COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 9, 25 February-3 March 2018

All users

This weekly bulletin provides updates on threats monitored by ECDC.

NEWS

Antimicrobial resistance in zoonotic bacteria still high in humans, animals and food

Bacteria from humans and animals continue to show resistance to antimicrobials, according to a new report published this week by the European Food Safety Authority (EFSA) and ECDC. The European Union summary report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2016 highlights some emerging issues and confirms antimicrobial resistance as one of the biggest threats to public health.

Among the new findings, based on data from 2016, are the detection of resistance to carbapenems in poultry. Carbapenems are not authorised for use in food-producing animals, in the EU. Four countries, for the first time, reported ESBL-producing *Salmonella* Kentucky with high resistance to ciprofloxacin in humans. This type of bacteria cannot be treated with critically important antibiotics. The report also points out that one out of four *Salmonella* infections in humans are caused by *Salmonella* bacteria that show resistance to three or more antimicrobials commonly used in human and animal medicine.

The data on antimicrobial resistance in zoonotic and indicator bacteria in 2016 in this report were submitted by 28 EU Member States. The report covers resistance in bacterial isolates of zoonotic *Salmonella* and *Campylobacter* from humans, animals and food. Also covered is resistance in indicator *Escherichia coli* bacteria and in meticillin-resistant *Staphylococcus* aureus from animals and food.

I. Executive summary

EU Threats

New! Deaths linked to cold weather - Europe - 2018

Opening date: 27 February 2018 Latest update: 2 March 2018

The northern hemisphere is currently experiencing an extended cold spell. Below-normal temperatures are expected in most of the European region during the next two to three weeks. The coldest days should be recorded this week. ECDC is monitoring this event due to the risk of increased mortality.

➔Update of the week

This week, news media reported at least 56 deaths due to cold weather in Europe.

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

Opening date: 11 October 2017 Latest update: 2 March 2018

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

➔Update of the week
Influenza activity in week 8-2018 (19–25 February 2018) was widespread in the majority of reporting countries.

Hepatitis A - Denmark - 2017 - 2018

Opening date: 7 February 2018 Latest update: 2 March 2018

Denmark is investigating an outbreak of hepatitis A. Disease onset began in December 2017. A possible vehicle of infection was identified through interviews, case-case investigation and a case-control study. Danish authorities implemented measures to prevent a further spread of the infection. Additionally, Norway notified one case of hepatitis A, possibly related to the same outbreak. Norwegian authorities took measures to prevent the spread of infection.

➔Update of the week
Denmark reports six additional cases of hepatitis A, as of 26 February 2018. Seventeen virus sequences were typed as IIIA, and they fall into five closely related groups.

Non EU Threats

Mass gathering monitoring – Multistate (World) – South Korea Winter Olympics 2018

Opening date: 27 November 2017 Latest update: 2 March 2018

The 2018 Winter Olympics were held in Pyeongchang, South Korea, between 9 and 25 February 2018, followed by the Paralympics (9 to 18 March 2018). The Pyeongchang Olympic village houses up to 3 894 athletes and team officials during the Games, while a second village in Gangneung accommodates more than 2 900 people.

➔Update of the week
Korea Centers for Disease Control and Prevention reported 324 confirmed cases of norovirus infection in the Olympic villages between 1 and 25 February. No other significant events detected.

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, additional cases from China have been reported. 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.

➔Update of the week
In February 2018, one human case of avian influenza A(H7N9) was reported in Guangdong Province, China.

This is the lowest number of cases reported for February compared with the previous four years when between 24 and 106 cases were detected in China during the same month.

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

Opening date: 24 September 2012 Latest update: 2 March 2018

Since the disease was first identified in Saudi Arabia in September 2012, approximately 2 000 MERS-CoV cases have been detected in over 20 countries. In Europe, eight countries have reported confirmed cases, all with direct or indirect connection to the Middle East. The majority of MERS-CoV cases continue to be reported from the Middle East. The source of the virus remains unknown, but the pattern of transmission and virological studies point towards dromedary camels in the Middle East as being a reservoir from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission is amplified among household contacts and in healthcare settings.

➔Update of the week
During February 2018, Saudi Arabia reported ten human cases of MERS-CoV from Riyadh (5 cases), Rafhaa (2), Madinah (1), Najran (1), and Taif (1). Three of the cases had camel contact, and one had contact to another case. Eight of the cases were male and two were female.

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Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 2 March 2018

Global public health efforts are ongoing to eradicate polio by immunising every child until transmission of the virus has completely stopped and the world becomes polio-free. Polio was declared a public health emergency of international concern (PHEIC) by the World Health Organization (WHO) on 5 May 2014 due to concerns regarding the increased circulation and international spread of wild poliovirus during 2014. On 7 February 2018, WHO agreed that the spread of poliovirus remains a public health event of international concern and extended the temporary recommendations for an additional three months. The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. In June 2002, the WHO European Region was officially declared polio-free.

➔Update of the week

Since the previous CDTR on 9 February 2018 and as of 2 March 2018, no additional cases of wild polio virus type 1 (WPV1) have been reported. During the same period, no additional vaccine-derived polio viruses type 2 (cVDPV2) cases have been reported.

Since 1 January 2017, and as of 2 March 2018, 22 wild poliovirus cases have been reported by two countries: 14 cases in Afghanistan and eight in Pakistan. Since the beginning of 2017, 95 circulating cVDPV2 have been reported by two countries: 21 from the Democratic Republic of Congo and 74 from Syria.

The sixteenth meeting of the Emergency Committee under the International Health Regulations (2005) (IHR) regarding the international spread of poliovirus was convened by the Director General on 7 February 2018 at WHO headquarters to review the data on wild poliovirus (WPV1) and circulating vaccine-derived polioviruses (cVDPV). The Committee determined that the situation relating to poliovirus continues to be a Public Health Emergency of International Concern (PHEIC) with respect to WPV1 and cVDPV and recommended the extension of Temporary Recommendations for a further three months to reduce the risk of international spread of poliovirus, effective 13 February 2018.

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017 Latest update: 2 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 23 February 2018 and as of 28 February, Brazil has reported 178 cases and 73 deaths. The cases occurred in São Paolo (99), Minas Gerais (50), Rio de Janeiro (24) and Espirito Santo (5) states.

Since the previous CDTR on 23 February 2018 and as of 28 February, Brazil has reported confirmed epizootics in non-human primates in São Paulo State (14) and Minas Gerais State (18).

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.

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II. Detailed reports

New! Deaths linked to cold weather - Europe - 2018

Opening date: 27 February 2018 Latest update: 2 March 2018

Epidemiological summary

According to the World Meteorological Organization, the end of the winter this year is marked by extreme weather conditions, with an extended cold spell in much of Europe. Below-normal temperatures are expected in most of the European region during the next two to three weeks. The coldest days should be recorded this week. An increased mortality is expected during the cold weather. ECDC monitors the mortality rates through EuroMOMO. News media reported 56 deaths linked to these unusually cold weather conditions across Europe: Poland (21), Slovakia (7), Czech Republic (6), Lithuania (5), France (4), Spain (3), Italy (2), Romania (2), Serbia (2), Slovenia (2), the Netherlands (1) and the UK (1). Several countries are taking extra measures to provide shelter to the homeless.

ECDC assessment

Severe cold weather spells are common across Europe during winter months. It is known that extremely cold weather increases mortality. There is a high health risk to vulnerable groups, particularly in homeless people. The increased number of patients suffering from cold-related outcomes can add pressure on the health services.

Actions

ECDC is monitoring media reports through epidemic intelligence.

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

Opening date: 11 October 2017 Latest update: 2 March 2018

Epidemiological summary

Week 8-2018 (19–25 February 2018)

Influenza activity was widespread in the majority of reporting countries.

Overall, 49% of individuals sampled at primary healthcare settings tested positive for influenza virus, a slight decrease compared with the previous week (51%).

Both 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 by influenza type B viruses. The majority of severe cases admitted to ICU were adults infected mostly by influenza type A viruses.

Based on data provided by 20 EU countries to EuroMOMO, excess mortality from all causes has significantly increased over the past months in the southern-western part of the European region, but this increase seems to be declining in some countries.

On 21 February 2018, WHO published influenza vaccine recommendations for the 2018-2019 season in the northern hemisphere. Two changes were recommended compared to the trivalent and quadrivalent vaccines in use during the 2017–2018 season in the northern hemisphere. Similar to the recommended composition for the 2018 southern hemisphere vaccine, the A(H3N2) component was changed to an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus. In trivalent vaccines, the B component was switched to a B/Victoria lineage B/Colorado/06/2017-like virus, representing the emergent strain of B/Victoria with deletion of K162 and N163 in the HA1 subunit. The A(H1N1)pdm09 component in trivalent and quadrivalent vaccines and the B/Yamagata component in quadrivalent vaccines remained the same.

Source: Flu News Europe

ECDC assessment

Influenza activity has peaked in the western parts of Europe and is increasing in the eastern parts of Europe, putting pressure on

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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. Risk assessments for the season are available on the ECDC website and on the World Health Organization's Regional Office for Europe website.

Hepatitis A - Denmark - 2017 - 2018

Opening date: 7 February 2018 Latest update: 2 March 2018

Epidemiological summary

As of 2 March 2018, 24 cases of hepatitis A have been reported from Denmark (23) and Norway (1) as a result of an outbreak, possibly related to a common source of infection.

On 1 February 2018, Denmark reported through EWRS and EPIS FWD an ongoing investigation of an outbreak of domestically acquired hepatitis A infections. As of 26 February 2018, 23 cases with disease onset from 22 December 2017 to 3 February 2018 have been associated with this outbreak across the country. Among the cases, 12 were women and 11 men, 15 to 85 years of age. The majority of the cases were hospitalised. Seventeen virus sequences were typed as IIIA, and they fall into five closely related groups. Based on results of interviews, case-case investigations and a case-control study, a possible vehicle of infection was identified.

A public warning has been issued in Norway after a case of hepatitis A, possibly related to the same outbreak, was reported by the Norwegian health authorities.

TESSy background data:
In the period 2012-2016, between 12 500 and 14 100 confirmed cases of hepatitis A were reported annually by 30 EU/EEA countries. Romania accounted for 35% of the cases, and Bulgaria reported an additional 15%. Cases were reported in all age groups, with a higher proportion in children 5-14-years of age (36%), followed by 25-44-year-olds (21%). Male cases were more frequent than female cases, particularly in the age groups 15-24 and 25-44 (58%). The majority (89%) of infections were reported as domestically acquired. Among travel-associated cases, Egypt, Morocco and Turkey were the most common travel destinations.

Sources: Statens Serum Institut | RASFF | ECDC factsheet | Norwegian Public Health Institute | media |Ministry of Environment and Food Denmark | distributor | SSI

ECDC assessment

Denmark is experiencing an outbreak of hepatitis A. Interviews, case-case investigations and a case-control study indicate a probable common vehicle of infection. Actions taken by the competent authorities are likely to significantly reduce the risk for human infections. However, new cases may be detected due to the long incubation period (15-50 days) and the long shelf-life of the potential vehicle of infection.

Actions

ECDC is monitoring this event through EPIS FWD.

Mass gathering monitoring – Multistate (World) – South Korea Winter Olympics 2018

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Opening date: 27 November 2017 Latest update: 2 March 2018

Epidemiological summary

The Korea Centers for Disease Control and Prevention (KCDC) report 324 confirmed norovirus cases, which occurred between 1 and 25 February 2018 in the Winter Olympics athletes villages in Pyeongchang, South Korea. This is an increase by 12 cases since the last CDTR published on 23 February. Most of the cases were in security staff and Games personnel. The cases were from Horeb Youth Centre (112), Pyeongchang (109) and Gangneung (103). Norovirus outbreaks are not unexpected during mass gathering events.

Currently, KCDC is reporting an increase in seasonal influenza with predominance of influenza type B and A(H3N2), mostly affecting children between 7 and 18 years of age. Since 2017, several outbreaks of highly pathogenic avian influenza A(H5N6) have been detected in birds and poultry. Even though no human cases of A(H5N6) were detected during these outbreaks and the risk of human infection is considered very low, it is recommended that contact with birds should be avoided and poultry farms should not be visited. According to WHO, an increase in seasonal influenza has also been observed in the Western Pacific Region.

As of 22 February, South Korea has reported eight cases of measles in 2018. In 2017, South Korea reported eight cases; in 2016, eight cases were reported; in 2015, 18 cases were reported; and in 2014, South Korea reported 442 cases.

No other significant events have been detected.

Sources: Korean Centres for Disease Control and Prevention | KCDC mobile app | ECDC CDTR | WHO travel advice| media | WHO |

ECDC assessment

ECDC continues monitoring the Olympic and Paralympics Games through epidemic intelligence until 25 March, which is one week after the end of the games. ECDC will report on a weekly basis or when significant events are detected.

The winter season in South Korea poses an increased risk of respiratory and gastrointestinal infections. Additionally, mass gatherings indoors during the Winter Olympics could increase the risk of spread of infections via aerosols and direct human contact. This could have an impact on tuberculosis, meningococcal infection, measles, diphtheria, mumps and other vaccine-preventable diseases. As mosquito and tick activity is very low or non-existent at the time, the risk of vector-borne diseases is considered low during the Winter Olympics and Paralympics.

People who plan to travel to South Korea are advised to consult their healthcare providers regarding vaccinations as there are currently multiple ongoing outbreaks of measles, diphtheria, and mumps, both in Europe and worldwide. The importation of these infections to South Korea should be avoided, as should the importation of infections to the travellers' countries of residence on return. If travellers need medical help upon their return, they should inform their consulting healthcare provider about their trip to South Korea.

The risk of food- and waterborne outbreaks is, in general, increased during mass gatherings when large numbers of people eat from commercial outlets, many of which may have been setup temporarily and may not always meet food safety standards. Additionally, travellers should follow good hygiene practices and recommendations regarding food- and waterborne diseases.

Actions

To monitor the public health threat, ECDC is in contact with the Korean CDC and will report through the CDTR if any events are detected.
On 20 January 2018, ECDC published a news item related to the event in the weekly communicable disease threat report. There are also dedicated filters for the Winter Olympics on MedISys, one for the Olympic Games in general and one with a list of diseases.

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Distribution of norovirus cases in Winter Olympics, PyeongChang, the Republic of Korea, February 2018 (n=324)

Data source: KCDC

Influenza A(H7N9) – China – Monitoring human cases

Opening date: 31 March 2013

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in humans in China. Since then and up to 27 February 2018, 1 567 cases have been reported, including 567 deaths. The outbreak shows a seasonal pattern. The first wave in spring 2013 (weeks 7-2013 to 40-2013) resulted in 135 cases, the second wave (weeks 41-2013 to 40-2014) led to 320 cases, the third wave (weeks 41-2014 to 40-2015) caused 223 cases, the fourth wave (weeks 41-2015 to 40-2016) caused 120 cases, the fifth wave (weeks 41-2016 to 40-2017) resulted in 766 cases, and the sixth wave which started on week 40-2017 has resulted in three cases as of 27 February 2018. During the fifth wave, 28 human cases with highly pathogenic avian influenza (HPAI) A(H7N9) virus were reported in China.

The 1 567 cases were reported from Zhejiang (310), Guangdong (259), Jiangsu (253), Fujian (108), Anhui (101), Hunan (95), Shanghai (56), Jiangxi (50), Sichuan (38), Beijing (35), Guangxi (32), Hubei (31), Hebei (29), Henan (28), Shandong (27), Hong Kong (21), Guizhou (20), Xinjiang (14), Chongqing (9), Gansu (5), Shaanxi (7), Yunnan (8), Taiwan (5), Tianjin (5), Liaoning (5), Jilin (3), Tibet (3), Shanxi (3), Inner Mongolia (2), and Macau (2). Three imported cases were reported in Canada (2) and Malaysia (1).

ECDC links: Zoonotic influenza web page | ECDC rapid risk assessment Influenza A(H7N9) virus in China - implications for public health - 7th update, 3 July 2017 | ECDC/EFSA joint report: Avian influenza overview October 2016–August 2017
Sources: Chinese CDC | Hong Kong CHP | WHO | WHO FAQ page | ECDC

ECDC assessment

Based on the seasonal pattern of avian influenza A(H7N9) viruses, more human cases are expected as the influenza activity increases during the winter months. During previous seasons the number of human cases peaked in January. During the entire month of January 2018, one case was identified; this might indicate a change in the disease pattern.
The possibility of humans infected with influenza A(H7N9) returning to the EU/EEA cannot be excluded. However, the risk of the disease spreading in Europe through humans is still considered low, as there is no evidence of sustained human-to-human transmission.

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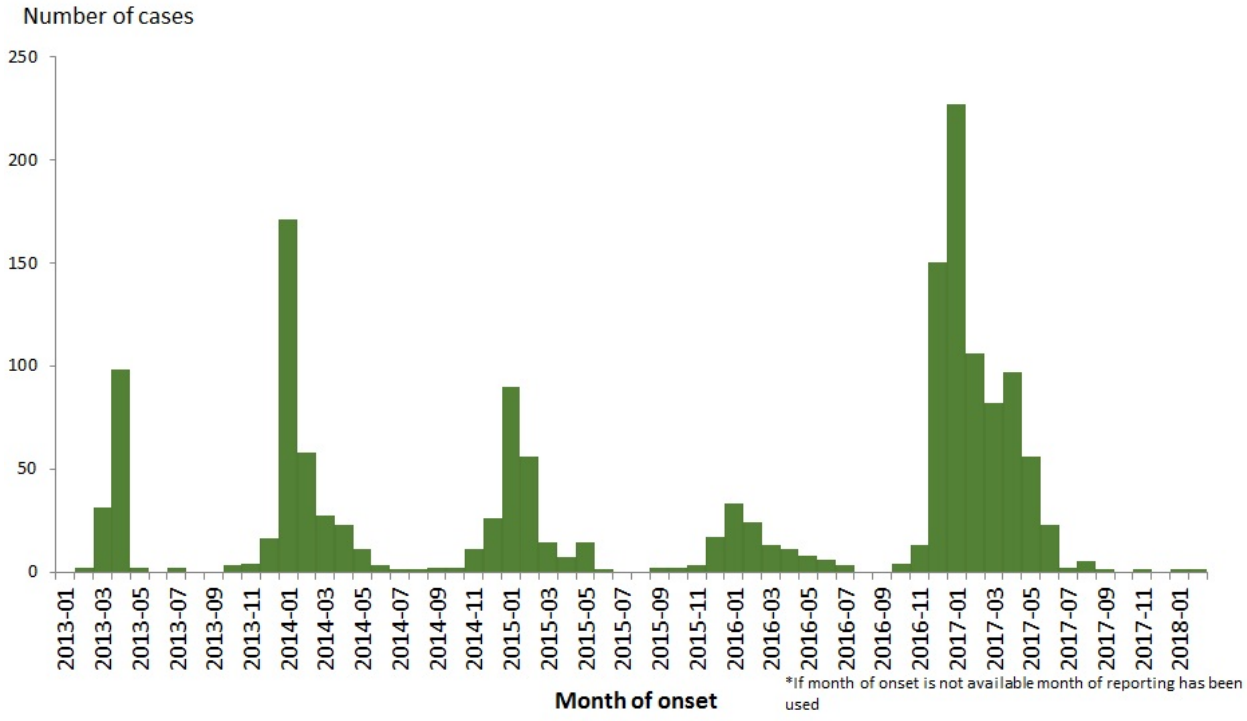
Sources: WHO

Actions

ECDC published the seventh update of its rapid risk assessment on 3 July 2017, addressing the genetic evolution of influenza A (H7N9) virus in China and the implications for public health. ECDC monitors this event through epidemic intelligence and will report monthly.

Distribution of confirmed cases of A(H7N9) by first available month, February 2013 – 28 February 2018 (n= 1 567)

ECDC, WHO, Hong Kong



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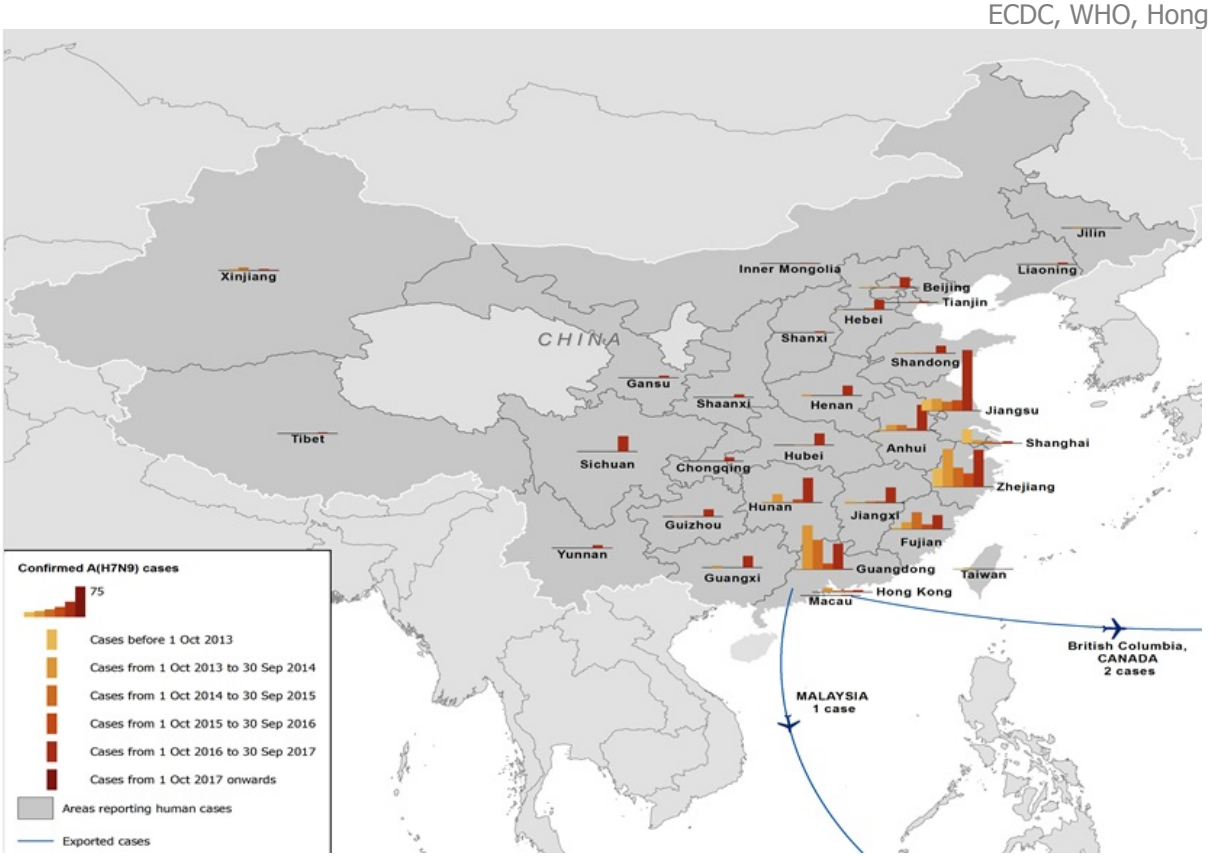
Distribution of confirmed cases of A(H7N9) by season, February 2013 to 28 February 2018

ECDC, WHO, Hong Kong



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

Opening date: 24 September 2012 Latest update: 2 March 2018

Epidemiological summary

Since April 2012 and as of 28 February 2018, 2 182 cases of MERS, including 823 deaths, have been reported by health authorities worldwide.

Web sources: ECDC's latest rapid risk assessment | ECDC novel coronavirus webpage | WHO | WHO MERS updates |Saudi Arabia MoH | ECDC factsheet for professionals

ECDC assessment

The risk of sustained human-to-human transmission in Europe remains very low. ECDC's conclusion continues to be that the MERS-CoV outbreak poses a low risk to the EU, as stated in a rapid risk assessment published on 21 October 2015, which also provides details on the last case reported in Europe.

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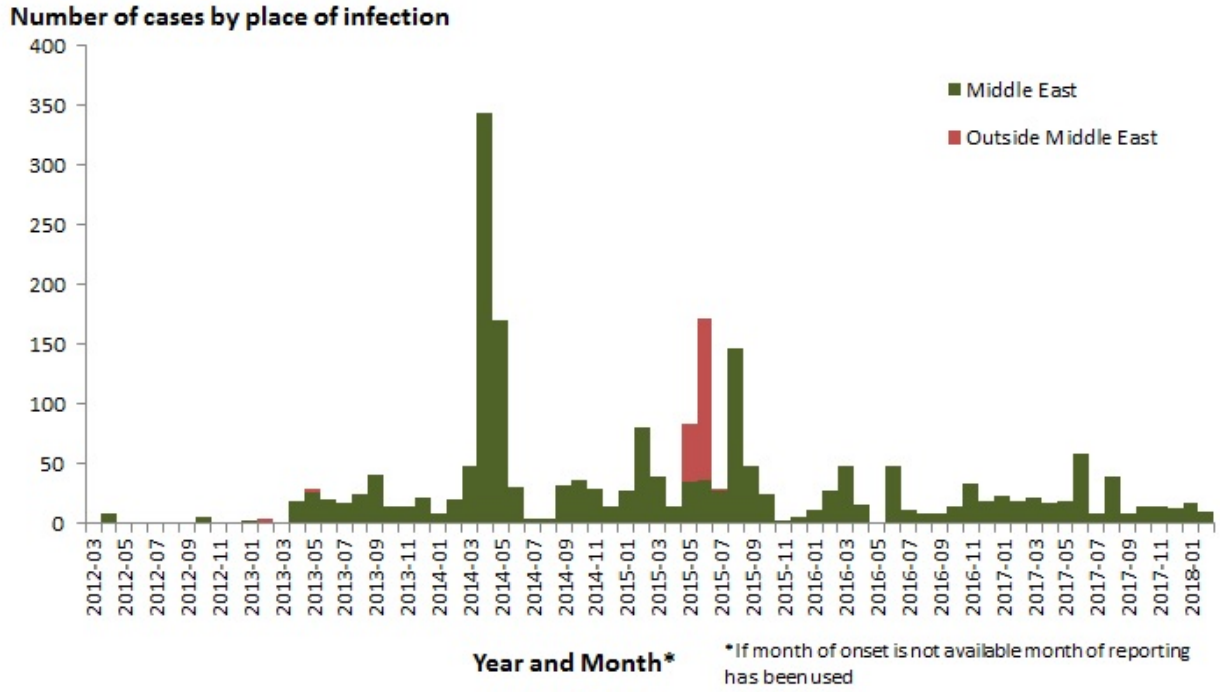
Actions

ECDC published the 21st update of its MERS-CoV rapid risk assessment on 21 October 2015.

Distribution of confirmed cases of MERS-CoV by place of infection from March 2012 and as of 27 February 2018

ECDC, Saudi Arabia, WHO



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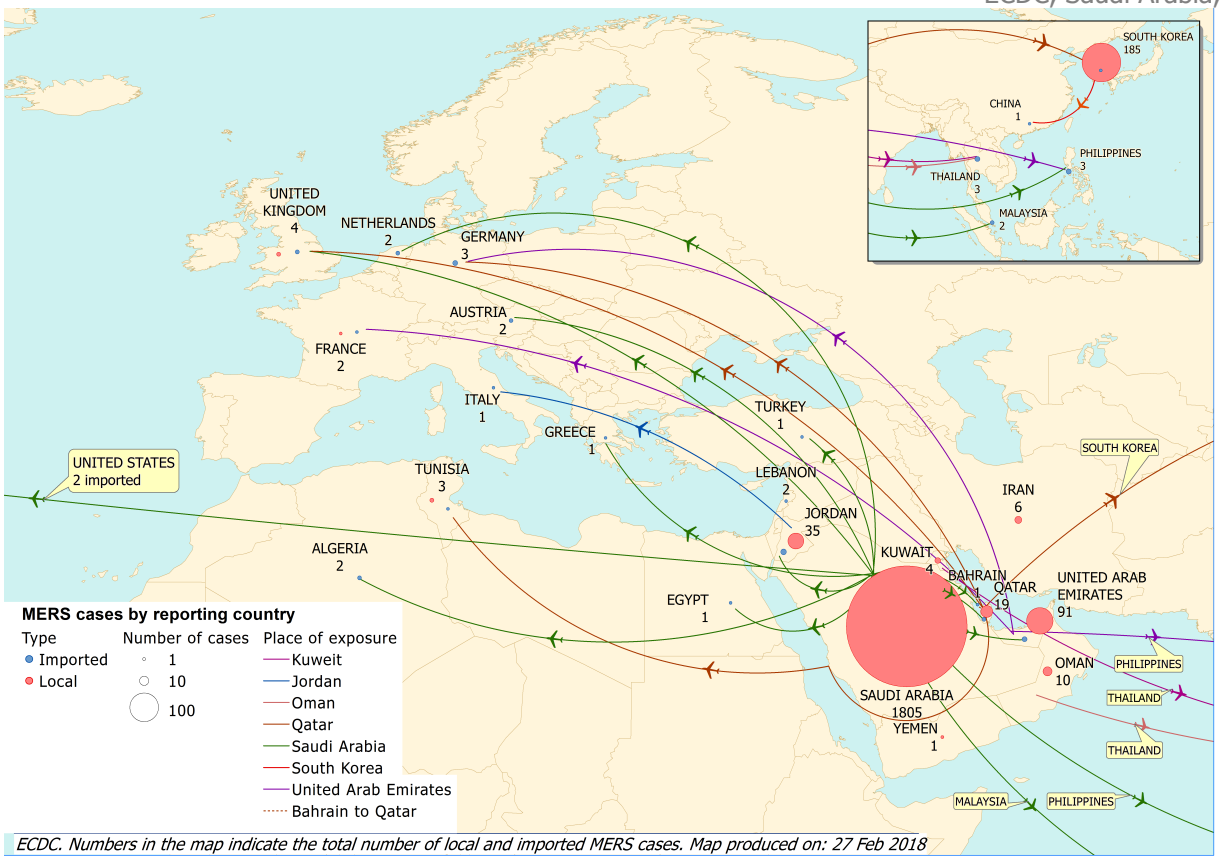
Distribution of confirmed cases of MERS-CoV by country of probable infection and country of report from March 2012 and as of 27 February 2018

ECDC, Saudi Arabia, WHO



ECDC. Numbers in the map indicate the total number of local and imported MERS cases. Map produced on: 27 Feb 2018

Poliomyelitis – Multistate (World) – Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 2 March 2018

Epidemiological summary

Since 2017, and as of 2 March 2018, 22 wild poliovirus cases have been reported: 14 cases from Afghanistan and eight cases from Pakistan. In 2016, 34 cases were reported during the same period. In addition, 95 cVDPV2 cases were reported in 2017, 21 from the Democratic Republic of Congo and 74 from Syria. The onset of paralysis in the Syrian cases was between 3 March and 21 September 2017. In 2016, only three cVDPV2 cases were reported during the same period worldwide. No cVDPV2 cases have been reported in 2018. In the same period, three cases of WPV1 have been reported in Afghanistan.

ECDC links: ECDC poliomyelitis web page | Information to travellers to polio-infected countries
Sources: WHO IHR Emergency Committee| Polio eradication: weekly update

ECDC assessment

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The last locally-acquired wild polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent wild polio outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases. Importation of the infection as well as of polio cases in to the EU remains possible.

ECDC links: Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA | ECDC poliomyelitis web page

Actions

ECDC monitors reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced into the EU. Following the declaration of polio as a PHEIC, ECDC updated its risk assessment. ECDC has also prepared a background document with travel recommendations for the EU.

Yellow fever – Brazil – 2017 - 2018

Opening date: 16 January 2017 Latest update: 2 March 2018

Epidemiological summary

Between July 2017 and week 8-2018, the Ministry of Health in Brazil reported 723 confirmed human cases of yellow fever, including 237 deaths. The cases occurred in São Paolo (307), Minas Gerais (314), Rio de Janeiro (96), Espirito Santo (5) and Distrito Federal (1).

Between July 2017 and week 8-2018, the Ministry of Health reported 554 confirmed epizootics in non-human primates. Of those, 465 were reported in São Paulo State, 73 in Minas Gerais, 12 in Rio de Janeiro State, two in Tocantins and one each in Mato Grosso and Espirito 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 who returned to Paris during her convalescence. According to GeoSentinel, 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.

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 confirmed cases of yellow fever in São Paulo State and the identification of epizootics in the urban area of São Paulo City (12 million inhabitants) is of concern. Public health authorities are conducting a vaccination campaign in the urban area of São Paulo City, an area previously considered not at risk for yellow fever transmission. In this context, European citizens travelling to the city of São Paulo should be vaccinated.

Travellers planning to visit areas at risk for yellow fever in Brazil should receive yellow fever vaccine at least 10 days prior to travelling, 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 risk of the virus being introduced into local competent (or potentially competent) vector populations in the continental EU and the EU outermost region of Madeira and the Canary Islands through viraemic travellers from Brazil is considered to be very low.

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Visiting address: Tomtebodavägen 11a, Solna, Sweden
www.ecdc.europa.eu

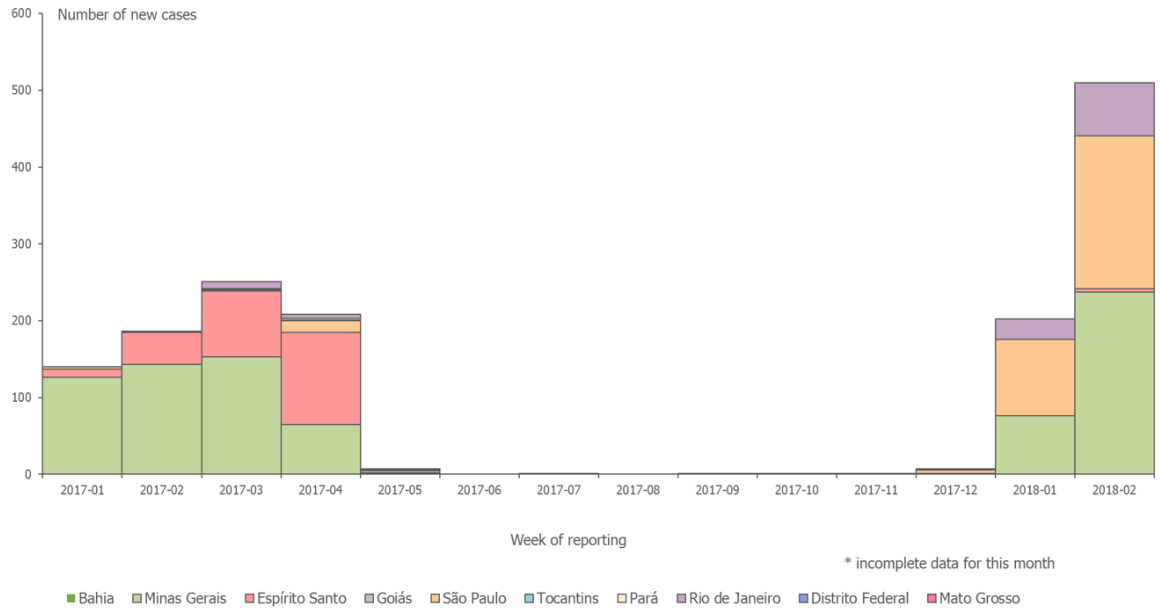
Epidemic Intelligence duty email: support@ecdc.europa.eu
Link to ECDC CDTR web page – including related PowerPoint© slides

Actions

ECDC published updates of its rapid risk assessment 'Outbreak of yellow fever in Brazil' on 13 April 2017 and 18 January 2018.

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

ECDC



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