

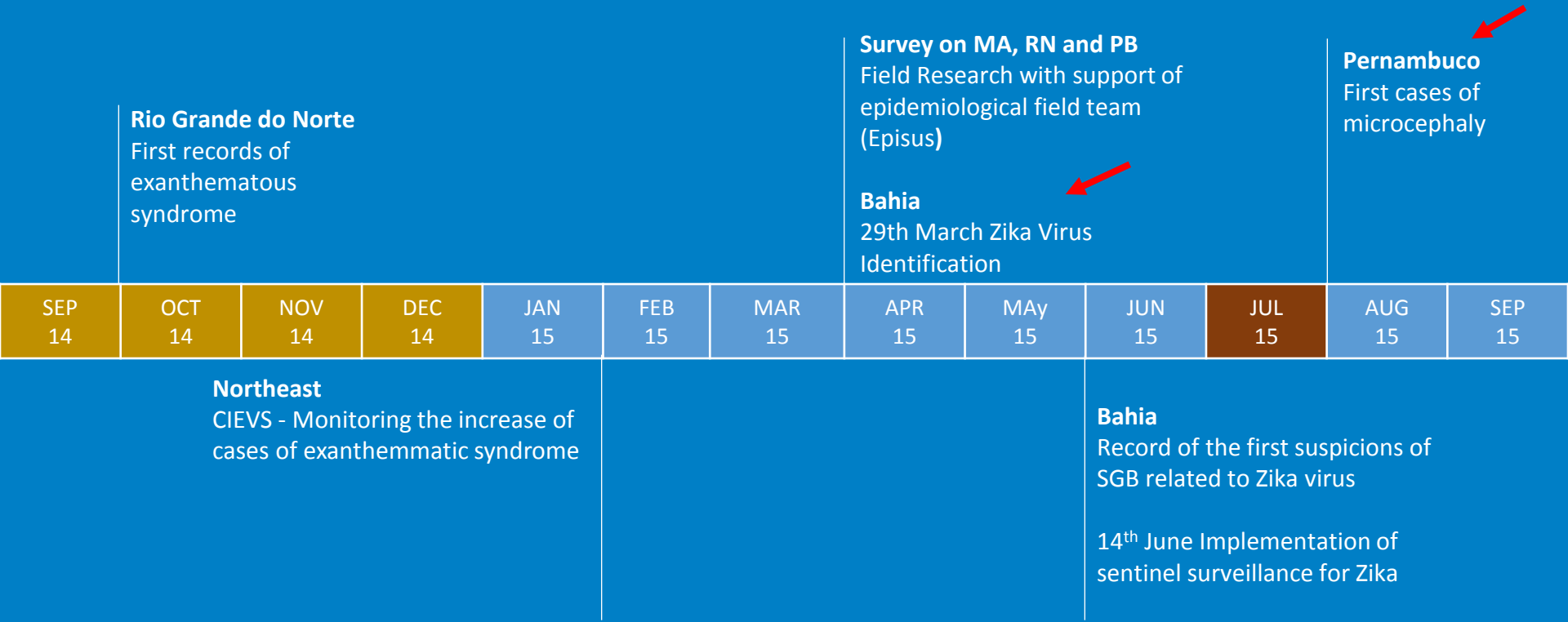
PROFILE OF WOMEN INFECTED BY ZIKV IN BRAZIL

**BRAZILIAN SECRETARIAT OF HEALTH SURVEILLANCE
MINISTRY OF HEALTH**

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TRANSMITTED BY *Aedes***

BRASÍLIA, 24TH FEBRUARY – 2017

Timeline of major events related to the Zika virus in Brazil: 2014 - 2016



Timeline of major events related to the Zika virus in Brazil – 2014 a 2016

<p>22th Oct - Notification of PE to MS 23th Oct- Notification to WHO</p>		<ul style="list-style-type: none"> 14th Dec - Microcephaly Protocol - Health Care Implementation of the National Command and Control . <i>Aedes</i> control plan and its consequences 	<ul style="list-style-type: none"> 1st Feb –WHO-Public Health Emergency of International Importance (ESPII) 17th Feb Implementation of Universal surveillance for Zika 	<p>18th Nov WHO - Ends Public health emergencies of international importance</p>					
<p>OCT 15</p>	<p>NOV 15</p>	<p>DEC 15</p>	<p>JAN 16</p>	<p>FEB 16</p>	<p>MAR 16</p>	<p>APR 16</p>	<p>MAY 16</p>	<p>NOV 16</p>	<p>DEC 16</p>
<ul style="list-style-type: none"> 11th Nov - Emergency in Public Health of National Importance 		<p>12th Jan National Guideline for "Early Stimulation of Infants with Microcephaly "</p>							

Circulation of Zika virus in Brazil

NORTH

Roraima
Rondônia
Pará
Amazonas
Tocantins

NORTHEAST

Maranhão
Piauí
Ceará
Rio Grande do Norte
Paraíba
Pernambuco
Alagoas
Bahia

SOUTHEAST

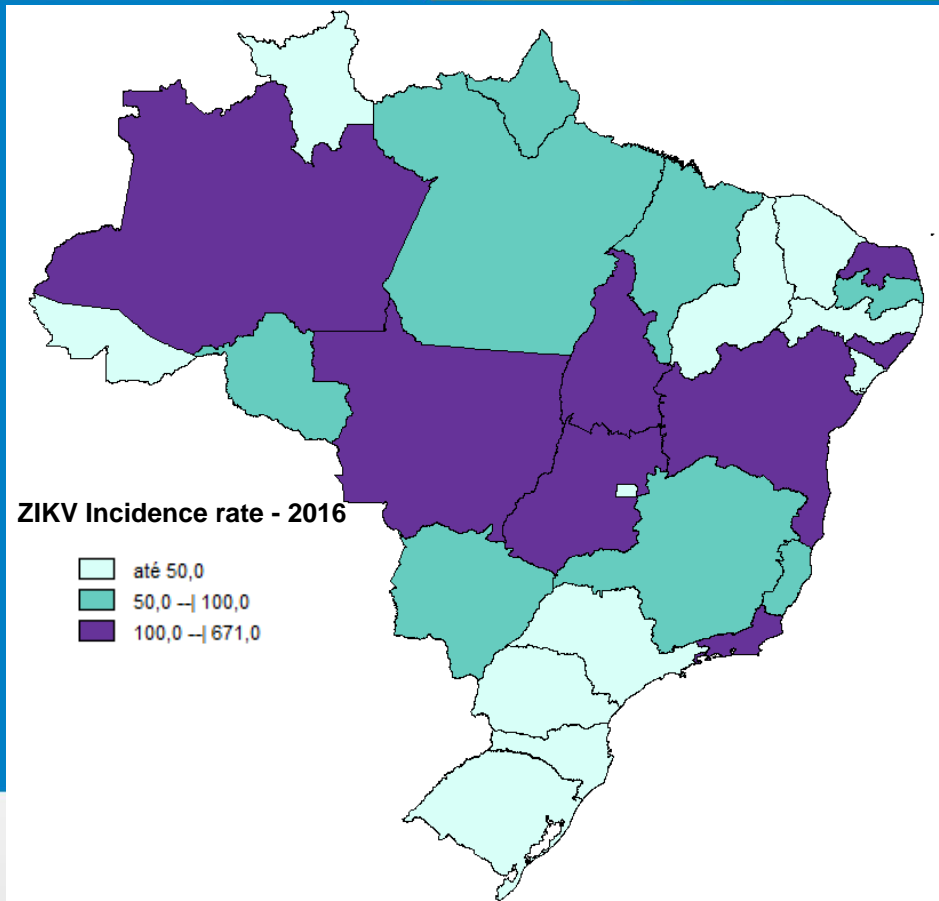
Rio de Janeiro
São Paulo
Espírito Santo
Minas Gerais

MIDWEST

Mato Grosso
Mato Grosso do Sul
Distrito Federal
Goiás

SOUTH

Paraná
Santa Catarina
Rio Grande do Sul



Sentinel Surveillance (from 2015 up to February, 2016)

It is an agile, viable option that has the potential to generate quality information;

It is a type of system useful for common diseases in which the counting of all cases is not the main topic and for which the control measures do not need information of individual cases;

It occurs whenever the decision-making process does not require information on all the cases (universal notification) for triggering the intervention activities.

- Occurrence of reports of suspected cases in all regions of the national territory;
- Need to confirm the viral circulation of an emerging etiologic agent;
- Describe the disease behavior.

Selection of Sentinel Units

Agreement between states and municipalities

Criteria:

Capitals and Federal District: Select at least 1 and at most 3 Health Services.

Countryside: At least 1 health service by regional or municipal polo

Selection of Sentinel Units

Recommendations for choosing the Sentinel Units :

- Representativeness of the population;
- Good articulation with epidemiological surveillance nucleus;
- Ability to collect, process, store and forward laboratory samples

Eligible Patients **MUST** also have differential diagnoses investigated:

- Dengue
- Chikungunya
- Measles and rubella
- Other exanthematous pictures: parvovirus, cytomegalovirus, mononucleosis, enterovirus, among others.

Collection of laboratory samples

10 samples per week/State (define sampling of suspected cases)

Sample	Quantity*	Time	Laboratory method	Storage**
Blood	5 ml	Up to 5 days after onset of symptoms	Viral Isolation or RT-PCR	Freeze immediately (-70C)
Serum	5 ml	Up to 5 days after onset of symptoms	Viral Isolation or RT-PCR	Freeze immediately (-70° C) (Can be kept at 4°C until 6 hours after collection)

* Sterile plastic tube with screw cap without additives (EDTA, citrate etc)

** Freezer at -70°C or liquid nitrogen.

Reference Laboratories

- **Evandro Chagas Institute (IEC) – PA**

Region: North and Northeast

- **Adolfo Lutz Institute (IAL) – SP**

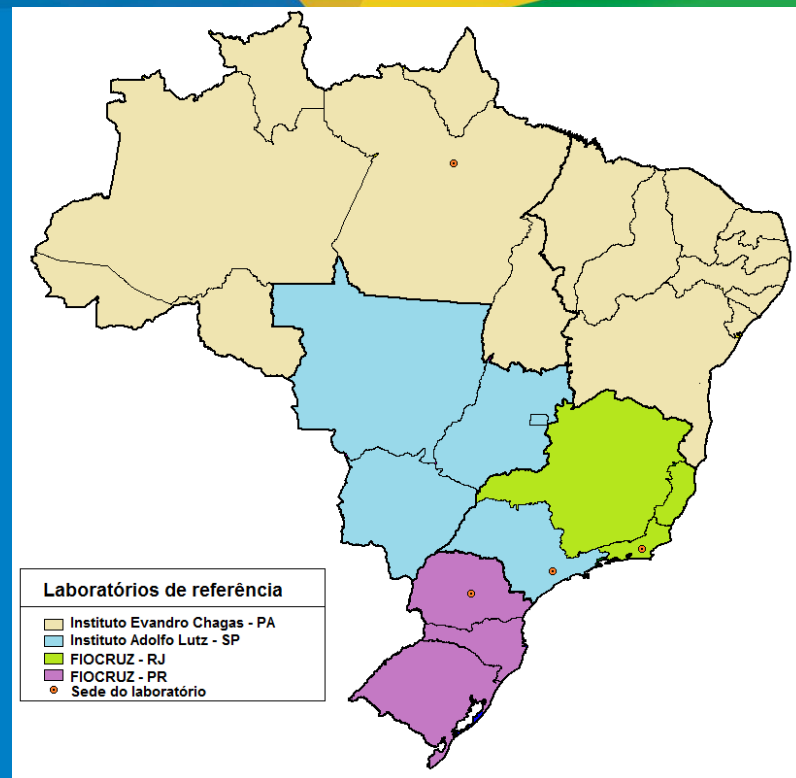
DF, GO, MS, MT e SP

- **Oswaldo Cruz Foundation (FIOCRUZ) – RJ**

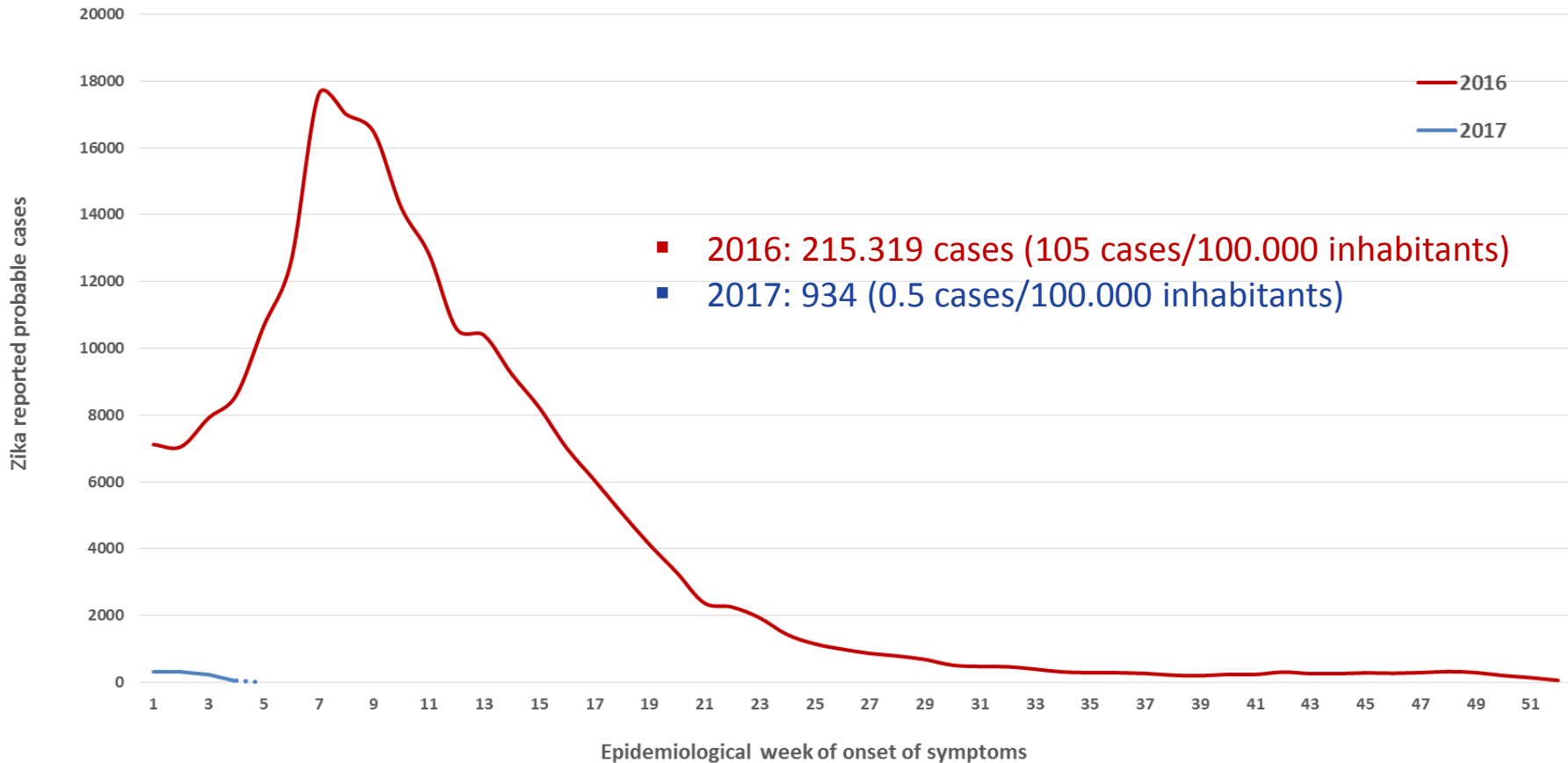
ES, MG, RJ

- **Oswaldo Cruz Foundation (FIOCRUZ) – PR**

Region: South



Zika virus probable reported cases in Brazil



Probable cases of Zika virus in Brazil (2016)		
Federal Units	Population geral	
NORTH	n	%
Rondônia	1060	0,5
Acre	156	0,1
Amazonas	4.407	2,2
Roraima	124	0,1
Para	3.574	1,8
Amapá	287	0,1
Tocantins	2.409	1,2
Total (NORTH)	12.017	6,1
NORTHEAST	Population geral	
Maranhão	3.728	1,9
Piauí	337	0,2
Ceara	4.217	2,1
Rio Grande do Norte	3.490	1,8
Paraíba	3.325	1,7
Pernambuco	435	0,2
Alagoas	6.398	3,2
Sergipe	394	0,2
Bahia	49.898	25,3
Total (NORTHEAST)	72.222	36,7

Probable cases of Zika virus in Brazil (2016)		
SOUTHEAST	Population geral	
Minas Gerais	14.324	7,3
Espirito Santo	2.254	1,1
Rio de Janeiro	60.176	30,5
São Paulo	5.474	2,8
TOTAL (SOUTHEAST)	82.228	41,7
SOUTH	Population geral	
Paraná	1.121	0,6
Santa Catarina	86	0,0
Rio Grande do Sul	262	0,1
TOTAL (SOUTH)	1.469	0,7
MIDWEST	Population geral	
Mato Grosso do Sul	1.024	0,5
Mato Grosso	21.319	10,8
Goiás	6.361	3,2
Distrito Federal	336	0,2
TOTAL (MIDWEST)	29.040	14,7
TOTAL (BRAZIL)	196.976	100,0

	Probable cases of Zika virus in Brazil (2016)		
Federal Units	Total of reported women		
NORTH	n	%	Incidence Rate (/100 000 inhab.)
Rondônia	740	69,8	94,78
Acre	102	65,4	27,00
Amazonas	3.020	68,5	169,27
Roraima	91	73,4	39,39
Para	2.547	71,3	65,71
Amapá	192	66,9	55,04
Tocantins	1.669	69,3	239,07
Total (NORTH)	8.361	69,6	103,26
NORTHEAST	Total of reported women		
Maranhão	2.484	66,6	73,41
Piauí	234	69,4	14,52
Ceara	2944	69,8	66,74
Rio Grande do Norte	2.504	71,7	151,76
Paraíba	2.097	63,1	106,59
Pernambuco	332	76,3	7,16
Alagoas	4.154	64,9	254,51
Sergipe	287	72,8	26,45
Bahia	32.462	65,1	449,60
Total (NORTHEAST)	47.498	65,8	172,11

	Probable cases of Zika virus in Brazil (2016)		
SOUTHEAST	Total of reported women		
Minas Gerais	10.577	73,8	104,86
Espírito Santo	1.561	69,3	85,97
Rio de Janeiro	39.986	66,4	471,01
São Paulo	4.059	74,2	18,87
TOTAL (SOUTHEAST)	56.183	68,3	134,08
SOUTH	Total of reported women		
Paraná	660	58,9	12,26
Santa Catarina	55	64,0	1,71
Rio Grande do Sul	153	58,4	2,77
TOTAL (SOUTH)	868	59,1	6,14
MIDWEST	Total of reported women		
Mato Grosso do Sul	743	72,6	59,10
Mato Grosso	14.116	66,2	925,94
Goiás	4.520	71,1	145,88
Distrito Federal	235	69,9	17,00
TOTAL (MIDWEST)	19.614	67,5	270,08
TOTAL (BRAZIL)	132.524	67,3	133,88

Probable cases of Zika virus in Brazil (2016)				
Federal Units	Childbearing age women		Pregnant women	
NORTH	n	%	n	%
Rondônia	597	80,7	198	33,2
Acre	83	81,4	17	20,5
Amazonas	2.405	79,6	556	23,1
Roraima	73	80,2	18	24,7
Para	2.018	79,2	633	31,4
Amapá	155	80,7	22	14,2
Tocantins	1.321	79,1	198	15,0
Total (NORTH)	6.652	79,6	1.642	24,7
NORTHEAST				
	Childbearing age women		Pregnant women	
Maranhão	1.856	74,7	543	29,3
Piauí	172	73,5	29	16,9
Ceara	2.297	78,0	525	22,9
Rio Grande do Norte	1.916	76,5	664	34,7
Paraíba	1.385	66,0	130	9,4
Pernambuco	274	82,5	121	44,2
Alagoas	3.113	74,9	642	20,6
Sergipe	235	81,9	76	32,3
Bahia	21.530	66,3	1.694	7,9
Total (NORTHEAST)	32.778	69,0	4.424	13,5

Probable cases of Zika virus in Brazil (2016)				
SOUTHEAST	Childbearing age women		Pregnant women	
Minas Gerais	7.958	75,2	1.856	23,3
Espirito Santo	1.141	73,1	203	17,8
Rio de Janeiro	29.465	73,7	4.584	15,6
São Paulo	3.119	76,8	1.145	36,7
TOTAL (SOUTHEAST)	41.683	74,2	7.788	18,7
SOUTH				
Paraná	498	75,5	82	16,5
Santa Catarina	45	81,8	6	13,3
Rio Grande do Sul	117	76,5	16	13,7
TOTAL (SOUTH)	660	76,0	104	15,8
MIDWEST				
Mato Grosso do Sul	563	75,8	120	21,3
Mato Grosso	10497	74,4	1.458	13,9
Goiás	3497	77,4	689	19,7
Distrito Federal	164	69,8	39	23,8
TOTAL (MIDWEST)	14.721	75,1	2.306	15,7
TOTAL (BRAZIL)	96.494	72,8	16.264	16,9

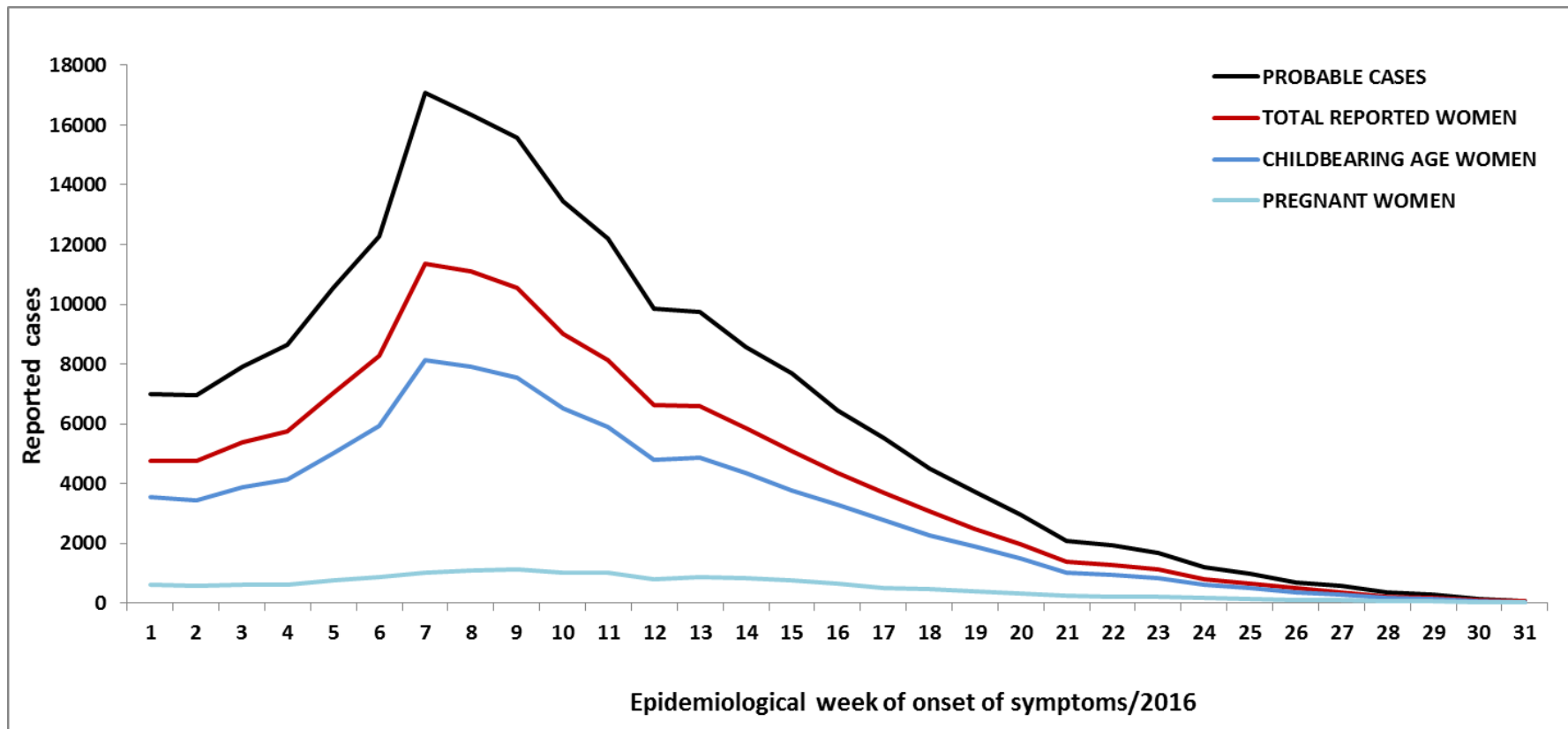
Probable cases of Zika virus in Brazil (2016)

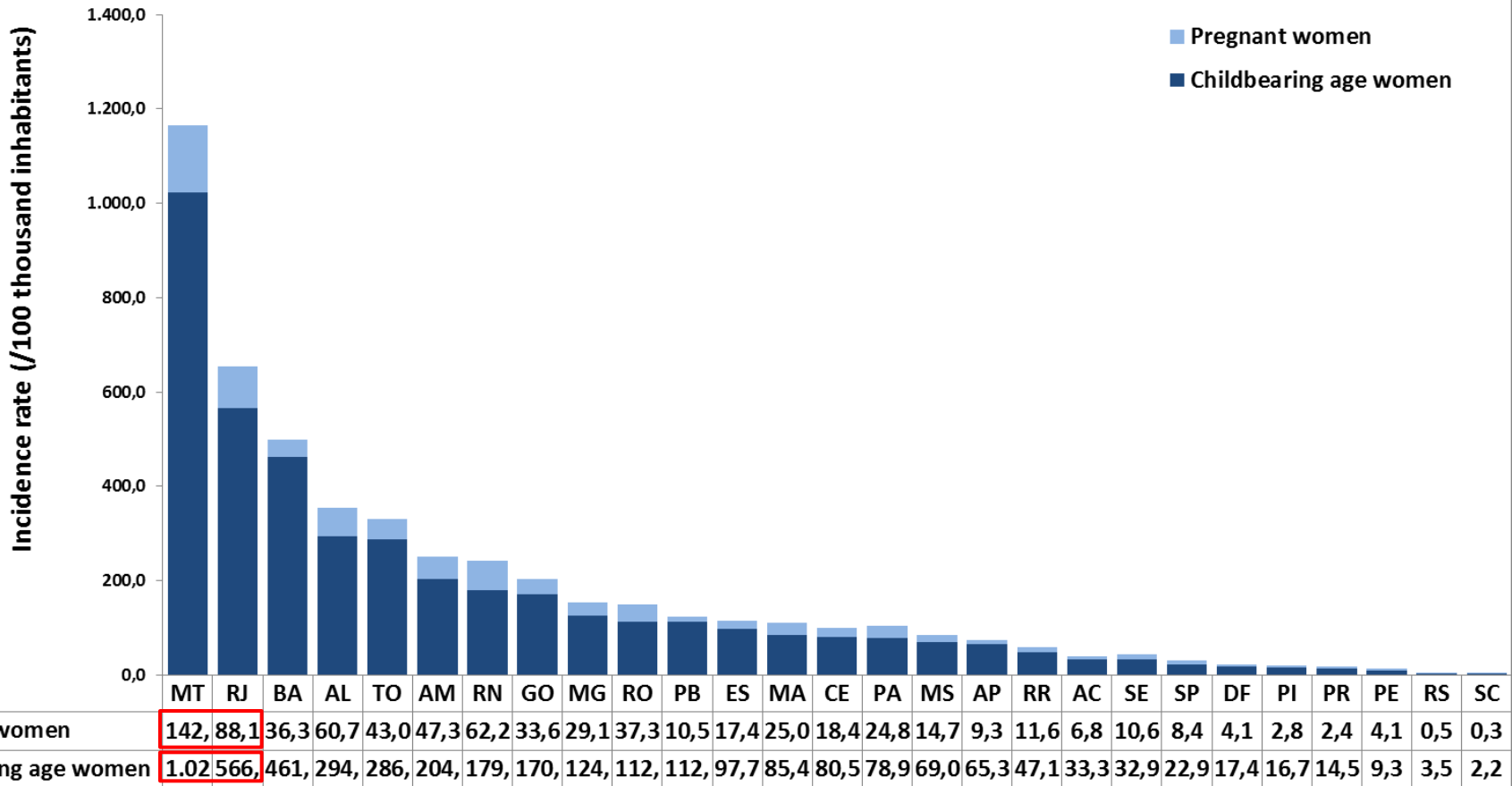
	Total of reported women		Childbearing age women		Pregnant women	
	n	%	n	%	n	%
Age group						
Less than 1 year	2.195	1,7	-	-	-	-
1 to 4 years	3.634	2,8	-	-	-	-
5 to 9 years	4.874	3,7	-	-	-	-
10 to 14 years	6.145	4,7	6.145	6,4	165	1,0
15 to 19 years	11.197	8,5	11.197	11,6	2.510	15,6
20 to 29 years	30.273	22,9	30.723	31,8	8.227	51,0
30 to 39 years	28.730	21,8	28.730	29,8	4.772	29,6
40 to 49 years	19.702	14,9	19.702	20,4	465	2,9
50 to 59 years	14.002	10,6	-	-	-	-
60 to 69 years	7.292	5,5	-	-	-	-
70 to 79 years	2.879	2,2	-	-	-	-
80 and older	1.145	0,9	-	-	-	-
Total	132.068	100	96.497	100	16.139	100

Probable cases of Zika virus in Brazil (2016)						
Education level						
Unlettered	704	1,4	248	0,6	26	0,3
1th a 4th fundamental grade incomplete	4.123	8,3	1844	4,5	236	2,5
4th fundamental grade complete	2.403	4,8	1550	3,8	232	2,5
5th to 8th fundamental incomplete grade	6.560	13,2	5376	13,3	1125	11,9
Primary education - complete	3.423	6,9	2846	7,0	691	7,3
High school - incomplete	5.464	11,0	4968	12,2	1349	14,3
High school - complete	13.550	27,2	12017	29,6	3159	33,5
Higher education- incomplete	2.124	4,3	1989	4,9	453	4,8
Higher education- complete	4.644	9,3	3865	9,5	852	9,0
Total	42.995	86	34.703	86	8.123	86

Probable cases of Zika virus in Brazil (2016)						
	Total of reported women		Childbearing age women		Pregnant women	
	n	%	n	%	n	%
Declared ethnicity						
white	25.840	33,3	15475	34,8	4424	35,0
black	4.976	6,4	2795	6,3	971	7,7
yellow	895	1,2	479	1,1	161	1,3
Brown "Pardo"	45.423	58,6	25598	57,5	7042	55,8
Aboriginal	395	0,5	138	0,3	33	0,3
Total	77.529	100	44.485	100	12.631	100

Zika reported cases in the population, women, childbearing age women and pregnant women





Thank you!
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<http://portalsaude.saude.gov.br/index.php/o-ministerio/principal/secretarias/svs/zika>

Timeline of major events related to the Zika virus in Brazil – 2014 a 2016

OUT 15	NOV 15	DEZ 15	JAN 16	FEV 16	MAR 16	ABR 16	MAI 16	NOV 16	DEZ 16	
<ul style="list-style-type: none"> 22/10 - Notificação de PE ao MS 23/10 - Notificação à OMS - RSI 26/10 - Início das investigações 			<ul style="list-style-type: none"> 14/12 - Protocolo de Microcefalia – Atenção à Saúde Implantação da Sala Nacional de Comando e Controle (SNCC) Elaboração do Plano de Enfrentamento do Aedes e suas consequências 			<ul style="list-style-type: none"> 01/02 – Declaração de ESPII 17/02 – Nova portaria de DNC 			<p>Novo protocolo (vigente)</p> <p>18/11 - OMS encerrou a ESPII</p>	
<ul style="list-style-type: none"> 10/11 – Ativação do COES 11/11 - Declaração de ESPIN (Portaria 1.813) 			<ul style="list-style-type: none"> 12/01 - Diretriz nacional para estimulação precoce de bebês com microcefalia (SAS) 			<p>09/12 – Publicação das novas orientações</p>				