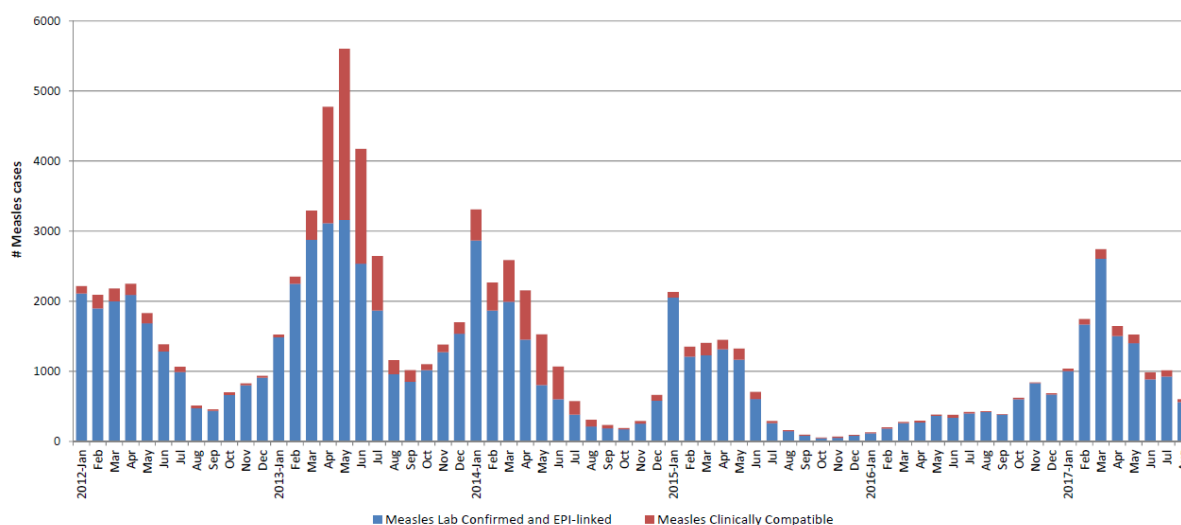


## Summary of the situation

Between September 2016 and August 2017, countries of the European Region reported 15,516 confirmed measles cases; 83% (n=12,921) of these cases were reported in 2017. In this period, the highest incidence was reported in Romania (259 cases per 1 million population), followed by Italy (80.5 cases per 1 million population) and Tajikistan (77 cases per 1 million population).

In 2017, measles was confirmed by laboratory testing (serology, virus detection, or isolation) in 55% (7,152) of these cases, and the others were classified as epidemiologically linked and clinically compatible. The identified genotypes were D8 (n=405), B3 (n=547), H1 (n=22), and D9 (n=1).

**Figure 1.** Distribution of measles cases per month of rash onset in the European region, January 2012 to August 2017 (with data reported as of 2 October 2017).



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

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.

**Suggested citation:** Pan American Health Organization / World Health Organization. Epidemiological Alert: Measles. 27 October 2017, Washington, D.C.: PAHO/WHO; 2017

## Region of the Americas

Between EW 1 and EW 41 of 2017, a total of 168 confirmed measles cases were reported in three countries of the Region of the Americas: Argentina (3 cases), Canada (45 cases<sup>1</sup>), and the United States (120 cases<sup>2</sup>). In addition, between EW 35 and EW 40 of 2017, a total of 570 suspected measles cases were reported in 10 parishes in the municipality of Caroni, Bolivar state, Venezuela. Of the total, 217 cases were confirmed for measles: 153 by laboratory criteria and 64 by epidemiological link, 292 are under investigation, and 61 were discarded. About 77% of the suspected cases are aged  $\leq 10$  years and 56% are male. To date, no deaths due to measles have been reported.

All cases confirmed in the Region of the Americas were imported from other continents, related to importation, or with unknown source of infection. The genotypes identified were D8 in Argentina, and B3 and D8 in Canada and the United States. In Venezuela, the identified genotype was D8 (with a different lineage to the D8 identified in Brazil in previous years).

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 (1,2). 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.

Given that measles and rubella viruses are still circulating in other continents, and that the arrival of international travelers to the Americas increased by 4% in 2016,<sup>3</sup> (3), the occurrence of cases in unvaccinated travelers is expected.

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<sup>1</sup> Provisional data.

<sup>2</sup> Provisional data.

<sup>3</sup> Preliminary data reported between January and September 2016 by the World Tourism Organization.

**Table 1.** Distribution of measles cases by country. European Region, 2017.\*

<b>Countries</b>	<b>2017</b>
Armenia	0
Austria	82
Azerbaijan	0
Belarus	1
Belgium	360
Bosnia and Herzegovina	19
Bulgaria	167
Croatia	7
Cyprus	3
Czech Republic	136
Denmark	4
Estonia	1
Finland	5
France	405
Georgia	12
Germany	876
Greece	82
Hungary	33
Iceland	2
Ireland	5
Israel	15
Italy	4,510
Kazakhstan	2
Kyrgyzstan	1
Lithuania	2
Luxembourg	3
Netherlands	11
Poland	29
Portugal	34
Romania	3,219
Russia	208
Serbia	11
Slovakia	2
Slovenia	6
Spain	152
Sweden	26
Switzerland	79
Tajikistan	649
Turkey	19
Ukraine	1,613
United Kingdom	129
Uzbekistan	1
<b>Total</b>	<b>12,921</b>

**Source:** WHO Regional Office for Europe - \*Data as of 2 October 2017

## Advice to national authorities

This is an update of the [Epidemiological Alert published on 4 May 2017](#).

A series of guidance that health authorities can provide to international travelers is presented below. In addition, included is a series of considerations regarding health personnel, individuals, and institutions that are in contact with travelers before and after the trip.

### 1. Travelers

#### Prior to departure

The Pan American Health Organization / World Health Organization (PAHO/WHO) recommends that all travelers over the age of six months who are unable to show proof of vaccination or immunity, **to be fully vaccinated against measles and rubella**, preferably with the MMR (measles, mumps, and rubella) vaccine, **at least two weeks before traveling to areas with documented measles virus circulation**.

- Infants who receive the MMR vaccine before their first birthday must be revaccinated according to their country's vaccination schedule. Infants under the age of six months should not be vaccinated.
- Travelers who are not up to date on their vaccinations are at higher risk of contracting either disease when in close contact with travelers from countries where the viruses still circulate.
- Exceptions to this recommendation include persons with medical contraindications to the measles and rubella vaccine.
- Persons considered immune to measles and rubella, are those who can present:
  - Laboratory confirmation of rubella and measles immunity (a positive serological test for the measles and rubella-specific IgG antibodies).
  - Written documentation of having received a measles and rubella vaccination.

It is recommended that health authorities inform travelers prior to their departure of measles signs and symptoms, including:

- Fever,
- Rash,
- Cough, coryza (runny nose), or conjunctivitis (red eyes),
- Joint pain,
- Lymphadenopathy (swollen glands).

#### During the trip

1. Travelers should be recommended that if they suspect to have measles or rubella, they should:
  - Seek immediately professional health care.
  - Avoid close contact with other people for seven days following onset of rash.

- Remain at the site of their current residence (e.g. hotel or home, etc.) except to seek professional health care, or as advised by a health professional.
- Avoid travel and visit to public places.

#### Upon returning

1. If travelers suspect they have measles or rubella, they should seek immediately professional health care.
2. If travelers develop any of the above mentioned symptoms, they should inform their physician of their travel history.

### **2. Clinicians and health care providers**

PAHO/WHO recommends to:

1. Promote the practice of requesting proof of immunity to measles and rubella in the health care sector (medical, administrative and security personnel).
2. Since international travelers may seek medical attention at private health care facilities, sensitize private sector health workers on the need for immediate notification of any measles or rubella cases in order to ensure a timely response by national public health authorities.
3. Continue to remind health care workers to always ask patients for their travel history.

### **3. Persons and institutions in contact with travelers, before and/or after their trip**

1. Advise personnel in the tourism and transportation sectors (i.e., hotels, airport, taxis, and other) to be fully immunized against measles and rubella, and make the necessary regulatory and operational arrangements to promote vaccination.
2. Conduct public awareness campaigns on the symptoms of measles and rubella, so that all travelers can recognize the symptoms and seek immediate medical care if need be. Information should be distributed at airports, ports, bus stations, travel agencies, airlines, etc.

### **4. Contact tracing of confirmed measles cases**

1. Conduct contact tracing activities according to national guidelines for contacts identified and present in the **national territory**;
2. Consider the **international** implications that **contact tracing** may present and consider the following scenarios and operational aspects while conducting these activities:
  - *A case is identified by national authorities in a third party* and national authorities are requested to locate contacts whose residence is most likely within their country. National authorities are urged to use all available coordination mechanisms to locate these persons. The information available

for this action could be limited and efforts should be rational and based on existing resources. Health services should be alerted of the possible or actual presence of contacts in order to detect suspected cases.

- A case is identified locally, and, depending on the timing of the natural history of the diseases at detection:
    - *Current case*: national authorities should obtain information about the possible location of contacts abroad and inform the relevant national authorities accordingly.
    - *Retrospectively identified case*: According to the travel history of the case, national authorities should inform relevant national authorities as this occurrence might constitute the first signal of measles virus circulation, or of an outbreak, in the other country or countries concerned.
3. Conduct active institutional and community searches to quickly identify cases among those contacts that have not been identified during the outbreak investigation, following the route of the case(s).

#### Operational remarks

- If no international conveyances are involved (e.g. aircrafts, cruise ships, trains) as a possible setting for exposure to a case(s), national authorities should contact their counterpart(s) of other countries through the IHR National Focal Point (NFP) network or other bilateral or multilateral programmatic mechanisms, with copy to the WHO IHR Contact Point for the Americas (ihr@paho.org). The assistance of the WHO IHR Contact Point for the Americas can be requested to facilitate international contact tracing related communications.
- If international conveyances are involved (e.g. aircrafts, cruise ships, trains) as a possible setting for exposure to a case(s), national port authorities or whoever may be acting for the latter should activate existing mechanisms to obtain relevant information from carriers (e.g. airlines) to locate travelers, or establish such mechanisms if absent. For subsequent communication between national authorities see the preceding paragraph.

## **Channels to disseminate these recommendations**

PAHO/WHO recommends that national authorities consider disseminating these recommendations outlined in this document through:

- Public awareness campaigns to promote and enhance travelers' health seeking behavior on the benefits of vaccination for measles, signs and symptoms of measles, and to promote and enhance travelers' health seeking behavior prior to travel and upon return. In addition to travel medicine services or clinics, airports, ports, bus and train stations, airlines operating in the country, should be utilized.
- Travel agencies and other tourism related agencies, and diplomatic corps, so that travelers can take necessary actions prior to travel.

- Reiteration of the content of existing national guidelines to clinicians and health care providers and timely dissemination of any newly developed procedure in relation to travelers as/if applicable.

## References

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4. World Health Organization. WHO EpiBrief. No. 02/2017. [Accessed on 22 Septiembre 2017]. Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0006/349062/EpiBrief\\_2\\_2017\\_EN-2.pdf](http://www.euro.who.int/_data/assets/pdf_file/0006/349062/EpiBrief_2_2017_EN-2.pdf)

## Related links:

- PAHO/WHO. Immunization: [http://www.paho.org/hq/index.php?option=com\\_content&view=article&id=1865&Itemid=1899&lang=en](http://www.paho.org/hq/index.php?option=com_content&view=article&id=1865&Itemid=1899&lang=en)