Epidemiological Update
Measles

6 February 2018

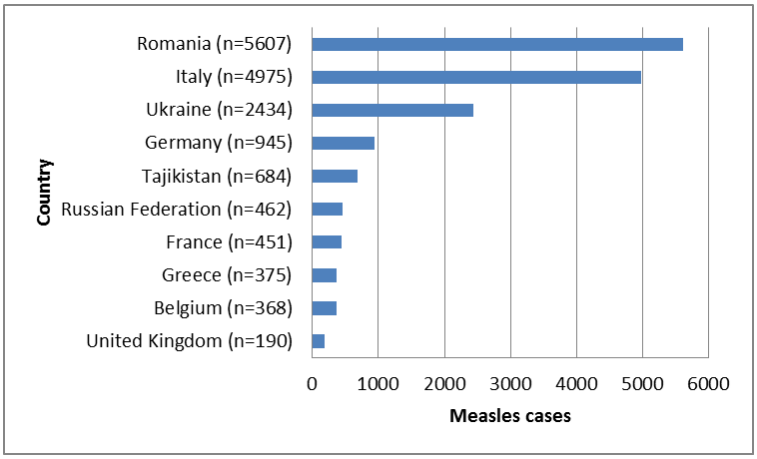
Summary of the situation

Between November 2016 and December 2017, countries of the WHO European Region reported 17,584 measles cases; 91% (n=15,978) of these cases were reported in 2017.[1] In this period, the highest cumulative incidence rate was reported in Romania (291.5 cases per 1 million population), followed by Italy (83.2 cases per 1 million population), and Tajikistan (77.2 cases per 1 million population). The WHO European Region monthly summary of the measles epidemiological data by country is available at: http://bit.ly/2BZJWW6.

Of the reported cases in the European Region between January and October 2017 (n=15,978), 55% (8,842) were confirmed by laboratory testing (serology, virus detection, or isolation) and 45% (7,136) were classified as epidemiologically linked or clinically compatible (**Figure 1)**. There were 26 measles deaths reported, 15 of which were reported in Romania. The identified genotypes in the countries with the highest incidence rates were B3 and D8 in Romania, B3, D8, and H1 in Italy, and H1 in Tajikistan. Most of the cases were reported in the age group between 0 and 14 years of age, accounting for 57% of the total cases.

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

Figure 1. Number of measles cases in the 10 countries of the European Region with the highest number of reported measles cases. 1 January to 31 October 2017.



Source: WHO Regional Office for the European Region. Vaccine-preventable Diseases and Immunization Programme.

[1] WHO Regional Office for Europe. Measles Cases in European Region 2017 reported in period from 1 January to 31 October; data as of 7 December 2017. Available at: http://bit.ly/2El3ysK

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Region of the Americas

Between January 2017 and January 2018 there were six countries in the Region of the Americas that have reported confirmed measles cases: Antigua and Barbuda (1 case), Argentina (3 cases), Canada (45 cases), Guatemala (1 case), the United States of America (120 cases), and the Bolivarian Republic of Venezuela (952 cases).

The reported cases in Antigua and Barbuda and in Guatemala are both imported cases, the former from the United Kingdom and the latter from Germany.

On 24 January 2018, the **Antigua and Barbuda** International Health Regulations (IHR) National Focal Point (NFP) reported to the Pan American Health Organization / World Health Organization (PAHO/WHO) an imported measles case. The case is a 19 year-old female who travelled from the United Kingdom to Antigua and Barbuda on 20 January 2018 and with onset of rash on 19 January 2018. The case has no history of measles vaccination.

The case confirmed by laboratory by the Caribbean Public Health Agency (CARPHA) on 30 January. The national health authorities were notified the same day of the detection of the case and corresponding investigation and control activities were initiated. To date, no secondary cases have been identified.

In **Guatemala**, on 19 January 2018 an imported case of measles was reported; this being after 20 years of no measles cases in the country. The case is a 17-year-old with onset of rash on 17 January of 2018 and history of travel to Germany between October of 2017 and 2 January of 2018. In the days prior to returning to Guatemala the case was in contact with other confirmed measles cases in Germany.

To date, no additional secondary measles cases have been reported. Laboratory testing conducted has identified that the viral genotype from the confirmed case was B3.

The immediate investigation and control activities carried out by the Guatemala national authorities in response to the case, include the following:

- Constant communication of the risk to the population.
- Vaccination of contacts and others exposed; 3,623 doses of Measles-Mumps-Rubella (MMR) vaccine administered up to epidemiological week (EW) 4 of 2018.
- Indiscriminate vaccination of children over 6 months of age and under 6 years of age who reside in a five block radius from the residence of the case.
- Contact tracing and follow up.

As of 1 February 2018, there were 3 suspected measles cases identified, all of which laboratory results indicated IgM negative for measles.

In **Venezuela**, since the first measles case was notified in EW 26 of 2017 and up to EW 4 of 2018, there were 1,703 suspected measles cases reported and investigated, of which 952 were confirmed (732 by laboratory and 220 by epidemiological link), 751 were discarded. The higher incidence rate occurred in EW 38 of 2017, followed by a

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decreasing trend in case incidence. As this data is preliminary, it should be interpreted with caution and the trend in the coming weeks will need to continue to be monitored.

Most of the cases are from Bolívar state, accounting for 82% of the total confirmed cases, although there were cases 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 the presence of factors such as 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 are children under 5 years of age, accounting for 59% of the confirmed cases, followed by the group of 6 to 15 years of age, accounting for 30% of the confirmed cases.

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 surveillance, contact tracing and follow up, and training of health personnel; supported technically by the national level.

An updated summary of the support activities of the Pan American Health Organization / World Health Organization (PAHO / WHO) to the Venezuela Ministry of the Popular Power for Health (MPPS) in the implementation of the response plan for the interruption of the measles outbreak and the control of diphtheria in Venezuela, is available (in Spanish) at the following link: http://bit.ly/2BNKyOl

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.

Advice to national authorities

This is Epidemiological Update on Measles is an update of the Epidemiological Update published on 27 October 2017 and of the Epidemiological Update published on 1 December 2017; there are no changes to the advice that was provided in the Updates.

References

1. Measles Rubella Weekly Bulletin: Pan American Health Organization. Vol. 23, n. 52, December 2017.

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3. World Tourism Organization (UNWTO). Press Release: Close to one billion international tourists in the first nine months of 2016. [Accessed on 5 February 2018]. Available at: http://media.unwto.org/press-release/2016-11-07/close-one-billion-international-tourists-first-nine-months-2016

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Related links:

- PAHO/WHO. Immunization: http://www.paho.org/hq/index.php?option=com_content&view=article&id=1865&Itemid=1899&lang=en

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