

This weekly bulletin provides updates on threats monitored by ECDC.

## I. Executive summary

### EU Threats

#### Influenza - Multistate (Europe) - Monitoring 2013-2014 season

Opening date: 4 October 2013

Latest update: 20 December 2013

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic pattern, with peak activity seen during winter months. ECDC monitors influenza activity in Europe during the winter seasons and publishes the results on its website in the Weekly Influenza Surveillance Overview.

→Update of the week

During week 52/2013, all 11 reporting countries recorded low-intensity influenza activity. Since week 40/2013 there has been no evidence of sustained influenza activity in Europe.

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

Opening date: 7 March 2012

Latest update: 28 November 2013

Rubella, caused by the rubella virus and commonly known as German measles, is usually a mild and self-limiting disease and is an infection 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.

→Update of the week

No new outbreaks detected during the past month.

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

Opening date: 9 February 2011

Latest update: 24 October 2013

Measles, a highly transmissible vaccine-preventable disease, is still endemic in many EU countries in which vaccination uptake remains below the level required to interrupt the transmission cycle. ECDC monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe on a monthly basis through enhanced surveillance and epidemic intelligence activities. Elimination of measles requires consistent vaccination uptake above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures.

→Update of the week

No new large outbreaks have been reported in the EU since the previous measles report one month ago. The outbreak in the Netherlands is still ongoing with more than 2 500 cases reported as of 2 January 2014.

## Non EU Threats

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### Middle East respiratory syndrome- coronavirus (MERS CoV) - Multistate

Opening date: 24 September 2012

Latest update: 19 December 2013

Since April 2012, 176 laboratory-confirmed cases, including 74 deaths, of acute respiratory disease caused by Middle East respiratory syndrome coronavirus (MERS-CoV), have been reported by national health authorities. To date, all cases have either occurred in the Middle East, have had direct links to a primary case infected in the Middle East, or have returned from the Middle East. The source of the virus remains unknown but the pattern of transmission points towards an animal reservoir in the Middle East from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission has occurred between close contacts and in hospital settings, but there is no evidence of sustained transmission among humans. MERS-CoV is genetically distinct from the coronavirus that caused the SARS outbreak.

#### →Update of the week

Since the previous CDTR, the United Arab Emirates reported the death of an earlier reported case and a new asymptomatic case, the wife of the deceased man. She is reported to have no history of contact with animals and no travel history. She is currently in hospital under isolation. Other contacts have been screened and are negative for MERS-CoV.

On 29 December 2013, the Ministry of Municipal Affairs and Agriculture, Qatar, reported to OIE that the camels which tested positive for MERS-CoV with a NAAT (PCR), now test negative with the same test. The infected camels have been linked in time and space to a human MERS-CoV in Qatar.

### Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 19 December 2013

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, the outbreak has affected 14 Chinese provinces, causing 148 cases of human infection, including 47 deaths. Since October 2013, 13 cases have been reported from: Taiwan (one case), Hong Kong (two cases), Zhejiang province (five cases) and Guangdong province (five cases). Most cases are unlinked and sporadic zoonotic transmission from poultry to humans is the most likely explanation of the outbreak. Sustained person-to-person transmission has not been documented.

#### →Update of the week

On 31 December 2013, Taiwan reported its second confirmed case of imported avian influenza H7N9. The case, an 86-year-old man resident in Jiangsu province on mainland China, arrived in Taiwan on 17 December 2013. He first developed symptoms on 19 December, and was hospitalised on 23 December where he receives assisted ventilation.

### Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 2 January 2014

Polio, a crippling and potentially fatal vaccine-preventable disease that mainly affects children, is close to being eradicated as a result of global public health efforts. Polio remains endemic in three countries: Afghanistan, Pakistan and Nigeria, and there are currently outbreaks ongoing in five countries: Cameroon, Somalia, Syria, Ethiopia and Kenya.

#### →Update of the week

Since the previous ECDC update, nine new wild poliovirus 1 (WPV1) cases have been reported to WHO from Pakistan.

### Chikungunya outbreak - The Caribbean, 2013

Opening date: 9 December 2013

Latest update: 19 December 2013

On 6 December 2013, France reported two laboratory-confirmed autochthonous cases of chikungunya in the French part of the Caribbean island of Saint Martin. Since then, local transmission has been confirmed in the Dutch part of Saint Martin, on Martinique, Saint Barthélemy and Guadeloupe. This is the first documented outbreak of chikungunya with autochthonous transmission in the Americas.

#### →Update of the week

During the past week, additional confirmed cases have been reported from Saint Martin (33), Martinique (5), Saint Barthélemy (9), Guadeloupe (2) and French Guyana (1 case imported from Martinique).

## II. Detailed reports

### Influenza - Multistate (Europe) - Monitoring 2013-2014 season

Opening date: 4 October 2013

Latest update: 20 December 2013

#### Epidemiological summary

In week 52/2013, all 11 reporting countries recorded low-intensity influenza activity and all, except one, reported stable or decreasing trends. Of 46 sentinel specimens tested across seven countries, six (13%) were positive for influenza viruses.

Due to the low level of reporting during the Christmas holidays, a comprehensive report on general influenza activity in Europe cannot be provided.

On 24 December the US CDC issued a health advisory to clinicians regarding reports of 'severe respiratory illness among young and middle-aged adults in November and December 2013, many of whom were infected with influenza A(H1N1) pdm09 (pH1N1) virus. Multiple pH1N1-associated hospitalisations, including many requiring intensive care unit (ICU) admission, and some fatalities have been reported. The pH1N1 virus that emerged in 2009 caused more illness in children and young adults, compared to older adults, although severe illness was seen in all age groups. While it is not possible to predict which influenza viruses will predominate during the entire 2013-14 influenza season, pH1N1 has been the predominant circulating virus so far. For the 2013-14 season, if pH1N1 virus continues to circulate widely, illness that disproportionately affects young and middle-aged adults may occur.'

Web sources: [WISO](#) | [ECDC Seasonal influenza](#) | [US-CDC health advisory](#) | [CDC Seasonal influenza](#)

#### ECDC assessment

Since the start of the 2013-2014 influenza surveillance in week 40/2013, there has been no evidence of sustained influenza activity in Europe.

#### Actions

ECDC will continue to produce the weekly influenza surveillance overviews during the northern hemisphere influenza season.

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

Opening date: 7 March 2012

Latest update: 28 November 2013

#### Epidemiological summary

There have been large outbreaks of rubella in Romania and Poland during 2012 and 2013. The outbreak in Romania resulted in 22 cases of congenital rubella syndrome (CRS), nine of which were fatal. The epidemiology of rubella in these countries reflects the history of their national rubella immunisation policies and predominantly affects gender and age groups not previously targeted by rubella immunisation programmes.

**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

As rubella is typically a mild and self-limiting disease with few complications, the rationale for eliminating rubella would be weak if it were not for the virus' teratogenic effect. When a woman is infected with the rubella virus within the first 20 weeks of pregnancy, the foetus has a 90% risk of being born with congenital rubella syndrome (CRS), which entails a range of serious incurable illnesses. The increase in the number of rubella cases reported in Romania and Poland and the number of babies born with CRS are cause for concern.

#### Actions

ECDC closely monitors rubella transmission in Europe by analysing the cases reported to the European Surveillance System and through its epidemic intelligence activities on a monthly basis. Twenty-four EU and two EEA countries contribute to the enhanced rubella surveillance. The purpose of the enhanced rubella monitoring is to provide regular and timely updates on the rubella situation in Europe in support of effective disease control, increased public awareness and the achievement of the 2015 rubella and congenital rubella elimination target.

An ECDC report is available online: [Survey on rubella, rubella in pregnancy and congenital rubella surveillance systems in EU/EEA countries](#)

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

Opening date: 9 February 2011

Latest update: 24 October 2013

### Epidemiological summary

#### EU Member States

##### The Netherlands

The ongoing measles outbreak in the Netherlands started in May 2013, and as of 1 January 2014, 2 543 cases have been reported. A 17-year-old girl died due to complications of measles. During the past week 63 new cases were reported including eight hospitalisations. The newly reported cases are spread across multiple regions. Most cases are unvaccinated (95%) and in the age group 4-12 years (58%). There have been 15 health workers among the cases since the beginning of the outbreak. Of these, 10 are unvaccinated, two are vaccinated with two doses and three have received one dose.

Web sources: [ECDC measles and rubella monitoring](#) | [ECDC/Euronews documentary](#) | [WHO Epidemiological Briefs](#) | [MedISys Measles page](#) | [EUVAC-net ECDC](#) | [ECDC measles factsheet](#)

#### ECDC assessment

There have been several large outbreaks in the EU during 2013. The largest outbreaks have been in Wales and the Netherlands. In the EU neighbourhood, outbreaks with several thousand cases affecting Georgia and Turkey gave cause for concern.

The target year for measles elimination in Europe is 2015. The current situation suggests that endemic measles transmission continues in many EU Member States and the prospect of achieving the 2015 objective is diminishing.

## Middle East respiratory syndrome- coronavirus (MERS CoV) - Multistate

Opening date: 24 September 2012

Latest update: 19 December 2013

### Epidemiological summary

As of 3 January 2014, 176 laboratory-confirmed cases of MERS-CoV have been reported by local health authorities worldwide, including 74 deaths. The following countries have reported MERS-CoV cases:

Saudi Arabia: 141 cases / 57 deaths  
United Arab Emirates: 11 cases / 4 deaths  
Qatar: 7 cases / 4 deaths  
Oman: 1 case / 1 death  
Kuwait: 2 cases / 0 deaths  
Jordan: 2 cases / 2 deaths  
UK: 4 cases / 3 deaths  
Germany: 2 cases / 1 death  
France: 2 cases / 1 death  
Italy: 1 case / 0 deaths  
Tunisia: 3 cases / 1 death

[Oman News Agency](#) quoting a Ministry of Health official, reported the death of a 59-year-old Omani man who died on 30 December and tested positive for MERS-CoV. This case is not yet confirmed by WHO. It is therefore not included in the above distribution.

Twelve cases have been reported from outside the Middle East: in the UK (4), France (2), Tunisia (3), Germany (2) and Italy (1). In France, Tunisia and the United Kingdom, there has been local transmission among patients who have not been to the Middle East but have been in close contact with laboratory-confirmed or probable cases. Person-to-person transmission has occurred both among close contacts and in healthcare facilities. However, with the exception of a possible nosocomial outbreak in Al-Ahsa, Saudi Arabia, secondary transmission has been limited. Sixteen asymptomatic cases have been reported by Saudi Arabia and two by the United Arab Emirates (UAE).

The 4th meeting of the IHR Emergency Committee concerning MERS-CoV was held on 4 December 2013. The Committee concluded that there was no reason to change its previous advice to the Director-General. Their unanimous decision was that the conditions for a Public Health Emergency of International Concern (PHEIC) have not at present been met.

Based on events since its last meeting, the Committee emphasised the need for:

- investigative studies, including international case-control, serological, environmental, and animal-human interface studies, to better understand risk factors and the epidemiology
- further review and strengthening of such tools such as standardised case definitions and surveillance, and further emphasis on infection control and prevention.

**Web sources:** [ECDC's latest rapid risk assessment](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [WHO travel health update](#) | [WHO Euro MERS updates](#) | [CDC MERS](#) | [Saudi Arabia MoH](#) | [Eurosurveillance article 26 September](#) | [Oman MoH](#) |

## ECDC assessment

The source of MERS-CoV infection and the mode of transmission have not been identified, but the continued detection of cases in the Middle East indicates that there is an ongoing source of infection in the region. There is therefore a continued risk of cases presenting in Europe following exposure in the Middle East, and surveillance for MERS-CoV cases is essential.

The risk of secondary transmission in the EU remains low and could be reduced further through screening for exposure among patients presenting with respiratory symptoms and their contacts, and strict implementation of infection prevention and control measures for patients under investigation.

## Actions

ECDC's latest [epidemiological update](#) was published on 25 November 2013.

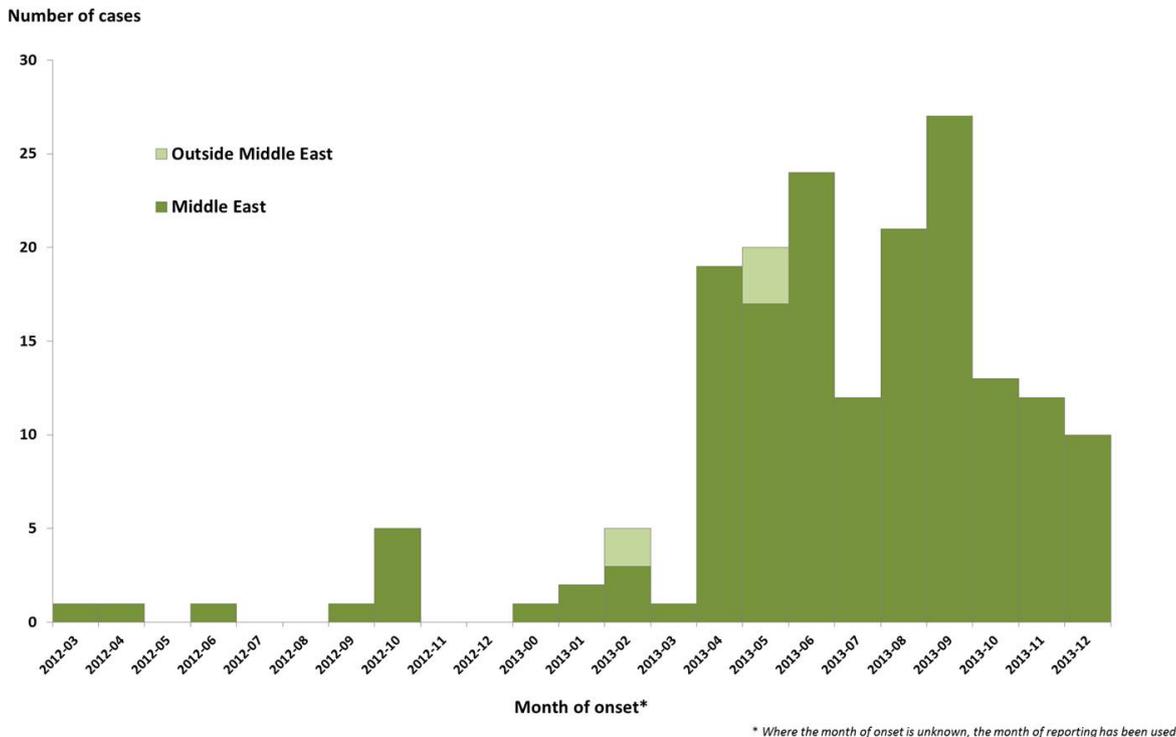
The latest update of a [rapid risk assessment](#) was published on 7 November 2013.

The first 133 cases are described in [EuroSurveillance](#) published on 26 September 2013.

ECDC is closely monitoring the situation in collaboration with WHO and EU Member States.

## Distribution of confirmed cases of MERS-CoV by month and place of probable infection, March 2012 - December 2013 (n=176)

ECDC



## Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 19 December 2013

### Epidemiological summary

In March 2013, Chinese authorities announced the identification of a novel reassortant A(H7N9) influenza virus in patients in eastern China. Since then, 148 cases of human infection with influenza A(H7N9) have been reported from: Zhejiang (51 cases), Shanghai (34), Jiangsu (27), Henan (4), Anhui (4), Beijing (2), Shandong (2), Fujian (5), Hunan (3), Jiangxi (5), Hebei (1), Guangdong (6), Hong Kong (2) and Taiwan (2). In addition, the virus has been detected in one asymptomatic case in Beijing. Most cases have developed severe respiratory disease. Forty-seven patients have died (case-fatality ratio=32%). The median age is 61 years, ranging from three to 91 years; 42 of 148 patients are female, with gender being unknown in five cases.

Thirteen cases have been reported in China since October 2013. Ten of these cases have occurred in previously affected provinces (Zhejiang and Guangdong), two cases have been reported in Hong Kong and one case in Taiwan. Both cases in Hong Kong and the case in Taiwan have visited mainland China prior to falling ill.

**Web sources:** [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [OIE](#) | [Chinese MOA](#) | [Hong Kong NHFPC](#) | [Hong Kong government news release](#) | [WHO DON](#) | [Taiwan CDC](#)

### ECDC assessment

Influenza A(H7N9) is a zoonotic disease that has spread in poultry in parts of eastern China, causing severe disease in humans. There is no evidence of sustained person-to-person transmission. Close to 3 000 contacts have been followed-up, and only a few are reported to have developed symptoms, as part of three small family clusters. Many unanswered questions remain regarding this disease, e.g. the reservoir, the route of transmission, the spectrum of disease and the reason for an unusual age-gender imbalance.

Authorities in China have employed strict control measures including closing live poultry markets and culling poultry in affected areas. Following these measures, the number of reported cases has dropped. It is not possible to determine at this point whether these new cases, reported since October, mark the resurgence of the outbreak. ECDC's earlier risk assessment remains valid.

EU citizens travelling and living in China are strongly advised to avoid live bird markets. The risk of the disease spreading to

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Europe via humans is considered low. However, it is not unlikely that people presenting with severe respiratory infection in the EU and a history of potential exposure in the outbreak area will require investigation in Europe.

## Actions

The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation including scientific research.

ECDC is closely monitoring developments.

ECDC published an updated [Rapid Risk Assessment](#) on 8 May 2013.

ECDC guidance for [Supporting diagnostic preparedness for detection of avian influenza A\(H7N9\) viruses in Europe](#) for laboratories was published on 24 April 2013.

## Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 2 January 2014

### Epidemiological summary

#### **Worldwide**

As of 31 December 2013, 369 cases of poliomyelitis have been notified to WHO compared with 218 for the same period in 2012. All cases were due to WPV1. Eight countries have recorded cases in 2013: Somalia (183), Nigeria (51), Pakistan (83), Kenya (14), Afghanistan (11), Ethiopia (6), Syria (17) and Cameroon (4).

#### **Israel**

Although no case of paralytic polio has been reported, environmental surveillance suggests that WPV1 transmission, first detected in February 2013, continues in parts of southern and central Israel. WPV1-positive samples were also detected in the occupied Palestinian territory (three sites).

#### **Syria**

No new WPV1 cases were reported in the past week. The total number of WPV1 cases remains 17. Prior to the outbreak, wild poliovirus was last reported in Syria in 1999. Genetic sequencing indicates that the isolated viruses are most closely linked to the virus detected in environmental samples in Egypt in December 2012 (which in turn has been linked to wild poliovirus circulating in Pakistan). The strain is also closely related to the wild poliovirus strains that have been detected in environmental samples in Israel and the occupied Palestinian territory since February 2013. A comprehensive outbreak response is being implemented across the region.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#) | [WHO mission to Israel](#) | [Somalia Humanitarian Bulletin](#)

### ECDC assessment

Europe is polio free. The last polio cases within the current EU borders were reported from Bulgaria in 2001. This was an imported outbreak and it was demonstrated that the WPV originated from India. The latest outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases. The last indigenous WPV case in the WHO European Region was in Turkey in 1998. An outbreak in the Netherlands in a religious community opposed to vaccinations caused two deaths and 71 cases of paralysis in 1992.

The recent detection of WPV in environmental samples in Israel and the confirmed and ongoing outbreaks in Syria and Somalia highlight the risk of re-importation into Europe. Recommendations are provided in the recent ECDC risk assessments:

[Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA](#)

[Wild-type poliovirus 1 transmission in Israel – what is the risk to the EU/EEA?](#)

## Actions

ECDC follows reports on polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of re-introduction of wild poliovirus into the EU.

Due to the current situation of polio, the threat will be followed weekly.

## Chikungunya outbreak - The Caribbean, 2013

Opening date: 9 December 2013

Latest update: 19 December 2013

### Epidemiological summary

Reported cases as of 31 December 2013:

**Saint Martin (FR):** according to the most recent update from the *Antilles Guyane* regional health agency (France), there are now 89 PCR-confirmed cases and 20 IgM-positive cases (probable cases). Saint Martin has previously reported 167 suspected cases but it is not clear from the report how many of them have been re-classified as confirmed and probable cases. Two cases have required admission to hospital.

**Saint Martin (NL):** One confirmed case of chikungunya on the Dutch part of the island.

**Martinique:** Eight confirmed cases.

**French Guyana:** One confirmed case imported from Martinique.

**Guadeloupe:** Three confirmed cases.

**Saint Barthélemy:** Nine of 11 investigated suspected cases have been laboratory confirmed. One of the cases originated in Martinique.

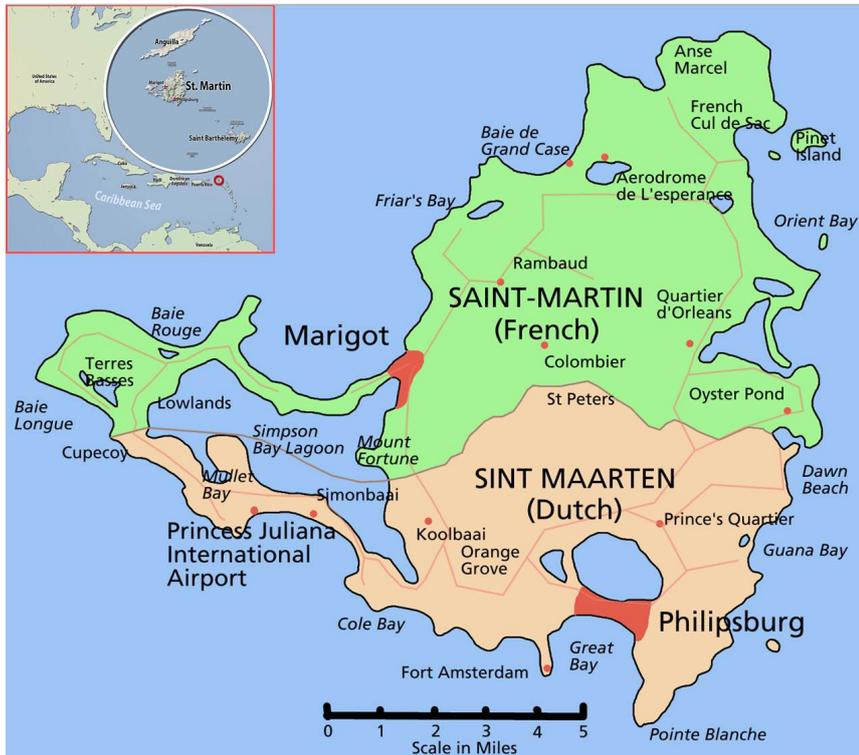
### ECDC assessment

Recent developments add support to the conclusions in the [ECDC risk assessment published on 12 December](#), stating that there is a high risk of chikungunya spreading in the Caribbean region. The vector is endemic in the regions where it also transmits dengue virus. The Christmas peak in the Caribbean tourist season calls for vigilance for imported cases of chikungunya in the EU, including awareness among clinicians, travel clinics and blood safety authorities.

### Actions

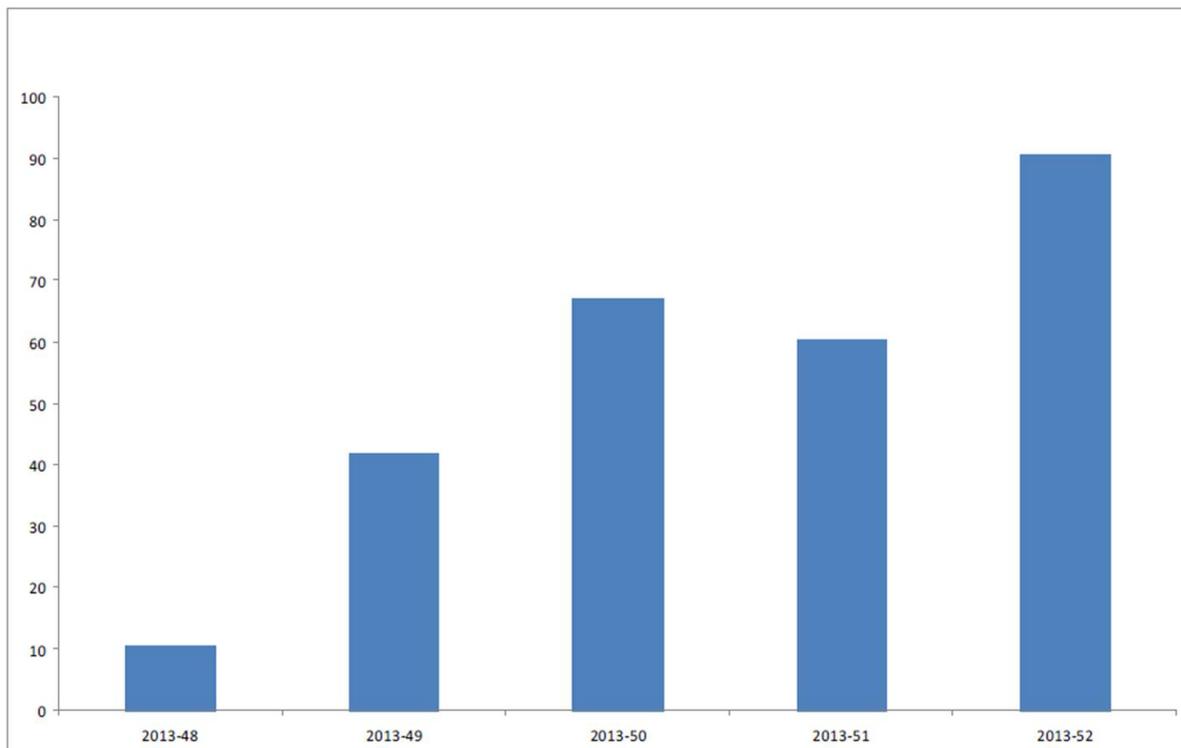
ECDC published a [rapid risk assessment](#) on 12 December 2013 and an [epidemiological update](#) on 20 December.

Saint Martin island



Distribution of suspected chikungunya cases by week of reporting, Saint Martin (French part)

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