COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 22, 26 May-1 June 2013

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 29 May 2013

Measles, a highly transmissible vaccine-preventable disease, is still endemic in many countries of Europe due to a decrease in the uptake of immunisation. According to the latest enhanced measles surveillance data retrieved from the European Surveillance System, the 30 contributing countries (29 EU and EEA countries and Croatia) reported 8 127 cases of measles during the last 12-month period from April 2012 to March 2013.

➔Update of the week

During the past week two new measles outbreaks were detected in European Union Member States, reported in Lithuania and in the Munich area in Germany. The outbreak in Wales appears to be subsiding. In the neighbouring region there is a large on-going outbreak in Georgia.

An Italian court has ruled in favour of the connection between autism and MMR vaccine and awarded compensation to a child with autism.

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 23 May 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

During the week leading up to 31 May 2013, no new outbreaks were detected.

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Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013 Latest update: 31 May 2013

Between 1 October 2012 and 30 May 2013, Denmark, Finland, Norway and Sweden reported hepatitis A (HAV) cases due to genotype 1b with two related sequences. None of the cases had travel history outside the EU within the period of their potential exposure. Overall, 91 cases have so far been reported associated with this outbreak, of which 46 are confirmed. The source of the outbreak has not been confirmed but epidemiological investigations in Denmark and Sweden point towards frozen strawberries as the vehicle of infection.

➔Update of the week

During the week leading up to 30 May 2013, five new cases were reported, four from Denmark and one from Sweden.

Hepatitis A -Multistate (Europe)- ex Italy

Opening date: 10 May 2013 Latest update: 30 May 2013

An outbreak of hepatitis A (HAV) involving German, Polish and Dutch travellers returning from northern Italy was reported through the Early Warning and Response System. Local Italian authorities also reported an increase in HAV cases in 2013 both at the national level and in the implicated area. The source of the outbreak has not yet been identified but preliminary investigations point to frozen berries as the vehicle of infection.

➔Update of the week

There are no new cases reported in international travellers since the last update.

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012 Latest update: 30 May 2013

The Autonomous Region of Madeira experienced an outbreak of dengue fever starting in October 2012. This was the first recorded outbreak of dengue in Madeira. In addition, 13 European countries have reported 82 imported dengue cases among travellers returning from Madeira. The presence of *Aedes aegypti* mosquitoes, the main vector for transmission of the virus, has been documented in Madeira since 2005.

➔Update of the week

The Portuguese Directorate General of Health posted their monthly update on 19 May 2013. There have been no new autochthonous cases reported since the last update in April 2013.

Non EU Threats

Hepatitis A - Multistate - Travel to Egypt

Opening date: 22 April 2013 Latest update: 30 May 2013

From November 2012 to May 2013, several EU Members States reported hepatitis A virus (HAV) infections affecting travellers returning from Egypt. The identification of the same HAV sequence in 20 cases from six of the affected countries confirms a multinational outbreak. The source of the outbreak is still unknown but the descriptive epidemiology and the analysis of the trawling questionnaires received suggests a possible persistent common source of infection in Egypt. This outbreak is a reminder that travellers should be made aware of the importance of HAV vaccination before travelling to HAV endemic areas.

➔Update of the week

During the week leading up to 30 May 2013, no new cases were reported.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 May 2013

Polio, a crippling and potentially fatal vaccine-preventable disease mainly affecting children under five years of age, is close to being eradicated from the world after a significant global public health investment and effort. The WHO European Region is polio-free.

➔Update of the week

During the week leading up to 30 May 2013, seven new polio cases were reported to WHO, all wild poliovirus type 1 (WPV1).

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Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 29 May 2013

Dengue fever is one of the most prevalent vector-borne diseases in the world, affecting an estimated 50-100 million people each year, mainly in the tropical regions of the world. The identification of sporadic autochthonous cases in non-endemic areas in recent years has already highlighted the risk of locally-acquired cases occurring in EU countries where the competent vectors are present. The dengue outbreak in the Autonomous Region of Madeira, Portugal that started in October 2012 further underlines the importance of surveillance and vector control in other European countries.

➔Update of the week

So far in 2013, no autochthonous dengue cases have been reported in European countries apart from the cases in Madeira.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 29 May 2013

On 31 March 2013, the Chinese health authorities announced the identification of a novel avian influenza A(H7N9) virus in three seriously ill patients in Shanghai. The outbreak has since spread to Zhejiang (46 cases), Shanghai (33), Jiangsu (27), Henan (4), Anhui (4), Beijing (2), Shandong (2), Fujian (5), Hunan (2), Jiangxi (6) and Taiwan (1). The source of infection and the mode of transmission are yet to be determined. Zoonotic transmission from poultry to humans is the most likely scenario. There is no epidemiological link between most of the cases and sustained person-to-person transmission has not been observed.

➔Update of the week

Between 23 May and 30 May 2013, there was one additional confirmed human cases of influenza A(H7N9) virus reported from Beijing in a six year old boy. Since the beginning of the outbreak there have been 132 confirmed cases, including 37 deaths.

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

Opening date: 24 September 2012 Latest update: 30 May 2013

Between April 2012 and 30 May 2013, 49 laboratory-confirmed cases, including 27 deaths, of an acute respiratory disease caused by a novel coronavirus have been notified to WHO. The new virus, officially named Middle East respiratory syndrome coronavirus (MERS-CoV), is genetically distinct from the coronavirus that caused the SARS outbreak. Cases have originated in Saudi Arabia, Qatar, Jordan and the United Arab Emirates. Cases have occurred in Germany, the United Kingdom, Tunisia and France in patients who were either transferred for care of the disease or returned from the Middle East. The reservoir of the novel coronavirus has not been established, nor is it clear how transmission has occurred from one sporadic case to another.

➔Update of the week

Between 23 and 30 May 2013, the Ministry of Health in Saudi Arabia reported five new cases from the Eastern Region. Three of the cases were fatal. In addition one previously reported patient who was part of the Al-Ahsa cluster in Saudi Arabia has died.

On 28 May the first case diagnosed in France on 7 May was reported to have died.

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II. Detailed reports

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 29 May 2013

Epidemiological summary

EU Member States

UK-update

The outbreak is slowing down in Wales. Eleven cases have been reported since last week by Public Health Wales, bringing the number of cases to 1 336 since November 2012.

During the period 18 March - 20 May nearly 60 000 MMR vaccines were administered to those at non-routine ages. (When estimating the numbers of 'non-routine' vaccinations given, one-year-olds were excluded for MMR dose 1 and three-year-olds for MMR dose 2 from the total doses given to patients of all ages.)

Germany

There is an increase in the number of reported measles cases in the Munich region. In Munich alone there were more than 130 measles notifications since the beginning of May. The majority of cases are between 16 and 45 years old. In Ebersberg, a town close to Munich there are 14 cases reported in an on-going outbreak, including two hospitalisations.

The Standing Committee on Vaccination at the Robert Koch Institute is recommending vaccination for people born after 1970 with no vaccination, unknown vaccination status or vaccination with a single dose.

Lithuania

In Lithuania a measles outbreak involves 22 unvaccinated cases, three children and 19 adults. Last year Lithuania reported only two cases of measles, a mother and her daughter who became ill while abroad.

Rest of the world

Georgia

According to the National Centre for Disease Control and Public Health of Georgia, as of 27 May 2013 the number of reported measles cases has reached 4 000, including 230 hospitalisations and two fatalities.

US

There is an on-going outbreak in Brooklyn, New York, in the orthodox Jewish community. As of 22 May 2013, there have been 34 confirmed cases, with additional suspected cases being investigated. Cases range from 0-32 years (median 7 years), including five infants, 21 children, and eight adults. Complications have included pneumonia, a miscarriage, and two hospitalisations. Over 700 people have been exposed, predominantly in health-care settings.

Publications

Article published in Vaccine:

"Measles, mumps and rubella (MMR) vaccination has no effect on cognitive development in children – The results of the Polish prospective cohort study"

The aim of the study was to examine the hypothesis that MMR has a negative influence on cognitive development in children. In addition, MMR was compared to single measles vaccine to determine the potential difference of these vaccines' safety regarding children's cognitive development.The results suggest that there is no relationship between MMR exposure and children's cognitive development. Furthermore, the safety of triple MMR is the same as the single measles vaccine with respect to cognitive development.

Court ruling in Italy regarding autism and MMR vaccine

An Italian court in Rimini has awarded compensation of € 174,000 ruling that a child "was damaged by irreversible complications" due to vaccination with MMR. This is the first time that a correlation between MMR and autism has been officially recognised in Italy by court ruling.

Web sources: ECDC measles and rubella monitoring | ECDC/Euronews documentary | WHO Epidemiological Briefs | MedISys Measles page | EUVAC-net ECDC | ECDC measles factsheet | Public Health Wales |

ECDC assessment

The transmission season for measles persists in Europe. Although there are several on-going outbreaks, the aggregated cases are less than in previous years.

So far in 2013, Sweden, Denmark, Germany, Italy, the UK and Lithuania have reported outbreaks. The largest outbreak has been

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in Wales where more than 1 300 cases, including one death, have been notified so far. In the EU neighbourhood, a large outbreak of more than 4 000 cases is reported from Georgia. This may result in some imported cases in EU/EEA countries.

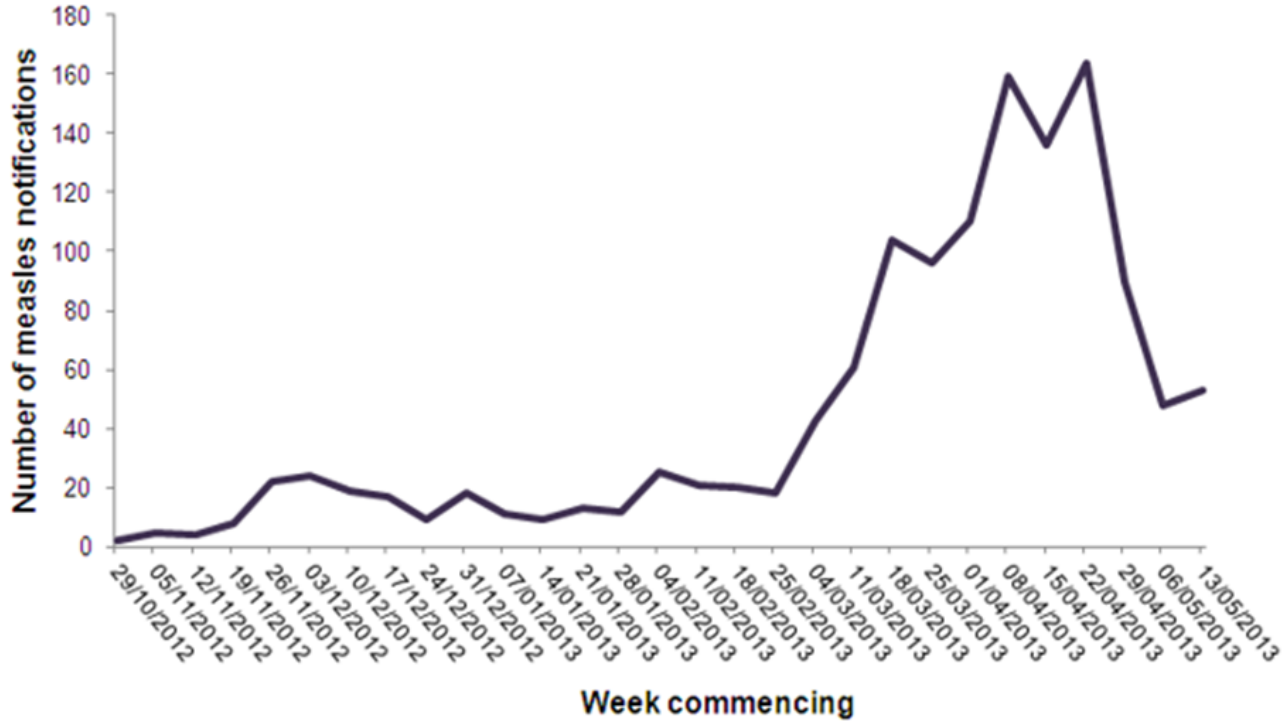
The target year for measles elimination in Europe is 2015. The current outbreaks suggest that endemic measles transmission continues in many EU Member States and the prospect of achieving the 2015 objective is diminishing. During the period April 2012-March 2013, 14 EU/EEA countries met the elimination target of less than one case of measles per million population.

Actions

ECDC closely monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe through enhanced surveillance and epidemic intelligence activities. Elimination of measles requires consistent vaccination coverage above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures.

Number of measles notifications by week during the period 29 October 2012-26 May 2013, Wales

Public Health Wales



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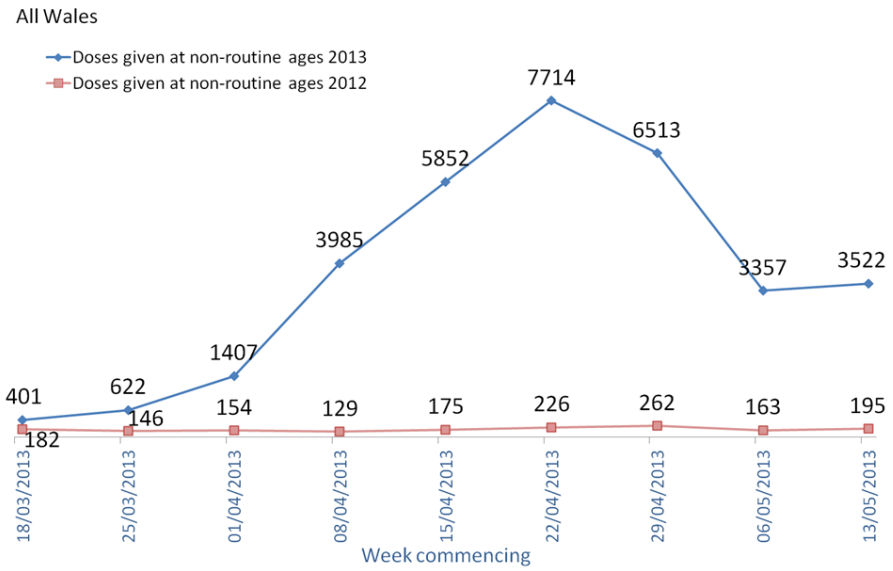
Weekly MMR doses one and two given at non-routine ages during 2013 with 2012 comparison data, Wales

Public Health Wales



Note: When estimating the numbers of 'non-routine' vaccinations given one year olds were excluded for MMR dose 1 and three year old for MMR dose 2 from the total doses given to patients of all ages

Rubella - Multistate (EU) - Monitoring European outbreaks

Opening date: 7 March 2012 Latest update: 23 May 2013

Epidemiological summary

No new outbreaks have been identified since the last update.

Poland is experiencing a nationwide rubella epidemic with 21 283 rubella cases (55.2 per 100 000 inhabitants) reported from January to April 2013, described in a recent article in Eurosurveillance. Two cases of congenital rubella syndrome were reported during the same period, compared with four cases reported during 2003 to 2012. This situation requires immediate public health action to prevent further congenital rubella syndrome cases. Since August 2012, Poland has reported over 95% of all rubella cases in the EU/EEA.

Web sources: ECDC measles and rubella monitoring | WHO epidemiological brief summary tables | WHO epidemiological briefs | ECDC rubella factsheet | Survey on rubella, rubella in pregnancy and congenital rubella

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 2012 and 2013 compared with 2011 and the potential for an increase in the number of babies born with CRS in EU countries are both 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. 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.

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ECDC published a new report on its website: Survey on rubella, rubella in pregnancy and congenital rubella surveillance systems in EU/EEA countries

Hepatitis A - Multistate (Europe) - 2013 outbreak

Opening date: 9 April 2013 Latest update: 31 May 2013

Epidemiological summary

From 1 October 2012 until 23 May 2013, Denmark, Finland, Norway and Sweden reported 46 HAV cases due to genotype 1b with two related sequences. None of the cases had travel history outside the EU within the period of their potential exposure. Overall, 91 cases have been reported to be associated with this outbreak, of which 46 are confirmed.

Epidemiological investigations in Denmark and Sweden point towards strawberries as the vehicle of infection.

On 22 May 2013, the Swedish Institute for Infectious Disease Control (SMI) published a press release indicating that frozen strawberries of non-domestic origin are likely to be the source of the Swedish outbreak. Other types of berries are no longer suspected in this outbreak. Identification of the producer and country of origin is still ongoing.

On 30 May 2013, the Danish Food Safety Authority confirmed that specific products with frozen strawberries packaged in Belgium and sold in Denmark, have been voluntarily recalled. Both epidemiological and product inverstigations point towards these specific products of frozen strawberries as the vehicle of infection for the ongoing hepatitis outbreak in the nordic countries.

Food authorities in the affected Nordic countries have recommended that citizens should boil frozen berries or berries of non-domestic origin before consumption.

Web sources: ECDC HAV factsheet | Eurosurveillance 25 April 2013

ECDC assessment

The identification of closely-related HAV sequences in four different countries confirms that this is a multinational food-borne outbreak. The source of the multi-country outbreak has not been confirmed, but epidemiological investigations in Denmark and Sweden point towards frozen strawberries as vehicle of infection.

Actions

Food safety authorities and Public Health Authorities in the affected countries are actively collaborating to uncover the vehicle of infection and to prevent occurrences of additional cases.

ECDC and EFSA published a joint rapid outbreak assessment on 16 April.

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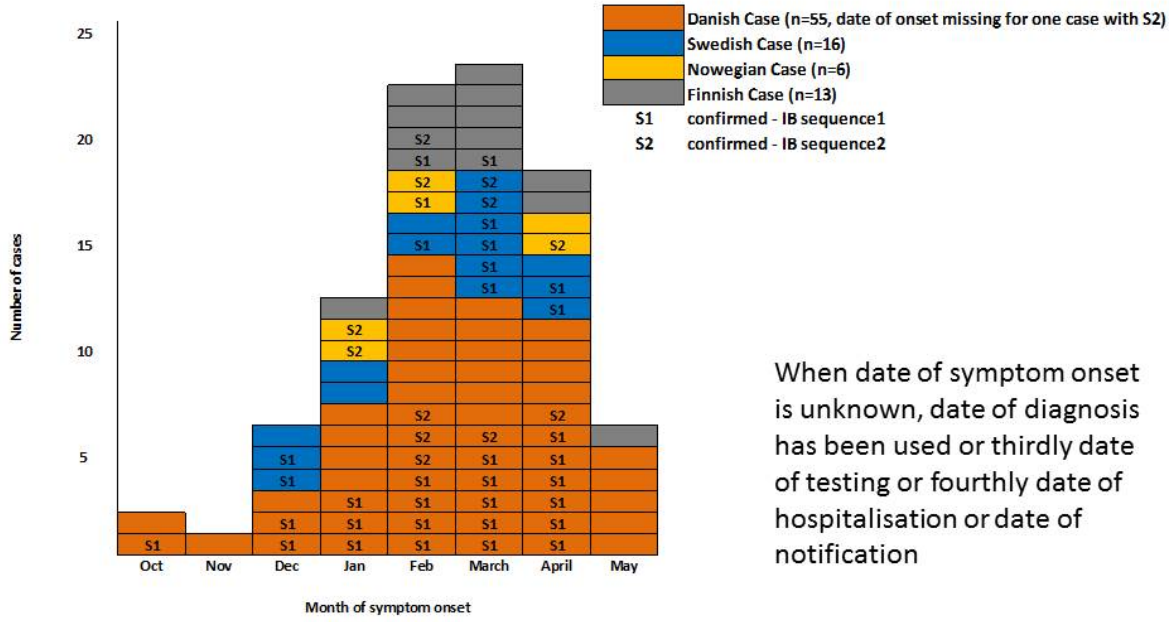
Number of nordic HAV cases by month of symptom onset, country and sequence type (N=91)

ECDC



Hepatitis A -Multistate (Europe)- ex Italy

Opening date: 10 May 2013 Latest update: 30 May 2013

Epidemiological summary

On 8 May 2013, Germany reported seven cases of hepatitis A virus (HAV) infection associated with a ski holiday in the autonomous provinces of Trento and Bolzano in northern Italy.

Following the German report, the Netherlands reported one case and Poland five cases with travel history in the province of Trento. All cases reported by Poland stayed in Italy during the period 16-22 March 2013 and the latest case had onset of symptoms on 2 May 2013. On 27 May 2013, Germany confirmed that one isolate from a German HAV case (who visited Stava, Trento province, 16-24 March and had onset of symptoms on 12 April 2013) has been sequenced. The viral RNA sequence is a 100% match with the only sequence so far available, the Dutch case. The Dutch case visited Vigo, Trento province, on 7-12 March and had onset of symptoms on 8 April 2013. From the preliminary information available, a food item (frozen berries) seems to be the likely vehicle of infection for this outbreak.

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Following the alert, Italy reported an increase in HAV cases in 2013 both at the national level and in the province of Trento compared to 2011 and 2012. During the past week, six additional cases of HAV were reported by Italy and all were residents living in the province of Trento. In total, 29 cases of HAV have been reported from Trento since the beginning of 2013.

Public health authorities in the affected countries and ECDC are actively collaborating to identify the vehicle of the infection in order to prevent the occurrence of additional cases.

ECDC assessment

As the route of transmission of hepatitis A is fecal-oral and the food investigation is still on-going, the risk for EU citizens is uncertain. The distribution of the onset of symptoms over time suggests a common source outbreak with the majority of cases infected around mid-March.

Actions

A joint ECDC-EFSA assessment was published on this outbreak on 29 May 2013 on the ECDC website .

Dengue - Portugal - Madeira outbreak

Opening date: 10 October 2012 Latest update: 30 May 2013

Epidemiological summary

In October 2012, the Portuguese public health authorities reported an outbreak of dengue infection on the island of Madeira in the Autonomous Region of Madeira located around 400 km from the Canary Islands, 650 km from the African coast, and 1 000 km from the European continent. The autonomous region has 268 000 inhabitants.

Since April 2013, the Portuguese Directorate General of Health has reported 12 probable cases of dengue fever which have been under laboratory investigation. Of these 12 cases, only two were laboratory confirmed and both cases were imported from Angola. Between week 4 and 19 of 2013, there is no laboratory confirmed case of dengue reported within the autochthonous population of Madeira.

Eighty-two patients have been diagnosed in European countries with dengue infection after returning from Madeira: 23 in the UK, 19 in Germany, 11 in Portugal, seven in Finland, six in Sweden, three in France, three in Belgium, two in Denmark, two in Austria, and two in Norway. Croatia, Slovenia, Spain and Switzerland have all reported one case each. The most recent imported case was reported by Portugal on 12 March 2013 with onset of disease 16 December 2012.

Web sources: ECDC fact sheet for health professionals | PT Directorate-General of Health | National Institute of Health Dr. Ricardo Jorge | ECDC Rapid Risk Assessment | WHO | Madeira Institute of Health Administration and Social Affairs

ECDC assessment

This is the first known occurrence of locally transmitted dengue infection in the Autonomous Region of Madeira, and consequently a new geographical area reporting autochthonous cases in the EU. This is a significant public health event but not entirely unexpected because of the known presence of *Aedes aegypti*, a competent vector for dengue. Epidemiological surveillance and early detection of cases should be maintained with regards to the risk of re-importation of the virus by travellers or migrants coming from on-going outbreak areas.

Neighbouring geographical areas (e.g. Canary Islands) and other EU Member States need to assess the risk of establishment of *Aedes* mosquito populations and the introduction of dengue. The epidemiological situation does not imply the need for any trade or travel restriction beyond the disinfestation policies currently implemented.

Actions

ECDC provided support to Portugal for surveillance and control of the outbreak and the development of a contingency plan with two field missions in October 2012 and March 2013 respectively.

On 20 November 2012, ECDC published an updated rapid risk assessment concerning the autochthonous dengue cases in Madeira.

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Portuguese authorities published recommendations regarding personal protective measures, and measures for the safety of blood, cells, tissues and organ donations within the region.

Blood donor deferral for 28 days from day of departure for travellers returning from the Autonomous region of Madeira is now recommended in other EU countries.

Hepatitis A - Multistate - Travel to Egypt

Opening date: 22 April 2013 Latest update: 30 May 2013

Epidemiological summary

Fourteen EU/EEA countries have reported 106 cases with hepatitis A infections among travellers returning from Egypt. Of these, 20 cases share an identical RNA sequence. The dates of onset of symptoms (or laboratory testing date for those with no available onset dates) range from 1 November 2012 until 24 April 2013. Interviewed cases reported having travelled to at least three different locations in the Red Sea region (Sharm-El-Sheikh, Hurghada and Taba-Sinai) and stayed at different hotels and resorts. Sixty-eight cases have information about their vaccination status and all were unvaccinated.

Web source: ECDC rapid risk assessment | Eurosurveillance 25 April 2013

ECDC assessment

HAV infections in travellers returning from Egypt have been reported in several EU Member States. The same HAV sequence was identified in cases from Denmark, France, Ireland, the Netherlands, Norway and the UK, confirming a multinational outbreak. The distribution of cases over time suggests a persistent common source outbreak - potentially food-borne - the source of which has not yet been identified.

Actions

ECDC has published a rapid risk assessment. Public health authorities in the affected countries, ECDC and WHO are actively collaborating to detect the source of the infection in order to prevent the occurrence of additional cases. ECDC is coordinating this investigation. Interviews with some of the cases using a trawling questionnaire have been performed and analysed. A case-control study to identify the source or vehicle of infection is currently being prepared.

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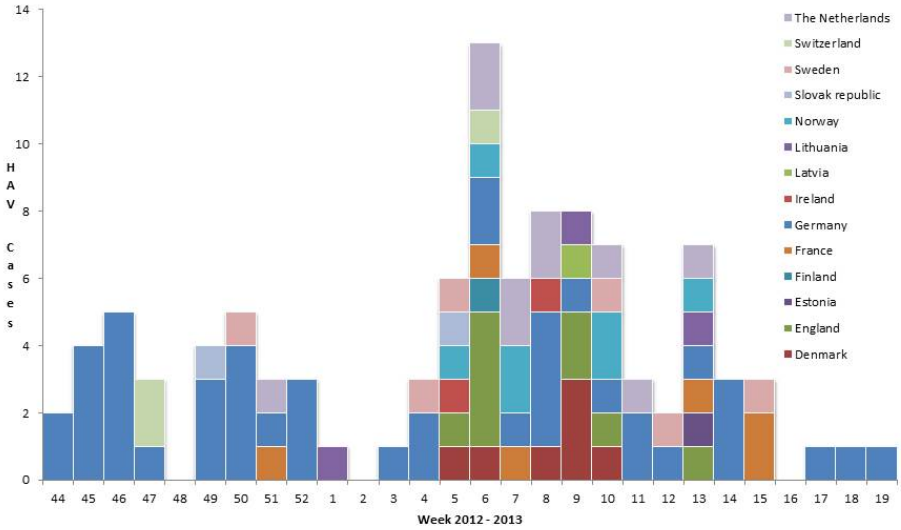
Hepatitis A cases among travellers coming back from Egypt

ECDC

HAV cases in EU/EEA travellers returning from Egypt by date of onset*

* Date of notification used when date of onset missing; n=103 (three cases missing information)



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 30 May 2013

Epidemiological summary

During the past week, seven WPV1 cases were reported to WHO: one case in Kenya, two cases in Nigeria, one case in Pakistan and three cases in Somalia.

Globally 41 cases have been reported so far in 2013 compared with 64 for the same period in 2012.

At last week's World Health Assembly (WHA) in Geneva, Switzerland, health ministers from around the world acknowledged the progress achieved in the past year in bringing polio to its lowest ever levels, thanks to actions of Member States in placing polio eradication on an emergency footing. Delegates endorsed the new Polio Eradication and Endgame Strategic Plan 2013-2018 to secure a lasting polio-free world and urged for its full implementation and financing

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | WHO EMRO

ECDC assessment

The last polio cases in the European Union occurred in 2001 when three young Bulgarian children of Roma ethnicity developed flaccid paralysis caused by WPV. Investigations showed that the virus originated from India. The latest outbreak in the WHO European Region was in Tajikistan in 2010, when WPV1 imported from Pakistan caused an outbreak of 460 reported cases. The last indigenous WPV case in Europe 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.

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 (WPV) into the EU.

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Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 29 May 2013

Epidemiological summary

Europe: There have been no reports of confirmed autochthonous dengue infections in Europe in 2013, besides the dengue outbreak in Madeira.

Asia: Lao PDR, Singapore and Vietnam have reported more cases in 2013 than 2012 for the same time period. The recent dengue trends increased sharply in Lao PDR and Singapore and increased slightly in Cambodia. However, the recent trend continued to decrease in Australia and remained stable in the Philippines. In Thailand, the Bangkok Metropolitan Administration (BMA) is launching a campaign against dengue fever after reporting more than 3 000 cases in Bangkok during the first three months of the year.

The Caribbean: During the first two weeks of May, the dengue epidemic remained active in the French overseas territory of Saint Barthelemy, according to InVS.

Central and South America: El Salvador has recorded 1 883 cases and one death so far this year. In South America, Brazil is experiencing intense dengue activity across most states, especially in Mato Grosso, which has reported more than 34 000 suspected dengue cases so far in 2013. As of 10 May 2013, Paraguay has reported more than 83 000 dengue cases and 57 deaths nationally.

Pacific: There is an on-going dengue epidemic in French Polynesia. As of 25 May 2013, 84 cases of dengue fever have been confirmed in Tahiti and Moorea, according to figures published by the Office of Surveillance and Health. The predomiannt serotypes circulating are DENV-1 and DENV-3. The Solomon Islands continue to see sustained dengue activity with 4 264 cases reported so far this year. In New Caledonia, 568 cases were reported between 28 April and 4 May 2013. In total, 8 689 cases have been recorded since the outbreak started last year.

Africa: Cape Verde has confirmed an imported case of dengue fever. This is the first reported dengue case since 2011. In 2009, Cape Verde experienced a large dengue outbreak with 21 382 suspected cases and six deaths. As of 17 May 2013, 301 confirmed dengue cases and one death have been reported from Luanda and Malanje provinces in Angola.

Web sources:
HealthMap | MedISys | ProMED Asia update| ProMED Americas update| WPRO | CDC | InVS |

ECDC assessment

ECDC monitors individual outbreaks, seasonal transmission patterns and inter-annual epidemic cycles of dengue through epidemic intelligence activities in order to identify significant changes in disease epidemiology. Of particular concern is the potential for the establishment of dengue transmission in Europe. Before the 2012 outbreak in the Autonomous Region of Madeira, local transmission of dengue was reported for the first time in France and Croatia in 2010. Imported cases are being detected in European countries, highlighting the risk of locally acquired cases occurring in countries where the competent vectors are present. Of specific concern this week is the potential for imported cases from Angola and Kenya.

Actions

ECDC has published a technical report on the climatic suitability for dengue transmission in continental Europe and guidance for invasive mosquitoes' surveillance.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 29 May 2013

Epidemiological summary

On 31 March 2013, Chinese authorities announced the identification of a novel reassortant A(H7N9) influenza virus isolated from three unlinked fatal cases of severe respiratory disease in eastern China, two in Shanghai and one in Anhui province. The WHO Collaborating Centre for Reference and Research on Influenza at the Chinese Centre for Disease Control and Prevention (CCDC) subtyped and sequenced the viruses and found them to be of almost identical low pathogenic avian origin.

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Since 31 March 2013, 132 cases of human infection with influenza A(H7N9) have been reported from eastern China and Taiwan: Zhejiang (46 cases), Shanghai (33), Jiangsu (27), Henan (4), Anhui (4), Beijing (2), Shandong (2), Fujian (5), Hunan (2), Jiangxi (6) and Taiwan (1). In addition, the virus has been detected in one asymptomatic case in Beijing. The dates of onset of disease have been between 19 February and 21 May 2013. The date of disease onset is currently unknown for fifteen patients. Most cases have developed severe respiratory disease. Thirty seven patients have died (case-fatality ratio=28%). The median age is 61 years ranging between four and 91 years; 37 of 132 patients are female.

The Chinese health authorities are responding to this public health event with enhanced surveillance, epidemiological and laboratory investigation and contact tracing. The animal health sector has intensified investigations into the possible sources and reservoirs of the virus. The authorities reported to the World Organisation for Animal Health (OIE) that avian influenza A(H7N9) was detected in samples from pigeons, chickens and ducks, and in environmental samples from live bird markets ('wet markets') in Shanghai, Jiangsu, Anhui and Zhejiang provinces. Authorities have closed markets and culled poultry in affected areas.

Web sources: Chinese CDC | WHO | WHO FAQ page | Centre for Health Protection Hong Kong | OIE | Chinese MOA |

ECDC assessment

Influenza A(H7N9) is a zoonotic disease that has spread or is spreading in poultry in parts of eastern China causing a severe disease in humans. At this time there is no evidence of sustained person-to-person transmission. Close to 3 000 contacts have been followed-up and only four are reported to have developed symptoms, as part of three small family clusters.

At present, the most immediate threat to EU citizens is to those in China who are strongly advised to avoid live bird markets. The risk of the disease spreading to Europe via humans in the near future is considered low. However, it is likely 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.

There is no specific guidance on blood or tissue donor deferral for exposure to avian influenza. The incubation period for A(H7N9) is assumed to be 10 days or less, and there is no reason to believe that infected people will be viraemic beyond the acute disease episode. Therefore, the risk of transmission through blood transfusion can be considered very low in the context of the current donor selection procedures.

The gradual geographical extension seems to have slowed down and there has been a decline in the number of cases during the last weeks, possibly due to the closure of urban live bird markets in China. However, many unanswered questions remain regarding this outbreak e.g. the reservoir, the route of transmission, the spectrum of disease and the reason for the unusual age–gender imbalance.

Actions

ECDC is closely monitoring developments and is continuously re-assessing the situation in collaboration with WHO, the US CDC, the Chinese CDC and other partners.

ECDC published an updated Rapid Risk Assessment on 8 May 2013.

A case detection algorithm and an EU case definition has been developed and shared with EU Member states.

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

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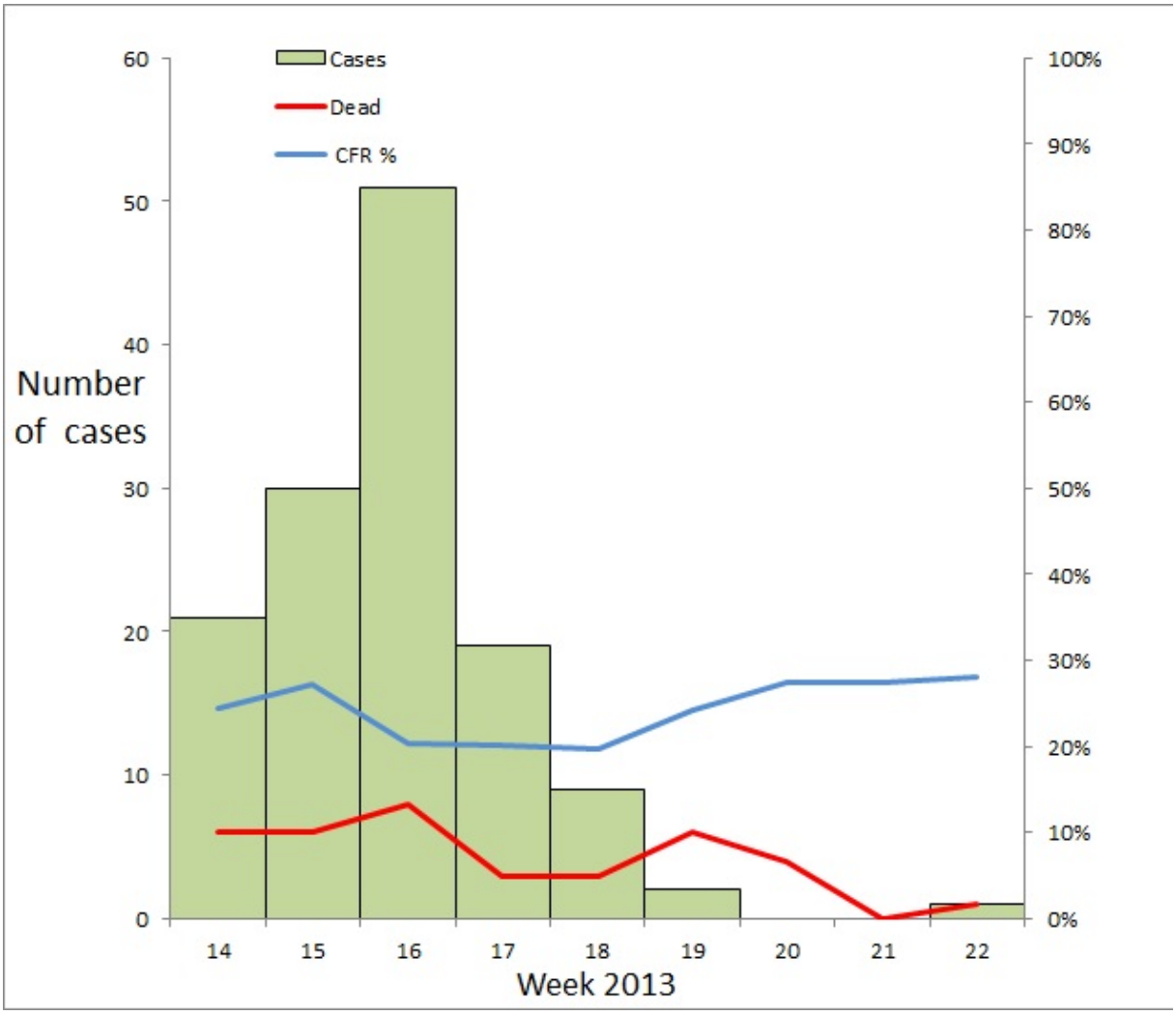
Distribution of influenza A(H7N9) cases by week of reporting, as of 30 May 2013 (cases =132, fatalities=37, CFR=28%)

WHO



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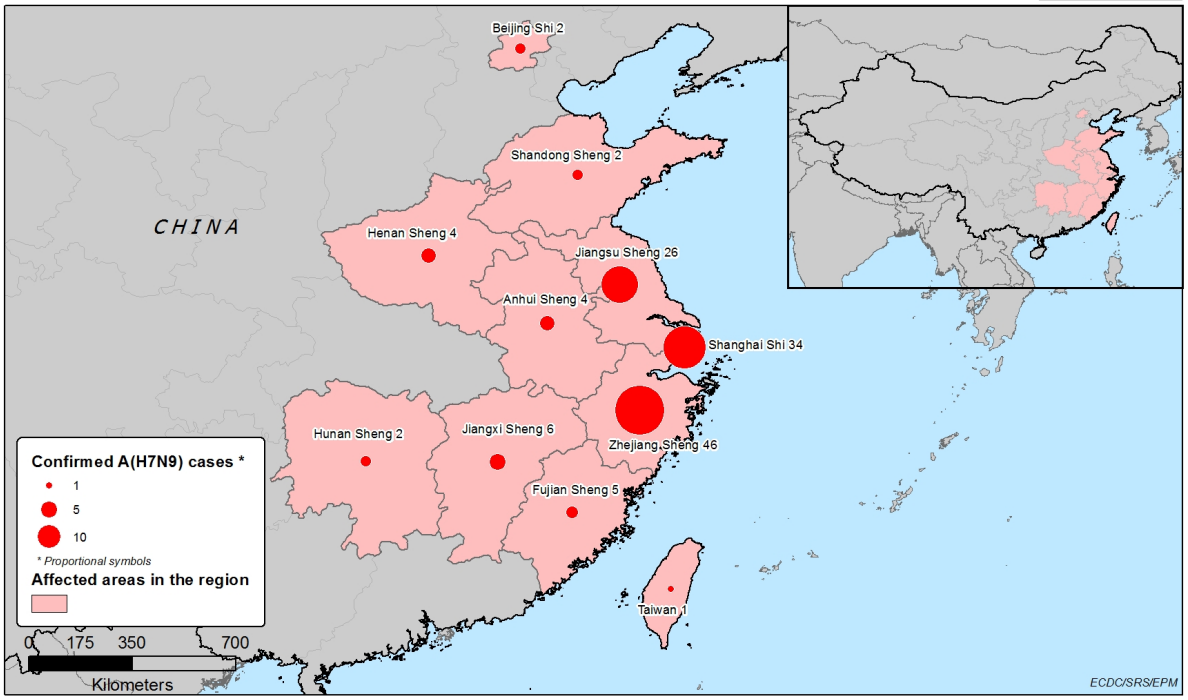
ECDC/WHO

Reported cumulative number of confirmed cases of novel influenza A(H7N9) by province in China, as of 30 May 2013, 15.00 CEST



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

Opening date: 24 September 2012 Latest update: 30 May 2013

Epidemiological summary

The first described case of MERS-CoV infection was a 60-year-old male resident of Saudi Arabia who died of severe pneumonia complicated by renal failure in June 2012. A previously unknown coronavirus isolated from this patient was identified.

<?xml:namespace prefix = o />As of 30 May 2013, 49 laboratory confirmed cases have been reported by Saudi Arabia (37), Jordan (two), Germany (two), United Kingdom (four), France (two) and Tunisia (two). Twenty seven of these cases have died. All cases worldwide remain associated with transmission in the geographic area of the Arabian Peninsula. There are several clusters among the reported cases both in health care and home settings, some with evidence of limited human-to human transmission and a few who had not been to the Middle East but had been in close contact with the laboratory-confirmed or probable cases. The age of cases ranges from 24 to 94 years (age is unknown for four cases). Twelve cases are female and 36 are male (gender is unknown for one case).

Since the beginning of May 2013, the Ministry of Health in Saudi Arabia has reported 28 cases including 15 deaths. All cases were from the eastern provinces of the KSA. The majority of these cases are linked to a health care facility in Al-Ahsa. Two patients are healthcare workers who were exposed to patients with confirmed MERS-CoV.

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On 21 May 2013 three cases were reported by the Ministry of Health of Tunisia. The probable index case, who died on 10 May 2013, was a 66-year-old man with underlying health conditions and a recent travel history to Qatar and Saudi Arabia. Infection with MERS-CoV was not confirmed. The two other laboratory confirmed cases, a 34-year-old man and a 35-year-old woman, who are siblings and children of the index case, both had mild respiratory illness and neither required hospitalisation. (These cases are not displayed on the map.)

On 28 May the first case diagnosed in France on 7 May was reported to have died.

Web sources: WHO | ECDC RRA 19 February | ECDC novel coronavirus website | RKI risk assessment 26 March | WHO update 2 May| MoH France 08 May | InVS 13 May | WHO update 29 May

ECDC assessment

The additional recent novel coronavirus cases reported by the Saudi Arabian authorities indicate an ongoing source of infection present in the Arabian Peninsula.

The first French case (reported deceased on 28 May 2013) who presented with diarrhoea is a reminder of the possibility that initial presentations may not necessarily include respiratory symptoms, especially in those with immunosuppression or underlying chronic conditions. This needs be taken into account when revising case-finding strategies. This case in France was the second nosocomial transmission in Europe following one reported in the UK in February 2013, highlighting the risk of onward transmission in Europe, in particular in healthcare settings. Both French patients had underlying conditions, and a degree of immunosuppression. One of the transmissions in the UK was also to an immunosuppressed person. These underlying conditions may be increasing the vulnerability and the risk of transmission. Specimens from the upper respiratory tract were negative taken from some patients who were later confirmed to be infected by MERS-CoV in samples from the lower respiratory tract. Therefore, specimens from patients' lower respiratory tracts should be obtained for diagnosis where possible.

Information on many of the basic epidemiological indicators required for determining effective control measures are still missing for most cases that occurred in the Middle East, e.g. the reservoir of infection, risk groups, incubation period, period of infectivity and settings where infection has occurred.

The imported cases reported by Germany and France, following medical evacuation and travel, suggest that more imported cases may be expected in the EU in the immediate future.

Due to the large number of guest workers in Saudi Arabia attention must also be drawn to the possible importation of MERS-CoV to the South East and Pacific Asia.

Actions

ECDC published an updated rapid risk assessment on 17 May 2013 and an epidemiological update on 23 May 2013. The results of an ECDC-coordinated survey on laboratory capacity for testing the novel coronavirus in Europe were published in EuroSurveillance.

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

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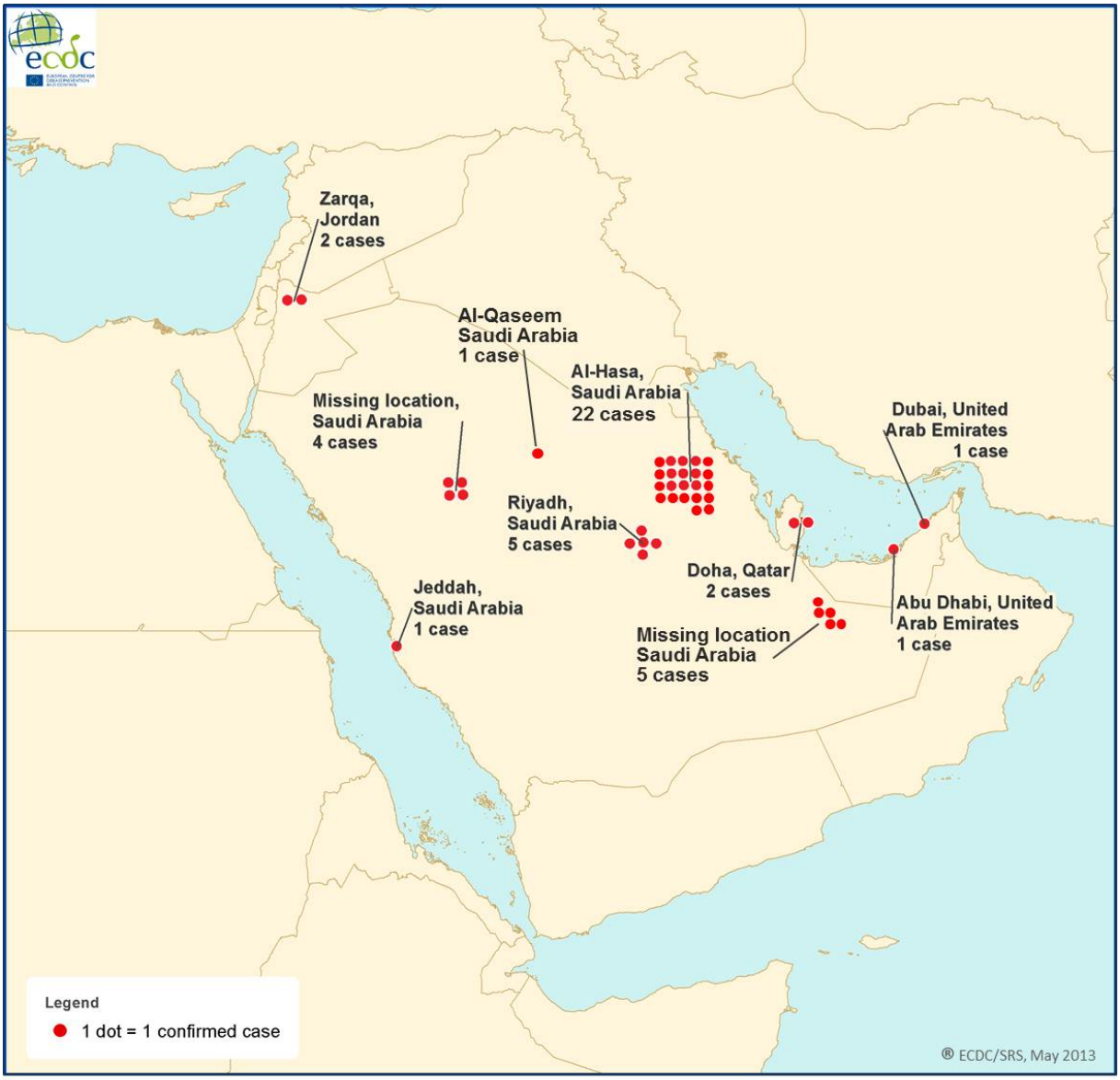
Cumulative cases of MERS-CoV reported in the Arabian Peninsula and Jordan, as of 30 May 2013

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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