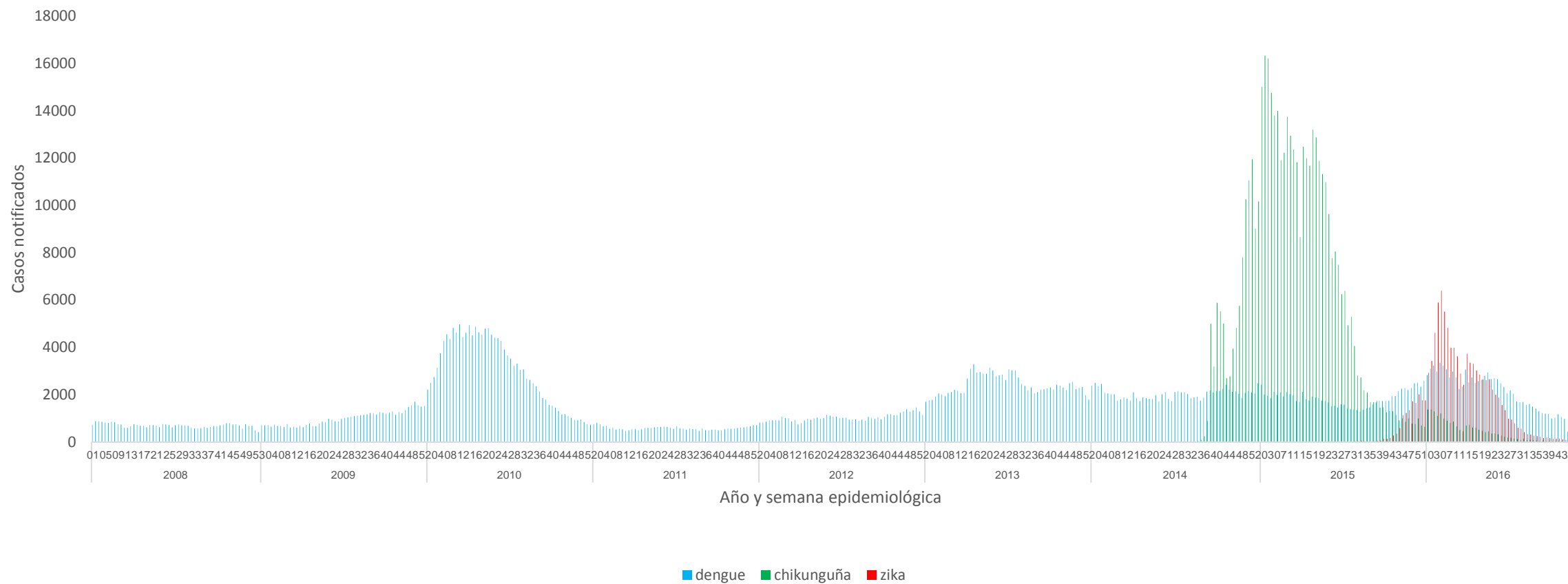


## Complicaciones



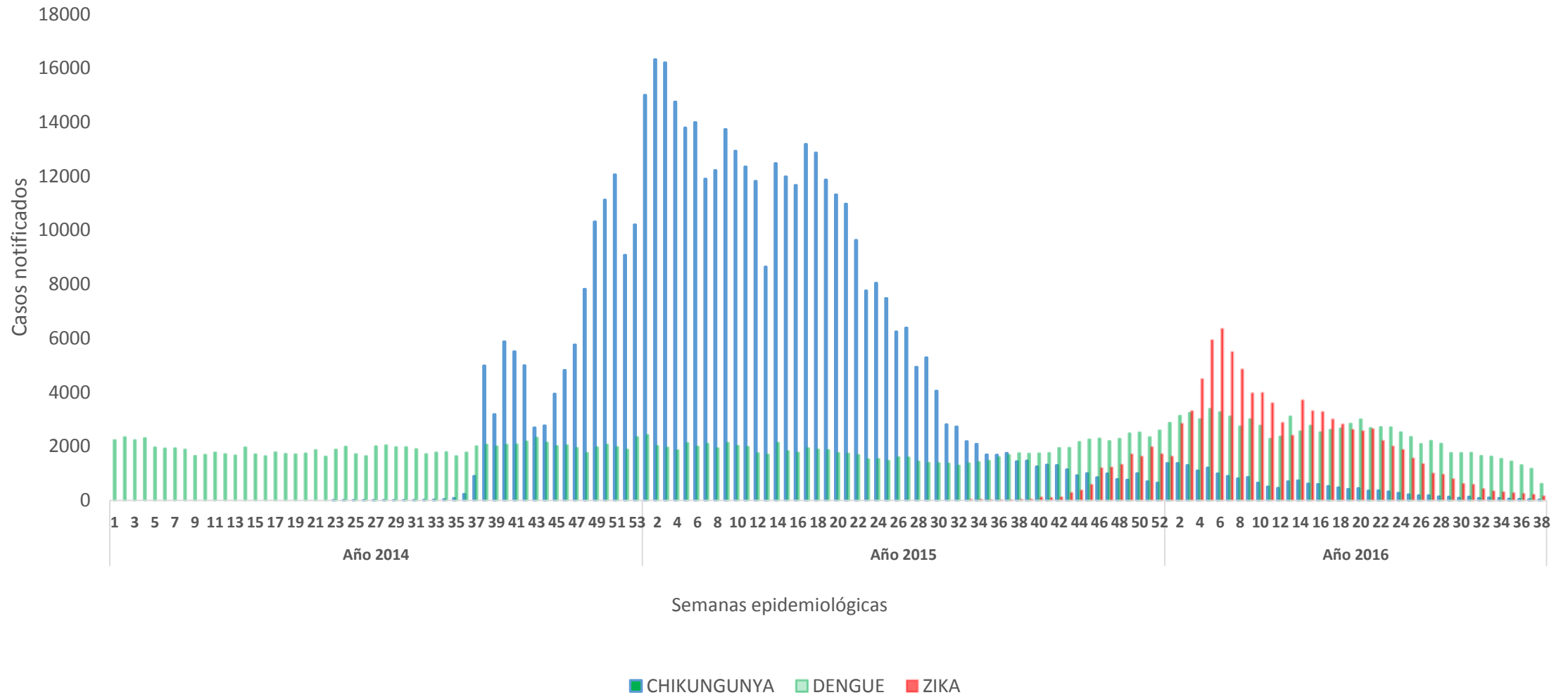
# Notificación de casos Dengue, Chikungunya y Zika, Colombia, 2008-2016\*

Notificación de casos dengue, chikunguña y zika, Colombia, 2008-2016

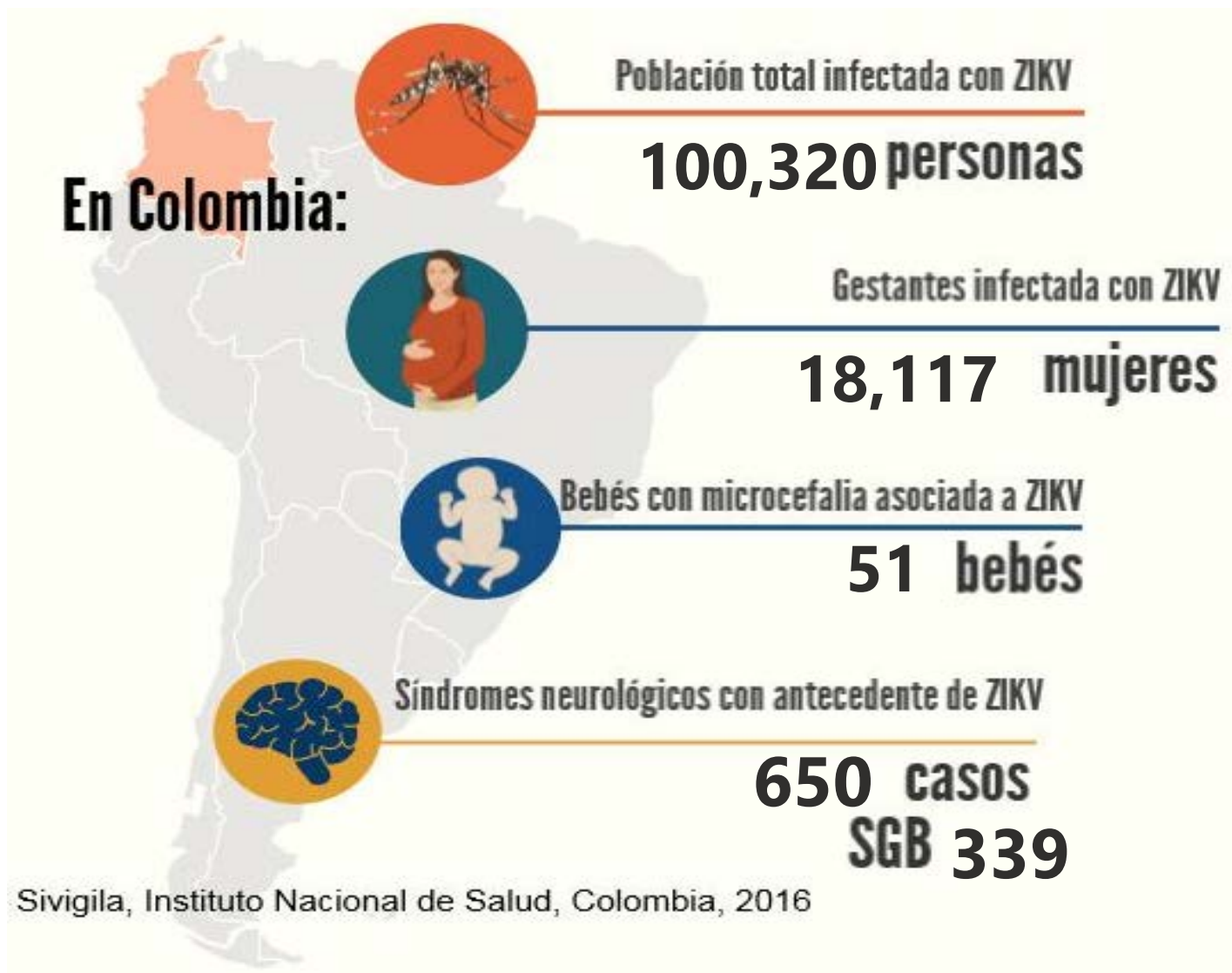


\* casos semana epidemiológica 01 a 45 de 2016

# Notificación de casos Dengue, Chikungunya y Zika, Colombia, 2014-2016 p

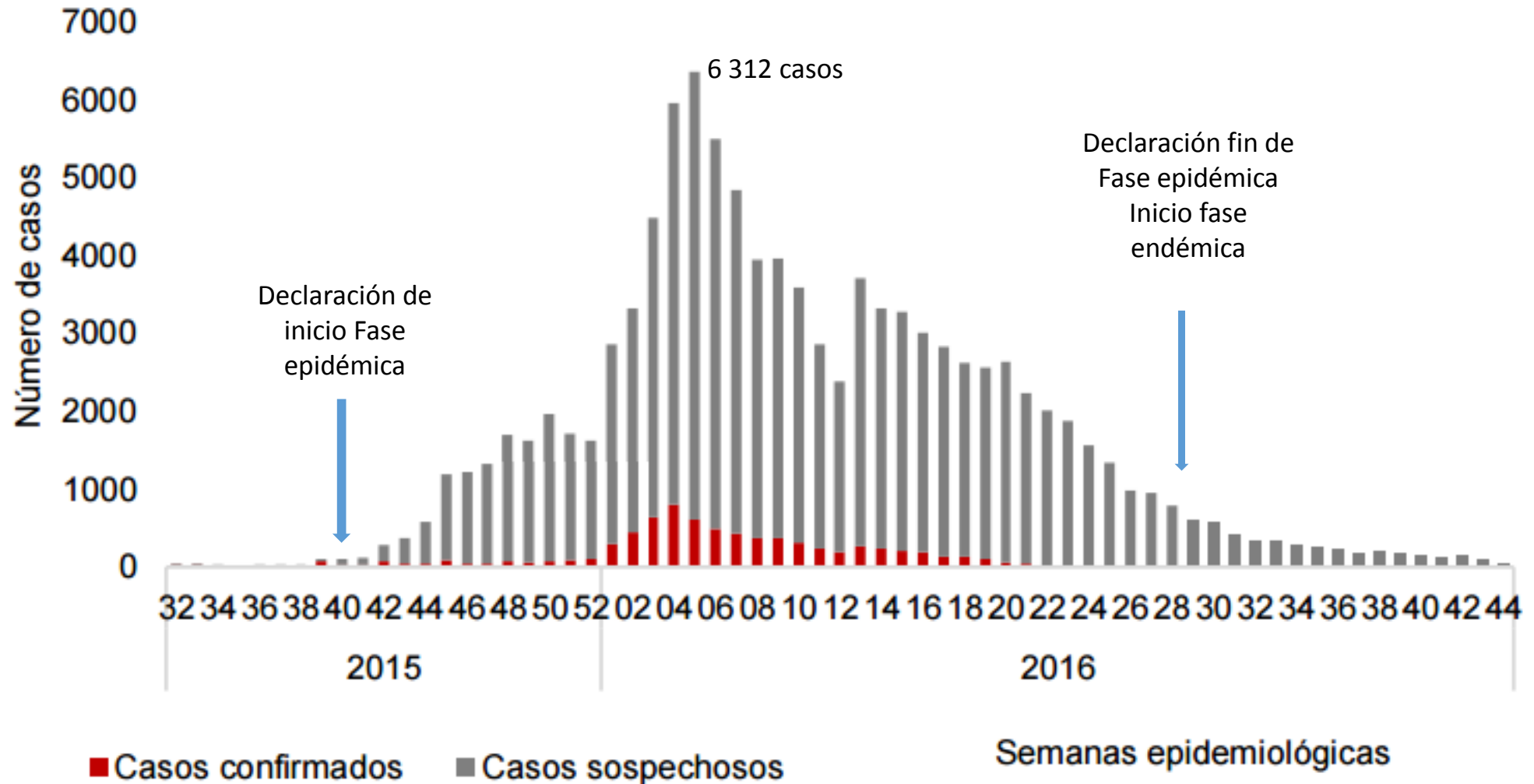


# Epidemia

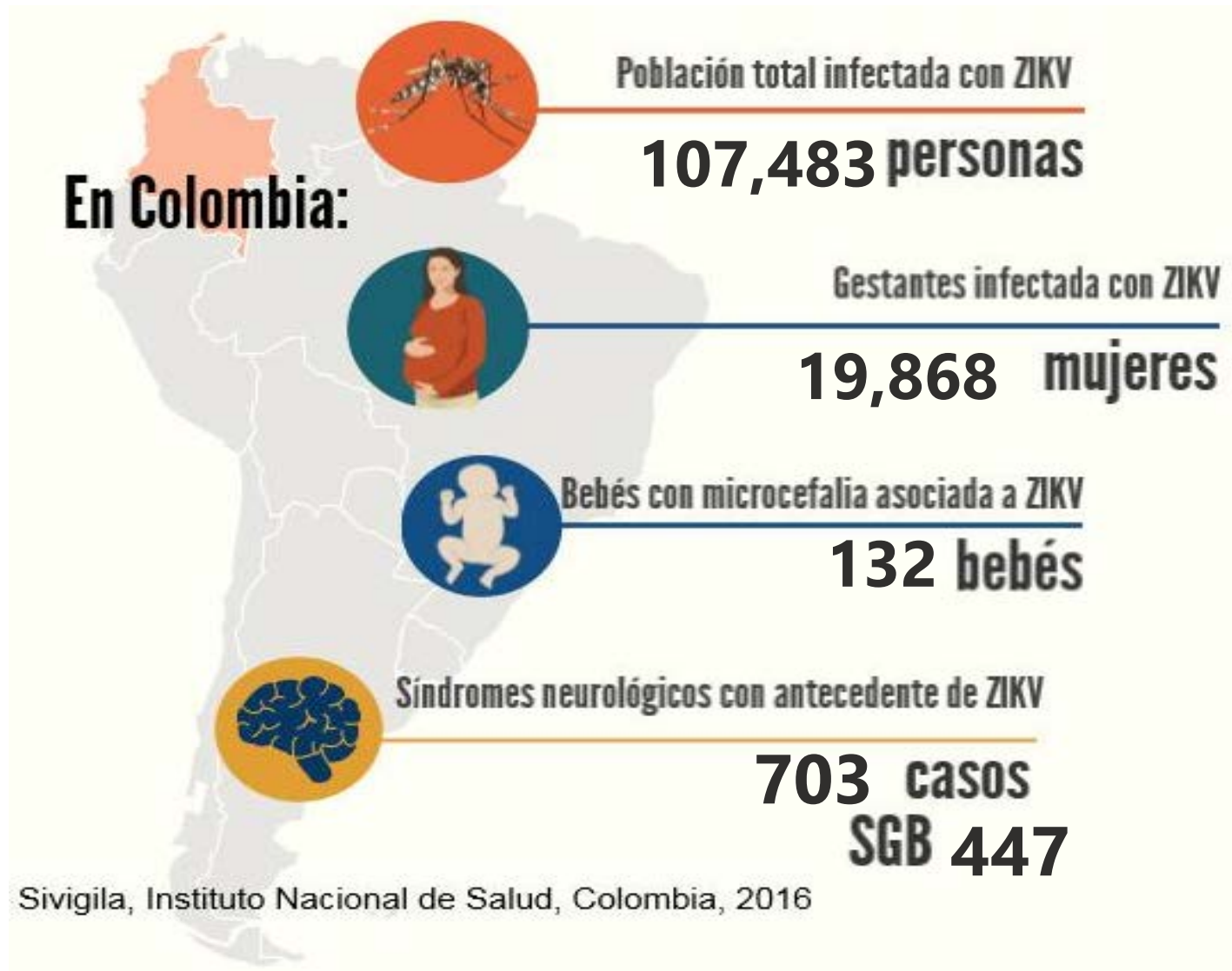


30% adicional  
asintomático: 30.096  
Total: 130.416

# CASOS NOTIFICADOS ENF ZIKA VIRUS COLOMBIA, semanas epidemiológicas 32 de 2015 a 44 de 2016

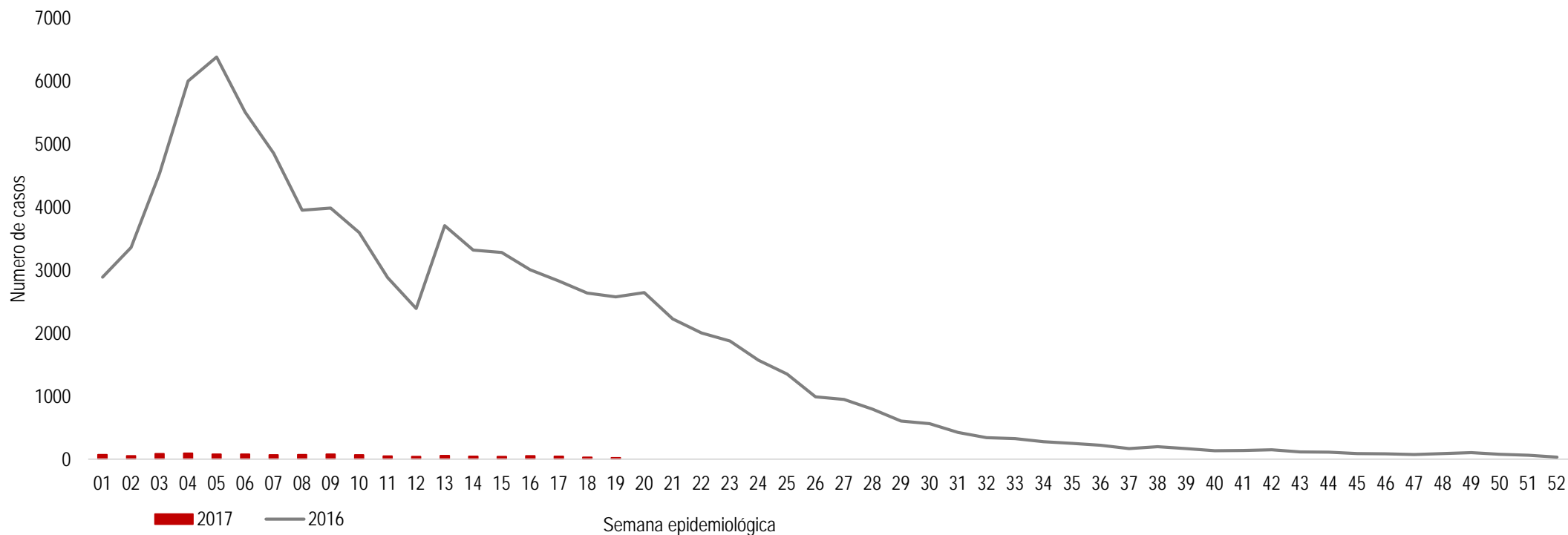



# Acumulado semana 10 - 2017





## Casos notificados de enfermedad por virus Zika, Colombia, semanas epidemiológicas 01-19, 2016 - 2017



Año	Casos SE 19	Acumulado SE 19	Variación
2016	2 577	71 731	98,3 % 
2017	23	1 163	

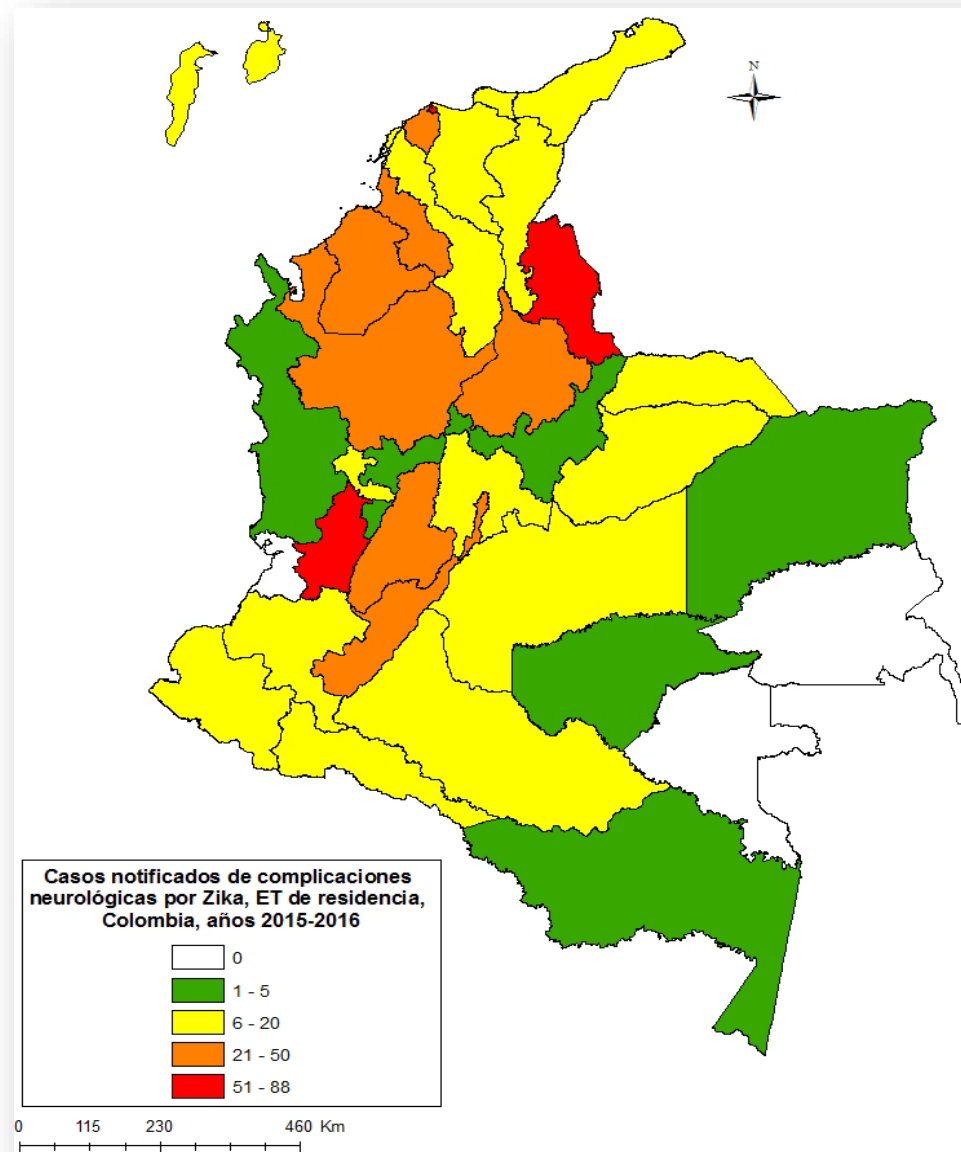
Confirmados laboratorio	Confirmados clínica	Sospechosos
3	1 070	90

# Incidencias de Epidemia y Endemia

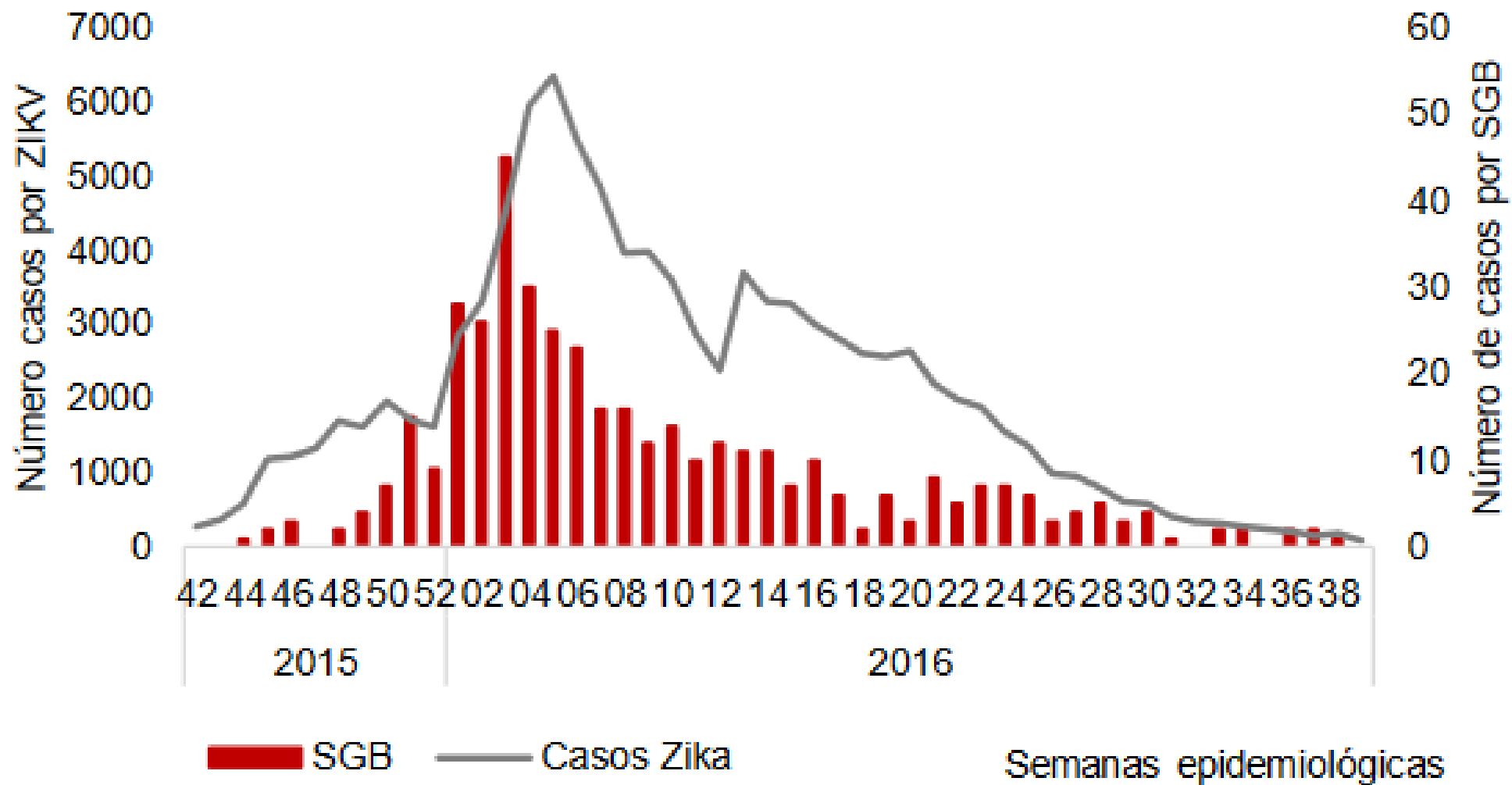
Periodo epidemiológico	Evento	Incidencia (casos X 100 000 habitantes en riesgo)
SE 32 de 2015 a 28 de 2016	<b>Zika</b> epidemia	376,8
SE 29 a 46 de 2016	<b>Zika</b> en endemia	16,2
SE 01 a 52 de 2010	<b>Dengue</b> epidemia	664,4
SE 01 a 46 de 2016	<b>Dengue</b> endemia	347, 2
SE 01 a 53 2015	<b>Chikungunya</b> epidemia	1 359
SE 01 a 46 de 2016	<b>Chikungunya</b> endemia	72,2



# Síndromes Neurológicos asociados a Zika sem 42 de 2015 a 46 de 2016 - Colombia

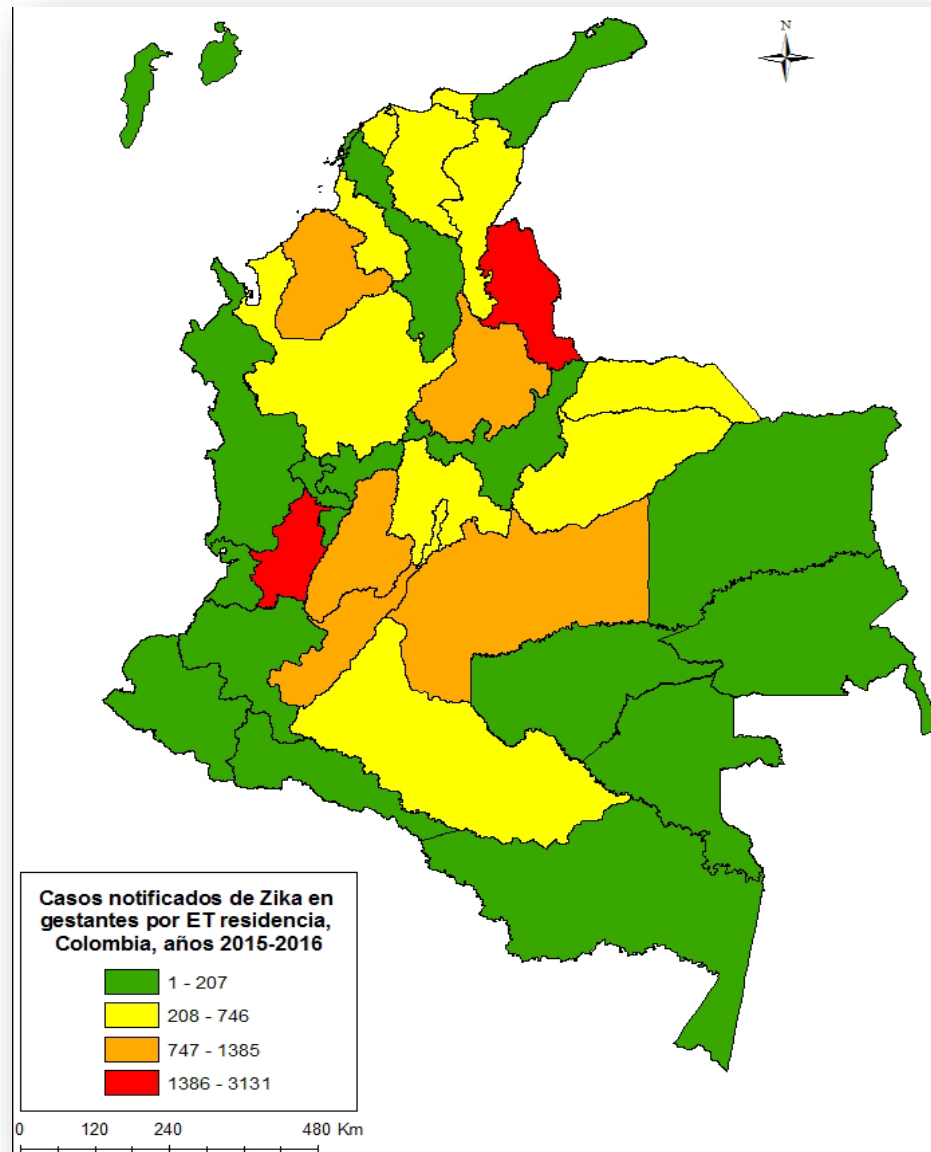


## Síndrome neurológico con antecedente probable virus Zika, Colombia, semanas epidemiológicas 42 de 2015 a 39 de 2016



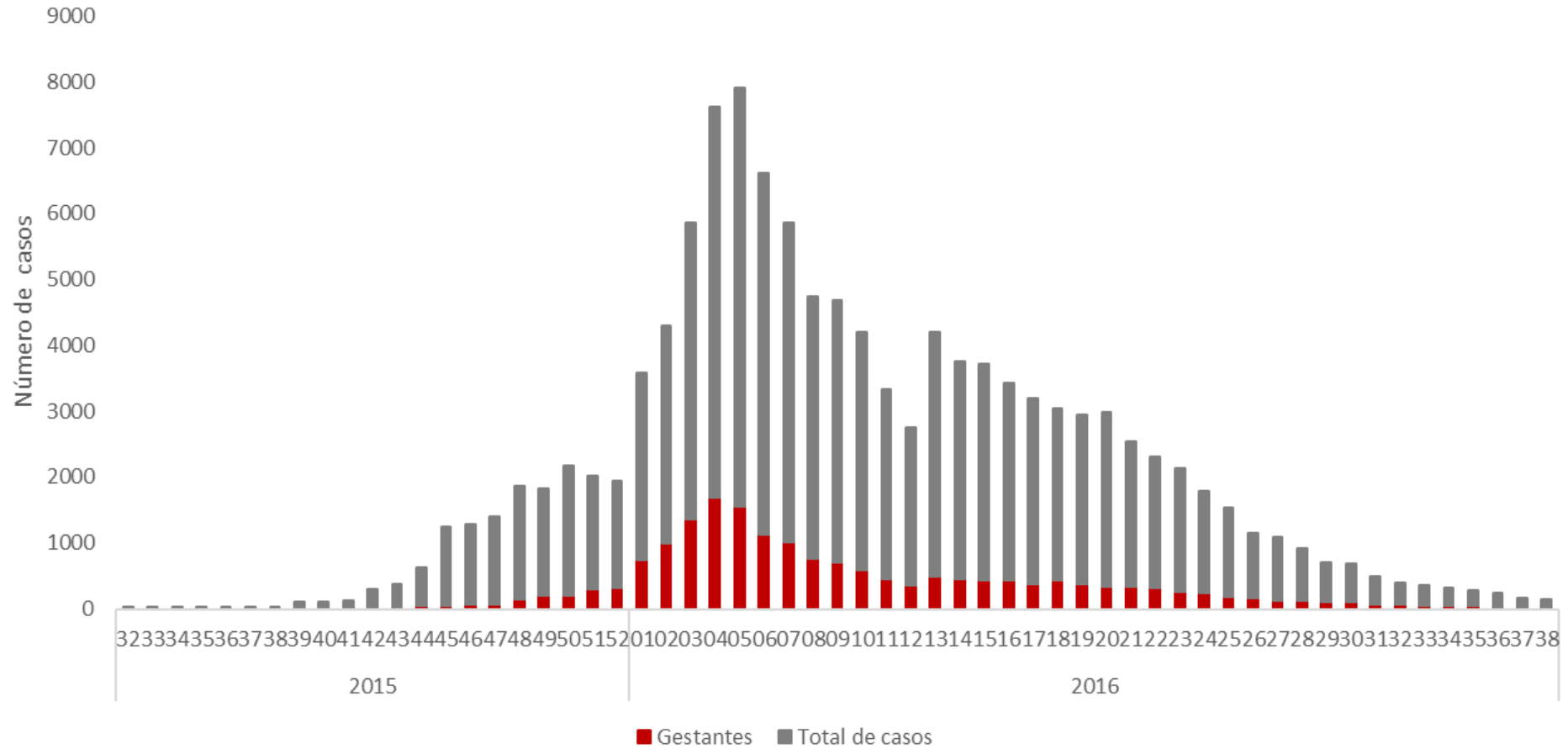


# Gestantes con antecedente Zika Colombia, sem 32 de 2015 a 46 de 2016





# Casos notificados de enfermedad por virus Zika, en gestantes, Colombia, semanas epidemiológicas 32 de 2015 a 38 de 2016



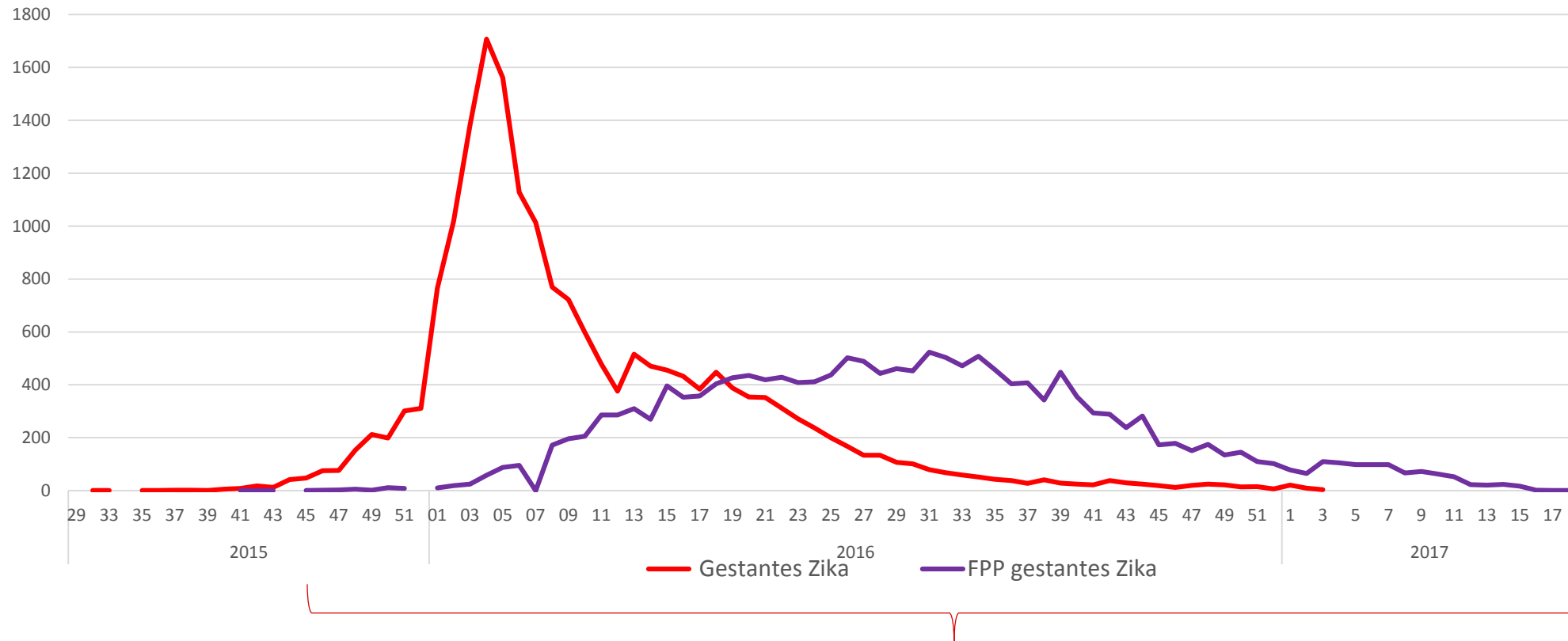
**Porcentaje gestantes: 18,0 %**

## Vigilancia rutinaria Embarazadas con ZIKAV Colombia, a semana epidemiológica 34 de 2016

Trimestre de infección Zika	Condicion producto	total	%
I	Nacido vivo sin defecto congenito	3210	89,6
	Muerte sin defecto congenito	63	1,8
	Nacido vivo con defecto congenito	42	1,2
	Muerte con defecto congenito	5	0,1
	Abortos/IVE	264	7,4
	<b>Total</b>	<b>3584</b>	<b>100 / 23</b>
II	Nacido vivo sin defecto congenito	5569	96,7
	Muerte sin defecto congenito	90	1,6
	Nacido vivo con defecto congenito	31	0,5
	Muerte con defecto congenito	10	0,2
	Abortos/IVE	61	1,1
	<b>Total</b>	<b>5761</b>	<b>100 / 37</b>
III	Nacido vivo sin defecto congenito	5147	97,4
	Muerte sin defecto congenito	93	1,8
	Nacido vivo con defecto congenito	43	0,8
	Muerte con defecto congenito	4	0,1
	Abortos/IVE	0	0,0
	<b>Total</b>	<b>5287</b>	<b>100 / 34</b>
SD	Nacido vivo sin defecto congenito	847	94,8
	Muerte sin defecto congenito	14	1,6
	Nacido vivo con defecto congenito	6	0,7
	Muerte con defecto congenito	1	0,1
	Abortos/IVE	25	2,8
	<b>Total</b>	<b>893</b>	<b>100 / 5,7</b>
<b>Total terminaron embarazo</b>		<b>15 525</b>	



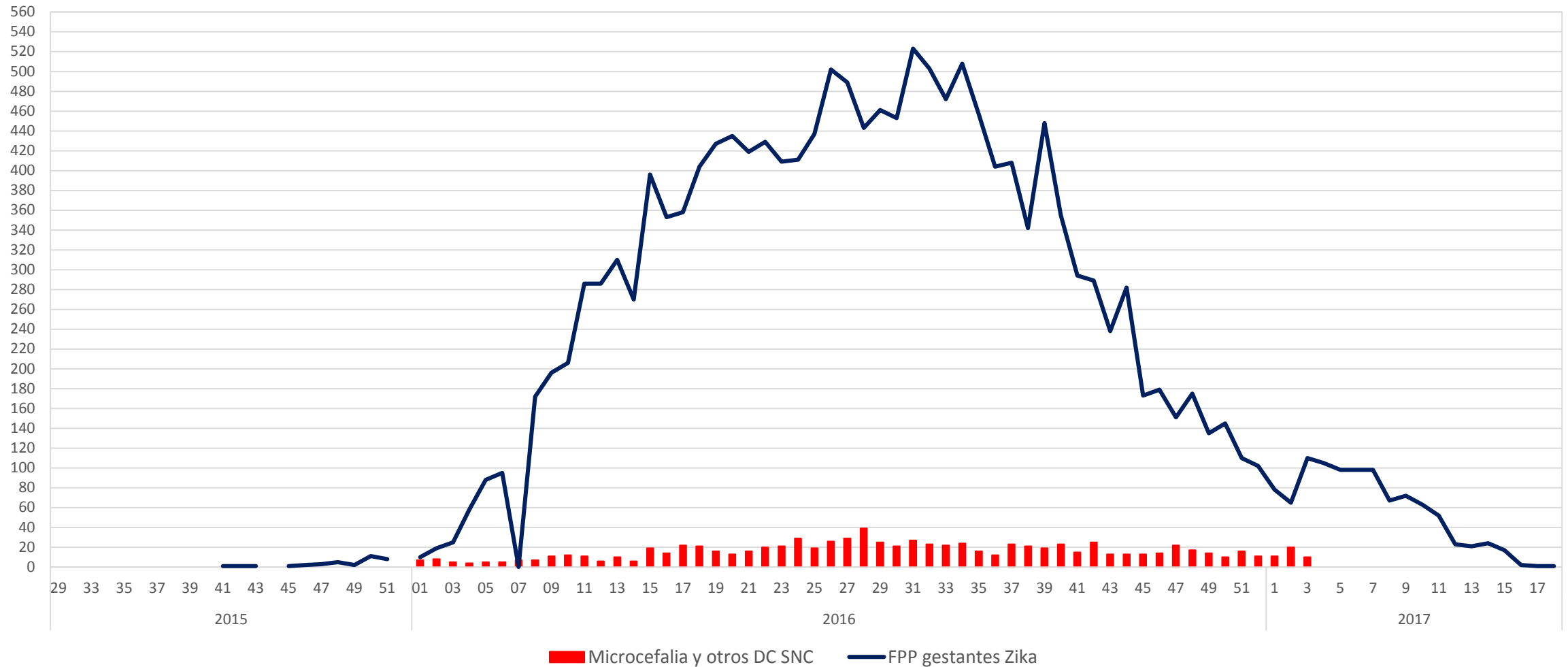
# Estimación de nacimientos según Fecha Probable de parto de gestantes durante Fase epidémica de Zika en Colombia



Septiembre 2015 -30 de abril 2017

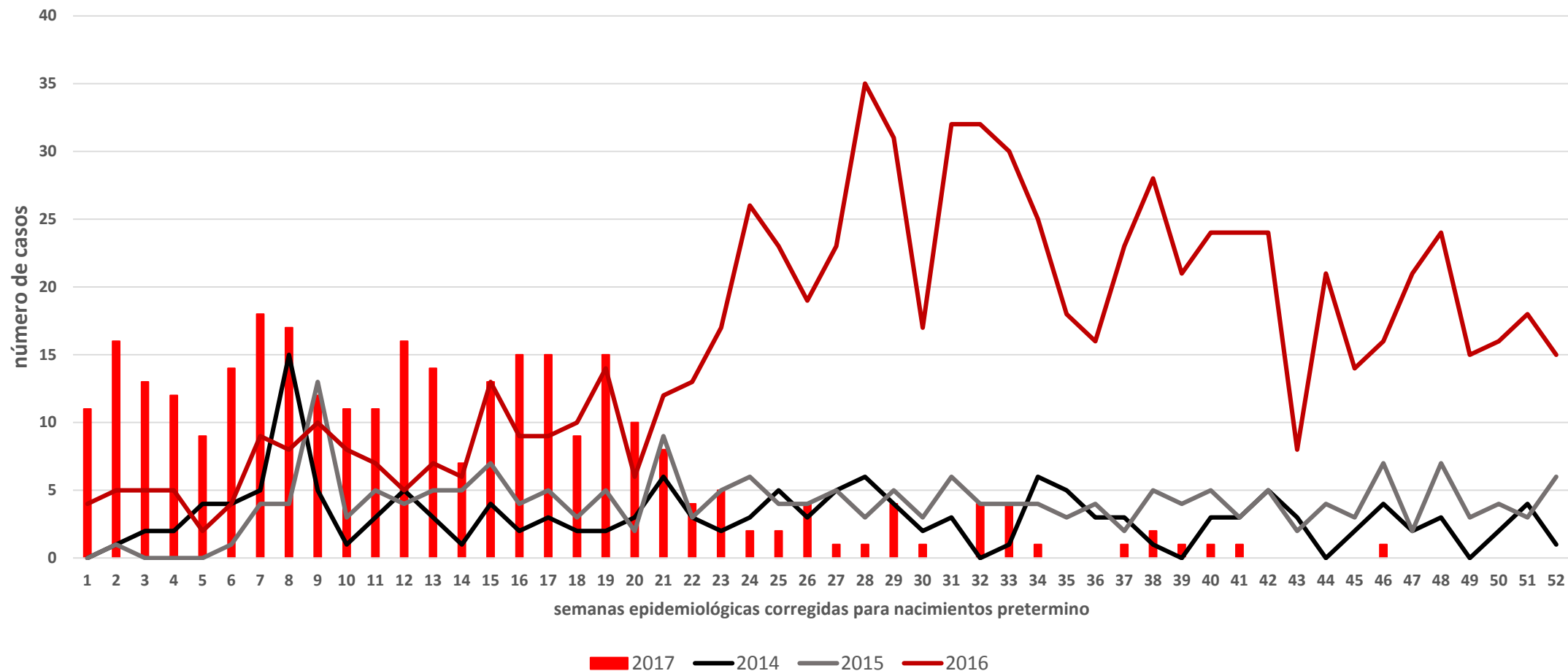


# Comparativo Nacimientos vs Defectos Congénitos del SNC SE 01 -52 2016 y 01-03 de 2017. Colombia



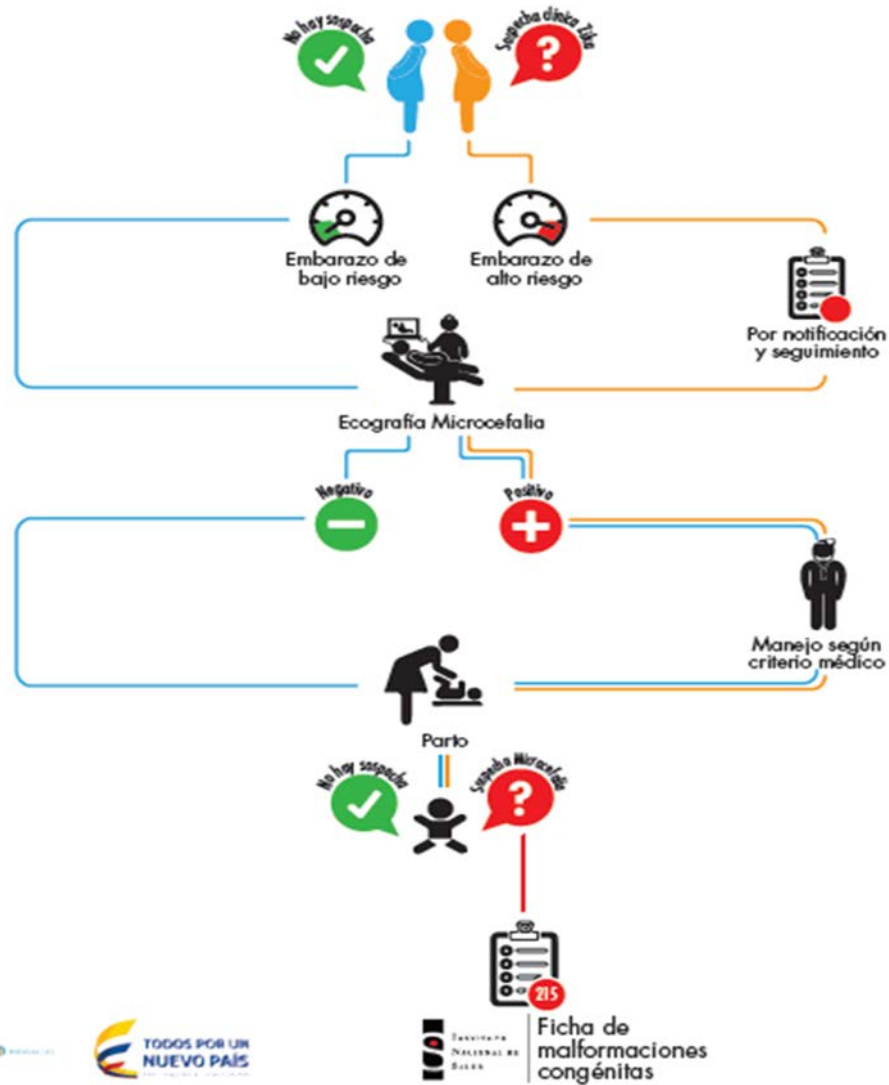
# Nacimientos con microcefalia y otros defectos congénitos del SNC, SE 01 -52 2014, 2015 2016 y 2017. Colombia

Versión 2

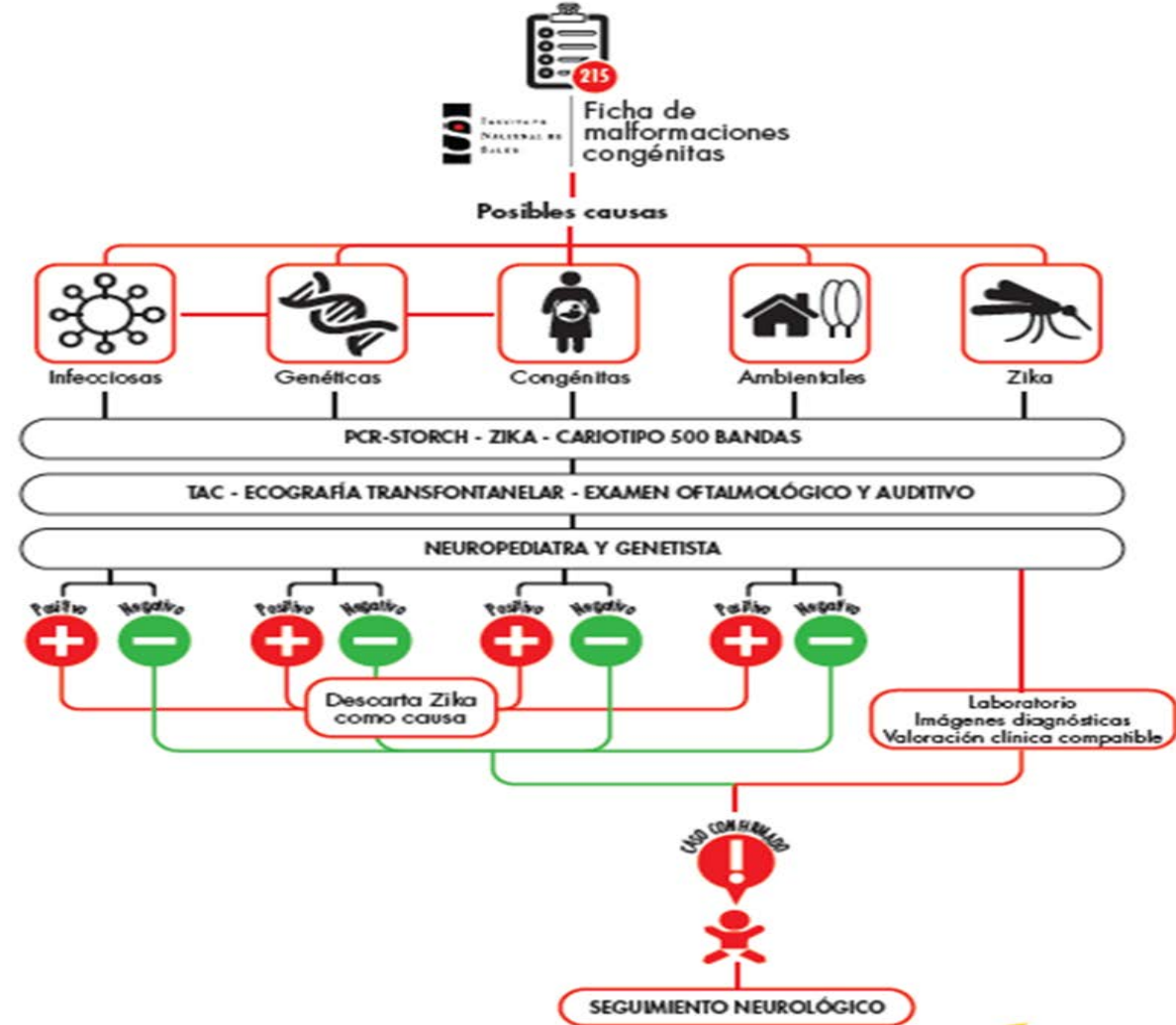




## PROTOCOLO EVALUACIÓN MICROCEFALIA EN ZIKA



## PROTOCOLO EVALUACIÓN MICROCEFALIA EN ZIKA



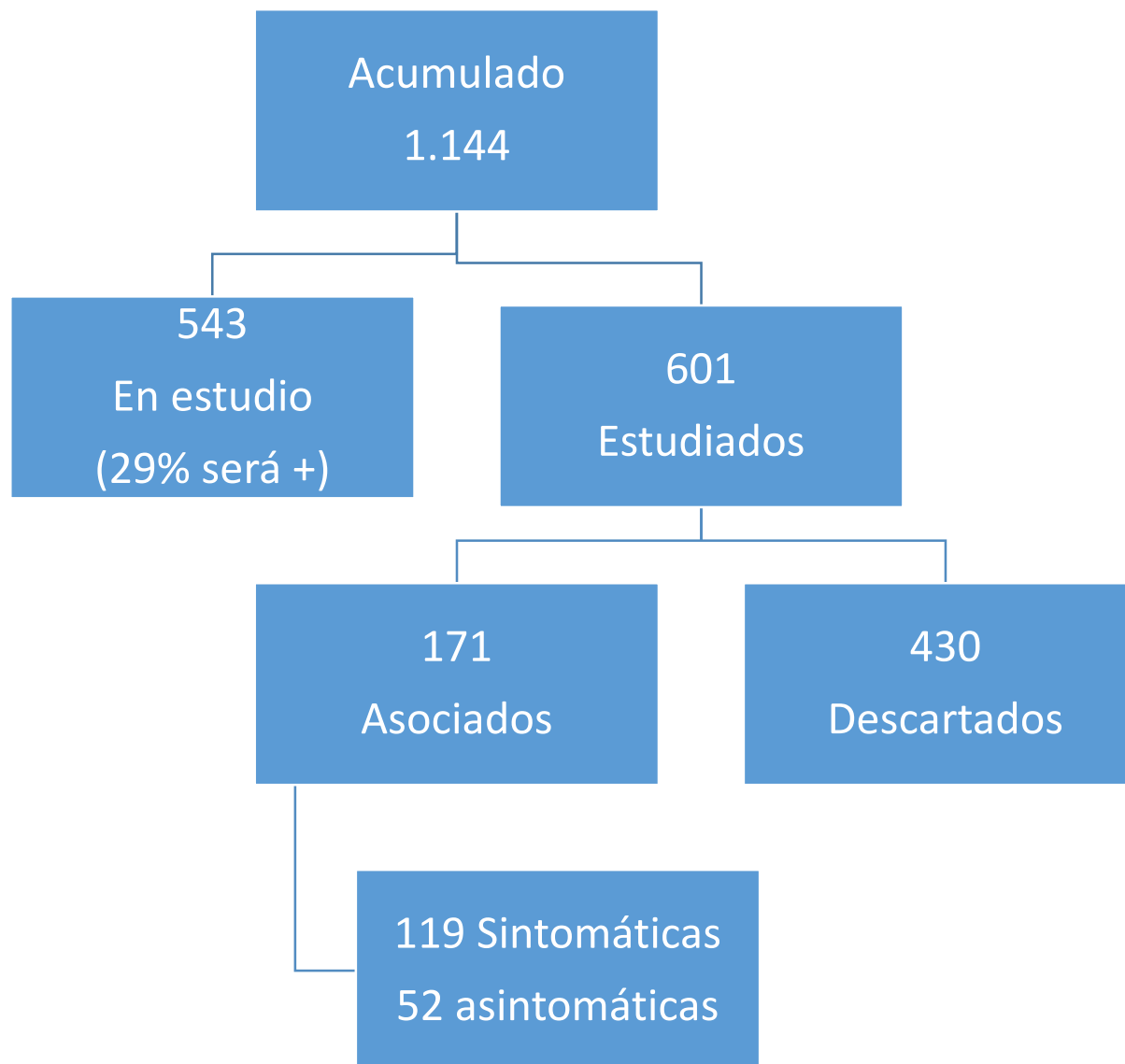


Anormalidades estructurales o funcionales de los órganos, sistemas o partes del cuerpo que se producen durante la vida intrauterina.

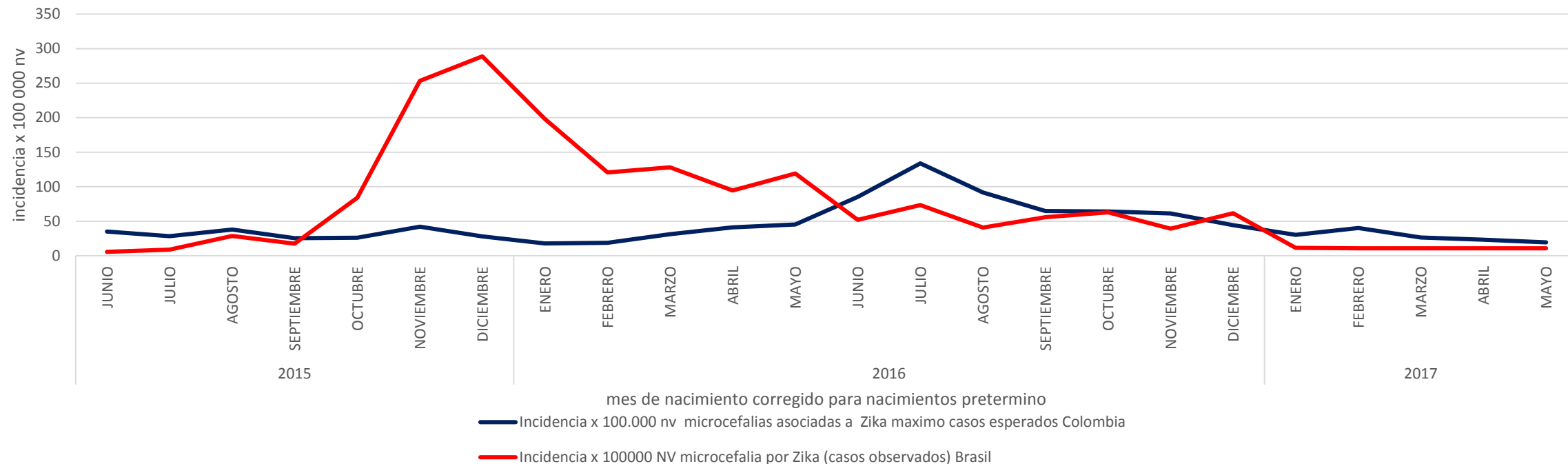
Pueden deberse a factores genéticos, factores ambientales o carencia de micronutrientes o ambos, los cuales pueden ser evidentes antes del nacimiento, en el nacimiento o más tarde en la vida.

- *50% DC causa desconocida*
- *15% DC origen teratogénico asociado a la exposición prenatal a factores ambientales que afectan la embriogénesis*
- *10% DC causa genética*
- *25% DC son de origen multifactorial*

# causa etiológica microcefalias y otros DC del SNC. Colombia, semanas 01 a la 52 de 2016 y la semana 24 de 2017

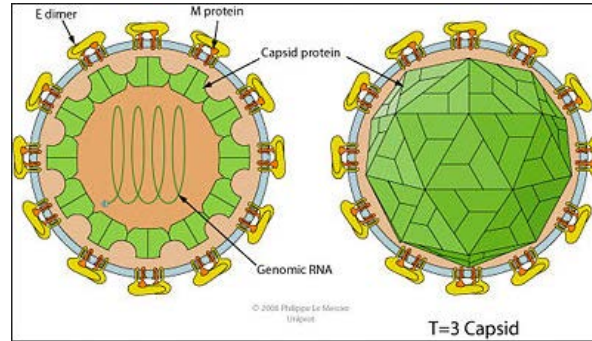


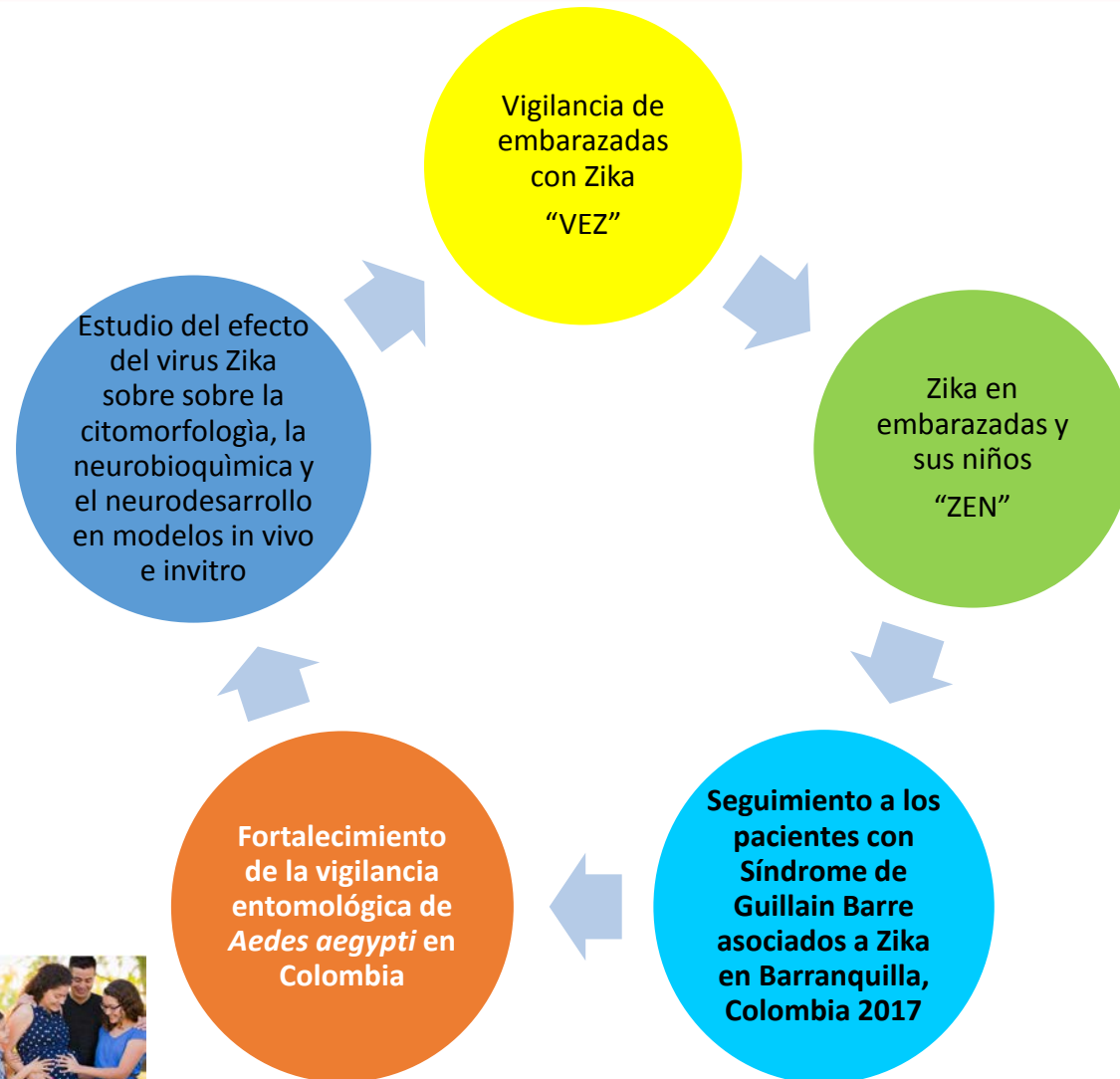
## Curva de incidencia microcefalia y otros defectos congénitos del SNC asociadas al virus del Zika, fase epidémica (enero 2016 a abril de 2017) Colombia y Brasil



microcefalias asociadas a ZikaV fase epidémica, Colombia	microcefalias asociadas a ZikaV fase epidémica, Colombia	NV enero 2016 - abril 2017	Incidencia x 100 000 nv Colombia enero 2016 a abril 2017	Incidencia x 100 000 nv Colombia enero 2016 a abril 2017	Incidencia X 100 000 NV junio 2015 a mayo 2017 Brasil
N° MINIMO CASOS 276	N° MAXIMO CASOS 434	848807	incidencia mínima <b>32,5</b>	incidencia máxima <b>51,13</b>	<b>75</b> N° Microcefalias: 4383 Nacidos Vivos: 5880000

## Preguntas por contestar







# Resultados preliminares

Primer trimestre

Segundo trimestre

Tercer trimestre



Sin hallazgos evidentes

**Intracraneales**

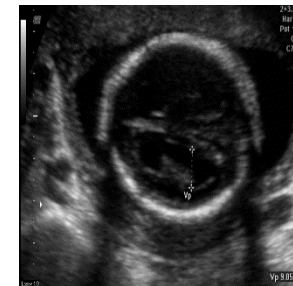
- Disminución del volumen cerebral: microcefalia - microencefalia, anencefalia y ausencia de huesos craneales
- Ventriculomegalia
- Perímetro cefálico normal
- Esquizencefalia
- Disgencia de cuerpo caloso
- Alteraciones de fosa posterior  
disgenesia de vermis

**Extracraneales**

- Foco cardiaco hiperecogénico
- Alteraciones en extremidades
- Artrogriposis (manos contracturadas)
- Pie equino varo
- Postura fetal (hiperflexión de miembros superiores e hiperextensión de miembros inferiores)
- Calcificaciones pulmonares

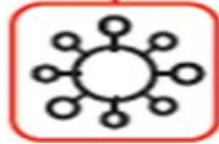
**RT-PCR Positivo en LA**

- Sinequias ventriculares
- Calcificaciones periventriculares
- lisencefalia
- **RT-PCR Positivo en LA**



# Efectos posnatales

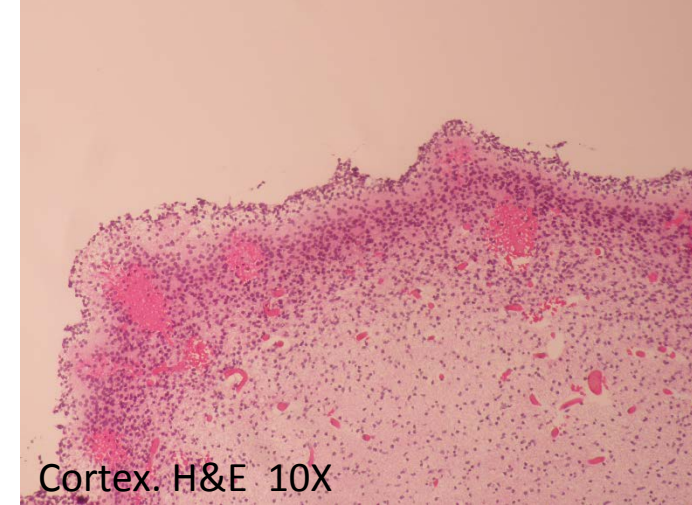
Diagnósticos diferenciales



Hallazgos clínicos e histopatológicos

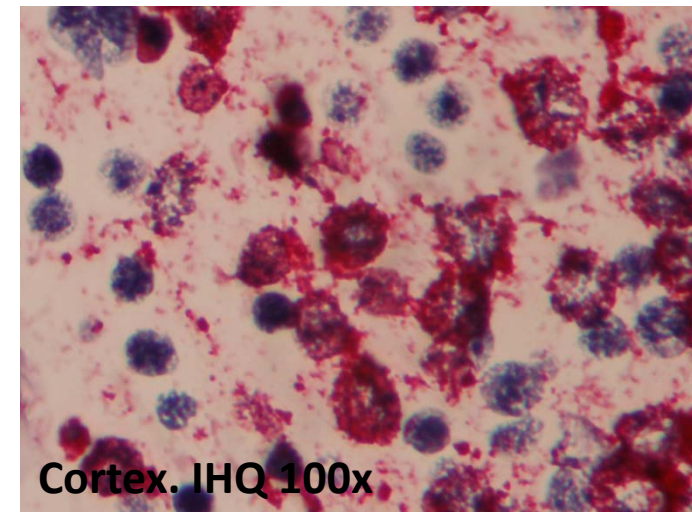


<http://www.prnewswire.com/>



Cortex. H&E 10X

Tejido: Cortesa cerebral IVE 19 SG  
Notorio adelgazamiento cortical  
con pérdida de neuroblastos



Cortex. IHQ 100x

Tejido: Cortesa cerebral  
Prueba IHQ 10X: Positiva  
Anticuerpo primario CDC 1:1000

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

## Zika Virus Disease in Colombia — Preliminary Report

Oscar Pacheco, M.D., Mauricio Beltrán, M.S., Christina A. Nelson, M.D., Diana Valencia, M.S., Natalia Tolosa, M.D., Sherry L. Farr, Ph.D., Ana V. Padilla, M.D., Van T. Tong, M.P.H., Esther L. Cuevas, M.S., Andrés Espinosa-Bode, M.D., Lissethe Pardo, B.S., Angélica Rico, B.S., Jennita Reefhuis, Ph.D., Maritza González, M.D., Marcela Mercado, M.S., Pablo Chaparro, M.D., Mancel Martínez Duran, M.D., Carol Y. Rao, Sc.D., María M. Muñoz, M.D., Ann M. Powers, Ph.D., Claudia Cuéllar, M.D., Rita Helfand, M.D., Claudia Huguett, M.S., Denise J. Jamieson, M.D., Margaret A. Honein, Ph.D., and Martha L. Ospina Martínez, M.D.

ABSTRACT

### BACKGROUND

Colombia began official surveillance for Zika virus disease (ZVD) in August 2015. In October 2015, an outbreak of ZVD was declared after laboratory-confirmed disease was identified in nine patients.

The NEW ENGLAND  
JOURNAL of MEDICINE

ESTABLISHED IN 1812

OCTOBER 20, 2016

VOL. 375 NO. 16

## Guillain–Barré Syndrome Associated with Zika Virus Infection in Colombia

Beatriz Parra, Ph.D., Jairo Lizarazo, M.D., Jorge A. Jiménez-Arango, M.D., Andrés F. Zea-Vera, M.D., Ph.D., Guillermo González-Manrique, M.D., José Vargas, M.D., Jorge A. Angarita, M.D., Gonzalo Zuñiga, M.D., Reidmar Lopez-Gonzalez, M.D., Cindy L. Beltran, M.D., Karen H. Rizcala, M.D., Maria T. Morales, M.D., Oscar Pacheco, M.D., Martha L. Ospina, M.D., Anupama Kumar, M.B., B.S., David R. Cornblath, M.D., Laura S. Muñoz, M.D., Lyda Osorio, M.D., Ph.D., Paula Barreras, M.D., and Carlos A. Pardo, M.D.

ABSTRACT

### BACKGROUND

Zika virus (ZIKV) infection has been linked to the Guillain–Barré syndrome. From November 2015 through March 2016, clusters of cases of the Guillain–Barré syndrome were observed during the outbreak of ZIKV infection in Colombia. We characterized the clinical features of cases of Guillain–Barré syndrome in the context of this ZIKV infection outbreak and investigated their relationship with ZIKV infection.

### METHODS

A total of 68 patients with the Guillain–Barré syndrome at six Colombian hospitals were evaluated clinically, and virologic studies were completed for 42 of the patients. We performed reverse-transcriptase–polymerase-chain-reaction (RT-PCR) assays for ZIKV in blood, cerebrospinal fluid, and urine, as well as antinflavivirus antibody assays.

From the Department of Microbiology (B.P., A.F.Z.-V.), the Department of Internal Medicine, Hospital Universitario del Valle (A.F.Z.-V., G.Z.), and Escuela de Salud Pública (L.O.), Universidad del Valle, Cali, Hospital Universitario Erasmo Meoz, Universidad de Pamplona, Cucuta (J.L.), Universidad de Antioquia, Clinica Leon XIII, Neuroclinica, Medellin (J.A.J.-A., R.L.-G.), Universidad Surcolombiana, Hospital Universitario de Neiva (G.G.-M., C.L.B.), and Clinica Medilaser (J.A.A.), Neiva, Clinica La Misericordia Internacional, Barranquilla (J.V., K.H.R., M.T.M.),

The NEW ENGLAND JOURNAL of MEDICINE

## Zika Virus and the Guillain–Barré Syndrome — Case Series from Seven Countries

**TO THE EDITOR:** Zika virus (ZIKV) disease had been described as a mild, self-limiting illness associated with fever, rash, joint pain, and conjunctivitis.<sup>1</sup> However, during the outbreak in French Polynesia, 42 patients with ZIKV disease were found to have the Guillain–Barré syndrome, which represented a marked increase from the approximately 5 cases detected annually during the previous 4 years.<sup>2</sup> A connection with the Guillain–Barré syndrome had previously been described in association with other flavivirus illnesses<sup>3,4</sup> but not with ZIKV infection.

From April 1, 2015, to March 31, 2016, a total of 164,237 confirmed and suspected cases of ZIKV disease and 1474 cases of the Guillain–Barré syndrome were reported in Bahia, Brazil; Colombia; the Dominican Republic; El Salvador; Honduras; Suriname; and Venezuela. To examine the temporal association between ZIKV disease and the Guillain–Barré syndrome, graphical and time-series analyses were applied to these two independent data sets, which were collected through official International Health Regulations channels or from ministry of health websites (see the Supplementary Appendix, available with the full text of this letter at NEJM.org). The data

vador (100%), Honduras (144%), Suriname (400%), and Venezuela (877%) (Table 1). When the incidence of ZIKV disease increased, so did the incidence of the Guillain–Barré syndrome (Fig. 1A). In the six countries that also reported decreases in the incidence of ZIKV disease, the incidence of the Guillain–Barré syndrome also declined. When the seven epidemics of ZIKV disease are aligned according to week of peak incidence, the total number of cases of ZIKV disease and the Guillain–Barré syndrome are closely coincident (Fig. 1B), although the period from acquiring infection to reporting disease is approximately 2 weeks longer for ZIKV than for the Guillain–Barré syndrome, a pattern that is especially visible in data from Colombia and Venezuela. Whether the 2-week difference can be explained in terms of incubation periods or reporting delays is not yet known. We explored the potential effect of dengue virus circulation on the incidence of the Guillain–Barré syndrome and found no link (see the Supplementary Appendix). In any event, we infer from these two series of cases, which were collected independently of each other, that ZIKV infection and the Guillain–Barré syndrome are strongly associated. Addi-

## EMERGING INFECTIOUS DISEASES®



*Emerg Infect Dis.* 2017 Jun; 23(6): 982–984.

PMCID: PMC5443437

doi: [10.3201/eid2306.161702](https://doi.org/10.3201/eid2306.161702)

## Severe Neurologic Disorders in 2 Fetuses with Zika Virus Infection, Colombia

Jorge Acosta-Reyes,<sup>✉</sup> Edgar Navarro, María José Herrera, Eloina Goenaga, Martha L. Ospina, Edgar Parra, Marcela Mercado, Pablo Chaparro, Mauricio Beltrán, María Luz Gunturiz, Lissethe Pardo, Catalina Valencia, Sandra Huertas, Jorge Rodríguez, Germán Ruiz, Diana Valencia, Lisa B. Haddad, Sarah C. Tinker, Cynthia A. Moore, and Hernando Baquero

[Author information](#) ▶ [Copyright and License information](#) ▶

### Abstract

Go to:

We report the results of pathologic examinations of 2 fetuses from women in Colombia with Zika virus infection during pregnancy that revealed severe central nervous system defects and potential associated abnormalities of the eye, spleen, and placenta. Amniotic fluid and tissues from multiple fetal organs tested positive for Zika virus.

**Keywords:** Zika virus, congenital Zika virus infection, pediatric infections, neurologic disorders, viruses, Colombia

### LB-3. A Case-Control Investigation of Guillain-Barré Syndrome During an Outbreak of Zika Virus Infection—Barranquilla, Colombia, 2015–2016

Jorge Salinas, MD<sup>1</sup>; Diana Walteros, MD<sup>2</sup>; Ashley Styczynski, MD, MPH<sup>1</sup>; Flavio Garzon, MD<sup>2</sup>; Hernan Quijada, DDS<sup>2</sup>; Elsa Bravo, BSc<sup>3</sup>; Javier Madero, RN<sup>2</sup>; Jorge Acosta-Reyes, MD, MSc<sup>4</sup>; Christina Renquist, MPH<sup>1</sup>; Marcela Mercado, BSc<sup>2</sup>; Ibrahim Zaganjor, MPH<sup>1</sup>; Maritza Gonzalez, MD, MPH<sup>2</sup>; Alma Solano, MD<sup>3</sup>; Martha Ospina, MD, MSc<sup>2</sup>; James Sejvar, MD<sup>1</sup>; Pablo Chaparro, MD, PhD<sup>2</sup>; <sup>1</sup>Centers for Disease Control and Prevention, Atlanta, Georgia; <sup>2</sup>Instituto Nacional de Salud, Bogota, Colombia; <sup>3</sup>Secretaria de Salud, Barranquilla, Colombia; <sup>4</sup>Universidad del Norte, Barranquilla, Colombia

**Session:** 217. Late Breaker Oral Abstracts  
*Saturday, October 29, 2016: 10:30 AM*

**Background.** Guillain-Barré syndrome (GBS) is an autoimmune disorder characterized by weakness and sensory abnormalities due to peripheral nerve damage. Symptomatic Zika virus (ZIKV) infection is often characterized by fever and rash, and has been temporally associated with GBS. After the introduction of ZIKV in Barranquilla, Colombia in 2015, an increase in GBS cases was reported. We reviewed clinical data for

## Morbidity and Mortality Weekly Report (MMWR)

CDC > [MMWR](#)

### Preliminary Report of Microcephaly Potentially Associated with Zika Virus Infection During Pregnancy – Colombia, January–November 2016

*Weekly* / December 16, 2016 / 65(49):1409–1413



Format:

*On December 9, 2016, this report was posted online as an MMWR Early Release.*

Esther Liliana Cuevas, MS, MPH<sup>1</sup>; Van T. Tong, MPH<sup>2</sup>; Nathaly Rozo<sup>1</sup>; Diana Valencia, MS<sup>2</sup>; Oscar Pacheco, MD<sup>1</sup>; Suzanne M. Gilboa, PhD<sup>2</sup>; Marcela Mercado, MS<sup>1</sup>; Christina M. Renquist, MPH<sup>2</sup>; Maritza González, MD<sup>1</sup>; Elizabeth C. Ailes, PhD<sup>2</sup>; Carolina Duarte<sup>1</sup>; Valerie Godoshian, MPH<sup>2</sup>; Christina L. Sancken, MPH<sup>2</sup>; Angelica Maria Rico Turca<sup>1</sup>; Dinorah L. Calles, PhD<sup>2</sup>; Martha Ayala<sup>1</sup>; Paula Morgan, MPH<sup>2</sup>; Erika Natalia Tolosa Perez, MD<sup>1</sup>; Hernan Quijada Bonilla<sup>1</sup>; Ruben Caceres Gomez<sup>1</sup>; Ana Carolina Estupiñan<sup>3</sup>; Maria Luz Gunturiz<sup>1</sup>; Dana Meaney-Delman, MD<sup>2</sup>; Denise J. Jamieson, MD<sup>2</sup>; Margaret A. Honein, PhD<sup>2</sup>; Martha Lucia Ospina Martinez, MD<sup>1</sup> ([View author affiliations](#))

[View suggested citation](#)

## OBSTETRICS & GYNECOLOGY

[Articles & Issues](#) ▾[CME](#)[Collections](#)[ABOG MOC II](#)[Podcasts](#)[Videos](#) ▾[Journal Info](#) ▾

[Log in to view full text.](#) If you're not a subscriber, you can:

[Buy This Article >](#)[Become a Subscriber >](#)[Become a Society Member >](#)[Request Permissions >](#)

Ovid®  
Institutional  
members access  
full text with Ovid®

[< Previous Abstract](#) | [Next Abstract >](#)

### Serial Head and Brain Imaging of 17 Fetuses With Confirmed Zika Virus Infection in Colombia, South America

Parra-Saavedra, Miguel MD, PhD; Reefhuis, Jennita PhD; Piraquive, Juan Pablo MD; Gilboa, Suzanne M. PhD; Badell, Martina L. MD; Moore, Cynthia A. MD, PhD; Mercado, Marcela MS; Valencia, Diana MS; Jamieson, Denise J. MD, MPH; Beltran, Mauricio MS; Sanz-Cortes, Magda MD; Rivera-Casas, Ana Maria MD; Yopez, Mayel MD; Parra, Guido MD; Ospina Martinez, Martha MD; Honein, Margaret A. PhD, MPH

170

*From N. M. Gregg (1941). Trans. Ophthalmol. Soc. Aust., 3, 35-46. Copyright (1941).  
by kind permission of the author and the Australasian Medical Publishing Co. Ltd*

## CONGENITAL CATARACT FOLLOWING GERMAN MEASLES IN THE MOTHER

By N. McALISTER GREGG.  
*Sydney*

In the first half of the year, 1941, an unusual number of cases of congenital cataract made their appearance in Sydney. Cases of similar type, which appeared during the same period, have since been reported from widely separated parts of Australia. Their frequency, unusual characteristics and wide distribution warranted closer investigation, and this report is an attempt to bring to notice some of the more important features of what might almost be regarded as a mild epidemic.

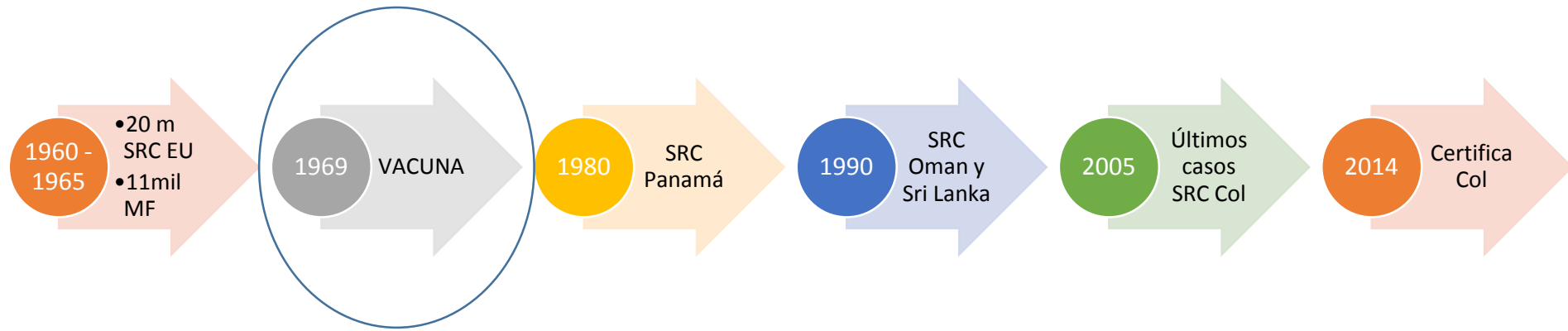
I am indebted to many of my colleagues in New South Wales, Victoria and Queensland for particulars of very many of the cases reviewed. These, for the most part, conform very closely to the general features noted in my own series of cases on which the following description is based. The total number of cases included in this review is seventy-eight. My own cases total thirteen, and in addition I have seen seven others included in my colleagues' lists.



# Síndrome de Rubéola congénita

Ruebola Congenita	riesgo de trasmision vertical	defectos graves
menos de 8 semanas	100%	85%
8 a 12 semanas	80%	52%
13 a 20 semanas	50%	16%
> 20 semanas	0%	0%

# Historia





INSTITUTO  
NACIONAL DE  
SALUD



*Gracias*

Martha Lucia Ospina Martínez  
mospina@ins.gov.co  
Directora General

**Instituto Nacional de Salud**  
Correo electrónico: [contactenos@ins.gov.co](mailto:contactenos@ins.gov.co)  
Teléfono: (1) 220 77 00 Ext.  
Bogotá, COLOMBIA  
**www.ins.gov.co**  
Línea gratuita nacional: 01 8000 113 400