

## I. Executive summary

### **New! Legionnaires' disease – Lombardy, Italy – 2018**

Opening date: 12 September 2018

Latest update: 14 September 2018

On 11 September 2018, Italy notified through EWRS an outbreak of pneumonia in the area of Brescia. According to regional health authorities, 235 pneumonia cases have been reported between 2 and 10 September 2018. Of these cases, 12 have tested positive for *Legionella*. The investigation is ongoing to identify the source of this outbreak.

### **Rubella – Multistate (EU) – Monitoring European outbreaks**

Opening date: 7 March 2012

Latest update: 14 September 2018

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease that often passes unnoticed. The main reason for immunising against rubella is the high risk of congenital malformations associated with rubella infection during pregnancy.

→Update of the week

No outbreaks have been detected in 2018.

### **West Nile virus - Multistate (Europe) - Monitoring season 2018**

Opening date: 30 May 2018

Latest update: 14 September 2018

During the West Nile virus transmission season (expected to be between June and November), ECDC monitors the occurrence of West Nile virus infections in EU/EEA Member States and EU neighbouring countries and publishes weekly epidemiological updates to inform blood safety authorities of areas where there is ongoing virus transmission.

→Update of the week

Between 7 and 13 September 2018, EU Member States reported 150 human West Nile virus infections: Romania (66), Italy (34), Greece (24), Hungary (21), Austria (3) and Bulgaria (2). EU neighbouring countries reported 56 cases: Serbia (24) and Israel (32).

In four areas, human cases were reported for the first time: Romania (2), Hungary (1) and Serbia (1). All other human cases were reported from areas that have been affected during previous transmission seasons.

This week, 19 deaths were reported by Romania (7), Greece (6), Italy (3) and Serbia (3).

In the same week, 46 outbreaks among equids were reported by Italy (26), Hungary (16), France (2), Greece (1) and Romania (1).

## Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 14 September 2018

Measles cases in the EU/EEA primarily occur in unvaccinated populations in both adults and children. Large outbreaks with fatalities are ongoing in countries that had previously eliminated or interrupted endemic transmission.

→Update of the week

Since the previous Communicable Disease Threats Report (CDTR) published on 11 August 2018, updates were provided for 12 EU/EFTA countries: Austria, Bulgaria, Germany, Greece, Hungary, Ireland, Poland, Romania, Slovakia, Spain, Sweden and Switzerland. In 2018, 31 deaths were reported in EU countries.

Relevant updates outside EU/EFTA countries are provided for Moldova, Serbia, Ukraine, the Americas and Mauritius.

The monthly measles report published in the CDTR provides the most recent data on measles cases and outbreaks based on the data reported on national authority websites or through media reports. It is supplementary to ECDC's [monthly measles and rubella monitoring report](#) based on data routinely submitted by 30 EU/EEA countries to The European Surveillance System (TESSy). The data presented in both monthly reports may differ.

## New! Monkeypox - the United Kingdom ex Nigeria - 2018

Opening date: 12 September 2018

Latest update: 14 September 2018

In September 2018, the United Kingdom reported two imported cases of monkeypox virus.

## Ebola virus disease - tenth outbreak - Democratic Republic of the Congo - 2018

Opening date: 1 August 2018

Latest update: 14 September 2018

On 1 August 2018, the Ministry of Health of the Democratic Republic of the Congo (DRC) declared the 10th outbreak of Ebola virus disease in the country. The outbreak affects North Kivu and Ituri Provinces in the northeast of the country, close to the border with Uganda.

→Update of the week

Over the past week, the Ministry of Health of the Democratic Republic of the Congo has reported eight additional cases in Beni (3), Butembo (3) and Mabalako (2).

As of 12 September 2018, there have been 137 Ebola virus disease cases (106 confirmed, 31 probable), including 92 deaths (61 confirmed, 31 probable) since the beginning of the outbreak.

## Cholera - Algeria - 2018

Opening date: 27 August 2018

Latest update: 14 September 2018

On 23 August 2018, the Algerian Ministry of Health reported a cholera outbreak in the northern part of the country, including the capital city of Algiers. According to health authorities, the first cases identified had onset of symptoms on 7 August 2018.

→Update of the week

On 10 September, the Algerian Ministry of Health reported two additional confirmed cholera cases. The place of infection from both cases remains unknown.

Additionally, ECDC published a [rapid risk assessment](#) regarding the cholera outbreak in Algeria on the ECDC website.

## II. Detailed reports

### New! Legionnaires' disease – Lombardy, Italy – 2018

Opening date: 12 September 2018

Latest update: 14 September 2018

#### Epidemiological summary

On 11 September 2018, Italy notified through EWRS an outbreak of pneumonia in the area of Brescia. Between 2 and 10 September 2018, 235 pneumonia cases have been reported. Of these, 196 cases are currently hospitalised, with nine cases in intensive care and 12 cases being discharged or refusing hospitalisation.

Among the 235 cases, two have died and 12 have tested positive for *Legionella*, including one fatal case. The majority of the cases are male (70%) and report comorbidities including immunosuppression and/or risk factors such as smoking. Most of the cases are reported in the elderly. The most affected municipalities reporting at least five cases are Carpenedolo, Montichiari, Asola, Remedello, Calvisano, Acquafredda, Desenzano del Garda, Isorella and Visano.

*Legionella* is considered to be the most likely cause of the outbreak. According to [regional authorities](#), several samples were taken from the public water supply and households of individuals diagnosed with Legionnaires' disease. In addition, there are plans to sample the cooling towers located near industrial estates in the affected area. No restriction of water use has been issued.

As of 11 September 2018, according to [media reports](#), the number of pneumonia cases is 256. In addition, according to [media reports](#) quoting regional authorities, 23 cases have tested positive for *Legionella* as of 12 September 2018.

#### ECDC assessment

Results from the epidemiological, microbiological and environmental investigations should confirm the aetiological agent of this outbreak. However, preliminary results point to *Legionella* as the most likely cause. Plausible sources of Legionnaires' disease are cooling towers, industrial air scrubbers, irrigation systems or other aerosol-producing installations. This outbreak is considered to be a local event, but the affected area is within reach of popular tourist destinations.

#### Actions

ECDC is monitoring this event through epidemic intelligence and is liaising with national focal points to gather additional information on this event.

### Rubella – Multistate (EU) – Monitoring European outbreaks

Opening date: 7 March 2012

Latest update: 14 September 2018

#### Epidemiological summary

Sporadic cases are reported across EU/EEA countries. No outbreaks have been detected in the EU in 2018.

**Sources:** [ECDC monthly measles and rubella monitoring](#) | [ECDC rubella fact sheet](#) | [WHO rubella page](#) | [WHO global measles and rubella strategic plan](#)

#### ECDC assessment

WHO has targeted the elimination of measles and rubella in the 53 Member States of the WHO European Region. Member States of the WHO European Region are making steady progress towards the elimination of rubella. At the sixth meeting of the European Regional Verification Commission for Measles and Rubella Elimination (RVC) in June 2017, seven EU/EEA countries were judged to still have endemic transmission: Belgium, Denmark, France, Germany, Italy, Poland and Romania.

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

#### Actions

ECDC monitors the situation with rubella and reports on a monthly basis.

## West Nile virus - Multistate (Europe) - Monitoring season 2018

Opening date: 30 May 2018

Latest update: 14 September 2018

### Epidemiological summary

Between 7 and 13 September 2018, EU Member States reported 150 human West Nile virus infections: Romania (66), Italy (34), Greece (24), Hungary (21), Austria (3) and Bulgaria (2). EU neighbouring countries reported 56 cases: Serbia (24) and Israel (32).

In four areas, human cases were reported for the first time: Romania (2), Hungary (1) and Serbia (1). All other human cases were reported from areas that have been affected during previous transmission seasons.

This week, 19 deaths were reported by Romania (7), Greece (6), Italy (3) and Serbia (3).

In the same week, 46 outbreaks among equids were reported by Italy (26), Hungary (16), France (2), Greece (1) and Romania (1).

In 2018, as of 13 September 2018, EU Member States have reported 948 human cases: Italy (361), Greece (192), Romania (183), Hungary (155), Croatia (25), France (16), Austria (13), Bulgaria (2) and Slovenia (1). EU neighbouring countries reported 370 human cases: Serbia (286), Israel (81) and Kosovo\* (3). To date, 90 deaths due to West Nile virus infection have been reported by Serbia (29), Italy (21), Greece (19), Romania (19), Hungary (1) and Kosovo\* (1).

During the current transmission season, 163 outbreaks among equids have been reported by Italy (92), Hungary (58), Greece (9), France (2) and Romania (2).

In accordance with [European Commission Directive 2014/110/EU](#), prospective blood donors should defer for 28 days after leaving an area with evidence of West Nile virus circulation among humans unless the results of an individual nucleic acid test are negative.

\*This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the International Court of Justice Opinion on the Kosovo Declaration of Independence.

**Publications:** [An early start of West Nile virus seasonal transmission: the added value of One Health surveillance in detecting early circulation and triggering timely response in Italy, June to July 2018](#)

[Early start of the West Nile fever transmission season 2018 in Europe](#)

**ECDC links:** [West Nile fever](#) | [Atlas](#)

**Sources:** [TESSy](#) | [ADNS](#)

### ECDC assessment

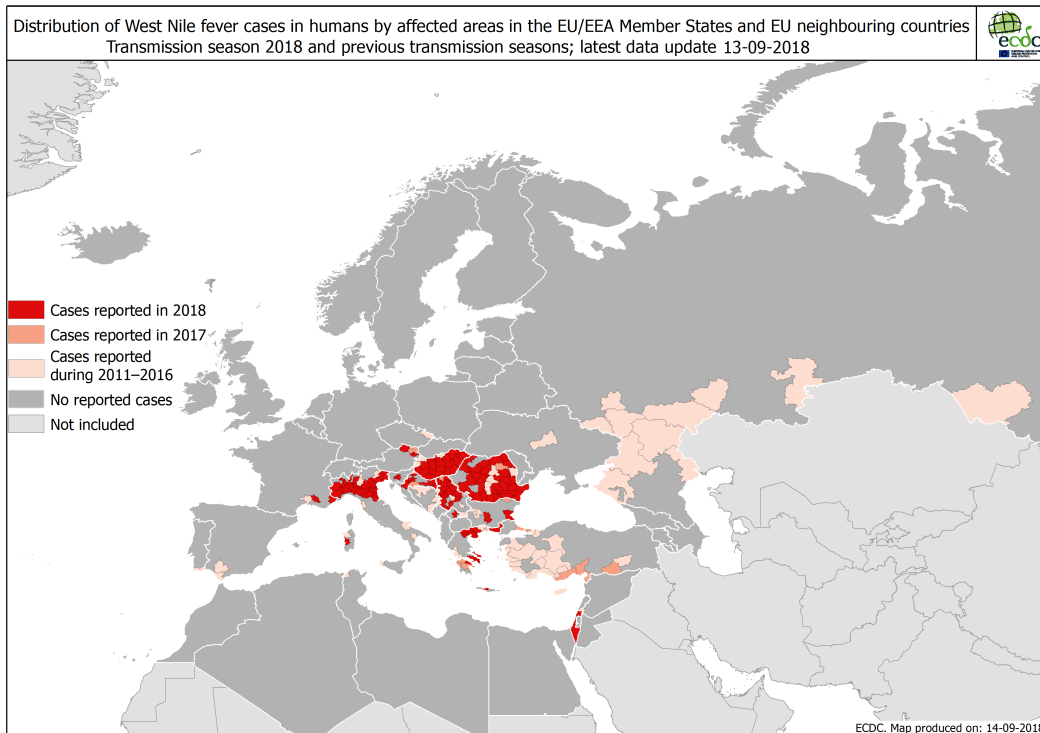
The 2018 transmission season started earlier than usual and higher case numbers have been reported than in the same period in previous years. All human cases reported during the current transmission season were reported in previously affected countries. Since it is currently a particularly intense transmission season for West Nile virus, precautionary measures for travellers and residents, mainly elderly and immunocompromised individuals, to affected areas must be highlighted.

### Actions

During the transmission season, ECDC publishes [West Nile fever maps](#) together with an epidemiological summary every Friday. ECDC published a rapid risk assessment on the '[Early large increase in West Nile virus infections in the EU/EEA and EU neighbouring countries](#)' on 13 August 2018 and an [epidemiological update on 31 August 2018](#).

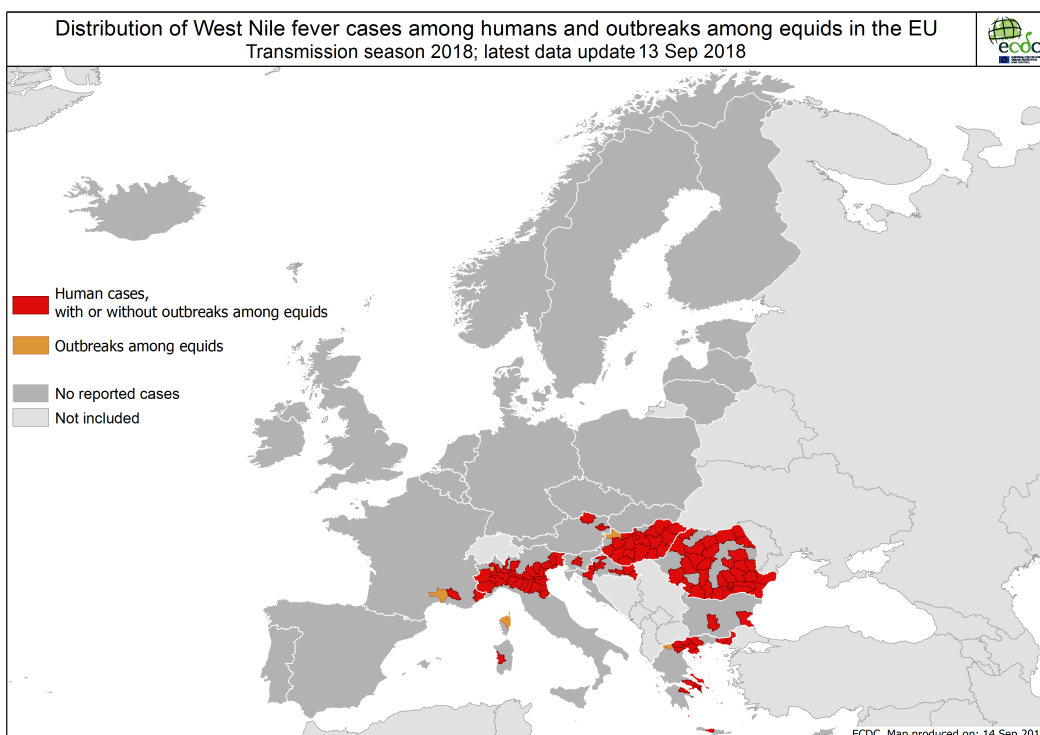
Distribution of human West Nile fever cases by affected areas as of 13 September 2018.

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Distribution of West Nile fever cases among humans and outbreaks among equids in the EU as of 13 September 2018.

TESSy and ADNS



Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011

Latest update: 14 September 2018

## Epidemiological summary

Since the previous monthly report on 11 August 2018, updates were provided for 12 EU/EFTA countries: Austria, Bulgaria, Germany, Greece, Hungary, Ireland, Poland, Romania, Slovakia, Spain, Sweden and Switzerland. Ongoing outbreaks have been reported from Greece, Ireland (Dublin), Romania and Slovakia. In 2018, 31 deaths were reported in EU countries.

Relevant updates outside EU/EFTA countries are provided for Moldova, Serbia, Ukraine, the Americas and Mauritius.

In 2018 and as of 10 September, most of the cases in the EU were reported from Romania (4 908) and Greece (2 285). Thirty-one deaths have been reported in 2018 from Romania (22), Italy (4), France (3) and Greece (2).

Outside EU/EFTA countries, Ukraine is experiencing the continuation of the largest outbreak with over 30 000 cases reported in 2018, including 13 deaths. A large ongoing outbreak has also been reported in Serbia with 5 725 cases and 15 deaths. Ongoing outbreaks are also reported in Moldova, the Americas and Mauritius.

### Epidemiological summary for EU/EFTA countries with updates since last month:

[Austria](#) reported 66 measles cases in 2018 as of 31 August 2018. This is an increase of 4 cases since 20 July 2018.

[Bulgaria](#) reported 9 cases of measles in 2018 as of 2 September 2018. This is an increase of two cases since the previous CDTR on 11 August 2018.

[Germany](#) reported 469 cases of measles in 2018 as of 19 August 2018. This is an increase of 39 cases since the previous CDTR on 11 August 2018.

[Greece](#) reported 2 285 cases in 2018 as of 6 September 2018, including two deaths. This is an increase of 5 cases since 9 August 2018. As of 6 September 2018 and since the beginning of the outbreak in May 2017, Greece has reported 3 253 measles cases, of 1 881 were laboratory-confirmed. Among the laboratory-confirmed cases, four deaths were reported.

[Hungary](#) reported 18 cases of measles in 2018 as of 2 September. This is an increase of one case since 10 June 2018, according to national reports.

[Ireland](#) reported 84 cases of measles in 2018 as of 1 September. This is an increase of 24 cases since the previous CDTR on 11 August 2018. Irish authorities informed on an ongoing outbreak in [Dublin](#) with 13 confirmed cases reported between mid-July and 22 August 2018.

[Poland](#) reported 116 cases of measles in 2018 as of 31 August 2018. This is an increase of 26 cases since the previous CDTR on 11 August 2018.

[Romania](#) reported 4 908 measles cases, including 22 deaths, in 2018 as of 7 September. This is an increase of 333 cases since the previous CDTR on 11 August 2018. Since the beginning of the outbreak in October 2016 and as of 7 September 2018, Romania has reported 15 187 confirmed measles cases, including 59 deaths.

[Slovakia](#) reported 428 cases of measles between 7 May to 31 August 2018, all from the ongoing outbreak in the districts of Michalovce and Sobrance. This is an increase of 98 cases since the previous CDTR on 11 August 2018.

[Spain](#) reported 207 confirmed measles cases in 2018 as of 2 September. Since the previous CDTR on 11 August 2018, this represents an increase of 16 cases across the country.

[Sweden](#) reported 33 cases of measles since the beginning of 2018 as of 6 September. No new cases have been reported since the previous CDTR on 11 August 2018.

[Switzerland](#) reported 28 cases as of 2 September. This is an increase of two cases since the previous CDTR on 11 August 2018.

### Relevant epidemiological summary for countries outside EU/EEA

[Serbia](#) reported 5 725 cases, including 15 deaths, between October 2017 and 7 September 2018. This is an increase of 15 cases since 3 August 2018. Of the reported cases, 2 881 were confirmed.

[Ukraine](#) reported 30 744 cases of measles in 2018 as of 11 September, including 13 deaths. This is an increase of 3 242 cases since the previous CDTR on 11 August 2018. Among the cases, 12 608 were adults and 18 136 were children. Most of the cases were reported from Lviv, Zakarpattia, Ivano-Frankivsk, Odessa, Kyiv and the Ternopil region.

[Moldova](#) reported 273 cases of measles in 2018 as of 6 September. Cases were reported from Ceadir-Lunga (146 cases), Vulcanesti (34), Ungheni (20), Taraclia (11), Cahul (11), Cantemir (8), Nisporeni (4), Hincesti (1) and Chisinau (1).

According to [WHO](#), during 2018 and as of 20 August, 11 countries reported 5 004 confirmed cases, including 68 deaths, in the Americas: Antigua and Barbuda (1), Argentina (8), Brazil (1 237 cases, including 6 deaths), Canada (19), Colombia (60), Ecuador (17), Guatemala (1), Mexico (5), Peru (4), the United States (107), and Venezuela (3 545 cases, including 62 deaths).

[Mauritius](#) reported 808 confirmed cases of measles as of 26 August 2018, including three deaths. This is an increase of 342 cases since the CDTR published on 11 August 2018. The most affected districts are Port Louis and Rivière Noire. The other districts that have attained epidemic threshold are Pamplémousses, Plaines Wilhems and Grand Port.

### ECDC assessment

Given the current extent of measles circulation in the EU/EEA, the trend in recent years and the fact that vaccination coverage for the first and second dose is suboptimal, there is a high risk of continued measles transmission with mutual exportation and importation between EU/EEA Member States and third countries. For a more complete assessment, consult ECDC's [Risk of measles transmission in the EU/EEA](#) published on 23 March 2018.

### Actions

ECDC is monitoring measles outbreaks through epidemic intelligence and reports monthly. ECDC also gathers measles surveillance data through The European Surveillance System (TESSy) for 30 EU/EEA countries.

## New! Monkeypox - the United Kingdom ex Nigeria - 2018

Opening date: 12 September 2018

Latest update: 14 September 2018

### Epidemiological summary

On 8 September 2018, the UK reported the first-ever case of [monkeypox](#) detected in the UK. The case is a resident of Nigeria, which is where the individual is believed to have contracted the infection before travelling to the UK.

On 11 September 2018, the UK reported an additional case of monkeypox. The patient is currently being treated in a high consequence infectious disease facility at the Royal Liverpool Hospital. On 4 September 2018, the case arrived in the UK after recent travel to Nigeria for holidays.

Since the re-emergence of monkeypox in Nigeria in September 2017, the [Nigeria Centre for Disease Control \(CDC\)](#) continues to receive reports and responds to cases across the country. Between September 2017, when the outbreak started, and 31 August 2018, 262 suspected cases were reported from 26 states. Of these, 113 were confirmed in 16 states with seven deaths. The highest number of cases was reported from states in the South South Region of Nigeria.

**Sources:** [Public Health England \(PHE\)](#) | [WHO](#) | [Nigeria CDC](#)

### ECDC assessment

Two imported cases of monkeypox within this timeframe are unusual. Additional details on the travel and exposure history of these two cases is necessary in order to assess the situation. The risk for further spread and to the general population is very low as monkeypox does not spread easily between people.

### Actions

ECDC is in daily contact with PHE and monitors this event through epidemic intelligence.

## Ebola virus disease - tenth outbreak - Democratic Republic of the Congo - 2018

Opening date: 1 August 2018

Latest update: 14 September 2018

### Epidemiological summary

As of 12 September 2018, there have been 137 Ebola virus disease cases (106 confirmed, 31 probable), including 92 deaths (61

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confirmed, 31 probable) since the beginning of the outbreak.

One recent case is a man who had presented with Ebola symptoms at a health centre in August, but refused treatment at that time. His blood samples tested negative for Ebola virus, but his sperm sample was positive. During his recovery, his wife had visited him and later showed symptoms. She was confirmed as positive for Ebola in Mandima.

Eight health zones in two provinces have reported confirmed and probable Ebola virus disease cases: Mabalako, Beni, Butembo, Oicha, Masereka, Kalungata and Musienene health zones in North Kivu Province and Mangina health zone in Ituri Province.

**Response activities:** According to the European Civil Protection and Humanitarian Aid Operations (ECHO), as of 11 September 2018, 1 828 contacts have been identified (533 in Mabalako, 639 in Beni, 168 in Mandima, 294 in Butembo and 194 in Masereka) and 89.8% of these contacts were followed up.

According to ECHO, 8 444 people have been vaccinated (3 613 in Mabalako, 2 533 in Beni, 1 307 in Mandima, 150 in Katwa, 121 in Oicha, 56 in Kinshasa, 220 in Masereka and 444 in Butembo) and 2 930 Ebola vaccines are still available.

**Travel:** According to the WHO disease outbreak news (DON) released on 14 August 2018, Burundi, Central African Republic, Rwanda, South Sudan, Uganda and Zambia are implementing [entry screening](#).

In EU/EEA countries, [Belgium](#), [Germany](#), [Italy](#) and [Spain](#) have issued advice against traveling to the North Kivu region due to the Ebola outbreak. Additionally, the [US CDC](#) and [WHO](#) have issued travel recommendations.

**Sources:** [Ministry of Health of the Democratic Republic of the Congo](#) | [WHO](#)

## ECDC assessment

Four cases have been confirmed in the city of Butembo. These cases are of concern as this city of more than 1 million inhabitants is a commercial and travel hub between the DRC and Uganda. The situation has the potential for new chains of transmission if not rapidly controlled.

Due to the security situation and humanitarian crisis in North Kivu Province, implementation of outbreak control measures may be challenging. The risk of introduction of the virus via an infected traveller to the EU/EEA is considered very low at this stage.

Transport routes linking the affected areas to other regions in the DRC and several neighbouring countries (mainly Rwanda and Uganda) may facilitate the spread of the virus. The situation is aggravated by the displacement of people due to conflict and crisis. According to [WHO](#), the public health risk is considered high at the national and regional levels.

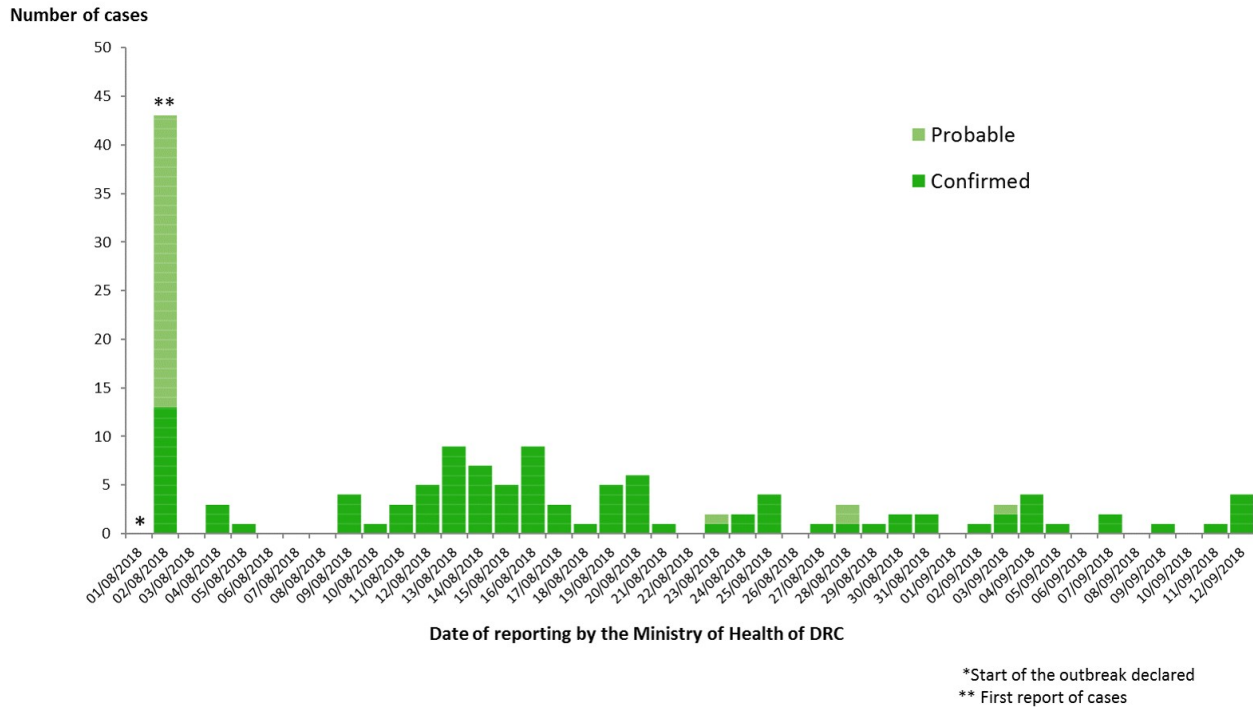
## Actions

ECDC is monitoring this threat on a daily basis through epidemic intelligence. ECDC published a [rapid risk assessment](#) on 9 August 2018.



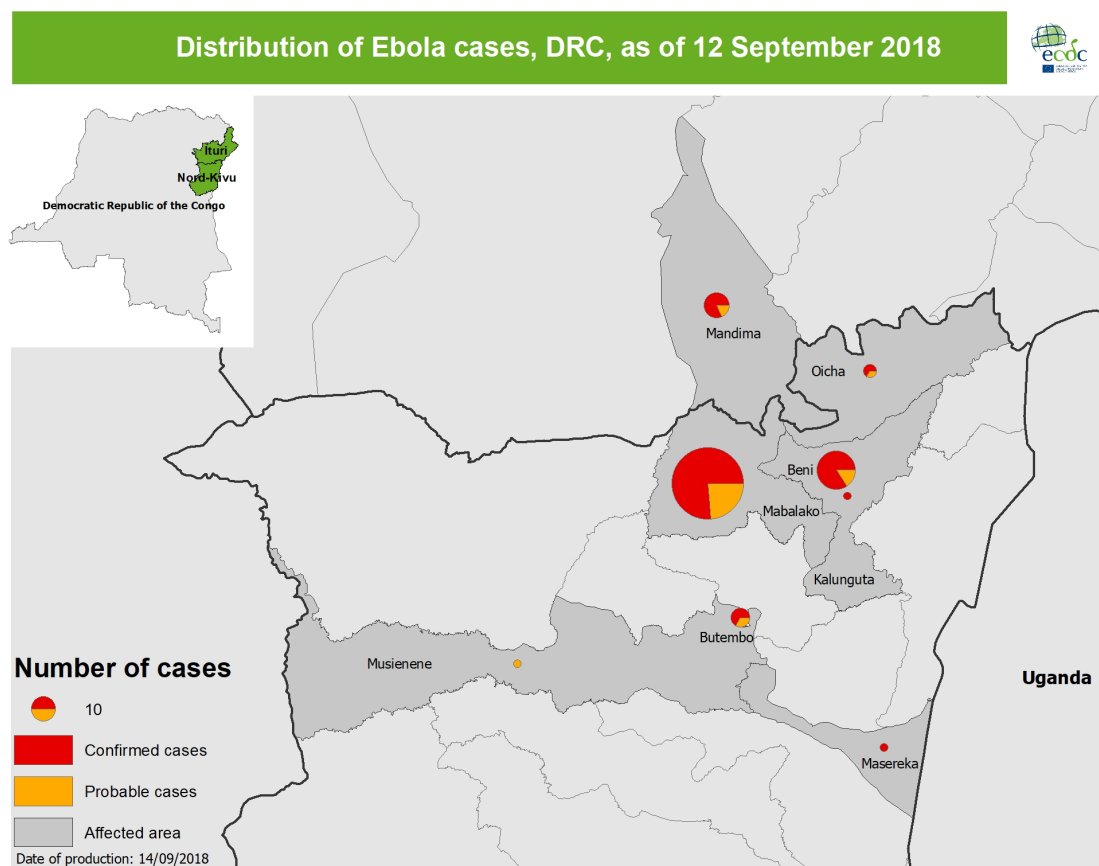
Distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 12 September 2018

Epicurve adapted from DRC MOH data



## Geographical distribution of confirmed and probable cases of Ebola virus disease, North Kivu and Ituri Provinces, Democratic Republic of the Congo, as of 12 September 2018

ECDC



## Cholera - Algeria - 2018

Opening date: 27 August 2018

Latest update: 14 September 2018

### Epidemiological summary

According to the Institut Pasteur in Algiers, as of 5 September 2018 and since the beginning of the outbreak, 217 suspected cholera cases including two deaths (CFR: 0.9%) have been reported in Algeria. Among these cases, 83 have been confirmed. However, as these cases are pending confirmation by the Algerian Ministry of Health (MoH), they are not displayed on the figures attached to this document.

The Algerian Ministry of Health published a breakdown of cases on 30 August 2018, when 74 cases were confirmed. At that time, six areas were affected and reported confirmed cases: Blida (39 cases, including two deaths), Tipaza (15), Algiers (15), Bouïra (3), Médéa (1) and Aïn Defla (1).

The Institut Pasteur in Algiers confirmed the identification of *Vibrio cholerae* O1 serotype Ogawa in human samples. It also confirmed the presence of *Vibrio cholerae* in samples from a natural water source in Sidi el Kebir, located in the village of Hamr Al

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Ain in the wilayah of Tipaza. According to the Ministry of Health, health authorities have taken corrective measures and closed down this source.

**Source:** [Algerian Ministry of Health](#), [Institut Pasteur Algeria](#)

### ECDC assessment

Due to the number of cases and the geographical extension of the outbreak, additional cases are expected to be reported.

The risk of infection is very low for EU/EEA travellers to and residents in Algeria who follow correct preventive hygiene measures. The risk of importation into the EU/EEA is very low and risk of spread within the EU is negligible because of the high sanitation and hygiene standards in the EU/EEA and availability of appropriate healthcare. Travellers should seek advice from travel medicine clinics in order to assess their personal risk. According to WHO, vaccination should be considered for travellers at higher risk such as emergency and relief workers who are likely to be directly exposed. Vaccination is generally not recommended for other travellers.

Adhering to suitable preventive hygiene measures plays a key role in the prevention of the infection. Visitors cholera-affected areas should only drink bottled, boiled or chlorinated water, regularly wash their hands (especially before eating), carefully wash all fruits and vegetables with bottled, boiled or chlorinated water before consumption, eat well-cooked food and avoid consuming ice cubes, ice cream and raw or undercooked seafood products.

### Actions

ECDC is monitoring this event through epidemic intelligence and published a [rapid risk assessment](#) on 7 September 2018. Additionally, ECDC has published a [news item](#) about this threat.

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