

Situation Summary

In 2017, four countries in the Region of the Americas reported confirmed cases of measles: Argentina, Canada, the United States of America, and the Bolivarian Republic of Venezuela. In the first three months of 2018, there were eight countries in the Region reporting confirmed cases: Antigua and Barbuda (1 case), Brazil (8 cases), Canada (3 cases), Guatemala (1 case), Mexico (1 case), Peru (1 case), the United States (11 cases), and Venezuela (159 cases).

Following is a summary of the situation by the countries in 2018.

The reported cases in **Antigua and Barbuda** and in **Guatemala** are both imported cases, from the United Kingdom and Germany respectively. The full report is available in the [PAHO/WHO 6 February 2018 Epidemiological Update on measles](#).

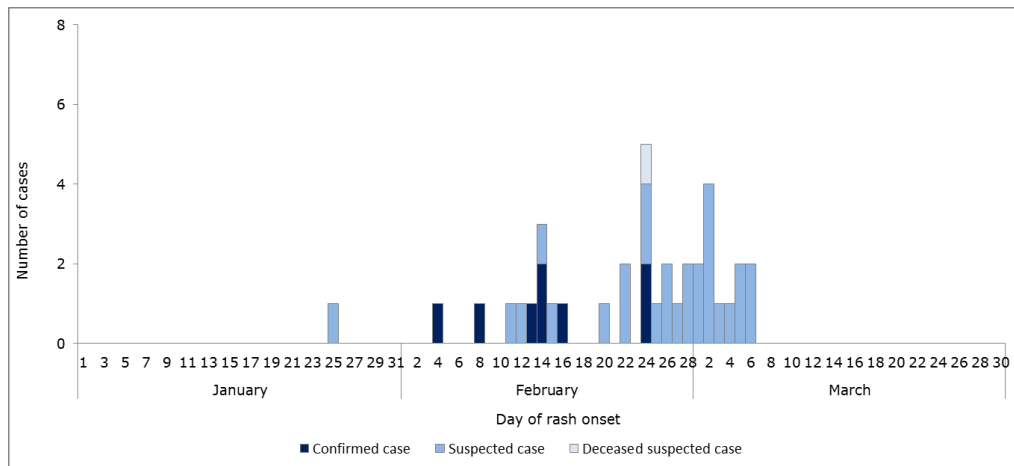
In **Brazil**, there is an ongoing measles outbreak in the municipality of Boa Vista, Roraima state. In epidemiological week (EW) 8 of 2018, the first imported measles case was confirmed. The case is a one-year-old girl, from Venezuela, with rash onset on 8 February 2018, without vaccination history for measles/rubella and currently residing in Boa Vista municipality.

As of 8 March 2018, there are 37 suspected cases reported (30 in Boa Vista municipality and 7 in Pacaraima municipality); 8 of these were laboratory confirmed by serological tests and PCR and 29 remain under investigation (including one fatal case) (**Figure 1**).

All eight confirmed cases are unvaccinated, Venezuelan citizens; 3 are female and 5 are male; their ages range from 9-months to 10-years-old.

According to the laboratory analysis conducted by the Oswaldo Cruz Foundation (Fiocruz/RJ), the genotype identified in 5 laboratory confirmed cases is D8, which is identical to the one identified in Venezuela in 2017.

Figure 1. Reported measles cases by epidemiological week and rash onset. Roraima State, Brazil. 1 January to 8 March 2018.



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

The federal and state authorities of Brazil are carrying out the following actions:

- Intensified epidemiological surveillance through active and retrospective institutional case finding and contact tracing.
- Training of health care professionals
- Intensified vaccination activity around suspected and confirmed cases and preparation of a plan to carry out a vaccination campaign.
- Strengthening of laboratory network
- Risk communication

A measles vaccination campaign is planned, from 10 March to 10 April 2018, targeting persons from 6 months to 49 years of age that are residents of Roraima state and Venezuelan immigrants.

In **Mexico**, in EW 7 of 2018, a probable imported measles case was reported among a 38 year old female resident of Tijuana, Baja California, with rash onset on 11 February of 2018. The case was identified previously as contact of a confirmed case on an international flight on which the Mexico public health authorities had been informed of. The case sought medical attention on 12 February and serum samples and pharyngeal exudate were taken and sent to the State Public Health Laboratory of Baja California, and subsequently to the Institute of Epidemiological Diagnosis and Reference (InDRE).

The case was confirmed by real-time RT-PCR test; the phylogenetic analysis carried out detected genotype B3.

The federal and state authorities of Mexico are intensifying vaccination activities, epidemiological surveillance and contact follow-up. No other suspected measles cases were identified in the 18 days of contact follow-up; to date all of the contacts are asymptomatic.

The last autochthonous measles case in Mexico was reported in 1995.

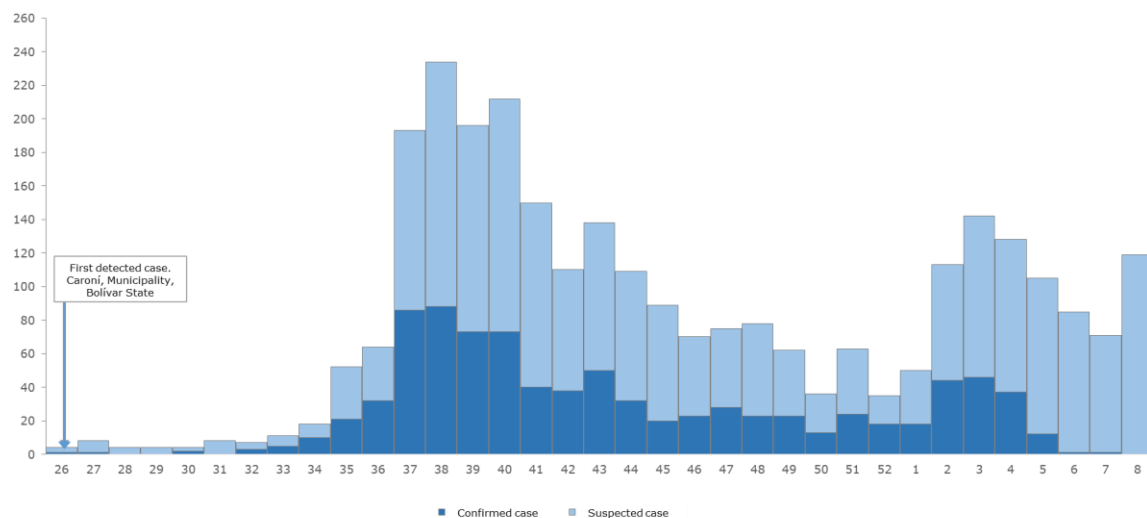
In **Peru**, in EW 9 of 2018, the National Institute of Health confirmed a measles case. The case is a 46-year-old male, with rash onset on 24 February 2018, resident of the Callao district and with probable site of infection under investigation. During the incubation period, the case travelled between Lima and Callao and the district of Vilque Chico (Puno). The case was laboratory confirmed through serological and RT-PCR tests.

National authorities are intensifying epidemiological surveillance, vaccination activities around the residence and in the areas where the case circulated during his communicable period, and contact follow-up is being carried out.

The last autochthonous measles case in Peru was reported in 2000 in the Ventanilla district (Callao Region).

In **Venezuela**, since the first measles case was confirmed in EW 26 of 2017 and up to EW 7 of 2018, there were 886¹ confirmed cases (666 by laboratory and 220 by epidemiological link), including two deaths. Per year, the highest number of cases was observed in EW 38 of 2017 and EW 3 of 2018 (**Figure 2**).

Figure 2. Measles cases by EW of rash onset. Venezuela. EW 26 of 2017 to EW 8 of 2018.



Source: Venezuela Ministry of Popular Power for Health data and reproduced by PAHO/WHO

Of the confirmed cases, 82% occurred in the state of Bolívar; cases were also reported in Apure, Anzoategui, Delta Amacuro, the Capital District, Miranda, Monagas, Vargas, and Zulia. The municipality of Caroni, Bolivar State, is the epicenter of the outbreak. The spread of the virus to other geographical areas is explained by, among other factors, the high migratory movement of the population due to formal and informal economic activity around mining and commercial activity. The most affected age group among the confirmed cases is children under 5 years of age, followed by the group of 6 to 15 years of age.

As part of the intervention, a *National Rapid Response Plan* was designed to interrupt the transmission of the virus, including the use of regional and municipal rapid response teams, the implementation of vaccination strategies and activities, epidemiological

¹ The provisional data is subject to change due to retrospective adjustment. The difference between the number of confirmed cases reported in the previous Epidemiological Update (952) and the current one (886) is due to this adjustment process.

surveillance, contact tracing and follow up, and training of health personnel; supported technically by the national level. The country has provided more than 6 million doses of measles, mumps, and rubella (MMR) and measles / rubella (MR) vaccines to increase vaccination coverage in children and adolescents to interrupt viral transmission.

Measles cases in **Canada** and the **United States** are imported or import-associated; all cases were not vaccinated, with the exception of one case that was vaccinated. Age range is between 8-months and 29-years-old. The identified genotypes are D8, D4, and B3.

Situation in other Regions

In relation to the epidemiological situation of measles in the European region, in 2017 the number of cases quadrupled compared to those reported in 2016. The disease affected 21,315 people and caused 35 deaths in 2017, after a historical minimum of 5,273 cases in 2016. Seventy-two percent of the cases are reported by the following three countries: Italy, Romania and Ukraine.

Countries from other continents (China, Ethiopia, India, Indonesia, the Lao People's Democratic Republic, Mongolia, the Philippines, Nigeria, Sri Lanka, Sudan, Thailand, and Viet Nam, among others) also reported outbreaks of measles between 2016 and 2017.

Advice to national authorities

The Region of the Americas was the first to be declared by the International Expert Committee (IEC) free of rubella in 2015 and measles in 2016. The main measure to prevent the introduction and dissemination of the measles virus is the vaccination of the susceptible population, together with the implementation of a surveillance system of high quality and sensitive enough to detect in a timely manner any suspected cases of measles or rubella.

In light of continuous reports of imported measles cases from other regions and ongoing outbreaks in the Americas, the Pan American Health Organization / World Health Organization (PAHO / WHO) urges all Member States to:

- Vaccinate to maintain homogeneous coverage of 95% with the first and second doses of measles, mumps, rubella (MMR) vaccine in all municipalities, as proposed in the *Plan of Action for the Sustainability of Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Americas 2018-2023*.
- Strengthen epidemiological surveillance of measles to achieve timely detection of all suspected cases of measles and ensure that samples are received by laboratories within 5 days of being taken.
- Establish standardized mechanisms to provide a rapid response to imported cases of measles to prevent the reestablishment of endemic transmission, through the activation of trained rapid response teams and implementation of national rapid response protocols for imported cases. Once activated, permanent coordination and fluid communication channels should be ensured between the national and local levels.

References

1. Measles Rubella Weekly Bulletin: Pan American Health Organization. PAHO/WHO. Vol. 24, n. 7, February 2018. Available at: <http://bit.ly/2oVU9iF>
2. WHO Regional Office for Europe. Press Release: Europe observes a 4-fold increase in measles cases in 2017 compared to previous year. Copenhagen. 19 February 2018. Available at: <http://bit.ly/2ETCTnd>
3. 29th Pan American Sanitary Conference, 69th Session of the Regional Committee of WHO for the Americas, *Plan of Action for the Sustainability of Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Americas 2018-2023*. Washington, D.C., USA, 25-29 September 2017. Available at: <http://bit.ly/2tsZRxl>

Related links:

- PAHO/WHO. Vaccine-Preventable Diseases: <http://bit.ly/2G8pQwi>