COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 12, 15-21 March 2015

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Influenza – Multistate (Europe) – Monitoring 2014–2015 season

Opening date: 9 October 2014 Latest update: 19 March 2015

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter season and publishes the results on its website in the weekly Flu News Europe.

➔Update of the week

While the proportion of influenza virus positive samples is similar to the previous week (41%), the overall number of influenza detections further decreased. Influenza A(H1N1)pdm09, A(H3N2) and type B viruses continued to circulate in the Region, with an increasing proportion of type B viruses. For the region as a whole, influenza A(H3N2) viruses were most prominent, but several countries, from the southern and far-eastern part of the Region (Portugal, Greece, Turkey, Republic of Moldova, Georgia, Ukraine, Kazakhstan and Kyrgyzstan), have reported predominantly sentinel influenza B virus detections over the season.

Non EU Threats

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 19 March 2015

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. On 27 February 2015, the Temporary Recommendations in relation to PHEIC were extended for a further three months.

➔Update of the week

During the past week, three new wild poliovirus type 1 (WPV1) cases were reported by WHO, all from Pakistan.

Syria and Ethiopia have been re-classified as countries 'no longer infected by wild poliovirus, but which remain vulnerable to international spread', after more than 12 months passed since the last detection of wild poliovirus in the countries.

In Afghanistan, two environmental samples were confirmed positive for WPV1 indicating that the virus is circulating in the country.

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

Opening date: 24 September 2012 Latest update: 19 March 2015

Since April 2012, 1 103 cases of MERS-CoV have been reported by local health authorities worldwide, including 454 deaths. To date, all cases have either occurred in the Middle East, have direct links to a primary case infected in the Middle East, or have returned from this area. The source of the virus remains unknown, but the pattern of transmission and virological studies point towards dromedary camels in the Middle East 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

Since the last update of 12 March 2015, Saudi Arabia has reported 10 additional cases of MERS-CoV in Riyadh (7 cases), Tabuk (1) and Eastern Province (2). One of the cases was a healthcare worker and one reported animal contact. Eight of the 10 cases (80%) were male and the median age was 45 years (range: 21 - 73 years).

Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 19 March 2015

An epidemic of Ebola virus disease (EVD) has been ongoing in West Africa since December 2013, mainly affecting Guinea, Liberia and Sierra Leone. On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Emergency of International Concern (PHEIC).

➔Update of the week

As of 17 March 2015, WHO reported 24 778 cases of Ebola virus disease (EVD) related to the outbreak in West Africa, including 10 231 deaths.

WHO reported 150 new confirmed cases of Ebola in the week up to 15 March, compared with 116 in the previous week. There were 95 new confirmed cases reported in Guinea: the highest weekly total for the country in 2015. Sierra Leone reported 55 new confirmed cases over the same period: the country's lowest weekly total since late June 2014. Liberia reported no new confirmed cases for the third consecutive week.

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II. Detailed reports

Influenza – Multistate (Europe) – Monitoring 2014–2015 season

Opening date: 9 October 2014 Latest update: 19 March 2015

Epidemiological summary

Hospitalised severe influenza cases were mainly reported in the elderly (53%). Influenza type A was more frequently observed (85%) than influenza B (15%) in fatal laboratory-confirmed hospitalised influenza cases.

Excess all-cause mortality among people aged 65 years and over, concomitant with increased influenza activity and the predominance of A(H3N2) viruses, has been observed since the beginning of the year in Belgium, Denmark, France, the Netherlands, Portugal, Spain, Switzerland and the United Kingdom (see EuroMOMO).

About two thirds of the A(H3N2) viruses characterised so far show antigenic differences compared to the virus included in the 2014–2015 northern hemisphere influenza vaccine. The observed reduction in effectiveness of the A(H3N2) component of the vaccine might have contributed to the excess mortality reported among elderly people. The A(H1N1)pdm09 and B components of the vaccine are likely to be effective.

There are no indications this season of substantial reduced sensitivity of influenza A or B viruses to the neuraminidase inhibitors oseltamivir or zanamavir.

Web sources: Flu News Europe | ECDC Influenza |

ECDC assessment

Influenza activity continues to circulate at medium levels in 28 out of 45 countries, but has passed its peak in most European countries.

Actions

ECDC and WHO produce the Flu News Europe bulletin weekly.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 19 March 2015

Epidemiological summary

Worldwide in 2015, 20 WPV1 cases have been reported to WHO, compared with 37 for the same period in 2014. Since the beginning of the year, two countries have reported cases: Pakistan (19 cases) and Afghanistan (1 case).

No circulating vaccine-derived poliovirus (cVDPV) cases were reported so far in 2015. In 2014, 54 cVDPV cases were reported worldwide.

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis | ECDC Poliomyelitis factsheet | Temporary Recommendations to Reduce International Spread of Poliovirus | Statement on the 4th IHR Emergency Committee meeting regarding the international spread of wild poliovirus

ECDC assessment

Europe is polio-free. The last polio cases within the current EU borders were reported from Bulgaria in 2001. The most recent 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 to the EU/EEA. The highest risk of large poliomyelitis outbreaks occurs in areas with clusters of unvaccinated populations and in 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? |

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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 to 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.

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

Opening date: 24 September 2012 Latest update: 19 March 2015

Epidemiological summary

Since April 2012 and as of 19 March 2015, 1 103 cases of MERS-CoV have been reported by local health authorities worldwide, including 454 deaths.

The distribution is as follows:

Confirmed cases and deaths by region:
Middle East
Saudi Arabia: 958 cases/417 deaths
United Arab Emirates: 74 cases/10 deaths
Qatar: 11 cases/4 deaths
Jordan: 19 cases/6 deaths
Oman: 5 cases/3 deaths
Kuwait: 3 cases/1 death
Egypt: 1 case/0 deaths
Yemen: 1 case/1 death
Lebanon: 1 case/0 deaths
Iran: 5 cases/2 deaths

Europe
Turkey: 1 case/1 death
UK: 4 cases/3 deaths
Germany: 3 cases/1 death
France: 2 cases/1 death
Italy: 1 case/0 deaths
Greece: 1 case/1 death
Netherlands: 2 cases/0 deaths
Austria: 1 case/0 deaths

Africa
Tunisia: 3 cases/1 death
Algeria: 2 cases/1 death

Asia
Malaysia: 1 case/1 death
Philippines: 2 cases/0 deaths

Americas
United States of America: 2 cases/0 deaths

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

ECDC assessment

The source of MERS-CoV infection and the mode of transmission to primary cases have not been identified. The majority of MERS-CoV cases are secondary cases and many result from nosocomial transmission. Dromedary camels are a host species for

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the virus. There is continued risk of cases presenting in Europe following exposure in the Middle East and international surveillance for MERS-CoV cases remains essential.

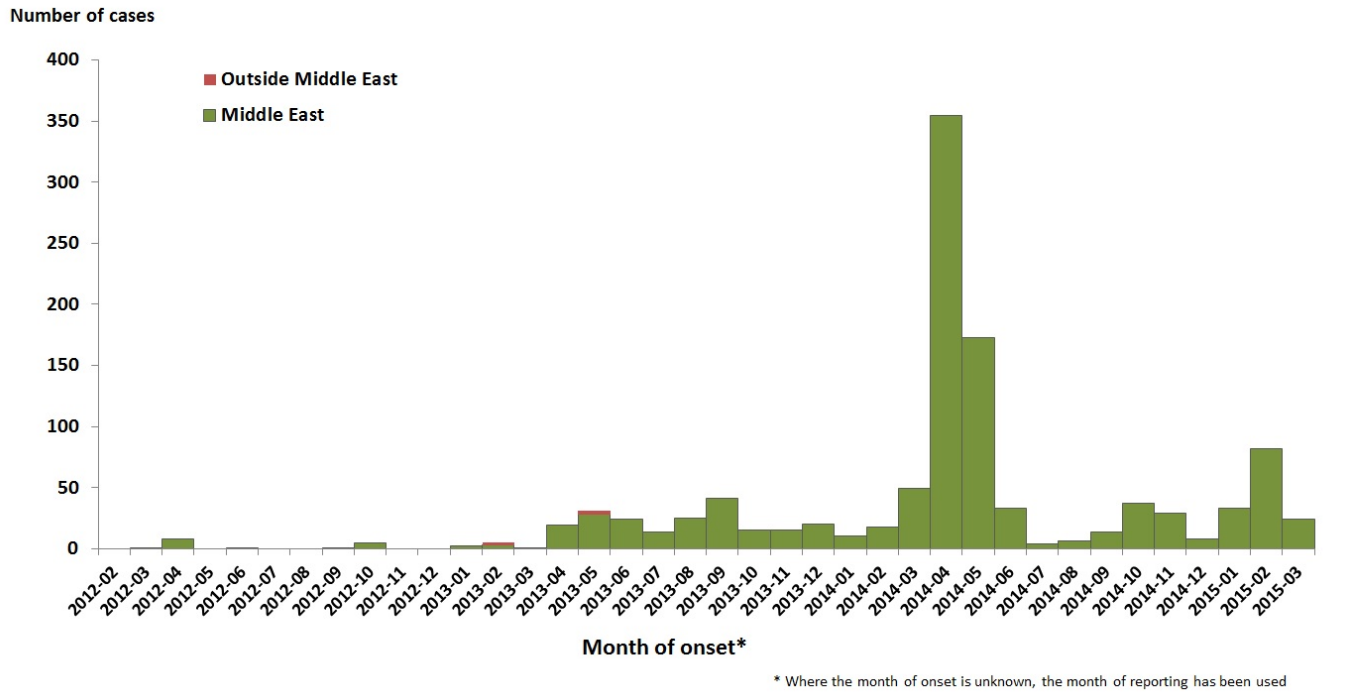
The risk of secondary transmission in the EU remains low and can be reduced further by screening for exposure among patients presenting with respiratory symptoms (and their contacts), and strict implementation of infection prevention and control measures for patients under investigation.

Actions

The last rapid risk assessment was updated on 9 March 2015.
ECDC is closely monitoring the situation in collaboration with WHO and EU Member States.
ECDC published a factsheet for health professionals regarding MERS-CoV on 20 August 2014.

Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 19 March 2015 (n=1 103)

Source: ECDC



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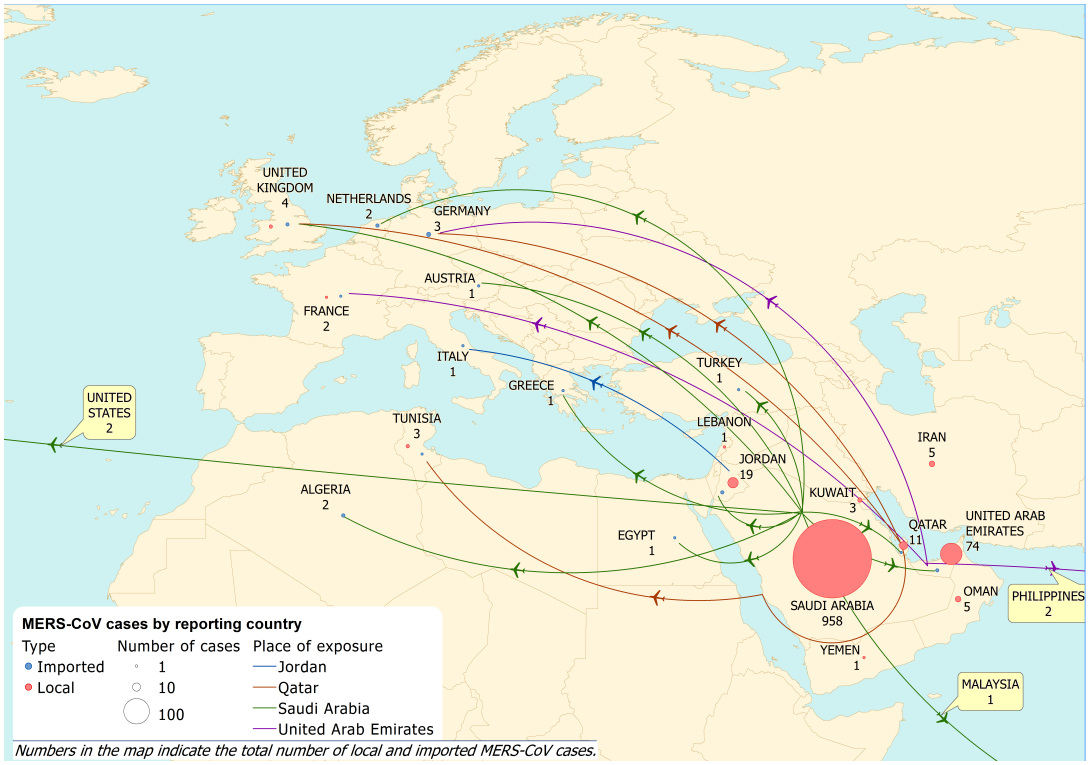
Geographical distribution of confirmed MERS-CoV cases and place of probable infection, worldwide, as of 19 March 2015 (n=1 103)

Source: ECDC



Ebola Virus Disease Epidemic - West Africa - 2014 - 2015

Opening date: 22 March 2014 Latest update: 19 March 2015

Epidemiological summary

Distribution of cases as of 17 March 2015:

Countries with intense transmission

Distribution of EVD cases for countries with intense transmission:

- Guinea: 3 409 cases and 2 231 deaths
- Liberia: 9 555 cases and 4 283 deaths
- Sierra Leone: 11 779 cases and 3 702 deaths

Countries with an initial case or cases, or with localised transmission

- Mali, Nigeria, Senegal, Spain, the United States and United Kingdom have been declared free of EVD after having cases related to the current epidemic in West Africa.

Situation in specific West African countries

The most recent confirmed case in Liberia had a second negative test for Ebola on 3 March 2015. Forty-two days must elapse before the country can be considered Ebola free.

Twelve districts in Guinea and Sierra Leone reported confirmed cases in the week up to 15 March, all situated in a geographically adjacent area in and around Conakry and Freetown. Four other districts have reported confirmed cases in the past 21 days: Kono and Tonkolili in central and eastern Sierra Leone, and Lola and Macenta in eastern Guinea. Although the geographical area with transmission has narrowed, there is a great deal of movement in and out of the area. Limiting the movement of cases and contacts has proved to be challenging although it is critical for preventing new transmission chains through 'seeding'.

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The key response indicators for Guinea indicate that significant challenges remain before the outbreak is brought under control. Of 41 EVD deaths in the week up to 15 March, 23 were identified post-mortem in the community. Eighteen unsafe burials were reported during the same period. The outbreak in Guinea is still being driven by unknown chains of transmission.

The key response indicators for Sierra Leone are more promising. In the week up to 15 March, just six of 62 EVD-confirmed deaths were identified post-mortem following a death in the community. In the same week there was only one reported unsafe burial in the country. However, there are still areas in Sierra Leone where new cases continue to arise from unknown chains of transmission.

Situation among healthcare workers
The number of healthcare worker infections reported by WHO in the three most-affected countries since the start of the outbreak is 852, with 492 deaths. Eleven new infections among local healthcare worker were reported in the week up to 15 March: 4 from a hospital in the Conakry area and one from Forecariah in Guinea. In Sierra Leone, 7 infected healthcare workers were reported from Bombali and Port Loko districts.

Medical evacuations and repatriations from EVD-affected countries
Since the last CDTR on 13 March, 24 additional healthcare workers have been evacuated from Sierra Leone. On 13 March, an American healthcare worker tested positive for Ebola in Sierra Leone and was evacuated to the USA. Subsequently, 20 international healthcare workers, all of them contacts of the American case, were repatriated: 16 to the USA, three to Denmark and one to the UK. In addition, three other healthcare workers were repatriated to the UK. Two of them had been in contact with the confirmed UK health worker who was evacuated on 12 March, and the third was a needle stick injury unrelated to the confirmed case.

Since the beginning of the epidemic and as of 20 March 2015 , 65 individuals have been evacuated or repatriated worldwide from the EVD-affected countries. As of 20 March 2015, there have been 13 medical evacuations of confirmed EVD-infected patients to Europe: three to Germany, two to Spain, two to France, two to the UK, one to Norway, one to Italy, one to the Netherlands and one to Switzerland. Twenty-five asymptomatic persons have been repatriated to Europe as a result of exposure to Ebola: 13 to UK, three to Sweden, four to Denmark, two to the Netherlands, one to Germany, one to Spain and one to Switzerland. Twenty-seven persons have been evacuated to the United States.

Images
First epi-curve: Distribution of reported cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia, Nigeria, Mali and Senegal, weeks 48/2013 to 12/2015 **
* In week 45/2014, WHO carried out retrospective correction in the data, resulting in 299 fewer cases being reported, which resulted in a negative value for new cases in week 45 which is not plotted.
** According to WHO, the marked increase in the cumulative total number of cases in week 43 is due to a more comprehensive assessment of patient databases, leading to 3 792 additional reported cases. However, these cases have occurred throughout the epidemic period.

Second and third epi-curves: Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 46/2014 to 12/2015).
The prevalence of the EVD outbreak has been low in the first months of 2015 and it appears that we are reaching the tail of the epidemic. For a clearer overview of the epidemic in these late stages we are showing only the confirmed cases (Figures 2 and 3) since the adoption of the WHO situation reports in all the three countries in week 46 2014.

Fourth epi-curve: Distribution of cases of EVD by week of reporting in the three countries with widespread and intense transmission, as of week 12* 2015.
* The marked increase in the number of cases reported in Sierra Leone (week 44) and Liberia (week 43) resulted from a more comprehensive assessment of patient databases. The additional 3 792 cases have occurred throughout the epidemic period.
** In week 45/2014, WHO reported -476 cases in Sierra Leone due to retrospective corrections.
Map: To better show the current epidemiological situation, ECDC has produced a map based on the country situation reports showing only confirmed cases of EVD in the past six weeks. Please note that due to the lower number of cases, the scale of the bar graphs is reduced to 50 cases.

Web sources: ECDC Ebola page | ECDC Ebola and Marburg fact sheet | WHO Ebola Factsheet | CDC | WHO Roadmap | Latest available situation summary | Public Health England statement | US CDC statement | Denmark evacuations | Public Health England second statement | US evacuations | US latest evacuations

ECDC assessment

This is the largest ever documented epidemic of EVD, both in terms of numbers and geographical spread. The epidemic of EVD increases the likelihood that EU residents and travellers to the EVD-affected countries will be exposed to infected or ill persons.

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The risk of infection for residents and visitors in the affected countries through exposure in the community is considered low if they adhere to the recommended precautions. Residents and visitors to the affected areas run a risk of exposure to EVD in healthcare facilities.

The risk of importing EVD into the EU and the risk of transmission within the EU following an importation remain low or very low as a result of the range of risk reduction measures that have been put in place by the Member States and by the affected countries in West Africa. However, continued vigilance is essential.

If a symptomatic case of EVD presents in an EU Member State, secondary transmission to caregivers in the family and in healthcare facilities cannot be excluded.

According to the latest WHO weekly situation report of 18 March, there has been an increase in case incidence in Guinea, while the number of new cases has decreased in Sierra Leone. The relatively low proportion of cases arising among known contacts, the relatively high proportion of EVD positive deaths that occur in the community, and the continued occurrence of unsafe burials in Guinea indicate continued difficulties in engaging effectively with the affected communities.

Actions

As of 20 March 2015, ECDC has deployed 43 experts within and outside the EU in response to the Ebola outbreak. This includes an ECDC mobilised contingent of experts to Guinea. Furthermore, 12 additional experts are confirmed for deployment to Guinea over the next four months while additional deployments are envisaged but still pending confirmation.

ECDC is looking for additional French-speaking experts with field epidemiology experience from EU Member States to join the ECDC-coordinated contingent in response to the Ebola outbreak in Guinea. For further information, please contact Niklas Danielsson, Response group leader at: niklas.danielsson@ecdc.europa.eu with cc to support@ecdc.europa.eu

An epidemiological update is published weekly on the EVD ECDC page
On 4 February 2015, ECDC published an updated rapid risk assessment
On 22 January 2014, ECDC published Infection prevention and control measures for Ebola virus disease. Management of healthcare workers returning from Ebola-affected areas
On 4 December 2014, EFSA-ECDC published a Scientific report assessing Risk related to household pets in contact with Ebola cases in humans
On 29 October 2014, ECDC published a training tool on the safe use of PPE and options for preparing for gatherings in the EU
On 23 October 2014, ECDC published Public health management of persons having had contact with Ebola virus disease cases in the EU
On 22 October 2014, ECDC published Assessing and planning medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus
On 13 October 2014, ECDC published Infection prevention and control measures for Ebola virus disease: Entry and exit screening measures
On 6 October 2014, ECDC published risk of transmission of Ebola virus via donated blood and other substances of human origin in the EU
On 22 September 2014, ECDC published assessment and planning for medical evacuation by air to the EU of patients with Ebola virus disease and people exposed to Ebola virus
On 10 September 2014, ECDC published an EU case definition

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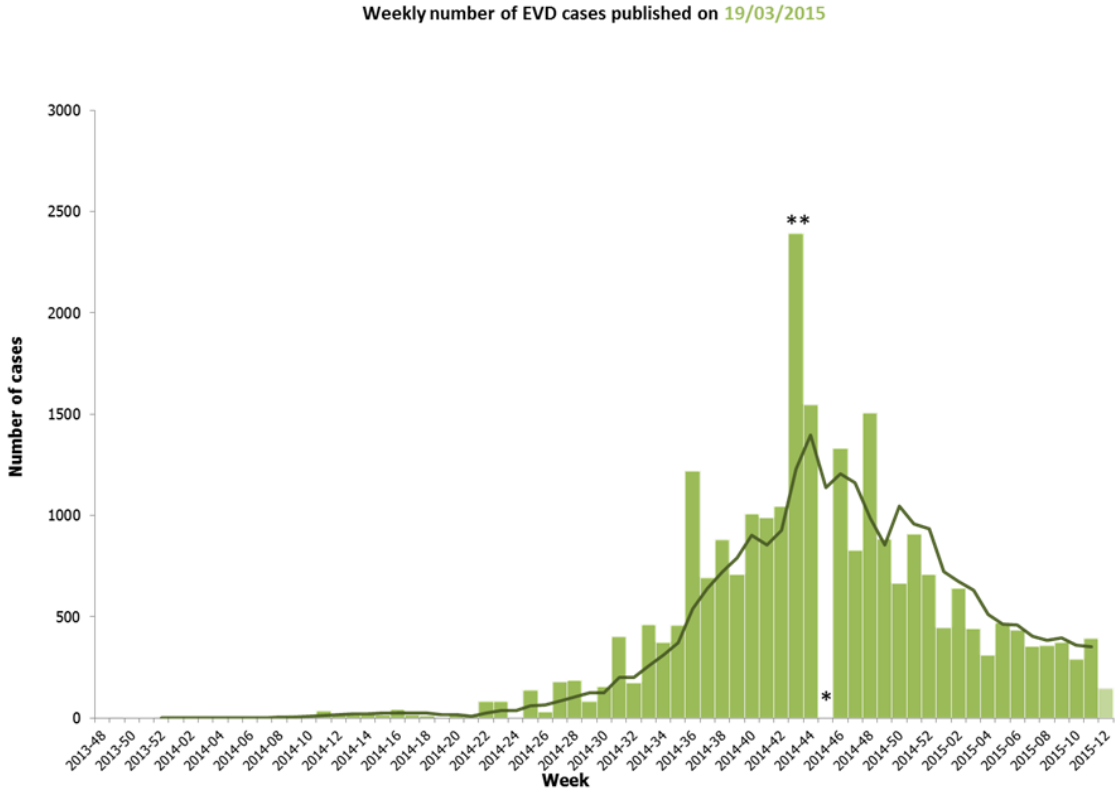
Distribution of reported cases of EVD by week of reporting in Guinea, Sierra Leone, Liberia, Mali, Nigeria and Senegal, weeks 48/2013 to 12*/2015

Source: Adapted from WHO figures; *data for week 12/2015 are incomplete



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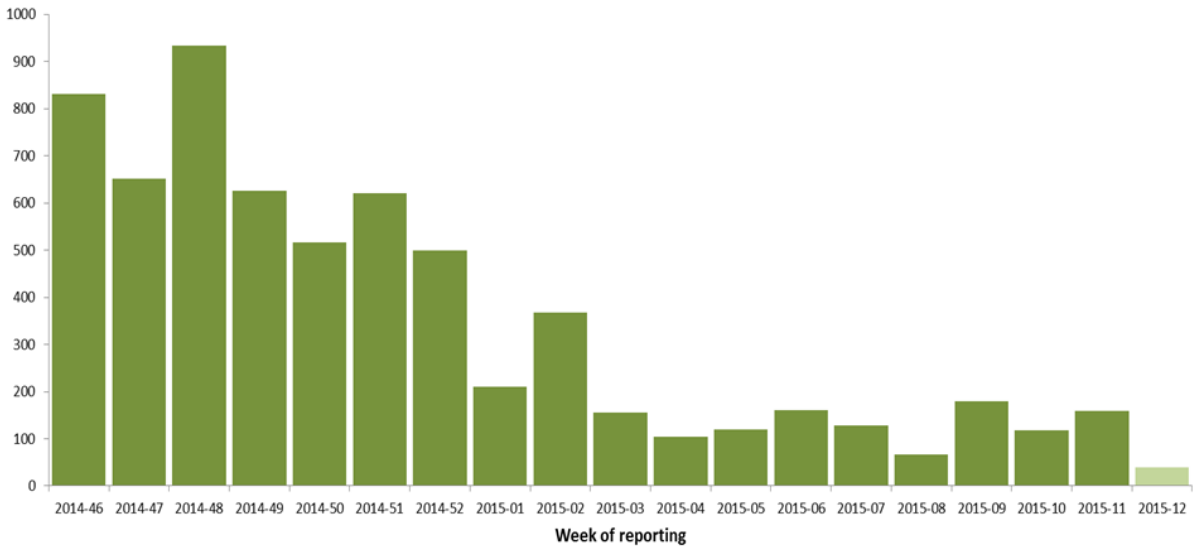
Distribution of confirmed cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (weeks 46/2014 to 12/2015)

Source: Adapted from WHO figures; *data for week 12/2015 are incomplete



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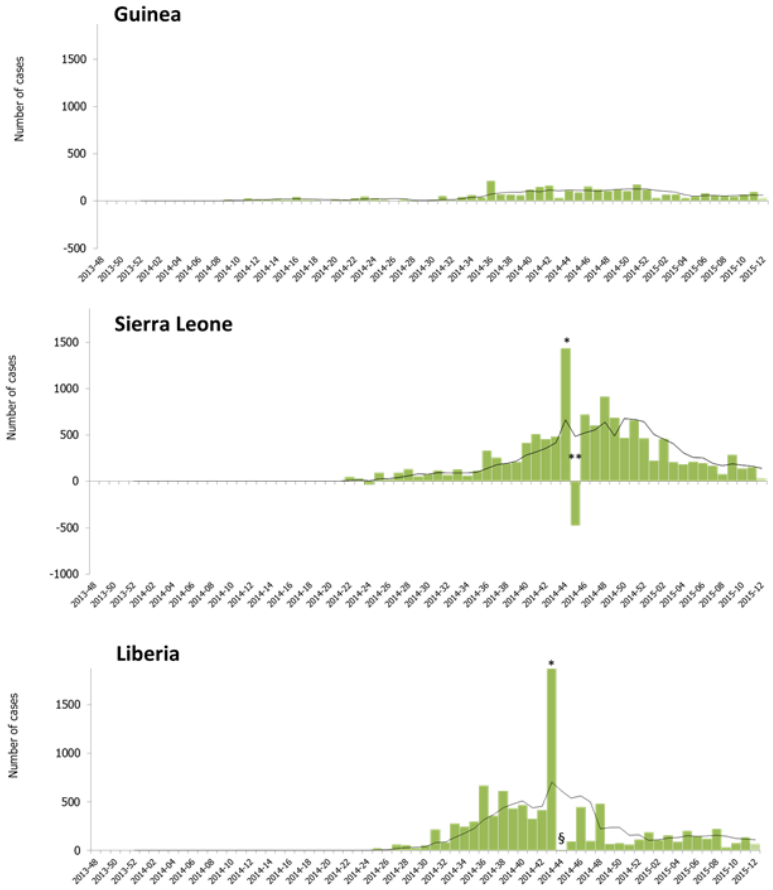
Distribution of cases of EVD by week of reporting in the three countries with widespread and intense transmission, as of week 12* 2015

Source: Adapted from WHO figures; *data for week 12/2015 are incomplete



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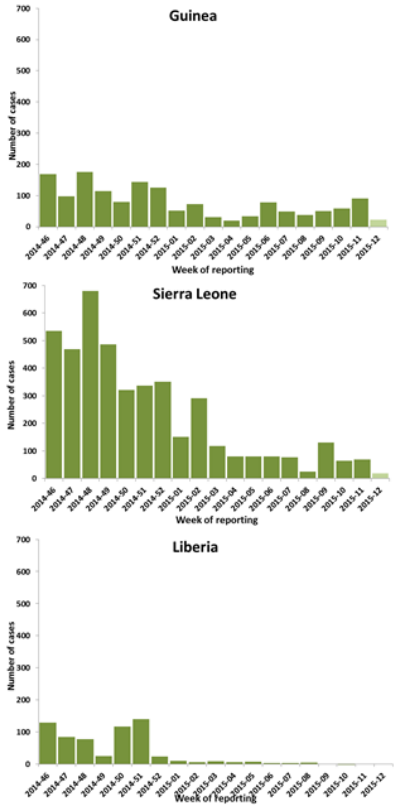
Source: Adapted from WHO figures; *data for week 12/2015 are incomplete



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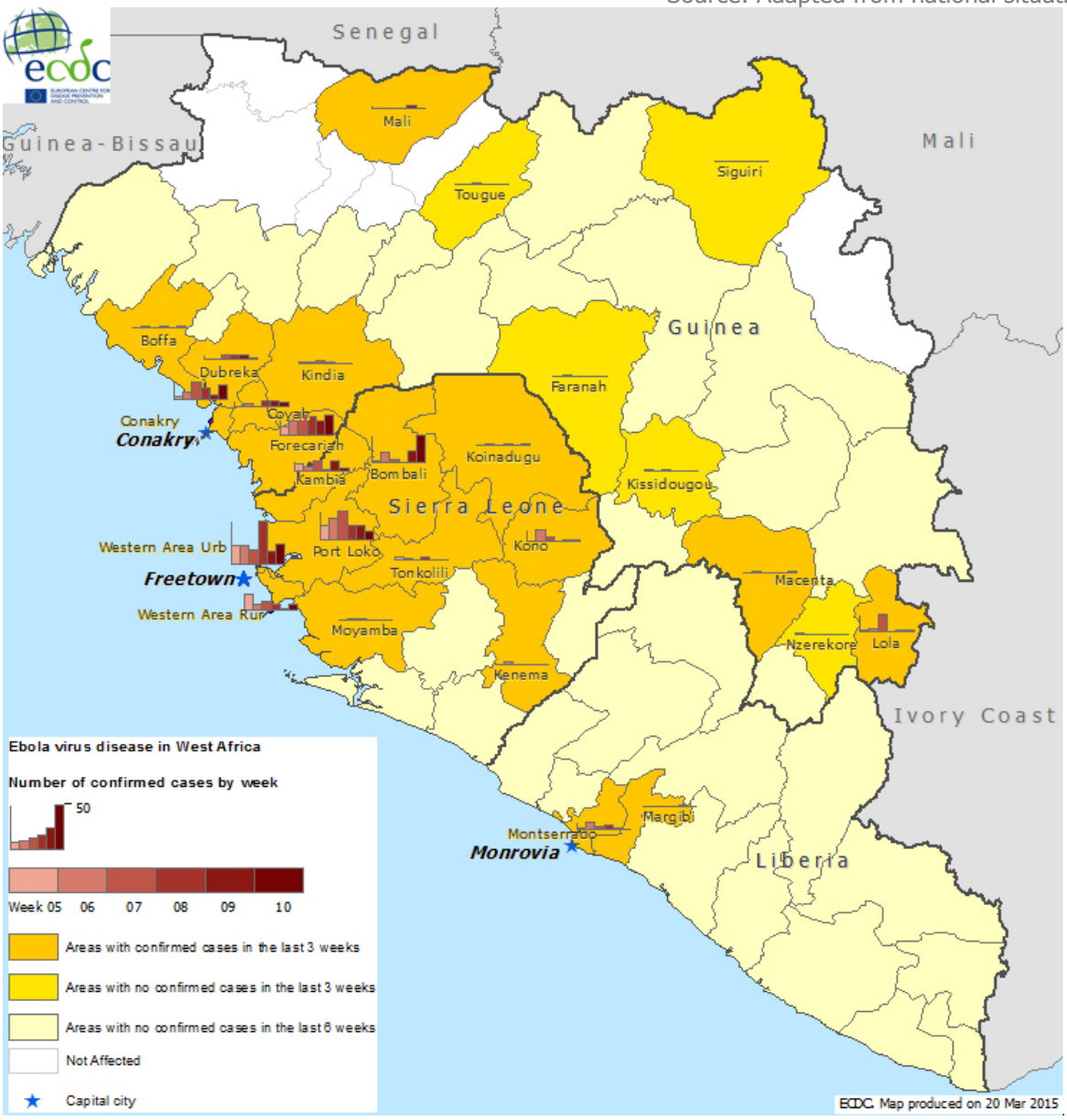
Distribution of cases of EVD by week of reporting in Guinea, Sierra Leone and Liberia (as of week 10/2015)

Source: Adapted from national situation reports



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