COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 14, 2-8 April 2017

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Hepatitis A outbreaks in the EU/EEA mostly affecting MSM – 2016/2017

Opening date: 12 December 2016 Latest update: 7 April 2017

Since February 2016, 331 confirmed hepatitis A cases infected with three distinct strains of sub-genotype IA virus have been reported by 13 EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. Most cases are reported among adult men who have sex with men (MSM), with only 16 women affected. The main prevention measure in the context of the current outbreaks is the recommendation of hepatitis A vaccination for MSM. The ECDC guidance document 'HIV and STI prevention among men who have sex with men' encourages Member States to offer and promote vaccination of MSM against hepatitis A. In addition, information on vaccine availability should be included in health promotion programmes that target MSM (e.g. information at MSM sex venues). ECDC published an update of its rapid risk assessment on 23 February 2017.

➔Update of the week

From the beginning of 2017 and until 31 March, Portugal reported 115 hepatitis A cases of which 107 were laboratory confirmed. The majority of the cases (97%) are adult males and 58 cases were hospitalised. Of the 107 laboratory confirmed cases, 55 were sequenced, and 53 were found identical to the strain VRD_521_2016. One isolate from an imported case was found with identical sequence to the cluster RIVM-HAV16-090. Canada reported three cases with RIVM-HAV16-090 genotype.

Multidrug-resistant tuberculosis in migrants – Multistate (Europe) – 2016/2017

Opening date: 18 November 2016 Latest update: 7 April 2017

A cluster of multidrug-resistant tuberculosis (MDR TB) identified through whole genome sequencing (WGS) was notified to ECDC in December 2016. Cases were asylum seekers, mainly from Somalia, Eritrea, Ethiopia and Sudan. As of 7 April 2017, 28 cases have been reported from Germany (14), Switzerland (8), Austria (2), Finland (1), France (2) and Sweden (1).

➔Update of the week

In the past week, the suspected cases from France (2) have been confirmed by WGS as part of the cluster.

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Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 7 April 2017

A measles outbreak in Romania has been ongoing since February 2016 and cases continue to be reported despite ongoing response measures that have been implemented at national level through reinforced vaccination activities. Between September 2016 and 31 March 2017, Romania reported 4 025 cases.
In 2016, a number of EU/EEA countries reported measles outbreaks, and an increase in the number of cases continues to be observed in 2017. Previous and ongoing measles outbreaks in other EU countries have been epidemiologically linked to the current outbreak in Romania. However, additional knowledge (e.g. genotypic characterisation of the virus) is needed to carry out a successful epidemiological investigation.

➔Update of the week
In Europe, measles cases have been reported in Austria, Belgium, Bulgaria, Denmark, France, Germany, Hungary, Iceland, Italy, Portugal, Spain and Sweden as well as in Romania, where 4 025 cases have been reported as of 31 March 2017.

Influenza – Multistate (Europe) – Monitoring 2016/2017 season

Opening date: 13 October 2016 Latest update: 7 April 2017

Influenza transmission in Europe shows a seasonal pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the Flu News Europe website.

➔Update of the week
During week 13/2017, influenza activity across the region continued to decrease with all countries reporting low intensity of influenza activity.

Non EU Threats

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013 Latest update: 7 April 2017

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 6 April 2017, 1 364 cases have been reported to WHO, including at least 497 deaths. No autochthonous cases have been reported outside China. Most cases are isolated, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak. Since week 40/2016, 566 cases were reported, representing a significant increase compared to previous seasons.

➔Update of the week
Since the last update, 57 additional cases in China have been reported by WHO.

Yellow fever – South America – 2016/2017

Opening date: 16 January 2017 Latest update: 7 April 2017

Yellow fever is a mosquito-borne viral infection present in some tropical areas of Africa and South America.

In South America, there are two transmission cycles of yellow fever:
- A sylvatic cycle, involving transmission of the virus between *Haemagogus* or *Sabethes* mosquitoes and primates. The virus is transmitted by mosquitoes from primates to humans when humans are visiting or working in the forest.
- An urban cycle, involving transmission of the virus between *Aedes aegypti* mosquitoes and humans. The virus is usually introduced in an urban area by a viraemic human who was infected in the forest.

Brazil has been experiencing an outbreak of yellow fever since December 2016. The outbreak was notified on 6 January 2017. From the beginning of the year to 3 April 2017, the World Health Organization (WHO) has also reported cases in Bolivia, Colombia, Ecuador, Peru and Suriname.

➔Update of the week
Between 23 March and 5 April 2017, Brazil has reported 90 additional confirmed cases and has discarded 459 suspected cases of yellow fever.

According to WHO, yellow fever virus transmission is expanding towards the Atlantic coast in areas previously not at risk. WHO has updated the yellow fever vaccination recommendations for international travellers to Brazil, expanding to more than 150 new municipalities in the state of Bahia including Salvador, urban areas of Campinas in the state of São Paulo, and the entire state of Rio de Janeiro.

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Increase in travel-associated Legionnaires' disease – Dubai, UAE – 2016/2017

Opening date: 10 November 2016 Latest update: 7 April 2017

The ECDC ELDSNet surveillance scheme on travel-associated Legionnaires' disease (TALD) has observed an increase in the number of Legionnaires' disease cases associated with travel to Dubai, United Arab Emirates (UAE), in the past few months. Since October 2016, ten EU Member States as well as Switzerland have reported 50 confirmed cases with a history of travel to Dubai.

➔Update of the week

No new cases were detected in the past week.

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II. Detailed reports

Hepatitis A outbreaks in the EU/EEA mostly affecting MSM – 2016/2017

Opening date: 12 December 2016 Latest update: 7 April 2017

Epidemiological summary

Since February 2016 and as of 6 April 2017, Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, the Netherlands, Portugal, Spain, Sweden and the United Kingdom reported 331 hepatitis A cases related to three simultaneously ongoing clusters.

Event 1, cluster VRD_521_2016, was reported though the Epidemic Intelligence Information System for Food and Waterborne diseases and zoonoses (EPIS-FWD) on 6 December 2016 by the United Kingdom. As of 6 April 2017, ten EU Member States have reported 115 cases. Of these, 107 (93%) are male, and 54 of these identify themselves as MSM.

Event 2, cluster RIVM-HAV16-090, was initially reported through the Early Warning and Response System (EWRS) on 14 October 2016 by the Netherlands who later reported the same event through EPIS-FWD on 31 January. The first two Dutch cases reported visiting the EuroPride festival in Amsterdam between 23 July and 7 August 2016. As of 6 April 2017, nine EU Member States have reported 146 cases, of which 142 (97%) are male and 90 identify themselves as MSM.

Event 3, cluster V16-25801, was reported through EPIS-FWD on 11 January 2017 by Germany. Eight EU Member States have reported 36 cases, of which 32 are male and 13 identify themselves as MSM.

Two countries, Portugal and Belgium, advised of additional cases among MSM and/or men through the Early Warning and Response System, for which the information on genetic sequence is not yet available and which are under investigation.

ECDC assessment

The main prevention measure in the context of the current outbreaks is hepatitis A vaccination of MSM. The ECDC guidance document 'HIV and STI prevention among men who have sex with men' encourages Member States to offer and promote vaccination of MSM against hepatitis A. Information on vaccine availability should be included in health promotion programmes targeting MSM, particularly at sex venues. Where hepatitis A vaccination is not universally offered to MSM or uptake is low, the following groups could be prioritised for vaccination:

• MSM travelling to destinations reporting outbreaks of hepatitis A among MSM;
• MSM living in areas of ongoing outbreaks;
• MSM at risk of severe outcomes from hepatitis A infection, for example those with hepatitis B and/or hepatitis C virus infection, and those who inject drugs.

To improve monitoring, Member States are encouraged to share microbiological and epidemiological details of new cases as well as questionnaires used during outbreak investigations through the Epidemic Intelligence Information System for Food and Waterborne Diseases and Zoonoses (EPIS-FWD).

Actions

ECDC published an updated rapid risk assessment on this threat on 23 February. ECDC is currently supporting an EU investigation that aims to describe the full extent of the European outbreak and to identify main risk factors for transmission.

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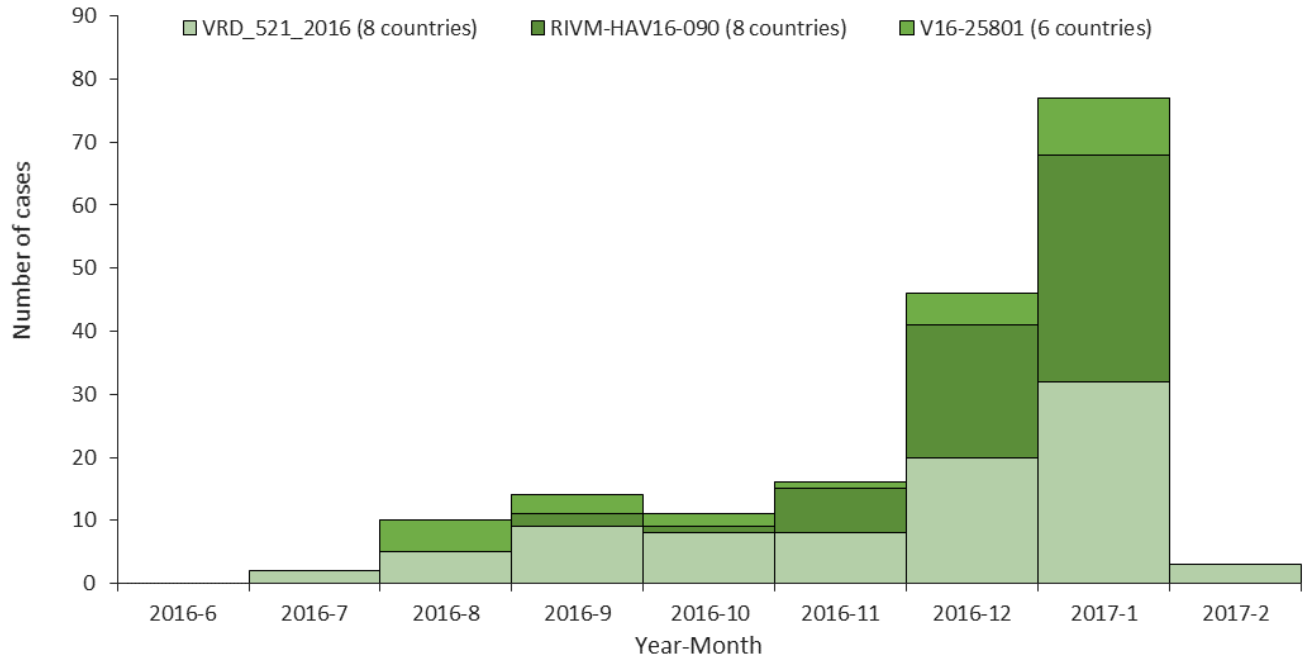
Distribution of hepatitis A cases by month of report and genetic sequence, June 2016–February 2017, EU/EEA (n=179)

ECDC RRA



Multidrug-resistant tuberculosis in migrants – Multistate (Europe) – 2016/2017

Opening date: 18 November 2016 Latest update: 7 April 2017

Epidemiological summary

In December 2016, Switzerland initially reported to the European Commission a cluster of seven MDR TB cases in newly arrived migrants from Somalia (5 cases), Eritrea (1 case) and Ethiopia (1 case). The Commission informed the Member States through an Early Warning and Response System (EWRS) message. In response to the EWRS notification, Germany, Austria, Finland, France and Sweden reported cases linked to this cluster by WGS. Switzerland later reported an eighth case. As of 7 April 2017, isolates from 28 cases are part of the WGS cluster and are reported from Germany (14), Switzerland (8), Austria (2), France (2), Finland (1) and Sweden (1). All cases have a recent history of migration from Somalia (24), Eritrea (2), Sudan (1) and Ethiopia (1). A preliminary analysis of the interviews with cases in Switzerland shows that most cases reported symptoms at arrival or before, suggesting that transmission did not likely occur in Switzerland. Six of the refugees had a long stay in Bani Waleed (Libya) where the conditions seem to be favourable for TB transmission. Bulgaria, Croatia, Cyprus, Denmark, Estonia, Hungary, Greece, Italy, Latvia, Luxembourg, Malta, Poland, Portugal and Romania have not reported cases with corresponding MIRU-VNTR 24 loci and/or a DST profile belonging to this cluster.

ECDC assessment

According to the latest WHO TB Report, the incidence of TB in Somalia was around 274 cases per 100 000 population in 2015. MDR TB was found in 8.7% of new TB cases, and in 47.0% of previously treated TB cases in Somalia. According to the International Organization of Migration (IOM), 2.1% of the refugees in Europe (i.e. about 10 000 people) are from Somalia.

Multi-country outbreak investigations coordinated by ECDC are focusing on identifying exposure risk factors including the travel itinerary and history of possible contacts among patients in this single-strain outbreak of MDR TB. Although the limited number of cases detected so far suggests a restricted event, more cases may be expected in association with this cluster. Sharing WGS-based typing information between affected countries on outbreak-related cases is important to delineate the extent of the outbreak.

The rate of TB in a foreign-born population does not have a significant impact on TB in the native population in the EU/EEA. Therefore, while there remains a risk of additional cases being detected among refugees, the risk of transmission to EU/EEA

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resident populations is very low.

Actions

ECDC is coordinating the international investigations. The Centre focuses on identifying exposure risk factors, which includes the analysis of travel itineraries and the results of contact tracing. A teleconference on this issue was held on 29 March 2017. ECDC published an updated rapid risk assessment on its website on 27 March 2017.

Measles – Multistate (EU) – Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 7 April 2017

Epidemiological summary

Austria

Since the beginning of 2017 and as of 6 April, Austria reported 72 cases of measles, which exceeds the cumulative number of cases reported in 2016.

Belgium

Since 20 December 2016 and as of 31 March 2017, Wallonia reported 266 measles cases. The outbreak affects all provinces of Wallonia, with the exception of the province of Luxembourg. All age groups are affected and 53% of cases are over 15 years. Most of the cases were not vaccinated or did not know their vaccination status. Nearly 40% were hospitalised. No deaths have been reported. The same genotype, B3, similar to the strain found in Romania, Italy and Austria at the end of 2016, has been identified. The index case of the epidemic travelled to Romania during incubation period. In Flanders, one isolated imported case was reported in January and another one in March, with possible links to a cluster in Wallonia. In the Brussels Capital Region, one isolated imported case was reported in February and two cases were notified in March without known links to the epidemic in Wallonia. Both imported cases had a travel history to Romania during incubation period, and the national reference centre for measles, mumps and rubella (WIV-ISP) identified genotype B3, which is the same strain found in Romania, Italy and Austria at the end of 2016.

Bulgaria

Since mid-March 2017 and as of 7 April 2017, Bulgaria reported 30 cases of measles in the city of Plovdiv. This is an increase of 21 cases since the last report.

Denmark

On 15 March 2017, Denmark reported an imported case of measles in an unvaccinated adult who was infected during holidays in Asia.

France

Since the beginning of 2017, France has reported measles cases in several departments. As of 28 February 2017, France reported 79 cases, mainly related to an outbreak in Lorraine with more than 50 cases until end of February. Two cases had encephalitis and seven severe pneumonia. The virus is circulating in several departments and Moselle and Meurthe-et-Moselle are currently the most affected areas, with 61 cases as of 13 March 2017.

Germany

According to the national public health institute, since the beginning of 2017 and as of 12 March 2017, Germany reported 272 cases, an increase by 37 cases compared with the previous update. In the same period in 2016, Germany reported 18 cases. According to the media, Duisburg reported 165 cases since the beginning of the year and as of 31 March.

Hungary

Between 21 February 2017 and 8 March 2017, Hungary reported 13 cases of measles among healthcare workers. Media reports 41 cases compatible with measles as of 13 March.

Iceland

On 31 March, Iceland reported two cases of measles in two 10-month-old unvaccinated twin siblings. The first case was diagnosed 10 days before the second case. This is the first time in about quarter of a century that measles infection has occurred in Iceland.

Italy

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Since the beginning of 2017 and as of 4 April 2017, Italy reported 1 333 cases of measles, with 131 cases among healthcare workers. The cases are reported from 19 of the 21 regions in Italy. A majority of the cases (93%) are from Piedmont, Lazio, Lombardy, Tuscany, Abruzzi and Sicily. Most of the cases are above 15 years and 88% of the cases were not vaccinated.

Portugal
On 31 March, Portugal reported one imported case from Venezuela and another unrelated case, an 11-month-old baby, most likely infected by a family member living in another EU country, visiting Portugal. Following these cases, on 7 April Portugal reported three additional cases.

Romania
Between 1 January 2016 and 31 March 2017, Romania reported 4 025 cases of measles, including 18 deaths. Cases are either laboratory-confirmed or have an epidemiological link to a laboratory-confirmed case. Infants and young children are the most affected population. In Romania 37 of the 42 districts report cases. The most affected is Caras Severin in the west part of the country, at the border with Serbia, with 854 cases. Vaccination activities are ongoing in order to cover communities with suboptimal vaccination coverage.

Spain
An outbreak started in the first week of January due to an imported measles case from China. As of 10 March, Barcelona and its metropolitan area reported 35 confirmed cases of measles. The cases are mostly adults who were either incompletely vaccinated or unvaccinated. Two of the cases are children, and six cases were hospitalised. A first case in three years was detected on the Canary Islands in a tourist.

Sweden
Since the beginning of 2017 and as of 21 March 2017, Sweden reported 15 cases of measles, including three imported cases.

Switzerland
Since the beginning of 2017 and as of 21 March 2017, Switzerland reported 52 cases of measles. In February 2017, a vaccinated man died of measles in Switzerland. He was undergoing strong immunosuppressive treatment for leukaemia, which explains why the measles vaccination did not protect him. This is the first measles death in Switzerland since 2009.

ECDC assessment

Measles outbreaks continue to occur in EU/EEA countries, and there is the risk of spread and sustained transmission in areas with susceptible populations. The national vaccination coverage remains less than 95% for the second dose of MMR in the majority of EU/EEA countries. The progress towards elimination of measles 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 measles. At the fifth meeting of the RVC for Measles and Rubella in October 2016, of 53 countries in the WHO European Region, 24 (15 of which are in EU/EEA) were declared to have reached the elimination goal for measles, and an additional 13 countries (nine in the EU/EEA) were concluded to have interrupted endemic transmission for between 12 and 36 months, meaning they are on their way to achieving the elimination goal. However, six EU/EEA countries were judged to still have endemic transmission of measles: Belgium, France, Germany, Italy, Poland and Romania.

Source: WHO - Europe

Actions

ECDC has prepared a Rapid Risk Assessment published on 6 March 2017. ECDC monitors measles transmission and outbreaks in the EU/EEA on weekly basis through enhanced surveillance and epidemic intelligence activities.

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Distribution of cases of measles by vaccination status 31/03/2017

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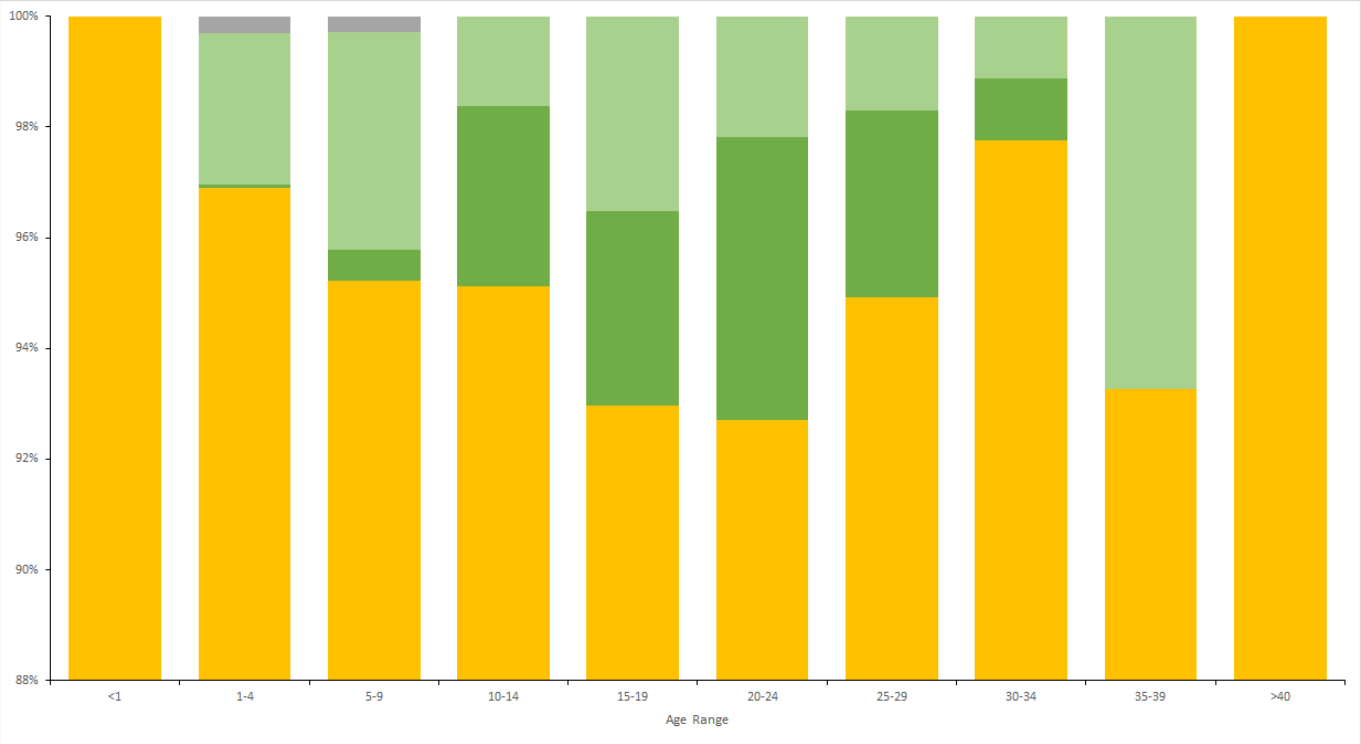

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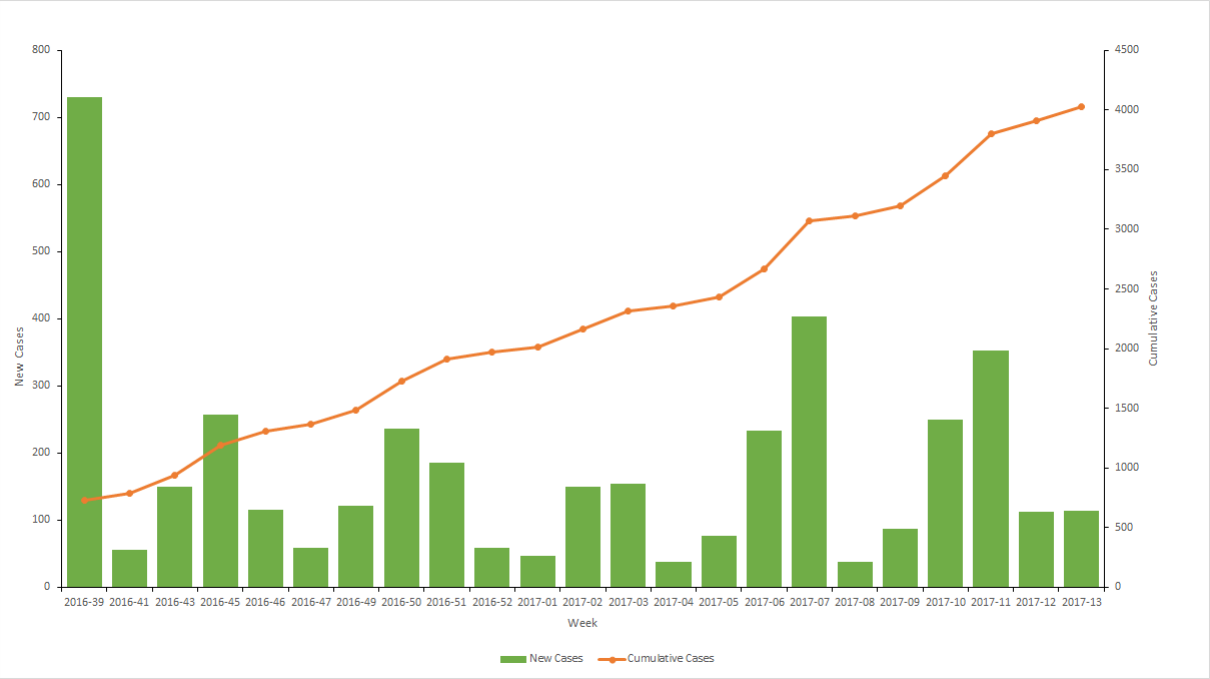
New measles cases per week of reporting, week 2016-39 to 2017-13, Romania

ECDC



Influenza – Multistate (Europe) – Monitoring 2016/2017 season

Opening date: 13 October 2016 Latest update: 7 April 2017

Epidemiological summary

Week 13/2017 (20–26 March 2017)

During week 13/2017, influenza activity across the region continued to decrease with all countries reporting low intensity of influenza activity, and the proportion of influenza virus detections (16%) among sentinel surveillance specimens lower than the previous week. This was the third week during the season that the proportion of type B viruses exceeded the proportion of type A viruses in sentinel detections. However, the overall number of type B virus detections remained low.

Season overview

Influenza activity started early this season in week 46/2016, which is the earliest week that the overall influenza-positivity rate in sentinel specimens reached 10% since the emergence of A(H1N1)pdm09 viruses in 2009/2010. Since week 40/2016, influenza A viruses have predominated, accounting for 94% of all sentinel detections. The great majority (99%) of subtyped influenza A viruses from sentinel sites being A(H3N2). Confirmed cases of influenza virus type A infection reported from hospitals have predominantly been in adults aged over 65 years. Excess all-cause mortality has been observed substantially in people aged

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15–64 years and markedly in people aged 65 years or older in the majority of the 19 reporting countries. This is commonly seen when the predominant viruses circulating are A(H3N2). Two-thirds of the A(H3N2) viruses genetically characterised belong to a recently emerged genetic subclade (3C.2a1). However, viruses that were antigenically characterised are largely similar to the clade 3C.2a vaccine virus. Recent vaccine effectiveness estimates for all age groups against A(H3N2) illness from Canada (42%), the US (43%) and Europe (38%) are consistent with estimates from Stockholm county (28%) and Finland (32%) earlier in the season. Given typically suboptimal vaccination coverage and the partial effectiveness of influenza vaccines, rapid use of neuraminidase inhibitors (NAIs) for laboratory-confirmed or probable cases of influenza infection should be considered for vaccinated and non-vaccinated patients at risk of developing complications. Only one A(H3N2) virus (<1%) has shown reduced susceptibility to oseltamivir this season.

ECDC assessment

Influenza activity started early this season in week 46/2016, which is the earliest week that the overall influenza-positivity rate in sentinel specimens reached 10% since the emergence of A(H1N1)pdm09 viruses in 2009/10. The progression of the season confirms the conclusions of ECDC's risk assessment published on 25 January 2017.

Actions

ECDC monitors influenza activity in Europe during the winter season and publishes its weekly report on the Flu News Europe website. Risk assessments for the season are available on ECDC website and on WHO Regional Office for Europe website.

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013 Latest update: 7 April 2017

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, and up to 6 April 2017, 1 364 cases have been reported to WHO, including at least 497 deaths. The A(H7N9) outbreak shows a seasonal pattern. The first wave in spring 2013 (weeks 7/2013–40/2013) included 135 cases; 320 cases were reported during the second wave (weeks 41/2013–40/2014), 224 cases were reported during the third wave (weeks 41/2014–40/2015), and 119 were reported in wave four (weeks 41/2015–40/2016). A fifth wave started in October 2016 (week 41/2016), with 566 cases as of 30 March 2017.

The 1 364 cases were reported from Zhejiang (302), Guangdong (256), Jiangsu (241), Fujian (104), Anhui (93), Hunan (81), Shanghai (56), Jiangxi (49), Guangxi (28), Hubei (28), Hong Kong (21), Henan (18), Guizhou (16), Shandong (14), Beijing (11), Sichuan (11), Xinjiang (10), Taiwan (5), Hebei (4), Liaoning (3), Chongqing (2), Jilin (2), Macau (2), Tianjin (2), Yunnan (2). Three imported cases were reported: one in Malaysia and two in Canada.

Sources: Chinese CDC | WHO |WHO FAQ page | ECDC | Hong Kong CHP

ECDC assessment

This is the fifth winter season in the northern hemisphere with human cases caused by A(H7N9) infections. During this wave, the number of human cases has been higher than in previous waves. This is most likely due to greater environmental contamination in live bird markets and increased circulation of the virus among poultry.

In February 2017, a new A(H7N9) virus with mutations in the haemagglutinin gene – indicating high pathogenicity in poultry – was detected in three cases related to Guangdong, as well as in environmental and poultry samples. It is unclear at the moment if the newly emerged, highly pathogenic avian influenza (HPAI) virus A(H7N9) will replace the low-pathogenic virus or if both will co-circulate in the bird population. Although the genetic changes in A(H7N9) may have implications for poultry in terms of pathogenicity, surveillance and control strategies, there is no evidence to date of increased transmissibility to humans or sustainable human-to-human transmission.

The continued transmission of A(H7N9) to humans in China poses the risk that sporadic imported cases may be detected in Europe. The following options for prevention and control of the infection should be considered:
-people travelling to China should avoid direct exposure to poultry and refrain from visiting live poultry markets or backyard farms;
-travellers who have visited affected areas and develop respiratory symptoms and fever upon their return should consult a physician and mention their recent travel history to enable early diagnosis and treatment.
In addition, travellers who have visited affected areas should avoid entering farms for the entire duration of the 10-day incubation period (and during the symptomatic period in the event that they develop symptoms) in order to prevent a possible virus introduction to poultry in the EU. The possibility of humans infected with A(H7N9) returning to the EU/EEA cannot be excluded.

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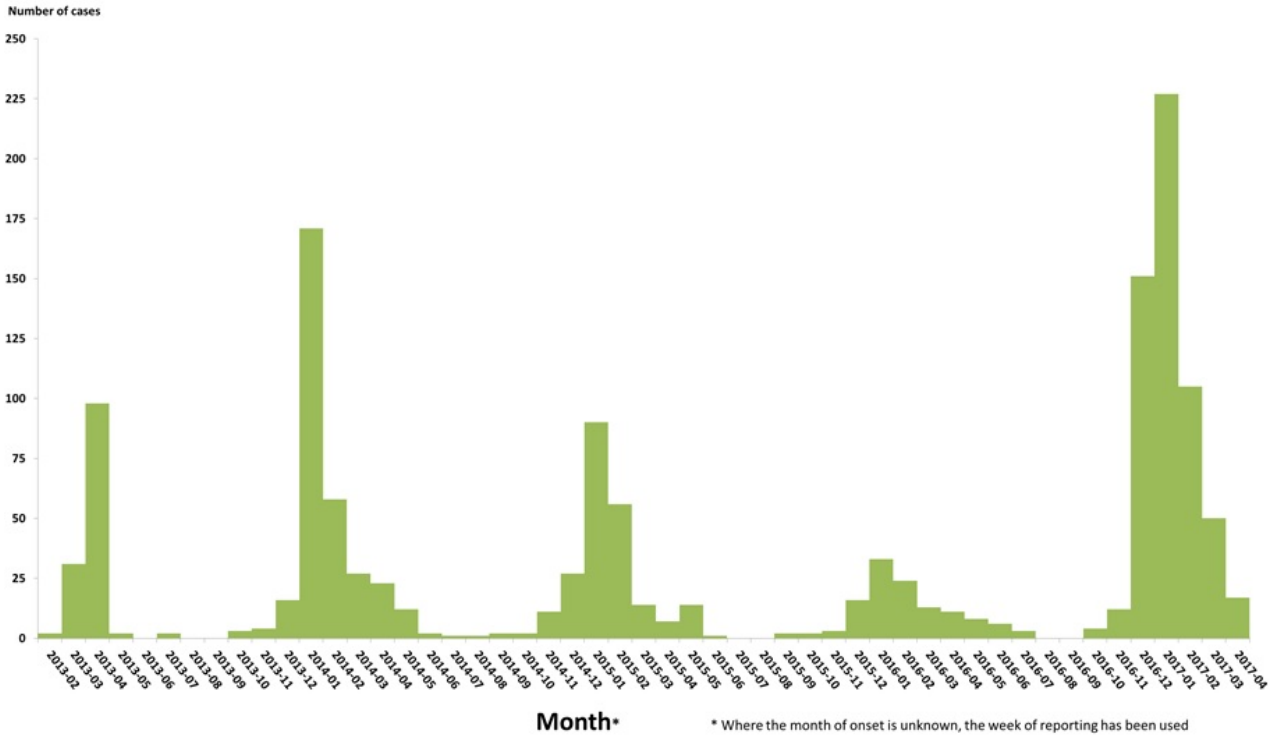
However, the risk of the disease spreading within Europe via humans is still considered low, as there is no evidence of a sustained human-to-human transmission.

Actions

ECDC published a sixth update of the Rapid Risk Assessment on 9 March 2017, addressing the genetic evolution of influenza A (H7N9) virus in China and the implications for public health.

Distribution of confirmed cases of A(H7N9) by first available month, February 2013 to 3 April 2017 (n=1 364)

ECDC



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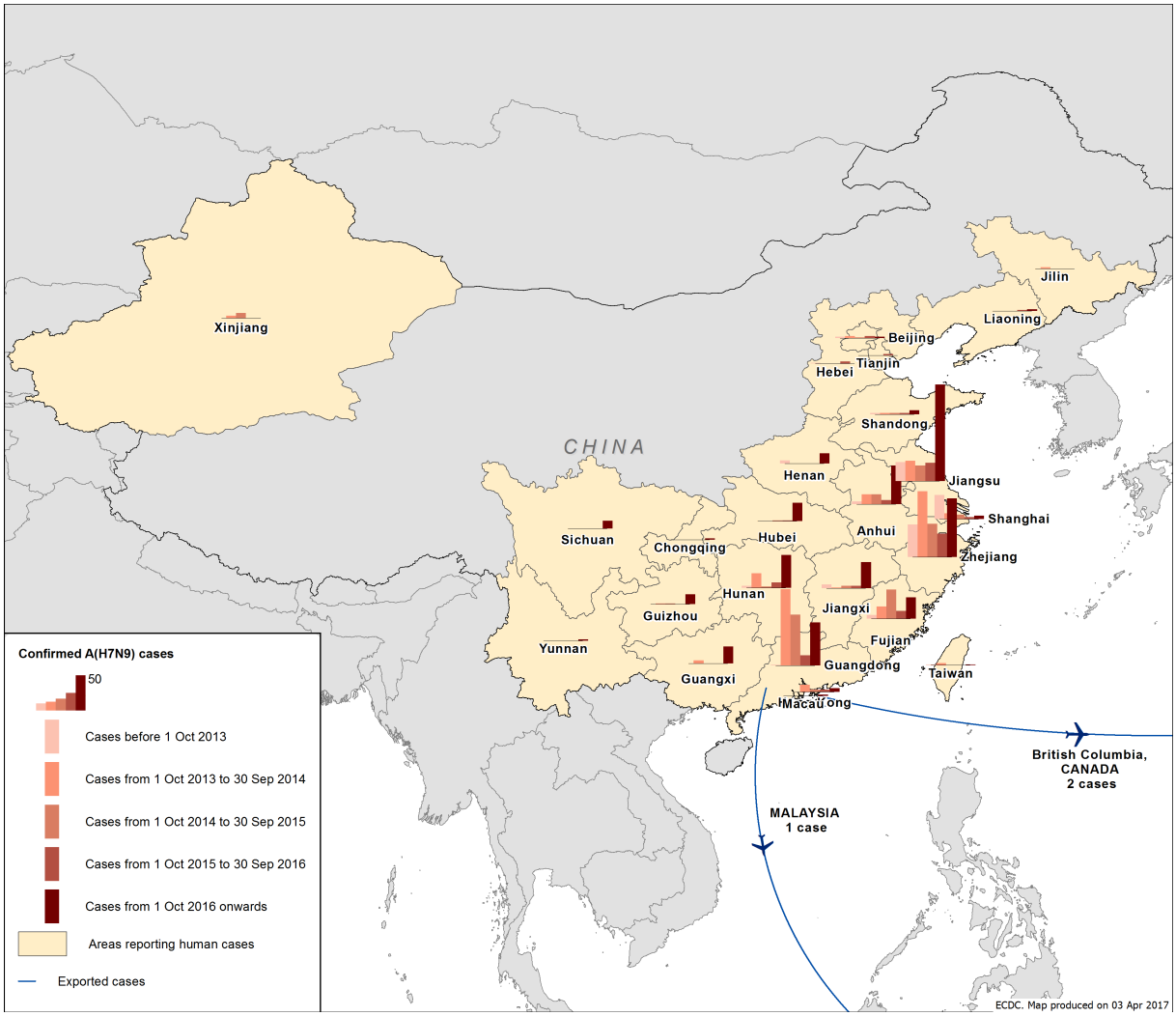
Distribution of confirmed cases of A(H7N9) by place of reporting and season (February 2013 to 6 April 2017)

ECDC



Yellow fever – South America – 2016/2017

Opening date: 16 January 2017 Latest update: 7 April 2017

Epidemiological summary

Brazil:
Between 6 January and 5 April 2017, Brazil has reported 1 036 cases (450 suspected and 586 confirmed), including 239 deaths (49 suspected and 190 confirmed).

States reporting suspected and confirmed autochthonous cases:
- Minas Gerais has reported 713 cases (287 suspected and 426 confirmed), including 176 deaths (38 suspected and 138 confirmed).
- Espírito Santo has reported 240 cases (98 suspected and 142 confirmed), including 49 deaths (six suspected and 43 confirmed).
- Rio de Janeiro has reported 28 cases (19 suspected and nine confirmed), including two deaths (one suspected and one confirmed).
- São Paulo has reported 13 cases (eight suspected and five confirmed), including five deaths (one suspected and four

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confirmed).
- Pará has reported nine cases (five suspected and four confirmed), including five deaths (one suspected and four confirmed).

States reporting suspected autochthonous cases:
The following states have reported suspected cases: Paraná (9), Bahia (8), Santa Catarina (6), Rio Grande do Sul (4), Amapá (1), Distrito Federal (1), Goiás (1), Mato Grosso (1), Mato Grosso do Sul (1) and Tocantins (1). Two suspected deaths were reported in Santa Catarina (1) and Tocantins (1).

Other countries in South America:
From week 1 to 13 of 2017, five other countries have reported suspected or confirmed cases of yellow fever: Bolivia (1), Colombia (1), Ecuador (1), Peru (9) and Suriname (1).

Sources: Brazil MoH | PAHO | WHO vaccination recommendations

ECDC assessment

The ongoing outbreak should be carefully monitored, as the establishment of an urban cycle of yellow fever would have the potential to quickly affect a large number of people. EU/EEA citizens who travel to, or live in, areas where there is evidence of yellow fever virus transmission should check their vaccination status and obtain medical advice about being vaccinated against yellow fever. In Europe, *Aedes aegypti*, the primary vector of yellow fever in urban settings, is present in Madeira. Recent studies have shown that *Aedes albopictus* can potentially transmit the yellow fever virus. However, the risk of the virus being introduced into local competent vector populations in the EU through viraemic travellers from Brazil is considered to be very low, as the current weather conditions in Europe are not favourable for vector activity.

Actions

ECDC closely monitors this event in collaboration with the World Health Organization. ECDC published a rapid risk assessment on the outbreak of yellow fever in Brazil on 26 January 2017 and a rapid risk assessment on yellow fever among travellers returning from South America on 15 March 2017. ECDC is also producing a map for travel advice.

Increase in travel-associated Legionnaires' disease – Dubai, UAE – 2016/2017

Opening date: 10 November 2016 Latest update: 7 April 2017

Epidemiological summary

As of 6 April 2017, 50 TALD cases with a history of travel to Dubai within two to ten days prior to illness and with onset since 1 October 2016, have been reported to ECDC by EU Member States and one European Free Trade Association (EFTA) country. Forty-five cases associated with commercial accommodation sites were reported through the ELDSNet TALD surveillance scheme and five cases associated with private accommodation sites in Dubai were reported by the United Kingdom (UK). Cases were reported by the United Kingdom (24 cases), Sweden (6), the Netherlands (5), Denmark (4), France (3), Germany (3), Austria (1), Belgium (1), Hungary (1), Spain (1)and Switzerland (1).

Nine of forty-five cases (20%) spent time in another location in UAE or in a country other than their home country during their incubation period. One of the notified cases is reported as a fatal case.
All cases are laboratory confirmed. Thirty-eight were diagnosed with a urinary antigen test (UAT), four with PCR, five with both UAT and PCR, and three by culture, UAT and PCR. Three of the cases had their infection further characterised as *Legionella pneumophila* serogroup 1, sequence base type 616, and one as *Legionella pneumophila* serogroup 1, sequence base type 2382. Sequence base type 616 is uncommon in Europe and has been associated with other Legionnaires' disease cases returning from Dubai in previous years. While sequence base type 2382 is the first such identification worldwide and appears to be closely-related to type 616.
The UAE authorities have informed ECDC that there was no increase observed in statutory notifiable pneumonia cases in Dubai during the period October to December 2016.

ECDC assessment

Cases continue to be reported with onset of symptoms in recent weeks, indicating that there is a persistent source of *Legionella* exposure common to travellers with a history of travel to Dubai. However, it cannot be ruled out that some of these travellers may have acquired their infection elsewhere if their travel stay in Dubai was shorter than the range of the incubation period. The increase in cases observed between October 2016 and March 2017 is above that observed in previous years.

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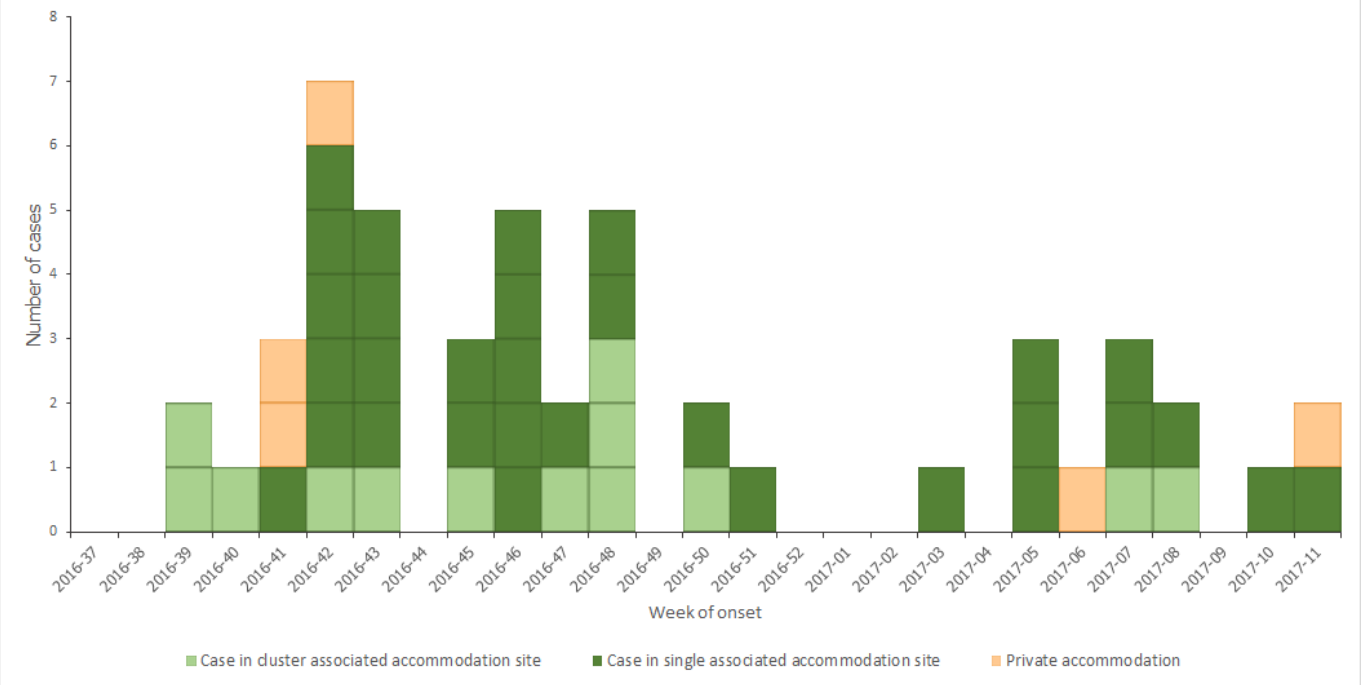
Link to ECDC CDTR web page – including related PowerPoint© slides

Actions

ECDC monitors this event through ELDSNet. ECDC is collating supplementary case questionnaires and is in contact with EU Member States, the ELDSNet network, WHO and UAE for information sharing. ECDC posted an epi-update on 7 April 2017. ECDC published a rapid risk assessment on 23 December 2016 and shared an updated rapid risk assessment with the European Commission and EU Member States on 13 January 2017. The conclusions of the RRA remain valid.

Distribution of TALD cases with history of stay in Dubai (UAE), by week of onset and accommodation site clustering, weeks 37/2016–11/2017, and as of 6 April 2017 (excluding one case with accommodation site unknown)

ECDC



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

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