

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Malaria - Spain - 2018

Opening date: 5 March 2018

Latest update: 9 March 2018

On 1 March 2018, Spanish news media quoting local health authorities in Madrid notified a confirmed case of malaria in a three-month-old baby girl. The baby has no travel history to malaria-endemic countries and had been admitted to the hospital several weeks earlier because of another health condition. Authorities are carrying out epidemiological investigations in order to identify the source of the infection.

→ Update of the week

Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017

Latest update: 9 March 2018

Influenza transmission in Europe shows a seasonal pattern, with peak activity during the winter months.

→ Update of the week

During week 9/2018 (26 February–4 March 2018), the majority of reporting countries experienced low or medium intensity of respiratory infections activity. The majority of countries reported widespread detections of laboratory-confirmed influenza cases.

Listeria monocytogenes clusters - Europe - 2018

Opening date: 21 February 2018

Latest update: 9 March 2018

On 3 November 2017, Finland posted an urgent inquiry on EPIS-FWD, describing a cluster of *L. monocytogenes* PCR serogroup IVb, MLST ST6, confirmed by WGS (in-house cgMLST scheme), with 13 cases detected in different parts of Finland between January 2016 and September 2017. As of 6 March 2018, this outbreak has been associated with 32 cases identified between December 2015 and February 2018. Since the ECDC rapid risk assessment published on 6 December 2017, new confirmed cases were reported in Denmark (2), Finland (2), Sweden (1) and the United Kingdom (2). A previously reported case from Finland was excluded because it did not meet the criteria used by the European outbreak case definition.

Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 9 March 2018

Measles outbreaks continue to occur in a number of EU/EEA countries with a risk of spread and sustained transmission in areas with susceptible populations.

→Update of the week

Updates are provided for 19 EU/EFTA countries: Austria, Belgium, Bulgaria, the Czech Republic, Croatia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Norway, Poland, Romania, Spain, Switzerland, and UK. In 2018, and as of 7 March, most of the cases have been reported from Greece (1 008), Romania (757), France (429) and Italy (164).

Relevant updates outside EU/EEA countries are provided for Belarus, Georgia, Macedonia, Moldova, Serbia, and Ukraine, and for countries with ongoing or upcoming mass gathering events such as the Winter Olympics/Paralympics in South Korea and FIFA 2018 in Russia.

Rubella – Multistate (EU) – Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 9 March 2018

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease which often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy. All EU Member States recommend vaccination against rubella with at least two doses of vaccine for both boys and girls. The vaccine is given at the same intervals as the measles vaccine as part of the MMR vaccine. No new outbreaks have been detected in the EU since March 2017.

ECDC reports global outbreaks of rubella in the CDTR on a monthly basis or if there is a critical event.

→Update of the week

No new outbreaks have been detected in 2018.

Non EU Threats

Listeriosis - South Africa - 2017 - 2018

Opening date: 25 January 2018

Latest update: 9 March 2018

The South African National Department of Health is investigating a large listeriosis outbreak in the country. The outbreak was detected in October 2017 when an increasing number of neonatal cases of listeriosis was observed. Retrospective epidemiological investigations established that the increase in the number of listeriosis cases occurred since May 2017.

On 4 March 2018, the South African National Department of Health declared that the vehicle of infection and the point of contamination had been identified.

→Update of the week

Since 1 January 2017 and as of 3 March 2018, 948 laboratory-confirmed listeria cases have been detected in [South Africa](#). Outcome at the end of hospitalisation is known for 659/948 (70%) patients, and 180/659 (27%) patients are known to have died.

On 4 March 2018, the [South African National Department of Health](#) declared that the vehicle of infection and the point of contamination had been identified at a food manufacturer in the north of the country. A recall of the possibly contaminated products will affect the manufacturers' entire distribution networks, both domestic and international. The South African Department of Health also advised the public to avoid all processed meat products that are sold as ready-to-eat.

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 9 March 2018

[Yellow fever](#) is a mosquito-borne viral infection occurring in some tropical areas of Africa and South America. Brazil experienced a major outbreak of yellow fever in 2016–2017. An upsurge of confirmed cases has been reported since December 2017.

→Update of the week

Since the previous CDTR on 2 March 2018 and as of 6 March, [Brazil](#) has reported 123 cases and 23 deaths. The cases occurred in São Paulo (42), Minas Gerais (70), Rio de Janeiro (10) and Espírito Santo (1) states.

During the same time period, [Brazil](#) has reported confirmed epizootics in non-human primates in São Paulo State (17) and Rio de Janeiro State (7).

As of 5 March, according to media quoting the Ministry of Health, [Chile](#) reported four cases of yellow fever in travellers to Brazil.

II. Detailed reports

New! Malaria - Spain - 2018

Opening date: 5 March 2018

Latest update: 9 March 2018

Epidemiological summary

On 1 March 2018, Spanish news media quoting local health authorities in Madrid notified a confirmed case of malaria in a three-month-old baby girl. The baby has no travel history to malaria-endemic countries and had been admitted to the hospital several weeks earlier because of another health condition. Authorities are carrying out epidemiological investigations in order to identify the source of the infection.

TESSy background: Of the 6 200 confirmed malaria cases reported in the EU/EEA countries in 2015, about 99.9% were imported from endemic areas, mostly Africa. Locally acquired malaria cases were reported in Europe in 2017 (Greece, Cyprus, Italy and France). A detailed [report](#) was published on 20 September 2017.

Source: [media](#) | [RRA](#)

ECDC assessment

In the case described above, hospital-acquired infection is suspected as the possible mode of transmission; this has not been confirmed. An ECDC [rapid risk assessment](#) on malaria in Europe remains valid. The risk of further spread of malaria in the EU associated with these events is considered to be very low.

Actions

ECDC has contacted the Spanish authorities and is closely following this event.

Influenza – Multistate (Europe) – Monitoring season 2017 – 2018

Opening date: 11 October 2017

Latest update: 9 March 2018

Epidemiological summary

Week 9/2018 (26 February–4 March 2018)

The majority of reporting countries experienced low or medium intensity of respiratory infections activity but reported widespread detections of laboratory-confirmed influenza cases.

Overall, 49% of individuals sampled in primary healthcare settings tested positive for influenza virus, a slight decrease compared with the previous week (50%).

Influenza virus types A and B were co-circulating, with a higher proportion of type B viruses. Differences in proportions of circulating influenza virus types and A subtypes were observed between countries.

The majority of severe cases admitted to non-ICU hospital wards were adults infected with influenza type B viruses. Half of the severe cases admitted to ICUs were adults infected with influenza type A viruses.

Based on data provided by 17 EU countries reporting to EuroMOMO, excess mortality from all causes has climbed significantly over the past months in the south-western part of the European Region, notably in the elderly. However, mortality seems to be declining.

Source: [Flu News Europe](#)

ECDC assessment

Influenza activity continues to be reported in Europe, putting pressure on healthcare systems and creating significant media attention. Excess winter mortality is being reported from several countries, especially following A(H3N2) circulation. Vaccination programmes targeting the elderly, people with chronic diseases, and healthcare workers should be continued and intensified in

countries that have not reached the seasonal peak. Antiviral treatment with neuraminidase inhibitors should be advised for people at high risk for complications of influenza, such as people with underlying chronic respiratory or cardiovascular diseases, and for people with severe or rapidly progressive symptoms. Antiviral prophylaxis should be considered during the early phases of outbreaks in closed settings such as nursing homes. Interpersonal distancing measures are also likely to provide protection for infants, the elderly and the frail.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the [Flu News Europe website](#). ECDC risk assessment for the 2017-2018 season is available on [ECDC website](#). Recommendations on the composition of the 2017-2018 influenza virus vaccine are available on [WHO website](#).

Listeria monocytogenes clusters - Europe - 2018

Opening date: 21 February 2018

Latest update: 9 March 2018

Epidemiological summary

On 3 November 2017, Finland posted an urgent inquiry on EPIS-FWD, describing a cluster of *L. monocytogenes* PCR serogroup IVb, MLST ST6, confirmed by WGS (in-house cgMLST scheme), with 13 cases detected in different parts of Finland between January 2016 and September 2017.

As of 29 November 2017, nine EU/EEA countries had replied to the urgent inquiry. Four countries reported cases that could be linked microbiologically to the Finnish cluster based on the WGS data using either cgMLST [6,7] or SNP analysis (in-house pipelines).

As of 6 March 2018, this outbreak has been associated with 32 cases identified between December 2015 and February 2018. New confirmed cases were reported in Denmark (2), Finland (2), Sweden (1) and the United Kingdom (2). A previously reported case from Finland was excluded because it did not meet the criteria used by the [European outbreak case definition](#). The two new fatal cases were reported in Denmark and in Sweden.

ECDC assessment

The close relation between isolates in five different countries is suggestive of a multi-country common-source outbreak. Investigations in Finland and Sweden point at frozen corn as a possible vehicle of infection. The Finnish Public Health Institute published a [press release](#). Investigations are ongoing to identify the vehicle of infection and the source of contamination.

ECDC links: [ECDC rapid risk assessment](#) | [European outbreak case definition](#)

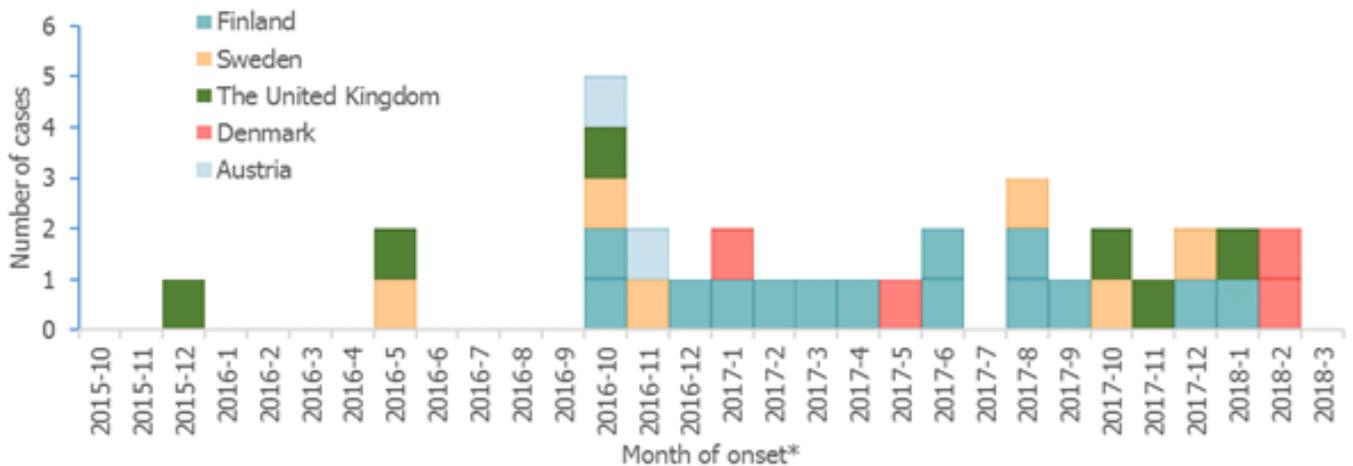
Sources: [Finnish Public Health Institute news item](#)

Actions

ECDC and the European Food Safety Authority (EFSA) are working on a joint outbreak assessment of this event.

Listeria monocytogenes PCR serogroup IVb, MLST 6; confirmed outbreak cases by month of symptom onset, European Union, 2015–2018 (n=32)

ECDC



Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 9 March 2018

Epidemiological summary

Updates are provided for 19 EU/EFTA countries. In 2018, and as of 6 March, most of the cases in the EU have been reported from Greece (1 008), Romania (757), France (429) and Italy (164). Seven deaths have been reported in 2018 from Romania (3), Italy (2), Greece (1) and France (1). A recent outbreak has been reported from Wales, UK.

Outside EU/EEA countries, Ukraine's largest measles outbreak ever is still ongoing, with over 5 800 cases reported in 2018, including seven deaths. Measles outbreaks continue in Serbia, the former Yugoslav Republic of Macedonia, and Georgia. For the countries with ongoing or upcoming mass gathering events, data are available for South Korea and Russia.

Epidemiological summary for EU/EEA countries with updates since last month

[Austria](#) reported eight cases to TESSy in January 2018.

[Belgium](#) reported one case of measles to TESSy in January 2018.

[Bulgaria](#) reported one case of measles in 2018 as of 25 February.

[Czech Republic](#): According to news media, 23 cases of measles were reported in Prague in January and February 2018. Most of the cases are children under 17 years of age.

[Croatia](#) did not detect any cases in January 2018, according to TESSy.

[Finland](#) has reported one measles case in 2018 as of 26 February. In 2017, Finland reported 10 cases.

[France](#) has reported 429 cases in 2018, as of 20 February, including one death of a woman in her thirties. Most of the cases (70%) are from New Aquitaine where the outbreak has started in November 2017. Of these cases, 19 were hospitalised with pneumonia, including six patients treated in intensive care.

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[Germany](#) has reported 33 measles cases in 2018, as of 4 February. During the same period in 2017, 70 cases were reported.

[Greece](#) has reported 1 008 cases in 2018, as of 4 March, including one death in a 35-year-old female. This is an increase of 513 cases since the previous CDTR on 9 February. As of 4 March 2018, and since the beginning of the outbreak in May 2017, Greece has reported 1 976 measles cases, of which 1 147 have been laboratory confirmed. Among the laboratory-confirmed cases, three deaths have been reported. Most of the cases occurred in southern Greece among young Roma children and in Greek adults between 25 and 44 years of age. In addition, Greek news [media](#) reported about one 45-year-old healthcare worker being treated in an intensive care unit for measles complications.

[Hungary](#) has reported one case of measles in 2018, as of 18 February.

[Ireland](#) has reported 44 cases in 2018, as of 24 February. An outbreak of measles was reported in Limerick city, with 20 cases as of 27 February; of these cases, one has travelled to Dublin. The majority of the cases were not vaccinated. Vaccination coverage with a first dose of measles-containing vaccine in [Ireland](#) is around 95% (94.6% to 95.5%, 2016-2017)

[Italy](#) reported 164 measles cases between 1 and 31 January 2018, including two deaths. The cases were detected in 12 regions of Italy. In 2017, Italy reported 4 991 cases of measles, including four deaths.

[Latvia](#) has reported nine confirmed measles cases in 2018, as of 11 February. This is an increase of three cases since last CDTR published on 9 February.

[Norway](#) has reported four cases of measles in 2018, as of 3 March. Three cases acquired the infection abroad. Two of the four cases are healthcare workers.

[Poland](#) reported 17 cases to TESSy in January 2018.

[Romania](#) has reported 757 measles cases, including three deaths in 2018, as of 2 March. This is an increase of 413 cases and two deaths since the CDTR published on 9 February. Since the beginning of the outbreak in October 2016, and as of 2 March 2018, Romania has reported 11 036 confirmed measles cases, including 40 deaths. The two most recent deaths were eight- and ten-month-old babies from Bacau County.

[Spain](#) reported seven cases to TESSy in January 2018.

[Switzerland](#) has reported ten cases in 2018, as of 27 February. In 2017, 105 measles cases were detected compared with 65 cases in 2016.

[Wales](#), UK, has reported an outbreak of measles with six confirmed cases as of 7 March. The cases are from Cardiff, Newport and Blaenau Gwent. Two further cases are also under investigation. Investigations have revealed that all cases were in the same location in Cardiff city centre.

Relevant epidemiological summary for countries outside EU/EEA

[Belarus](#) reports five cases of measles in 2018, in Vaukavysk district, on the west of the Republic of Belarus. Among the cases, there are three children and two adults. In 2017, Belarus reported one imported case of measles. The reported vaccination coverage is 98%.

[Georgia](#) has reported 326 measles cases in 2018 as of 23 February, of which 218 cases were from the Adjara region.

[The former Yugoslav Republic of Macedonia](#) has been experiencing an outbreak of measles since October 2017.

[Moldova](#) reported two cases (media reports on 16 February 2018). A seven-month-old baby and a seven-year old girl developed symptoms after returning from Ukraine.

[Serbia](#) has been experiencing an ongoing measles outbreak since October 2017.

[Ukraine](#) has reported 6 484 cases of measles, including seven deaths in 2018, as of 6 March, according to media reports. Of the seven people who died, five were children and two adults. Five people died in the Odessa region, one in the Ivano-Frankivsk region, and one in the Zakarpattia region. Among the cases, 4 258 are children and 2 226 adults. Most of the cases were reported from Ivano-Frankivsk and Zakarpattia regions. Vaccination coverage with measles-containing vaccines in Ukraine in 2017 has doubled compared with 2016, with 93.3% of children under one year of age and 90.7% of six-year-olds vaccinated. The news [media](#) also reported an outbreak in about 30 soldiers in Donbass, eastern Ukraine.

Relevant epidemiological information from countries with ongoing or planned mass gatherings

Winter Olympics and Paralympics in South Korea, 9–25 February and 9–18 March 2018

[South Korea](#) has reported 11 cases of measles in 2018, as of 3 March. In 2015-2017, South Korea reported between seven and 18 cases; 442 measles cases were reported in an outbreak in 2014.

FIFA 2018 in Russia, 14 June–15 July 2018

[Rospotrebnadzor](#) in Russia has reported 11 cases of measles in Rostov-on-Don, Southern Federal District of Russia, as of 14 February. Several of these cases were infected in other districts. Rostov-on-Don is one of the cities that will be hosting the FIFA 2018 tournament. Between January and November 2017, [Russia](#) reported 408 cases of measles.

ECDC links: [Measles web page](#) | [ECDC Communicable Disease Threats Reports \(CDTR\)](#) | [ECDC rapid risk assessment ongoing outbreak of measles in Romania, risk of spread and epidemiological situation in EU/EEA countries, 3 March 2017](#)

Sources: National Public Health Institutes | Ministries of Health | media

ECDC assessment

Measles outbreaks continue to occur in a number of EU/EEA countries. There is a risk of spread and sustained transmission in areas with susceptible populations. Current outbreaks affect various population groups, including healthcare workers caring for people at risk of severe disease and complications (e.g. infants under one year of age, immunosuppressed).

Prompt and targeted outbreak response to break chains of transmission is essential. This includes the isolation of suspected and confirmed cases and the close monitoring of previously unvaccinated contacts. Vaccination with measles-containing vaccines (MCV) is indicated for those not able to show proof of complete vaccination or history of previous infection. All these interventions come at a high human and financial cost at a time of the year when healthcare systems are already under pressure.

Vaccination with at least two doses of a Measles-Containing-Vaccine (MCV) remains the most effective preventive measure. Every encounter with the healthcare system should be used to ensure that every resident in the EU has a documented history of MCV, as per national recommendation. If not, additional doses should be administered. Vaccination history needs to be readily available to healthcare workers in case of exposure or outbreak. Vaccination coverage of 95% of the general population at national as well as subnational levels with two doses of MCV is necessary to ensure that measles circulation is interrupted, and that the introduction of measles cases does not result in secondary cases.

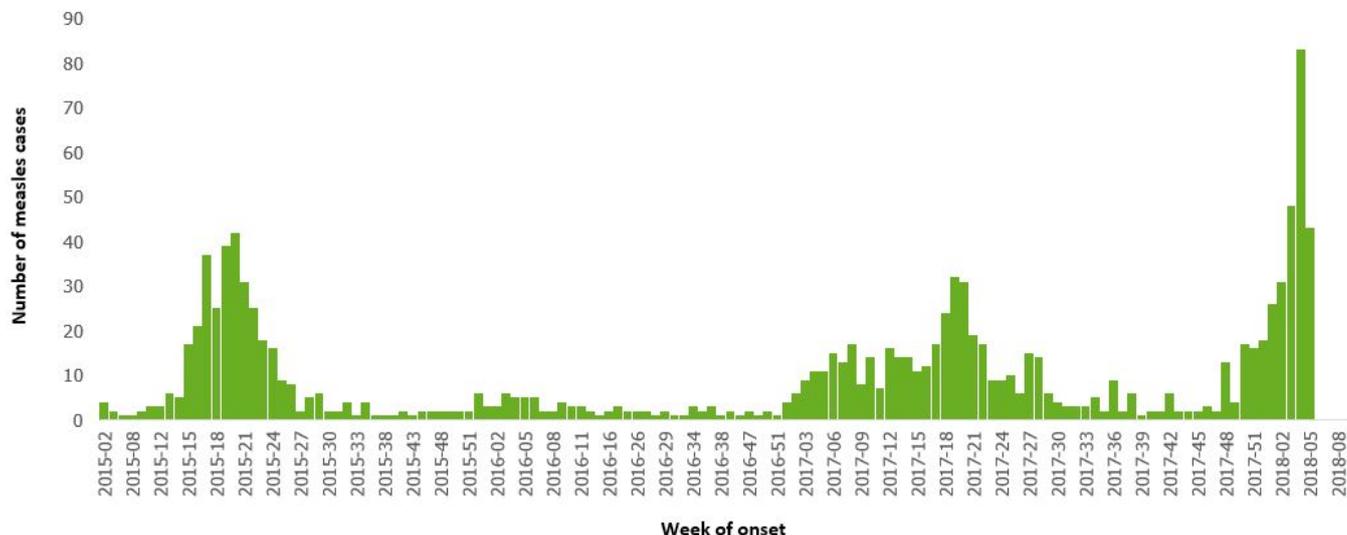
In the EU/EEA, only seven countries report having reached the target of 95% measles vaccination coverage necessary to prevent outbreaks and eliminate the disease. The current epidemiological events are putting the elimination status of some countries at stake and will require sustained efforts to increase population immunity to measles and halt transmission.

Actions

All EU/EEA countries report on a monthly basis measles cases through TESSy to ECDC and data are published monthly. ECDC monitors European outbreaks through epidemic intelligence activities.

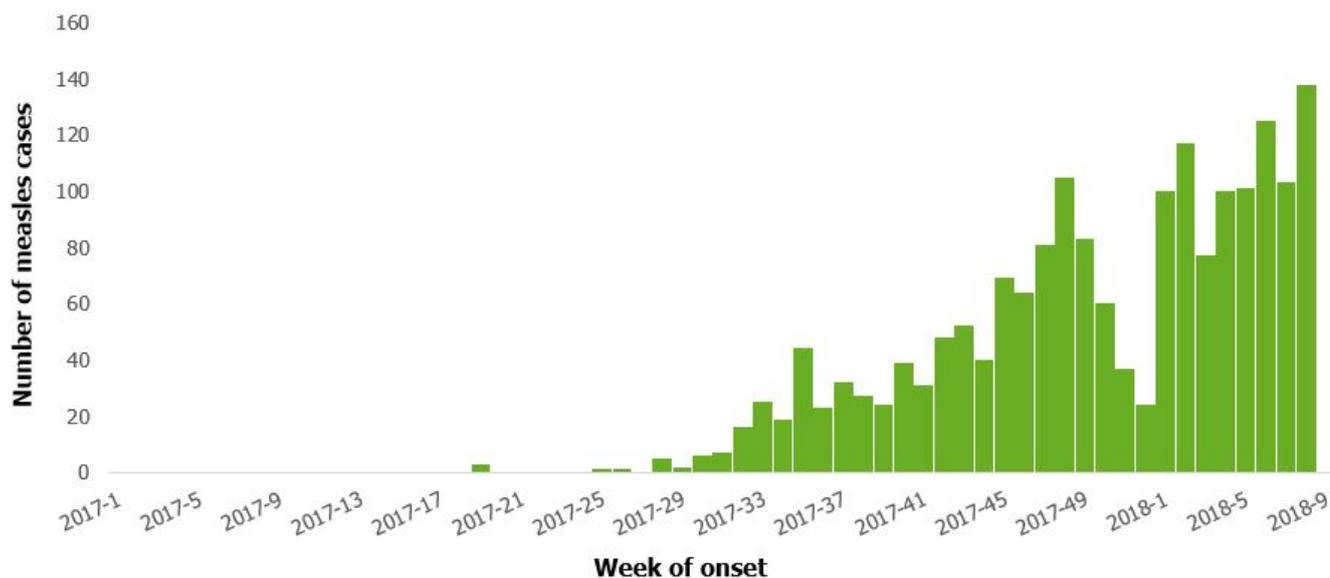
Distribution of measles cases (possible, probable, confirmed) by week of onset, France, 2015-2018

Source: TESSy as of 6 March 2018



Distribution of measles cases (possible, probable, confirmed) by week of onset, Greece, 2017-2018

Source: KEELPNO, as of 1 March 2018



Rubella – Multistate (EU) – Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 9 March 2018

Epidemiological summary

No new outbreaks have been detected in the EU in 2018.

Epidemiological summary for EU/EEA countries with updates since last month

In January and February 2018, cases of rubella have been reported from Austria, [Germany](#), [Ireland](#), [Italy](#), Poland and Romania, according to national public health authorities and TESSy.

Relevant epidemiological information from countries with ongoing or planned mass gatherings Winter Olympics in South Korea, 9–25 February 2018

As of 27 January, [South Korea](#) has reported ten cases of rubella in 2018. Between 2014 and 2017, 11 cases were reported annually; in 2013, 18 cases were reported.

FIFA 2018 in Russia, 14 June–15 July 2018

[Russia](#) reported five cases of rubella between January and October 2017. Rubella cases were registered in the Orenburg and Tomsk regions, Primorsky and Khabarovsk kraies, and the city of Moscow.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC rubella factsheet](#) | [WHO epidemiological brief summary tables](#) | [WHO epidemiological briefs](#) | [Progress report on measles and rubella elimination](#)

ECDC assessment

The World Health Organization (WHO) has targeted the elimination of measles and rubella in the 53 Member States of the WHO European Region. The progress towards elimination of rubella in the WHO European Region is assessed by the European Regional Verification Commission for Measles and Rubella Elimination (RVC). Member States of the WHO European Region are making steady progress towards the elimination of rubella. At the sixth meeting of the RVC for Measles and Rubella in June 2017, of 53 countries in the WHO European Region, 33 (21 of which are in the EU/EEA) were declared to have reached the elimination goal for rubella, and four countries (two in the EU/EEA) were deemed to have interrupted endemic transmission for between 12 and 36 months, meaning they are on their way to achieving the elimination goal. However, seven EU/EEA countries were judged to still have endemic transmission: Belgium, Denmark, France, Germany, Italy, Poland and Romania.

Web source: [European Regional Verification Commission for Measles and Rubella Elimination \(RVC\) \(2017\)](#)

Actions

ECDC monitors rubella transmission in Europe by analysing the cases reported to The European Surveillance System and through its epidemic intelligence activities. Twenty-four EU and two EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella surveillance is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness, and achieving the target of rubella and congenital rubella elimination.

Listeriosis - South Africa - 2017 - 2018

Opening date: 25 January 2018

Latest update: 9 March 2018

Epidemiological summary

Since 1 January 2017 and as of 3 March 2018, 948 laboratory-confirmed listeriosis cases have been reported in [South Africa](#). A total of 742 cases was reported in 2017, and 206 cases have been reported in 2018. Females account for 56% (517/917) of the cases (where gender is reported). Where age was reported (n=914), ages range from birth to 92 years (median 19 years); 41% (379/914) are neonates aged ≤ 28 days. Of the neonatal cases, 96% (363/379) had early-onset disease (birth to ≤ 6 days). Most cases have been reported from Gauteng Province (59%, 558/948) followed by Western Cape (12%, 116/948) and KwaZulu-Natal (7%, 67/948) provinces. Cases were diagnosed in the public (65%, 611/948) and private (35%, 337/933) healthcare sectors.

Among the 948 cases, *Listeria monocytogenes* bacteria were detected through blood culture (691, 73%), in cerebrospinal fluid (206, 22%); other detections were in stool, pus, urine or other body sites (71, 7%).

A total of 109 patients was interviewed about their food exposure in the month before falling ill; 93 (85%) reported eating ready-to-eat processed meat products, of which polony (Bologna sausage) was the most common, followed by Vienna sausages and

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other 'cold meats'. After the investigation of a cluster of cases in children <5 years of age, a food manufacturer was suspected to be at the origin of the outbreak. WGS analysis of human and non-human isolates from the implicated manufacturer confirmed this hypothesis.

On 4 March 2018, the [South African National Department of Health](#) declared that the vehicle of infection and the point of contamination had been identified.

Sources: [South Africa NICD](#) | [WHO AFRO outbreaks and emergencies](#)

ECDC assessment

Listeriosis can be a serious bacterial infection acquired via ingestion of contaminated food. Pregnant women, neonates, elderly and immunocompromised patients are at increased risk of severe disease and death. In pregnant women, the infection can cause premature labour and stillbirth, and neonatal meningitis in a newborn. Milder forms of the disease result in gastroenteritis, which can lead to a severe infection in those with a weakened immune system.

Prior to the current outbreak in South Africa, the first documented outbreaks occurred in 1977 (14 cases) and 2015 (seven cases); since then, only sporadic cases have been detected throughout the country. Since October 2017, an increase in the number of neonatal cases was observed. This increase and the associated deaths are of concern, as South Africa's also has a high prevalence of HIV infection. In addition, poorly regulated street food vendors are common across South Africa. Many people lack access to electricity and thus refrigeration.

Based on WGS analysis, no associated cases were reported in EU/EEA countries. The risk of spread to Europe is very low. Travellers with immune disorders, severe chronic illnesses, pregnant women and older adults should consult their doctor or seek advice from a travel clinic – particularly with regard to effective prevention measures – before travelling.

European travellers in South Africa should follow the South African Department of Health and avoid all processed meat products that are sold as ready-to-eat. In addition, they should pay attention to standard hygiene measures to reduce the risk of infection, consume only bottled drinks, mineral water and factory-produced ice cubes; avoid unpasteurised milk and milk products; ensure that meat and fish are thoroughly cooked; properly wash fruits and vegetables before consumption; and consider general hygiene conditions when consuming local products, such as freshly made fruit juices, coconut water, drinks and cocktails.

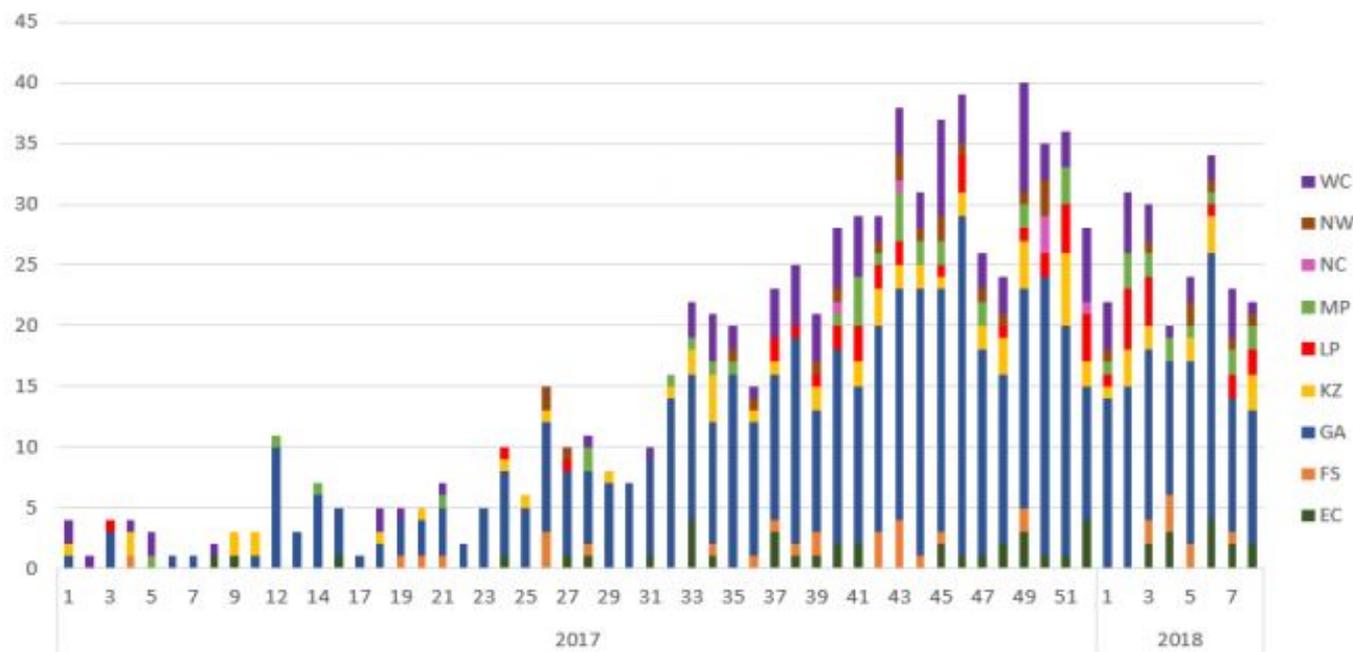
Travellers experiencing symptoms compatible to [listeriosis](#) upon return should consider consulting their healthcare provider.

Actions

ECDC is monitoring this event through EPIS FWD and epidemic intelligence.

Epidemic curve of laboratory-confirmed listeriosis cases by epidemiological week and date of sample collection and province, South Africa, 01 January 2017 to 2 March 2018

South Africa Centre for Enteric Diseases and Division of Public Health Surveillance and Response



Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017

Latest update: 9 March 2018

Epidemiological summary

Between July 2017 and the last week of February 2018 (week 9), the Ministry of Health in Brazil reported 846 confirmed human cases of yellow fever, including 260 deaths. The cases occurred in São Paulo (349), Minas Gerais (384), Rio de Janeiro (106), Espírito Santo (6) and Distrito Federal (1).

During the same time period, the Ministry of Health reported 578 confirmed epizootics in non-human primates. Of those, 482 were reported in São Paulo State, 73 in Minas Gerais, 19 in Rio de Janeiro State, two in Tocantins and one each in Mato Grosso and Espírito Santo.

On 28 February 2018, the GeoSentinel network notified two yellow fever cases in unvaccinated travellers returning from Brazil. The first case is a Romanian tourist who visited Ilha Grande and was admitted to hospital in Bucharest with liver and renal failure, rash, myalgia, and fever. The case has been serologically confirmed. The second case is a 44-year-old male from Switzerland with a confirmed yellow fever diagnosis. The case was likely infected in Ilha Grande, and his condition is critical.

On 14 February 2018, the GeoSentinel network notified one case of yellow fever in a French traveller returning from Brazil. The case is an unvaccinated 42-year-old woman. The patient was hospitalised in a local clinic in Brazil, and laboratory results were positive for yellow fever. The case has been likely infected when visiting the Inhotim Botanical Garden in Brumadinho, Minas Gerais.

On 15 January 2018, the Netherlands posted an EWRS report about a confirmed yellow fever case in an unvaccinated 46-year-old male returning from Brazil. The man visited Brazil between 19 December 2017 and 8 January 2018. He stayed in the villages of Mairiporã and Atibaia, about 50 kilometres north of São Paulo; he also visited other areas considered at risk of yellow fever transmission.

WHO determined that, in addition to the areas listed in previous updates, the entire state of São Paulo should now be considered at risk of yellow fever transmission. Consequently, vaccination against yellow fever is recommended for international travellers visiting any area in the state of São Paulo.

Sources: [MoH](#) | [ProMED](#) | [WHO](#)

ECDC assessment

The detection of yellow fever confirmed cases in surroundings of major cities such as São Paulo and Rio de Janeiro is of concern. Authorities are conducting vaccination campaigns. In this context, European citizens travelling to at risk areas should seek medical advice prior travel and should receive the yellow fever vaccine at least 10 days prior to travelling. They should also follow measures to avoid mosquito bites and be aware of yellow fever symptoms and signs.

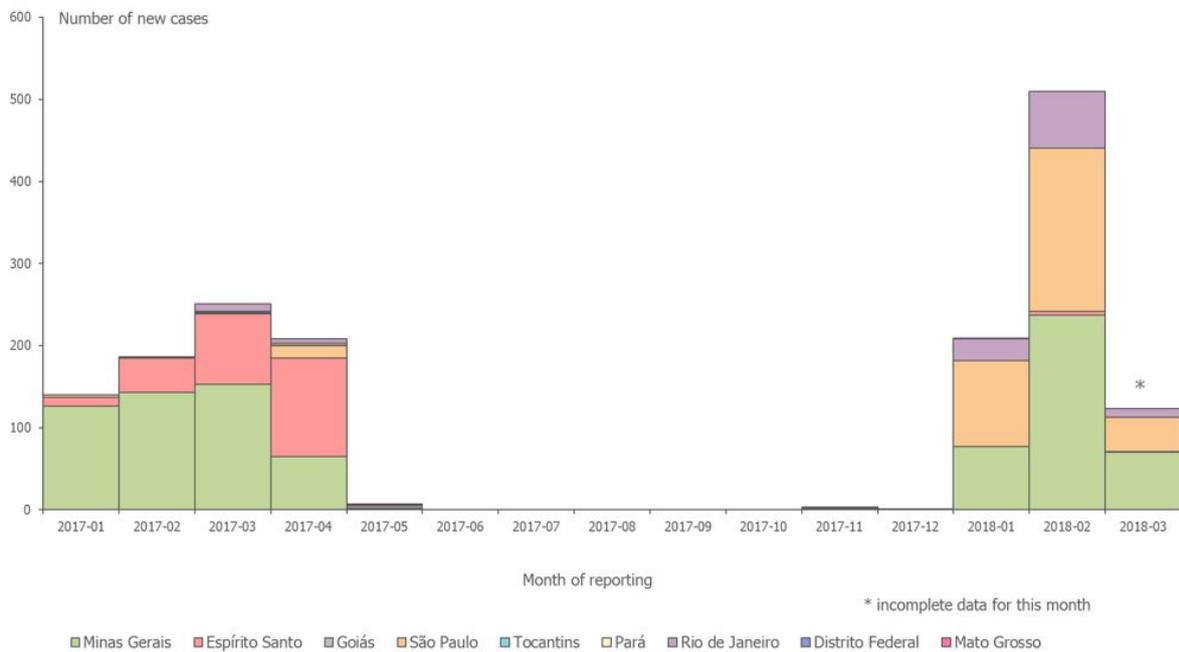
In Europe, *Aedes aegypti*, the primary vector of yellow fever in urban settings, has been established in Madeira, Portugal, since 2005. Presence of *Aedes aegypti* was first reported in 2017 in Fuerteventura, Canary Islands and Spain. The probability of local yellow fever transmission in the EU/EEA following introduction by a viraemic traveller is currently considered very low as weather conditions during the winter season in continental EU/EEA are not favourable to vector activity.

Actions

ECDC published updates of its rapid risk assessment 'Outbreak of yellow fever in Brazil' on [13 April 2017](#) and [18 January 2018](#). ECDC is producing an update of the RRA.

Distribution of confirmed human cases of yellow fever by month, Brazil, January 2017 - 6 March 2018

ECDC



The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.