COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 37, 7-13 September 2014

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

New! Accidental release of 45 litres of concentrated live polio virus solution into the environment - Belgium

Opening date: 10 September 2014 Latest update: 11 September 2014

On 6 September, the Belgium authorities informed the European Commission, the Netherlands, ECDC and WHO about an incident that occurred on 2 September 2014. Following a human error, 45 litres of concentrated live polio virus solution were released into the environment by the pharmaceutical company, GlaxoSmithKline (GSK), in Rixensart, Belgium.

West Nile virus - Multistate (Europe) - Monitoring season 2014

Opening date: 3 June 2014 Latest update: 11 September 2014

West Nile fever (WNF) is a mosquito-borne disease which causes severe neurological symptoms in a small proportion of infected people. During the June to November transmission season, ECDC monitors the situation in EU Member States and neighbouring countries in order to inform blood safety authorities of WNF-affected areas and identify significant changes in the epidemiology of the disease.

➔Update of the week

During the past week, 17 new human cases have been reported by EU Member States: Italy (7), Romania (8) and Greece (2). Seven new cases were reported by Italy from six newly affected provinces in the current transmission season: Bologna (2), Cremona (1), Ferrara (1), Modena (1), Reggio nell'Emilia (1) and Verona (1). Romania reported eight new cases, one case from the previously affected district of Olt and seven cases from six newly affected districts: Bucuresti (1), Dambovita (1), Dolj (2), Galati (1), Giurgiu (1) and Teleorman (1). Greece reported two new probable cases from the previously affected prefecture of Rodopi.

In neighbouring countries, Russia reported 17 new cases from five newly affected oblasts in the current transmission season: Altayskiy Kray (1), Astrakhanskaya (3), Chelyabinskaya (1), Saratovskaya (9), Volgogradskaya (3). Serbia reported 12 new cases: 11 cases from previously affected areas: City of Belgrade (5), Juzno-banatski (3), Kolubarski (1), Podunasvski (1) and Sremski (1) and one probable case from the newly affected district of Raski.

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Non EU Threats

New! Outbreak of Enterovirus D68 - USA

Opening date: 10 September 2014 Latest update: 11 September 2014

Between 19 and 23 August, Kansas city (Missouri) and Chicago (Illinois) authorities notified the Centers for Disease Control and Prevention (CDC) of 30 laboratory confirmed Enterovirus D68 (EV-D68) infections. The age of cases ranges from six weeks to 16 years. Since 19 August, 82 confirmed cases have been notified to CDC in six States in United States (US). All patients presented with respiratory symptoms and hypoxemia and most were admitted in a paediatric intensive care unit. No fatalities have been reported for these cases.

Outbreak of Ebola Virus Disease - West Africa - 2014

Opening date: 22 March 2014 Latest update: 11 September 2014

An outbreak of Ebola virus disease (EVD) has been ongoing in West Africa since December 2013, affecting Guinea, Liberia, Sierra Leone and Nigeria. The overall situation of the Ebola outbreak in the affected countries remains critical. The increasing number of healthcare workers that have been infected by the Ebola virus is a major cause for concern.

On 8 August 2014, the Director-General of WHO declared the Ebola outbreak in West Africa a Public Health Emergency of International Concern (PHEIC).

➔Update of the week
WHO posted a "Statement on the WHO Consultation on potential Ebola therapies and vaccines" on 5 September 2014.

As of 6 September 2014, 4 291 cases including 2 296 deaths have been reported from the affected countries. On 11 September 2014, Senegalese Ministry of Health announced that the two suspected cases tested negative for Ebola virus. According to WHO, eight districts in which previous cases were confirmed have reported no cases during the 21 days prior to 5 September. Two previously uninfected areas reported initial cases during the seven days prior to 5 September. In Liberia, six suspected cases and three probable cases were reported in the River Gee area. In Guinea, five confirmed cases and one suspect cases were reported in the Coyah area.

Ebola Virus Disease Outbreak - the Democratic Republic of Congo - 2014

Opening date: 26 August 2014 Latest update: 11 September 2014

On 24 August 2014, an outbreak of Ebola virus disease (EVD) was declared in the Boende health zone of Equateur province in the Democratic Republic of Congo. This outbreak is the seventh outbreak of EVD occurring in the country.

➔Update of the week
According to WHO, two healthcare workers have been newly diagnosed with EVD this week. No new affected area have been reported. MSF has opened two treatment centers, in Boende and Lokolia.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 11 September 2014

Global public health efforts are ongoing to eradicate polio, a crippling and potentially fatal disease, by immunising every child until transmission stops and the world is polio-free.

Polio was declared a public health emergency of international concern (PHEIC) on 5 May 2014 due to concerns regarding the increased circulation and the international spread of wild poliovirus during 2014.

➔Update of the week
During the past week, 22 new wild poliovirus 1 (WPV1) have been reported, one from Somalia and 21 from Pakistan.

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005 Latest update: 11 September 2014

The influenza A(H5N1) virus, commonly known as bird flu, is fatal in about 60% of human infections. Sporadic cases continue to be reported, usually after contact with sick or dead poultry from certain Asian and African countries. No human cases have been reported from Europe.

➔Update of the week
Since the last monthly update on 5 August 2014, WHO hasn't acknowledged any new cases worldwide.

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Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 4 September 2014

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, 453 cases have been reported including 175 deaths. No autochthonous cases have been reported from outside of China. Most cases have been unlinked, and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak. Sustained person-to-person transmission has not been documented and transmission peaked during the winter of 2013-2014. The reason for this pattern is not obvious. Since October 2013, 318 cases have been reported, the majority from previously affected provinces or in patients who visited these provinces prior to onset of illness.

➔Update of the week

Since the last update on 4 September 2014, no new cases of A(H7N9) have been reported.

ERRATUM: Following the week 36 CDTR, ECDC would like to clarify that no imported cases of A(H7N9) have been reported from outside of China to date, except for the single case imported to Malaysia.
The CDTRs for weeks 23-36 incorrectly included a mention of an imported case in Canada.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 11 September 2014

Dengue fever is one of the most prevalent vector-borne diseases, affecting an estimated 50 to 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, in October 2012 and the recent autochthonous dengue case in the south of France further underline the importance of surveillance and vector control in other European countries.

➔Update of the week

The number of dengue fever cases (suspected and confirmed) reported in North, Central and South America and the Caribbean in 2014 has exceeded one million, according to new figures released by the Pan American Health Organization (PAHO) on 2 September 2014.

As of 11 September, 103 autochthonous cases of dengue fever have been reported in Japan. No cases have travelled overseas. Ninety-seven of the 103 reported cases visited Yoyogi park in Tokyo, in August and September. In addition, a 50-year-old male without travel history to Tokyo or abroad has been reported in Chiba city.

Chikungunya outbreak - The Caribbean, 2013-2014

Opening date: 9 December 2013 Latest update: 4 September 2014

An outbreak of chikungunya virus infection has been ongoing in the Caribbean since December 2013. The outbreak has spread to North, Central and South America. There have been more than 660 000 probable and confirmed cases in the region, including 46 fatalities so far. Several EU countries are reporting imported cases from the affected areas.

➔Update of the week

Compared with last week, the number of reported cases of chikungunya infections has risen, in particular in Puerto Rico (USA). The Colombian Ministry of Health reported the first four autochthonous cases of chikungunya in the country. The Pan American Health Organization (PAHO)/WHO published an epidemiological alert on 29 August 2014 advising countries in the region to increase vector density reduction efforts and to implement effective public communication strategies for the elimination of mosquito breeding sites.

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II. Detailed reports

New! Accidental release of 45 litres of concentrated live polio virus solution into the environment - Belgium

Opening date: 10 September 2014 Latest update: 11 September 2014

Epidemiological summary

On 2 September 2014, following a human error, 45 litres of concentrated live polio virus solution were released into the environment by the pharmaceutical company, GlaxoSmithKline (GSK), in Rixensart city, Belgium. The estimated viral rejection of live virus Saukett (Salk) serotype 3 was of 10^13 cell culture infectious dose 50% (CCID50). The liquid was conducted directly to a water-treatment plant (Rosieres) and released after treatment in river Lasne affluent of river Dyle which is affluent of the Escaut/Scheldt river.

After being informed by GSK, the High Council of Public Health (HCPH) conducted a risk assessment that concluded that the risk of infection for the population exposed to the contaminated water is extremely low due to the high level of dilution and the high vaccination coverage (95%) in Belgium. The risk was estimated higher for the personnel of the water-treatment plant so they received medical assistance/examination and polio vaccination. In addition, their risk assessment concludes that from the junction of river Lasne with the river Dyle the dilution of the virus in the river water brings the risk to negligible. As a precaution, a booster dose of polio vaccine was recommended to persons who have been in contact with the water of river Lasne from 2 September until the date when the precautionary measures will be lifted.

Measures taken by the local health authorities include the molecular (PCR) testing of environmental samples from river water and sludge, informing the population through a press release on 5 September and activation of a call centre at the Ministry of Health for the general public, notification of the general practitioners and relevant local health authorities through a letter sent by HCPH with recommendations. Relevant corrective measures are to be taken by GSK under the control of public authorities.

On 8 September 2014, the Federal Public Service (FPS) Health, Food Chain Safety and Environment in Belgium confirmed that samples of mud and water taken from the Rosieres treatment plant, river Lasne and river Dyle, all tested negative for the presence of polio virus.

Web sources: Belgium PHI on 5 September | Belgium PHI on 7 September | FPS on 8 September | RIVM | Eurosurveillance

ECDC assessment

The accidental release in the environment of large amounts of live polio virus represents a risk to public health in case susceptible populations are exposed to contaminated waters or mud. The contamination of the rivers depends upon the effectiveness of the treatment in the Rosiere treatment plan to prevent viruses from being released. The Lasne and Dyle rivers are joining the Escaut/Scheldt river which flows in the southwestern part of the Netherlands where various orthodox protestant communities present a lower polio vaccination coverage, before reaching the North Sea.

West Nile virus - Multistate (Europe) - Monitoring season 2014

Opening date: 3 June 2014 Latest update: 11 September 2014

Epidemiological summary

As of 11 September 2014, 37 human cases of West Nile fever have been reported in the EU: Greece (13), Italy (8), Romania (13), Hungary (2) and Austria (1). Seventy-seven cases have been reported in neighbouring countries since the beginning of the 2014 transmission season.

EU Member States

Italy has reported eight cases from the following provinces: Bologna (2), Cremona (1), Ferrara (1), Modena (1), Reggio nell'Emilia (1), Verona (1) and Pavia (1). Romania has reported 13 cases in the districts of Mures (2), Olt (2), Constanta (1), Ialomita (1), Bucuresti (1), Dambovita (1), Dolj (2), Galati (1), Giurgiu (1) and Teleorman (1). Hungary has recorded two cases in Csongrad county. Austria reported an autochthonous case of West Nile fever in Vienna. In Greece, 13 human cases have been notified since the start of the 2014 transmission season in the following prefectures: Attiki (2), Ileia (6), Rodopi (4) and Xanthi (1).

On 3 September, the Andalusia Ministry of Agriculture in Spain detected one horse with West Nile encephalitis in the province of Seville.

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In Italy, updated information on recent infections of West Nile in equids, birds, and vectors has been published on the National Reference Centre for the Study of Exotic Diseases (CESME) website.

Neighbouring countries
Thirteen cases have been reported by Bosnia and Herzegovina, in Republika Srpska, in the following municipalities: Banja Luka (4), Trebinje (1), Novi Grad (1), Kljuc (1), Krupa na Uni (1), Mrkonjic Grad (1), Gornji Ribnik (1), Teslic (1), Laktasi (1) and Prijedor (1). Serbia has reported 38 cases of West Nile fever in the following regions: City of Belgrade (18), Juzno-backi district (3), Nisavski district (1), Kolubarski (2), Sremski (4), Juzno-banatski (6), Podunavski (3), Raski (1). Russia has reported 24 cases in the following oblasts: Saratovskaya (9), Samarskaya (6), Volgogradskaya (3), Astrakhanskaya (3), Belgorodskaya (1), Altayskiy Kray (1) and Chelyabinskaya (1). Israel has recorded two cases of West Nile fever, one confirmed case from Netanya and one probable case from Tel Aviv, both were diagnosed in July.

In addition, the World Organization for Animal Health (OIE) published information about West Nile virus infection in a horse in Turkey (Bursa province).

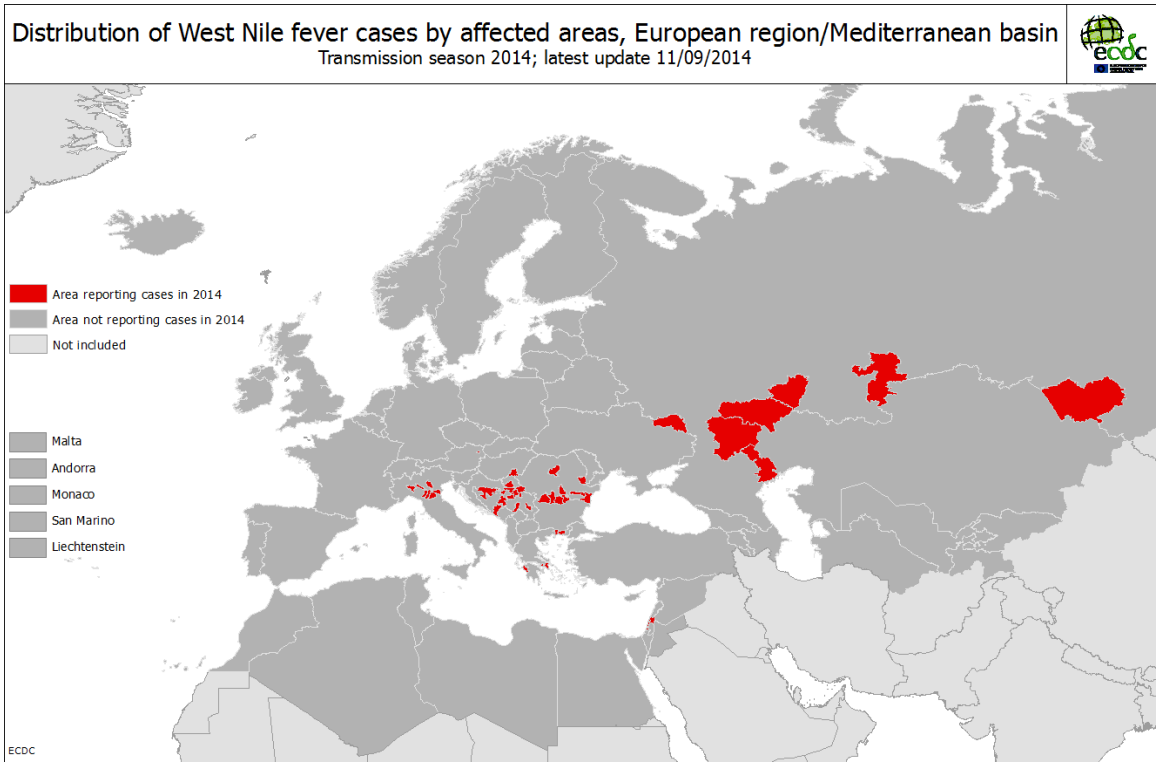
Web sources: ECDC West Nile fever | ECDC West Nile fever risk assessment tool | West Nile fever maps |

ECDC assessment

West Nile fever in humans is a notifiable disease in the EU. The implementation of control measures is considered important for ensuring blood safety by the national health authorities when human cases of West Nile fever occur. According to the EU blood directive, efforts should be made to defer blood donations from affected areas with ongoing virus transmission.

Actions

Since week 23, ECDC has been producing weekly West Nile fever (WNF) risk maps during the transmission season to inform blood safety authorities regarding WNF affected areas.



New! Outbreak of Enterovirus D68 - USA

Opening date: 10 September 2014 Latest update: 11 September 2014

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Epidemiological summary

On 19 August, Kansas City (Missouri) authorities notified CDC of an increase in patients with severe respiratory illness. In addition, an increase of detections of rhinovirus/enterovirus by PCR in nasopharyngeal specimens was reported in August. On 23 August, Chicago (Illinois) authorities notified CDC of an increase in patients similar to those seen in Kansas City. Enterovirus D68 (EV-D68) was identified in 19 of 22 specimens from Kansas City and in 11 of 14 specimens from Chicago. Of the 19 laboratory confirmed cases from Kansas City, the ages range from six weeks to 16 years (median=4 years). Thirteen patients (68%) had a previous history of asthma or wheezing and six patients (32%) had no underlying respiratory illness. All patients had respiratory symptoms and hypoxemia and four (21%) had wheezing but only five patients (26%) were febrile. All patients were admitted to the paediatric intensive care unit and four required bilevel positive airway pressure ventilation.

Of the 11 laboratory confirmed cases from Chicago, the ages range from 20 months to 15 years (median=5 years). Eight patients (73%) had a previous history of asthma or wheezing. Notably, only two patients (18%) were febrile. Ten patients were admitted to the paediatric intensive care unit for respiratory distress. Two required mechanical ventilation and two required bilevel positive airway pressure ventilation. Since August, admissions for severe respiratory illness have continued at both facilities at rates higher than expected for this time of year. As of 3 September, Kansas City has treated 500 children, among them 15% were admitted in an intensive care unit but no fatalities are reported. However, the number of daily admissions has decreased by 50%, from 30 per day to 15 per day.

As of 10 September, CDC is reporting 82 confirmed cases in six States.Media report more than 1 000 similar cases across 12 US states. However, this has not been confirmed by health authorities as there is currently no mandatory surveillance system for EV-D68 in the United States.

Since the original isolation of EV-D68 in California in 1962, EV-D68 has been reported rarely in the United States. The National Enterovirus Surveillance System received 79 EV-D68 reports during 2009-2013. Small clusters of EV-D68 associated with respiratory illness were reported in the United States during 2009-2010 and outside the United States (Philippines, Japan and the Netherlands) between 2008 and 2010. EV-D68 causes respiratory illness and the virus can be found in respiratory secretions such as saliva, nasal mucus or sputum. The virus spreads from person to person when an infected person coughs, sneezes or touches contaminated surfaces. There are no available vaccines or specific treatments for EV-D68 and clinical care is symptomatic treatment.

Web sources: MMWR | CDC |Kansas Health institute | Illinois Department of Health | Media | CDC Q&A

ECDC assessment

EV-D68 is a potential cause of respiratory tract infection mainly among children. However, it has been rarely reported worldwide and the number of cases is likely to be underestimated in United States due to the absence of a mandatory surveillance system. This year, the magnitude of the outbreak in United States is higher than previous years and the identification of the virus and the risk of potential extension outside this country (including EU) remains possible.

Outbreak of Ebola Virus Disease - West Africa - 2014

Opening date: 22 March 2014 Latest update: 11 September 2014

Epidemiological summary

Distribution of EVD cases in the affected countries as of 6 September 2014:

- **Guinea:** 862 cases, including 555 deaths;
- **Liberia:** 2 046 cases, including 1 224 deaths;
- **Nigeria:** 21 cases, including 8 deaths;
- **Sierra Leone:** 1 361 cases, including 509 deaths;
- **Senegal** *(as of 11 September)***:** 1 case, no deaths.

There is an increasing number of media reports about suspected EVD cases and their systematic verification in several countries around the world, indicating that surveillance is working. To date, no cases have been found to be positive outside Guinea, Liberia, Nigeria or Sierra Leone with the exception of one case in Senegal in a Guinean national.

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Web sources: WHO/AFRO outbreak news | WHO Ebola Factsheet | ECDC Ebola health topic page | ECDC Ebola and Marburg fact sheet |Risk assessment guidelines for diseases transmitted on aircraft | EID "Undiagnosed Acute Viral Febrile Illnesses, Sierra Leone"| Senegal MoH

ECDC assessment

This is the largest ever documented outbreak of EVD with a number of reported cases and deaths that exceeds the case and death number of all historical outbreaks. It is also the largest outbreak in terms of geographical spread. The outbreak has not yet reached its peak and it is currently in a phase of rapid spread. Community resistance, inadequate treatment facilities and insufficient human resources in affected areas are among the challenges currently faced by the countries in responding to the EVD outbreak.

EVD is not an airborne disease and only symptomatic patients are contagious. Transmission requires direct contact with blood, secretions, organs or other bodily fluids of dead or living infected persons or animals. Therefore the risk of infection is considered very low if precautions are strictly followed. However, the increase in the number of new EVD cases in recent weeks, the urban transmission, and the fact that not all chains of transmission are known, is increasing the likelihood of visitors and travellers coming into contact with ill persons. The risk of exposure in healthcare facilities for EU residents and visitors to the affected areas is related to the implementation of effective infection transmission control measures in these settings and the nature of the care required. Recent reports of transmission to healthcare workers in different healthcare settings indicate that effective infection control measures are not being thoroughly implemented across healthcare facilities in the region.

Temporary recommendations from the Emergency Committee with regard to actions to be taken by countries can be found at: http://www.who.int/mediacentre/news/statements/2014/ebola-20140808/en/

Actions

On 4 September ECDC published an updated rapid risk assessment.
On 10 September ECDC published an EU case definition.
An epidemiological update will be published on a weekly base on the EVD ECDC page.

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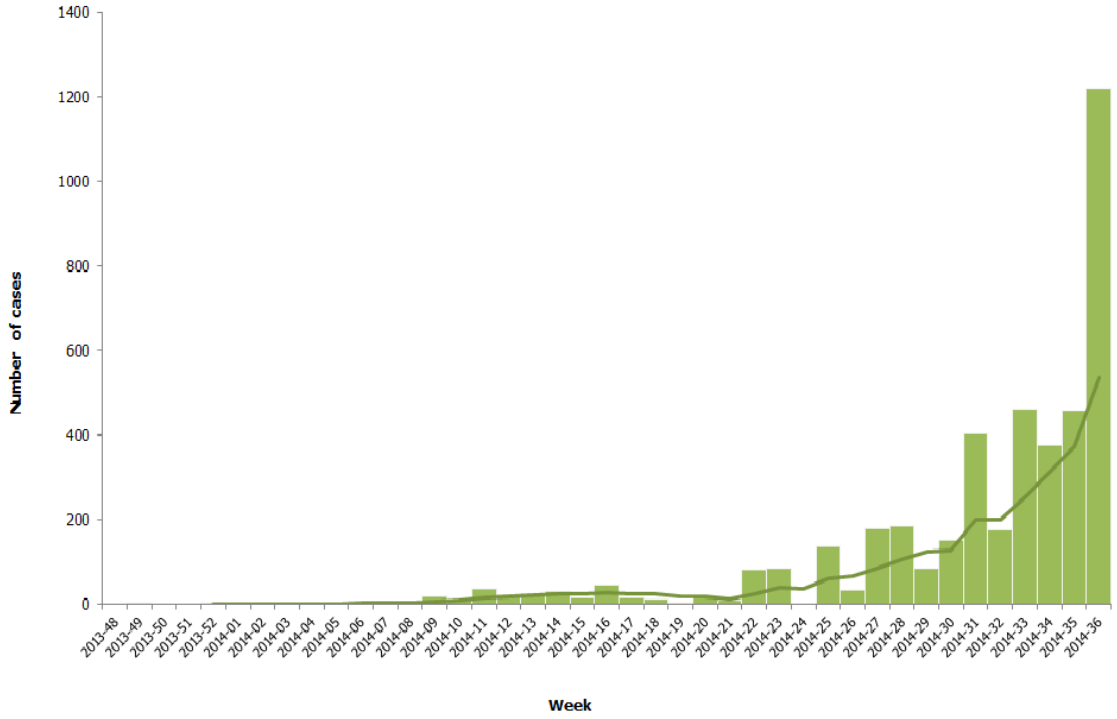
Distribution of EVD cases by week in Guinea, Liberia, Nigeria and Sierra Leone as of 6 September 2014

Source: Adapted from WHO data



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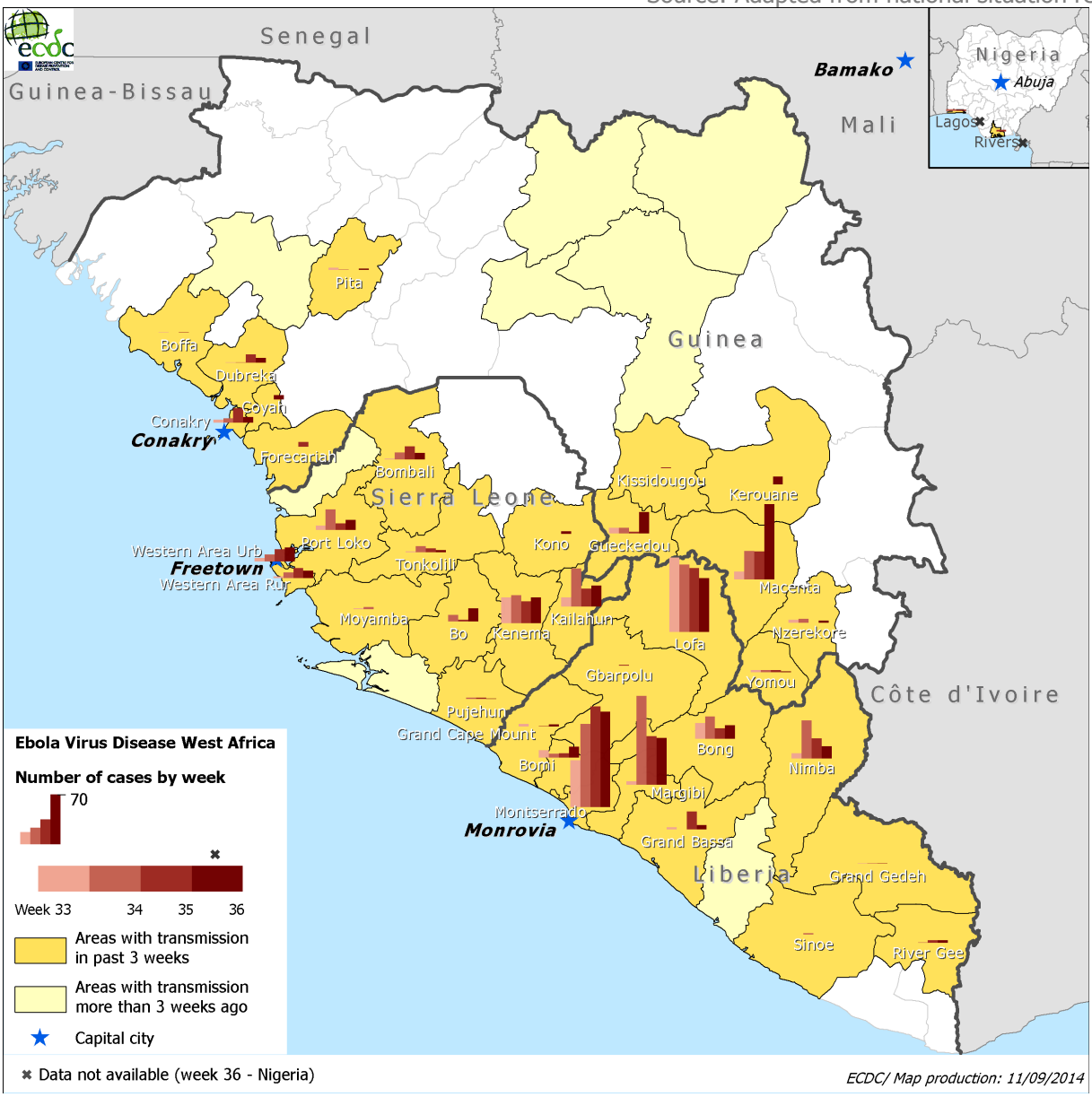
Distribution of new EVD cases (confirmed, probable and suspected) by district, weeks 33 -36, 2014

Source: Adapted from national situation reports.



Ebola Virus Disease Outbreak - the Democratic Republic of Congo - 2014

Opening date: 26 August 2014 Latest update: 11 September 2014

Epidemiological summary

On 26 August 2014, the Ministry of Health, Democratic Republic of the Congo (DRC) notified the World Health Organization Regional Office for Africa (WHO - AFRO) of an outbreak of EVD in Equateur Province. Between 28 July and 4 September 2014, 72 cases of EVD, including 48 deaths, have been identified. Among these, seven are healthcare workers six of whom have died. The index case was a pregnant woman from Ikanamongo Village who butchered a bush animal given to her by her hunter husband. She fell ill with symptoms of EVD and died on 11 August at a private clinic in Isaka Village. The index case and the contacts identified have no history of travel to the EVD-affected countries in West Africa and no history of contact with individuals from the affected areas.

A team of experts from the Ministry of Health, WHO, UNICEF, Centers for Disease Control and Prevention (CDC) and Médecins Sans Frontières are in Boende health zone to support the response operations. As of 1 September, 285 of 291 contacts have been identified for active follow-up.

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The species causing this outbreak is *Zaïre ebolavirus*. The strain was found to be 99% homologous to Kikwit 1995 strain and therefore different form the *Zaïre ebolavirus* strain circulating in West Africa.

Web Sources: WHO AFRO|ECDC factsheet

ECDC assessment

The outbreak in DRC is unrelated to the ongoing outbreak in West Africa.

The epidemiological features of this outbreak are consistent with previous outbreaks of EVD involving *Zaïre ebolavirus*. It is likely that more cases will be identified in the coming weeks, as active case-finding and contact monitoring is in place, and given the duration up to three weeks of the incubation period. However, control measures currently implemented with the support of international partners are expected to prevent further spread of the disease.

Actions

ECDC is monitoring this event through epidemic intelligence and has published a rapid risk assessment

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 11 September 2014

Epidemiological summary

During the past week 22 new cases of WPV1 have been reported. Worldwide, 171 cases have been reported to WHO so far in 2014, compared with 416 for the same time period in 2013. In 2014, nine countries have reported cases: Pakistan (138 cases), Afghanistan (8 cases), Equatorial Guinea (5 cases), Nigeria (6 cases), Somalia (5 cases), Cameroon (5 cases), Iraq (2 cases), Syria (1 case), and Ethiopia (1 case).

After the declaration of PHEIC, WHO issued a set of Temporary Recommendations that call for the vaccination of all residents in and long-term visitors to countries with polio transmission prior to international travel.

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet |Temporary Recommendations to Reduce International Spread of Poliovirus

ECDC assessment

Europe is polio-free. The last polio cases within the current EU borders were reported from Bulgaria in 2001. The latest outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases.

The confirmed circulation of WPV in several countries and the documented exportation of WPV to other countries support the fact that there is a potential risk for WPV being re-introduced into the EU/EEA. The highest risk of large poliomyelitis outbreaks occurs in areas with clusters of unvaccinated populations, people living in poor sanitary conditions, or a combination of the two.

References: ECDC latest RRA | Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA | Wild-type poliovirus 1 transmission in Israel - what is the risk to the EU/EEA? | WHO statement on the meeting of the International Health Regulations Emergency Committee concerning the international spread of wild poliovirus, 5 May 2014

Actions

ECDC follows 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 re-introduced into the EU.

Following the declaration of polio as a PHEIC, ECDC updated its risk assessment. ECDC has also prepared a background document of travel recommendations for the EU.

On 4 September 2014 ECDC published a news item regarding the WHO IHR Emergency Committee decision to add Equatorial Guinea as a wild poliovirus exporting country and the renewal of the WHO PHEIC recommendations.

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Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005 Latest update: 11 September 2014

Epidemiological summary

Since 5 August 2014, WHO hasn't reported any new cases worldwide. The last cases were reported on 29 June 2014.
From 2003 to 5 september 2014, 667 laboratory-confirmed human cases of avian influenza A(H5N1) virus infection have been officially reported to WHO from 16 countries. Of these cases, 393 have died.

Web sources: ECDC Rapid Risk Assessment | Avian influenza on ECDC website | WHO update | WHO EMRO |

ECDC assessment

The risk of secondary cases in Europe is considered to be very low. Europeans travelling to China and south-east Asia should avoid live poultry markets and contact with chickens, ducks, wild birds and their droppings. This reduces the risk of exposure to both A(H5N1) and A(H7N9). Poultry meat and eggs should be well cooked.

Hong Kong reported the world's first outbreak of bird flu among humans in 1997, when six people died. Most human infections are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. There are currently no indications of a significant change in the epidemiology associated with any clade or strain of the A(H5N1) virus from a human health perspective. This assessment is based on the absence of sustained human-to-human transmission, and on the observation that there is no apparent change in the size of clusters or reports of chains of infection. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

Actions

ECDC follows the worldwide A(H5N1) situation through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis.

ECDC published a rapid risk assessment covering A(H5N1) and other human infections with avian influenza viruses in China on 26 February 2014.

WHO is now reporting H5N1 cases on a monthly basis. ECDC will continue monthly reporting in the CDTR to coincide with WHO reporting.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013 Latest update: 4 September 2014

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, human cases have continued to be reported, and as of 4 September 2014, there were 453 laboratory-confirmed cases: Zhejiang (139), Guangdong (109), Jiangsu (56), Shanghai (42), Fujian (22), Hunan (24), Anhui (18), Jiangxi (6),Henan (4), Beijing (4), Guangxi (4), Shandong (4), Hebei (1), Guizhou (1), Jilin (2), Xinjiang Uygur (2), Hong Kong (10), Taiwan (4) and one imported case in Malaysia. The second wave of the outbreak started in October 2013. Since then 318 cases have occurred. The number of reported cases has been declining since April 2014 and only sporadic cases have been reported during the past months.
Most cases have developed severe respiratory disease. One hundred and seventy-five patients have died.

Web sources: Chinese CDC | WHO | WHO FAQ page | ECDC |

ECDC assessment

This outbreak is caused by a novel reassortant avian influenza virus capable of causing severe disease in humans. Currently, the

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most likely scenario is that this remains a local, although geographically widespread, zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation.

Imported cases of influenza A(H7N9) may be detected in Europe. However, the risk of the disease spreading among humans following an importation to Europe is considered to be very low. People in the EU presenting with severe respiratory infection and a history of potential exposure in the outbreak area will require careful investigation in Europe.

Actions

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

ECDC published an updated Rapid Risk Assessment on 26 February 2014.

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

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 11 September 2014

Epidemiological summary

Asia: As of 11 September, the Japanese Ministry of Health has reported 103 autochthonous cases of dengue fever. No cases have travelled overseas. Ninety-seven of the 103 reported cases visited Yoyogi park in Tokyo, in August and September. However, six cases did not visit Yoyogi park. Two cases visited Shinjuku Chuo park, one case visited Jingu Gaien or Sotobori parks, one case visited Sotobori Park or Aoyama parks and one case visited Taito ward. In addition, a 50-year-old male without travel history to Tokyo or abroad has been reported in Chiba city. Following genetic analysis of the virus from the case in Chiba city, the isolated serotype was DENV-1 which matches the virus detected in cases reported from Yoyogi, Shinjuku Chuo, Sotobori and Jingugaien parks, according to the Japanese Ministry of Health.

In Singapore, there has been a recent increase in cases of DENV-2 in August. Health authorities are warning that if this serotype becomes more prevalent the risk of an epidemic may increase as immunity in the population to this serotype is lower, according to media quoting the Minister for Environment and Water resources.

Americas: The number of dengue fever cases (suspected and confirmed) reported in North, Central and South America and the Caribbean in 2014 has exceeded one million according to new figures released by the Pan American Health Organization (PAHO) on 2 September 2014. Brazil has reported the highest number of cases with nearly 700 000 and accounts for 65% of cases in the Western hemisphere. This is not unexpected as Brazil recorded more than 1.4 million cases in 2013 out of 2.3 million cases in the Americas. Colombia, the second highest reporting country, has reported 95 000 cases to date. There have been 431 fatalities associated with dengue so far in 2014 with Brazil accounting for 261 of them. The United States has reported 172 laboratory confirmed cases so far this year with 99% of the cases classified as imported cases.

All four dengue serotypes have been isolated in the Americas. In several countries they are circulating simultaneously. In North America, the Florida Department of Health in Miami-Dade County reported three locally acquired cases of dengue fever last week. In Central America, El Salvador recorded nearly 35 000 suspected dengue cases up to week 35 which is 89% more cases compared with the same time period last year, according to the Ministry of Health.

Caribbean: Cuban health authorities are on alert following an increase in dengue transmission. Cases of dengue fever have been identified in 35 Cuban municipalities, 15 of them in Havana, according to media quoting the Ministry of Health.

Oceania: According to a ProMED report submitted by a physician in Queensland, Australia, a female patient in her fifties who recently returned from Southeast Asia to Queensland, has been diagnosed with dengue disease attributed to infection with a potentially atypical dengue virus strain. Although subsequent laboratory diagnosis confirmed dengue virus infection, further nucleotide sequencing analysis indicated that the dengue virus strain responsible for the illness was only distantly related to available dengue virus 1-4 serotype sequences, the closest being dengue virus serotype 1. A report by Vasilakis et al in 2013 identified a fifth serotype of dengue virus from Malaysia of sylvatic origin and so it is possible that a sylvatic dengue virus may be responsible for the illness in this Brisbane patient due to a potential spill over event, according to a physician at the Queensland

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Department of Health.

Africa: In Ethiopia, between 7 July and 10 August 2014, 46 new cases of dengue fever were reported from Gode area in Shabelle zone, Somali region. No new cases were reported for several weeks prior to these cases. Dengue fever was documented for the first time in Ethiopia in Dire Dawa city in mid-September in 2013. Cases were later reported in Gode area of Somali region in January 2014 and in the Afar region in April 2014.

Web sources: ECDC Dengue | Healthmap Dengue | MedISys | Japan MoH | ProMED Americas, Africa, Asia |

ECDC assessment

This is the first documented autochthonous transmission of dengue fever in Japan in the last 70 years. In September 2013, dengue virus infection was reported from Germany in a female patient that was diagnosed nine days after she returned from a two week trip to Japan. She was reported by Germany as an imported case as transmission most likely occurred in Japan. *Aedes Albopictus*, one of the competent vectors for dengue transmission is well established and widely distributed in Japan (Kobayashi M et al, 2002). A report published in the *Japanese Journal of Infectious Diseases* found that *Aedes aegypti* was detected at Narita International Airport, Japan, in August 2012. A retrospective study following the German case found that the population density of *Aedes albopictus* is high in the urban areas of Japan.

Recently reported autochthonous transmission of dengue fever in France and Japan highlights the risk of locally-acquired cases occurring in countries where the competent vectors are present.

Actions

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

Since week 28/2013, ECDC has been monitoring dengue on a bi-weekly basis.

Chikungunya outbreak - The Caribbean, 2013-2014

Opening date: 9 December 2013 Latest update: 4 September 2014

Epidemiological summary

As of 12 September 2014, more than 660 000 suspected and confirmed cases of chikungunya virus infection have been reported from the affected countries and territories in the Caribbean and the rest of the Americas, including 46 fatalities. For the breakdown of figures please see the latest WHO PAHO update.

In reaction to the continued spread of chikungunya virus in the Americas and the start of the period with higher dengue circulation in Central America and the Caribbean, PAHO/WHO published an epidemiological alert on 29 August, advising countries who have the vector mosquito of both viruses (*Aedes aegypti*), to increase vector density reduction efforts in addition to establishing and maintaining dengue and chikungunya case management capacity, and to implement effective public communication strategies to eliminate mosquito breeding sites.

Several EU/EFTA countries (France, Greece, Italy, the Netherlands, Spain and Switzerland) have reported imported cases of chikungunya infection in patients with travel history to the affected areas.

Web sources: PAHO update| ECDC Chikungunya | CDC Factsheet | Medisys page | CARPHA interactive chikungunya map

ECDC assessment

Epidemiological data indicate that the outbreak, which started in Saint Martin (FR), is still expanding and has reached North, Central and South America. Increasing case numbers have been observed from most of the affected areas. The vector is endemic in the region, where it also transmits dengue virus. Further spread of the outbreak is to be expected.

Vigilance is recommended for the occurrence of imported cases of chikungunya in tourists returning to the EU from the Caribbean, including awareness among clinicians, travel clinics and blood safety authorities.

Actions

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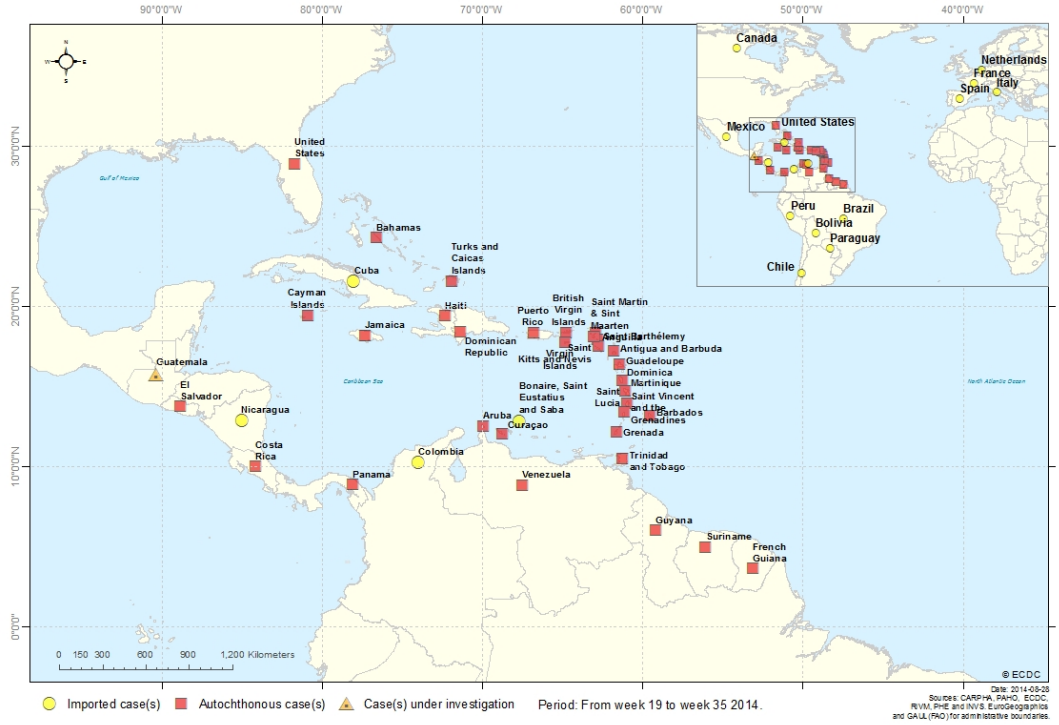
ECDC updated its Rapid Risk Assessment and published it on 27 June 2014.

Chikungunya in the Caribbean as of 05 September 2014

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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