

# Measles/Rubella Weekly Bulletin



Comprehensive Family Immunization/Family, Gender and Life Course  
Measles and Rubella Surveillance in the Americas

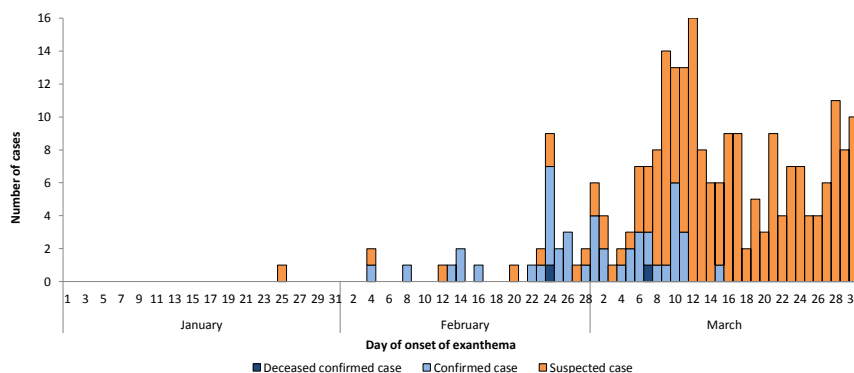


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Week ending 31 March 2018

## Measles cases reported in the Brazilian states of Amazonas and Roraima by date of rash onset 1 January - 30 March 2018

Brazil has confirmed 46 measles cases; 4 in Amazonas and 42 in Roraima. The age range is between 3 months and 33 years old; 62% are male and 80% of the cases have not been vaccinated. Thirty-four cases are Venezuelan citizens and 12 are Brazilian citizens. The genotype is D8, the same found in the Venezuelan outbreak in 2017. The country has initiated a mass vaccination campaign in Roraima, targeting individuals aged 6 months to 49 years old and will begin another campaign on 14 April in Manaus, Amazonas, targeting infants and children aged 6 months to 5 years old. Epidemiological case investigations and contact tracing are ongoing.



Source: Data published by the Ministry of Health of Brazil and reproduced by PAHO/WHO

**Table.1**  
**Classification of Suspect Measles, Rubella, and Congenital Rubella Syndrome (CRS) Cases for the Period of Weeks 01-13, 2018**

| Subregion and Country | Susp. Cases 2018 | Measles Confirmed 2018 |          |            | Year/Week Last Conf. Measles case | Rubella Confirmed 2018 |          |          | Year/Week Last Conf. Rubella Case | Diagnosis of Discarded Cases 2018 |           | Congenital Rubella Syndrome |            |          | Year/Week Last Conf. CRS Case |           |
|-----------------------|------------------|------------------------|----------|------------|-----------------------------------|------------------------|----------|----------|-----------------------------------|-----------------------------------|-----------|-----------------------------|------------|----------|-------------------------------|-----------|
|                       |                  | Clin.                  | Lab.     | Total      |                                   | Clin.                  | Lab.     | Total    |                                   | Dengue                            | Others    | Susp.                       | Conf.      | CRI*     |                               |           |
| AND                   | BOL              | 38                     | 0        | 0          | 0                                 | 2000-40                | 0        | 0        | 0                                 | 2006-03                           | 0         | 35                          | 0          | 0        | 0                             | ...       |
|                       | COL              | 171                    | 0        | 5          | 5                                 | 2018-12                | 0        | 0        | 0                                 | 2012-31                           | 0         | 164                         | 74         | 0        | 0                             | 2005-34   |
|                       | ECU              | ...                    | ...      | 1          | 1 <sup>a</sup>                    | 2016-14                | ...      | ...      | ...                               | 2004-49                           | 0         | 0                           | 0          | 0        | 0                             | 2011-14   |
|                       | PER              | 139                    | 0        | 2          | 2                                 | 2018-08                | 0        | 0        | 0                                 | 2009-04                           | 0         | 121                         | 1          | 0        | 0                             | 2007-16   |
|                       | VEN              | 62                     | 0        | 279        | 279 <sup>a</sup>                  | 2018-04                | 0        | 0        | 0                                 | 2007-51                           | 0         | 29                          | 0          | 0        | 0                             | ...       |
| BRA                   | BRA              | 469                    | 0        | 46         | 46                                | 2018-13                | 0        | 0        | 0                                 | 2014-40                           | 0         | 233                         | 7          | 0        | 0                             | 2009-34   |
| CAP                   | CRI              | 12                     | 0        | 0          | 0                                 | 2014-09                | 0        | 0        | 0                                 | 2001-39                           | 0         | 11                          | 19         | 0        | 0                             | ...       |
|                       | GTM              | 184                    | 0        | 1          | 1                                 | 2018-03                | 0        | 0        | 0                                 | 2006-31                           | 11        | 143                         | 2          | 0        | 0                             | 2005-00   |
|                       | HND              | 76                     | 0        | 0          | 0                                 | 1998-16                | 0        | 0        | 0                                 | 2004-11                           | 0         | 71                          | 3          | 0        | 0                             | 2001-00   |
|                       | NIC              | 95                     | 0        | 0          | 0                                 | 2014-00                | 0        | 0        | 0                                 | 2004-19                           | 0         | 79                          | 13         | 0        | 0                             | 2005-00   |
|                       | PAN              | 19                     | 0        | 0          | 0                                 | 2011-20                | 0        | 0        | 0                                 | 2002-48                           | 0         | 15                          | 3          | 0        | 0                             | ...       |
|                       | SLV              | 79                     | 0        | 0          | 0                                 | 2001-19                | 0        | 0        | 0                                 | 2006-30                           | 0         | 66                          | 0          | 0        | 0                             | 2001-00   |
| CAR                   | CAR              | 92                     | 0        | 1          | 1                                 | 2018-03                | 0        | 0        | 0                                 | 2008-18                           | 0         | 74                          | 18         | 0        | 0                             | 1999-00   |
| LAC                   | CUB              | 115                    | 0        | 0          | 0                                 | 1993-27                | 0        | 0        | 0                                 | 2004-06                           | 0         | 115                         | 0          | 0        | 0                             | 1989-10   |
|                       | DOM              | 0                      | 0        | 0          | 0                                 | 2011-18                | 0        | 0        | 0                                 | 2007-45                           | 0         | 0                           | 0          | 0        | 0                             | ...       |
|                       | HTI              | 62                     | 0        | 0          | 0                                 | 2001-39                | 0        | 0        | 0                                 | 2006-21                           | 0         | 0                           | 2          | 0        | 0                             | ...       |
| MEX                   | MEX              | 814                    | 0        | 4          | 4 <sup>a</sup>                    | 2018-10                | 0        | 0        | 0                                 | 2017-19                           | 0         | 588                         | 0          | 0        | 0                             | ...       |
| NOA                   | CAN              | ...                    | ...      | 4          | 4                                 | 2018-10                | ...      | ...      | ...                               | 2016-06                           | 0         | 0                           | 0          | ...      | ...                           | 2015-50   |
|                       | USA              | ...                    | ...      | 41         | 41 <sup>b</sup>                   | 2018-13                | ...      | ...      | ...                               | 2017-16                           | 0         | 0                           | 0          | ...      | ...                           | 2017-00   |
| SOC                   | ARG              | 18                     | 0        | 1          | 1                                 | 2018-12                | 0        | 0        | 0                                 | 2014-22                           | 0         | 2                           | 12         | 0        | 0                             | 2009-27   |
|                       | CHL              | 35                     | 0        | 0          | 0                                 | 2015-27                | 0        | 0        | 0                                 | 2011-25                           | 0         | 24                          | 31         | 0        | 0                             | ...       |
|                       | PRY              | 199                    | 0        | 0          | 0                                 | 1998-44                | 0        | 0        | 0                                 | 2005-21                           | 34        | 158                         | 0          | 0        | 0                             | 2003-06   |
|                       | URY              | 0                      | 0        | 0          | 0                                 | 1999-08                | 0        | 0        | 0                                 | 2001-37                           | 0         | 0                           | 0          | 0        | 0                             | ...       |
| <b>TOTAL</b>          |                  | <b>2559</b>            | <b>0</b> | <b>385</b> | <b>385</b>                        | <b>--</b>              | <b>0</b> | <b>0</b> | <b>0</b>                          | <b>--</b>                         | <b>45</b> | <b>1928</b>                 | <b>185</b> | <b>0</b> | <b>0</b>                      | <b>--</b> |

\*Congenital Rubella Infection.

...No report received

(a) Pan American Health Organization / World Health Organization. Epidemiological Update: Measles. 6 April 2018, Washington, D.C.: PAHO/WHO; 2018; (b) Provisional data.



# Measles/Rubella Surveillance

**Table No.2**  
Infection Source of Measles and Rubella Confirmed Cases for the Period of Weeks 01-13, 2018

| Subregion and Country | Measles |           |           |          | Rubella    |          |          |          |
|-----------------------|---------|-----------|-----------|----------|------------|----------|----------|----------|
|                       | I       | IR        | CAC       | U        | I          | IR       | CAC      | U        |
| AND                   | BOL     |           |           |          |            |          |          |          |
|                       | COL     | 5         |           |          |            |          |          |          |
|                       | ECU     |           |           | 1        |            |          |          |          |
|                       | PER     |           |           | 2        |            |          |          |          |
|                       | VEN     |           | 33        | 246      |            |          |          |          |
| BRA                   | BRA     |           |           | 46       |            |          |          |          |
| CAP                   | CRI     |           |           |          |            |          |          |          |
|                       | GTM     | 1         |           |          |            |          |          |          |
|                       | HND     |           |           |          |            |          |          |          |
|                       | NIC     |           |           |          |            |          |          |          |
|                       | PAN     |           |           |          |            |          |          |          |
|                       | SLV     |           |           |          |            |          |          |          |
| CAR                   | CAR     | 1         |           |          |            |          |          |          |
| LAC                   | CUB     |           |           |          |            |          |          |          |
|                       | DOM     |           |           |          |            |          |          |          |
|                       | HTI     |           |           |          |            |          |          |          |
| MEX                   | MEX     | 4         |           |          |            |          |          |          |
| NOA                   | CAN     | 4         |           |          |            |          |          |          |
|                       | USA     | 16        | 25        |          |            |          |          |          |
| SOC                   | ARG     |           |           | 1        |            |          |          |          |
|                       | CHL     |           |           |          |            |          |          |          |
|                       | PRY     |           |           |          |            |          |          |          |
|                       | URY     |           |           |          |            |          |          |          |
| <b>TOTAL</b>          |         | <b>31</b> | <b>58</b> | <b>0</b> | <b>296</b> | <b>0</b> | <b>0</b> | <b>0</b> |

I: Imported; IR: Import-related; CAC: Country-acquired case  
U: Unknown.

**Table No.3**  
Measles/Rubella Suspect Cases Under Investigation for the Period of Weeks 01-13, 2018

| Country      | Pending Cases 2017 | Cumulative 2018 | Week of Onset |           |           |            |           |           |           | % Pend. Cases |
|--------------|--------------------|-----------------|---------------|-----------|-----------|------------|-----------|-----------|-----------|---------------|
|              |                    |                 | 1-8           | 9         | 10        | 11         | 12        | 13        |           |               |
| BOL          | 1                  | 3               | 1             | 0         | 1         | 0          | 0         | 1         | 8         |               |
| COL          | 14                 | 6               | 6             | 0         | 0         | 0          | 0         | 0         | 4         |               |
| ECU          | 4                  | ...             | ...           | ...       | ...       | ...        | ...       | ...       | ...       |               |
| PER          | 5                  | 17              | 2             | 1         | 4         | 2          | 0         | 8         | 12        |               |
| VEN          | 6                  | 0               | 0             | 0         | 0         | 0          | 0         | 0         | 0         |               |
| BRA          | 27                 | 177             | 37            | 32        | 15        | 93         | 0         | 0         | 51        |               |
| CRI          | 0                  | 1               | 1             | 0         | 0         | 0          | 0         | 0         | 8         |               |
| GTM          | 31                 | 29              | 24            | 2         | 2         | 0          | 0         | 1         | 16        |               |
| HND          | 3                  | 5               | 5             | 0         | 0         | 0          | 0         | 0         | 7         |               |
| NIC          | 0                  | 16              | 2             | 0         | 3         | 5          | 6         | 0         | 17        |               |
| PAN          | 0                  | 4               | 0             | 0         | 0         | 1          | 2         | 1         | 21        |               |
| SLV          | 1                  | 13              | 11            | 1         | 1         | 0          | 0         | 0         | 16        |               |
| CAR          | 1                  | 17              | 4             | 2         | 2         | 3          | 4         | 2         | 18        |               |
| CUB          | 0                  | 0               | 0             | 0         | 0         | 0          | 0         | ...       | 0         |               |
| DOM          | 242                | 0               | 0             | 0         | ...       | ...        | ...       | ...       | 0         |               |
| HTI          | 28                 | 62              | 50            | 3         | 2         | 4          | 3         | 0         | 100       |               |
| MEX          | 554                | 226             | 73            | 19        | 29        | 48         | 57        | 0         | 28        |               |
| CAN          | ...                | ...             | ...           | ...       | ...       | ...        | ...       | ...       | ...       |               |
| USA          | ...                | ...             | ...           | ...       | ...       | ...        | ...       | ...       | ...       |               |
| ARG          | 64                 | 15              | 5             | 0         | 0         | 0          | 3         | 7         | 83        |               |
| CHL          | 2                  | 11              | 2             | 2         | 2         | 2          | 1         | 2         | 31        |               |
| PRY          | 0                  | 7               | 4             | 0         | 3         | 0          | 0         | 0         | 4         |               |
| URY          | 0                  | 0               | 0             | 0         | 0         | 0          | 0         | 0         | 0         |               |
| <b>TOTAL</b> | <b>983</b>         | <b>609</b>      | <b>227</b>    | <b>62</b> | <b>64</b> | <b>158</b> | <b>76</b> | <b>22</b> | <b>24</b> |               |

... No report received

**Table 4**  
Indicators of Integrated Measles/Rubella Surveillance for the Period of Weeks 01-13, 2018

| Subregion and Country     | Sites Reporting Weekly |              | % Cases with Adequate Investigation | % Cases with Adequate Sample | % Blood Samples Received in Lab. ≤5 days | % Lab. Results ≤4 days | Rate of Suspected Cases Last 52 weeks (2017/13-2018/12) |                 |            |
|---------------------------|------------------------|--------------|-------------------------------------|------------------------------|--|------------------------|---|-----------------|------------|
|                           | Total Units            | % This Week  |                                     |                              |  |                        | Measles/Rubella (100,000 pop.)                          | CRS (10,000 lb) |            |
| AND                       | BOL                    | 2657         | ...                                 | 100                          | 100                                      | 82                     | 79  | 0.7             | 0.0        |
|                           | COL                    | 5183         | ...                                 | 81                           | 100                                      | 92                     | 96  | 2.3             | 1.2        |
|                           | ECU                    | 2184         | ...                                 | 0                            | 0  | 0                      | 0   | 0.9             | 0.0        |
|                           | PER                    | 7771         | ...                                 | 89                           | 93                                       | 83                     | 65  | 1.1             | 0.0        |
|                           | VEN                    | 13092        | ...                                 | 100                          | 98                                       | 50                     | 65  | 2.8             | 0.6        |
| BRA                       | BRA                    | 16327        | 85                                  | ...                          | 70                                       | 70                     | 50  | 0.2             | 0.0        |
| CAP                       | CRI                    | 57           | ...                                 | 92                           | 100                                      | 75                     | 100   | 1.6             | 28.8       |
|                           | GTM                    | 1541         | 98                                  | 0                            | 99                                       | 74                     | 88  | 1.9             | 0.0        |
|                           | HND                    | 470          | 90                                  | 79                           | 97                                       | 87                     | 99  | 2.5             | 2.4        |
|                           | NIC                    | 185          | 100                                 | 98                           | 99                                       | 98                     | 96  | 4.9             | 3.9        |
|                           | PAN                    | 324          | 0                                   | 84                           | 95                                       | 74                     | 84  | 1.3             | 0.5        |
|                           | SLV                    | 1266         | 0                                   | 68                           | 92                                       | 96                     | 88  | 4.8             | 0.0        |
| CAR                       | CAR                    | 766          | 92                                  | 84                           | 98                                       | 20                     | 54  | 2.8             | 8.3        |
| LAC                       | CUB                    | 168          | ...                                 | 100                          | 100                                      | 100                    | 100   | 12.6            | 0.0        |
|                           | DOM                    | 247          | ...                                 | 0                            | 0  | 0                      | 0   | 3.1             | 0.0        |
|                           | HTI                    | 652          | 72                                  | 94                           | 95                                       | 0                      | 0   | 1.7             | 0.9        |
| MEX                       | MEX                    | 20146        | ...                                 | 98                           | 99                                       | 92                     | 86  | 2.6             | 0.0        |
| NOA                       | CAN                    | ...          | ...                                 | ...                          | ...                                      | ...                    | ...   | ...             | ...        |
|                           | USA                    | ...          | ...                                 | ...                          | ...                                      | ...                    | ...   | ...             | ...        |
| SOC                       | ARG                    | 784          | ...                                 | 0                            | 33                                       | 86                     | 71  | 0.7             | 1.8        |
|                           | CHL                    | 783          | 88                                  | 29                           | 80                                       | 97                     | 76  | 0.9             | 7.0        |
|                           | PRY                    | 1168         | 93                                  | 80                           | 100                                      | 88                     | 93  | 8.5             | 0.3        |
|                           | URY                    | 155          | 0                                   | 0                            | 0  | 0                      | 0   | 0.1             | 0.0        |
| <b>Total and Average*</b> |                        | <b>75926</b> | <b>25</b>                           | <b>90</b>                    | <b>94</b>                                | <b>83</b>              | <b>81</b>   | <b>1.7</b>      | <b>0.6</b> |

\*Weighted

... No report received