



RAPID RISK ASSESSMENT

Outbreak of Ebola virus disease in West Africa

10th update, 14 April 2015

Developments since the ninth update

As of 5 April 2015, WHO has reported 25 550 cases, including 10 587 deaths, linked to the West African outbreak of Ebola virus disease (EVD) with onset in December 2013. Altogether, nine countries have reported EVD cases. Three countries (Guinea, Liberia and Sierra Leone) have experienced widespread and intense transmission. The disease continues to spread in Guinea and Sierra Leone, while Liberia has not reported a confirmed case since 20 March. Mali, Nigeria, Senegal, Spain, the United Kingdom and the USA have at some point reported imported cases or import-related local transmission linked to the epidemic in Guinea, Liberia and Sierra Leone, but all six countries have been declared Ebola-free.

The latest WHO report indicates that the number of new cases continues to decrease. Thirty cases were reported from just two countries, Guinea and Sierra Leone, for the week leading up to 5 April. This is the lowest weekly total since May 2014. Sierra Leone has reported a decreasing number of cases for five consecutive weeks, while in Guinea case numbers have continued to fluctuate in the past two months without a clear trend. It seems likely that human-to-human transmission has been interrupted in Liberia.

The geographical area of transmission is shrinking in both Guinea and Sierra Leone, and transmission is now concentrated in and around the capital cities of Conakry and Freetown.

The capacity for treating EVD patients now exceeds demand in Liberia and Sierra Leone, and decommissioning of Ebola care facilities has started.

There are concerns about the risk of outbreaks of vaccine-preventable diseases. The interruption of immunisation activities since the start of the epidemic has resulted in the accumulation of susceptible individuals in Guinea, Liberia and Sierra Leone. There are ongoing outbreaks of measles and meningitis in Guinea, and there is a risk of further spread of vaccine-preventable diseases in all three countries.

The West African EVD epidemic was declared a Public Health Emergency of International Concern (PHEIC) by the Director General of WHO on 8 August 2014 on the recommendation of the Emergency Committee. The Committee met for the fifth time on 9 April 2015 and concluded that the event continues to constitute a PHEIC and recommended that all previous temporary recommendations should be extended.

The Committee strongly reiterated the need for continued exit screening in the three affected countries for at least 42 days after the last case has twice tested negative for Ebola.

Main conclusions

The significant drop of EVD cases in West Africa can only continue if control efforts are maintained. A resurgence of the epidemic remains a possibility. A possible scenario is that transmission continues at low intensity due to incomplete contact tracing and the inadequate management of new infections. Failing to interrupt all chains of human-to-human transmission would have far-reaching consequences for the entire West African region. Surveillance, contact tracing and active case-finding should be strengthened, with the goal of reaching zero cases as soon as possible.

There is a need to consider conducting catch-up vaccination campaigns for measles and polio in order to promptly reduce the risk of outbreaks and re-establish routine childhood immunisation services. It is also urgent to restore public trust in the healthcare system and increase the utilisation of clinical and preventive health services.

The risk of EVD spreading between affected countries and into the countries sharing borders with Guinea, Liberia and Sierra Leone will remain as long as transmission continues in these countries because of frequent cross-border movement of people and insufficient Ebola surveillance at some border crossings.

It is expected that the need for repatriation and medical evacuation will decrease as the epidemic continues to decline, and fewer international staff will be engaged in caring for EVD patients. However, continued vigilance is essential in order to ensure that re-entry standards do not lapse.

The risk of EVD being imported into the EU and the risk of transmission from an imported case remains 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 the affected countries. However, 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.

Source and date of request

Internal decision, 7 April 2015.

Public health issue

Re-assessment of the risk of importation of Ebola virus to the EU and its potential transmission in the wake of the epidemic of Ebola virus disease in West Africa, which currently affects Guinea, Liberia and Sierra Leone.

The EVD outbreak in West Africa was first assessed in an ECDC rapid risk assessment entitled 'Outbreak of Ebola haemorrhagic fever in Guinea' dated 23 March 2014 [1]. Detailed information about the Ebola virus and the epidemiology of EVD can be found in a series of ECDC publications available on the ECDC website [1-10].

Consulted experts

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Epidemiological update

As of 5 April 2015 (week 14), WHO reports a total of 25 550 confirmed, probable, and suspected cases of Ebola virus disease, including 10 587 deaths in three affected countries (Guinea, Liberia and Sierra Leone) and six previously affected countries (Mali, Nigeria, Senegal, Spain, the UK, and the United States of America).

The latest WHO Situation Report [11] of 8 April 2015 points to the outbreak reaching its tail end. Thirty confirmed cases of EVD were reported in week 14 (29 March–5 April) from only two countries, namely Sierra Leone (9 cases) and Guinea (21 cases). No new cases were reported from Liberia during this week. This is the lowest weekly total since the third week of May 2014.

WHO reports the cumulative case–fatality ratio (CFR) among hospitalised patients in the three transmission-intense countries to be between 54% and 64% in the August 2014 to February 2015 period. There is no clear trend in the aggregated CFR.

Guinea: Transmission is centred in and around the capital of Conakry. Only about half of the new cases come from registered contacts. Although this is a marked improvement, it is far from the target of 100%, and too many new cases are still resulting from unknown chains of transmission. The number of confirmed deaths due to Ebola in

the community has fluctuated, but there has been no clear reduction over time. The number of unsafe burials remains high.

Sierra Leone: The decrease in case numbers continued for the fifth consecutive week. There have been no reported unsafe burials in the country in week 14 (29 March–5 April), and only 9% of all EVD-positive deaths (3 of 32) were identified in the community after post-mortem testing. In addition, only 10 of 1 524 laboratory samples tested EVD-positive during the same week. These findings indicate that the downward trend in case incidence is likely to continue.

Liberia: All counties except Montserrado have reported zero new cases for over six weeks. The last confirmed case in Montserrado was reported on 20 March and died on 27 March. Investigations are ongoing to establish the origin of infection as the patient was not a registered contact under monitoring. Three-hundred-and-thirty-two contacts associated with the case are now being monitored. In week 13 (22–29 March), 310 laboratory samples were tested for EVD, with no confirmed cases.

The outbreak's geography has shifted during recent months. The previous hotspot of transmission in the tri-border area made-up of the Guinean prefecture of Gueckedou, the Liberian county of Lofa, and the Sierra Leonean district of Kailahun has not reported cases for more than 90 days. The geographical spread of the outbreak is shrinking, and the focus of transmission is now in the districts around the capitals of Guinea and Sierra Leone. Authorities caution, however, that people are highly mobile in these areas, with a risk of seeding new outbreaks in regions that have been case-free for weeks or months.

The focus of the response efforts is on the elimination of human-to-human transmission of the Ebola virus in the affected countries and ending the outbreak completely by tracking down every case and following up every contact. As long as there are cases in any of these three countries, the risk of recurring outbreaks remains.

There are concerns regarding delayed secondary transmission through sexual contact with recovered patients and, possibly, new animal-to-human infections. In addition, the rainy season starts around April in West Africa, which could impair outbreak control efforts, particularly in remote and hard-to-reach areas.

The rainy season is about to begin, and this will increase the risk of outbreaks of other diseases, for example malaria or diarrhoea, which in turn could aggravate the Ebola crisis.

Treatment capacity now exceeds demand in both Liberia and Sierra Leone because case incidences have been dropping, and the geographical spread of the outbreak has been shrinking. National authorities have begun to plan the phased safe decommissioning of unneeded facilities, while keeping a core number of high-quality Ebola treatment centres in place, with additional rapid-response capacity held in reserve.

On 8 August 2014, WHO declared EVD to constitute a Public Health Emergency of International Concern (PHEIC). The Emergency Committee, convened by the WHO Director General, met for the fifth time on 9 April 2015 and concluded that the event continues to constitute a PHEIC and recommended that all previous temporary recommendations should be extended.

Distribution of cases in countries with widespread and intense transmission, as of 5 April 2015

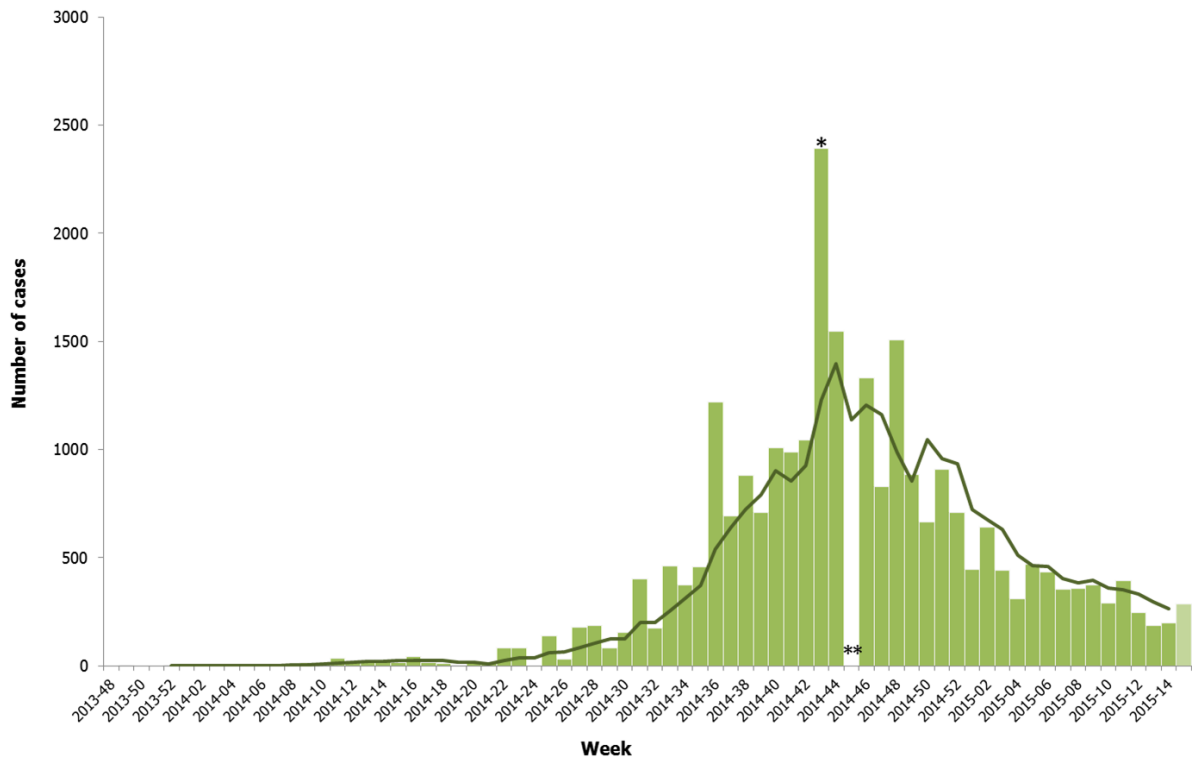
- Guinea: 3 515 cases and 2 333 deaths
- Liberia: 9 862 cases and 4 408 deaths
- Sierra Leone: 12 138 cases and 3 831 deaths

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

- United Kingdom: one confirmed case
- Spain: one case, no deaths
- United States: four cases including one death
- Mali: eight cases, six deaths
- Nigeria: 20 cases and eight deaths
- Senegal: one confirmed imported case

All six countries have been declared Ebola-free.

Figure 1. Distribution of EVD cases by week of reporting; Guinea, Sierra Leone, Liberia, Nigeria, Senegal and Mali; week 48/2013 to week 15/2015, as of 5 April 2015



* In week 45/2014, WHO carried out a retrospective correction to the data which resulted in 299 fewer cases and a negative value for new cases in week 45 (not plotted) [12].

** 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 which resulted in 3 792 additional cases. These cases have actually occurred throughout the entire epidemic period. The green trend line is based on a five-week moving average, plotted on the fifth week of the moving average window. The figure includes cases in Nigeria (20), Senegal (1) and Mali (4) [11].

Figure 2. Distribution of confirmed cases of EVD by week of reporting; Guinea, Sierra Leone and Liberia; weeks 46/2014 to 15/2015

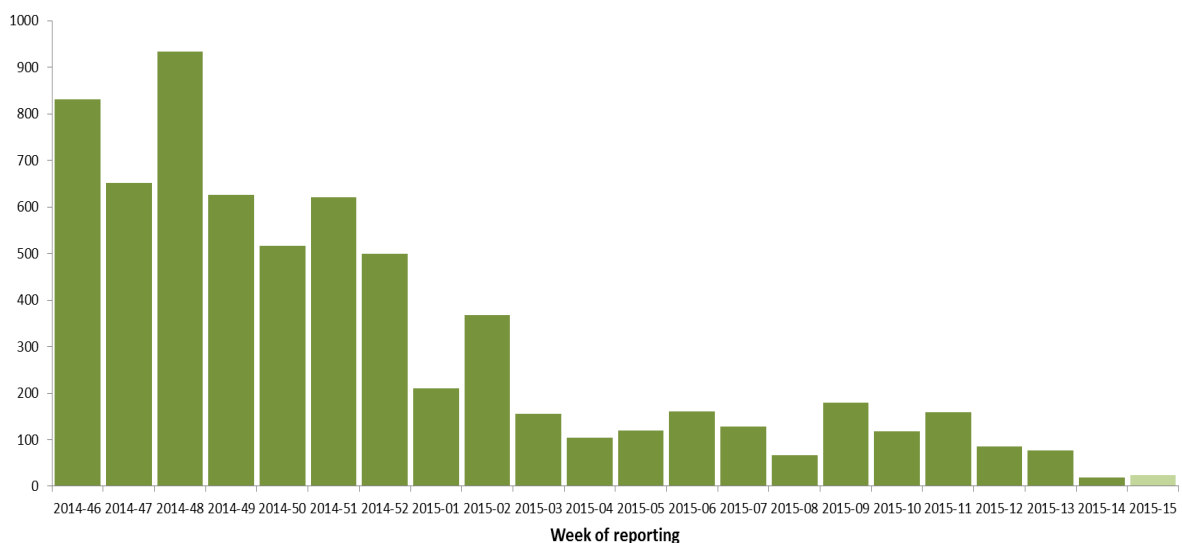


Figure 3. Distribution of confirmed cases of EVD by week of reporting; Guinea, Sierra Leone and Liberia; weeks 46/2014 to 15/2015

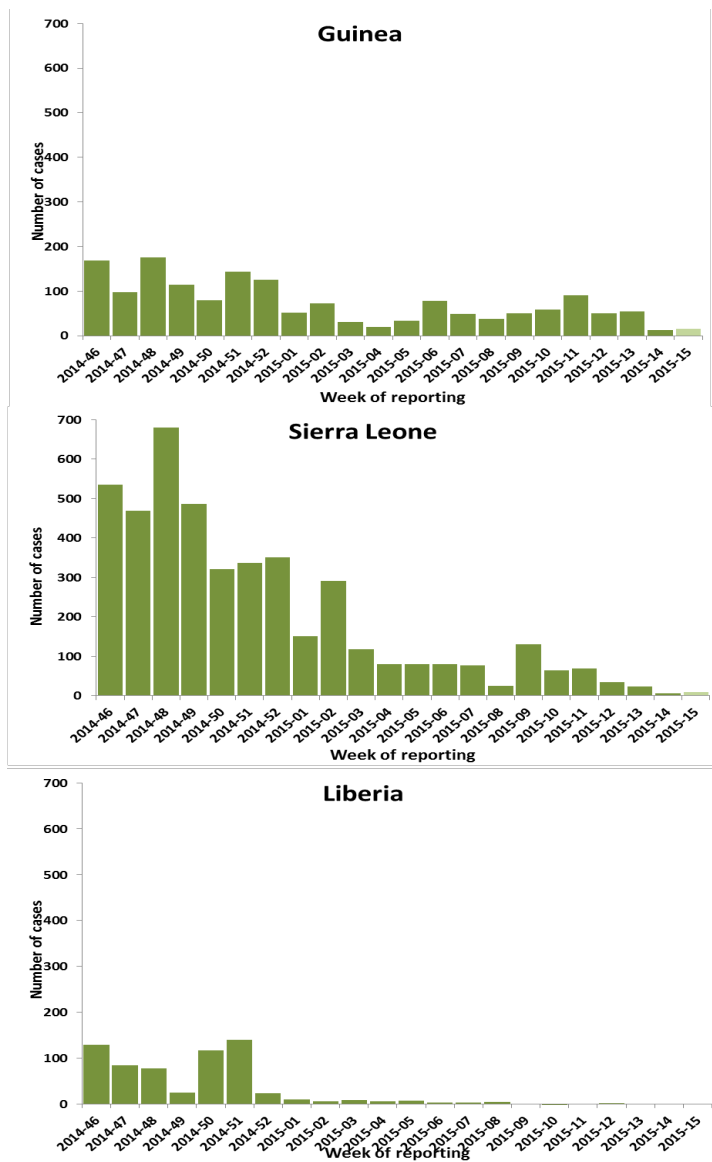
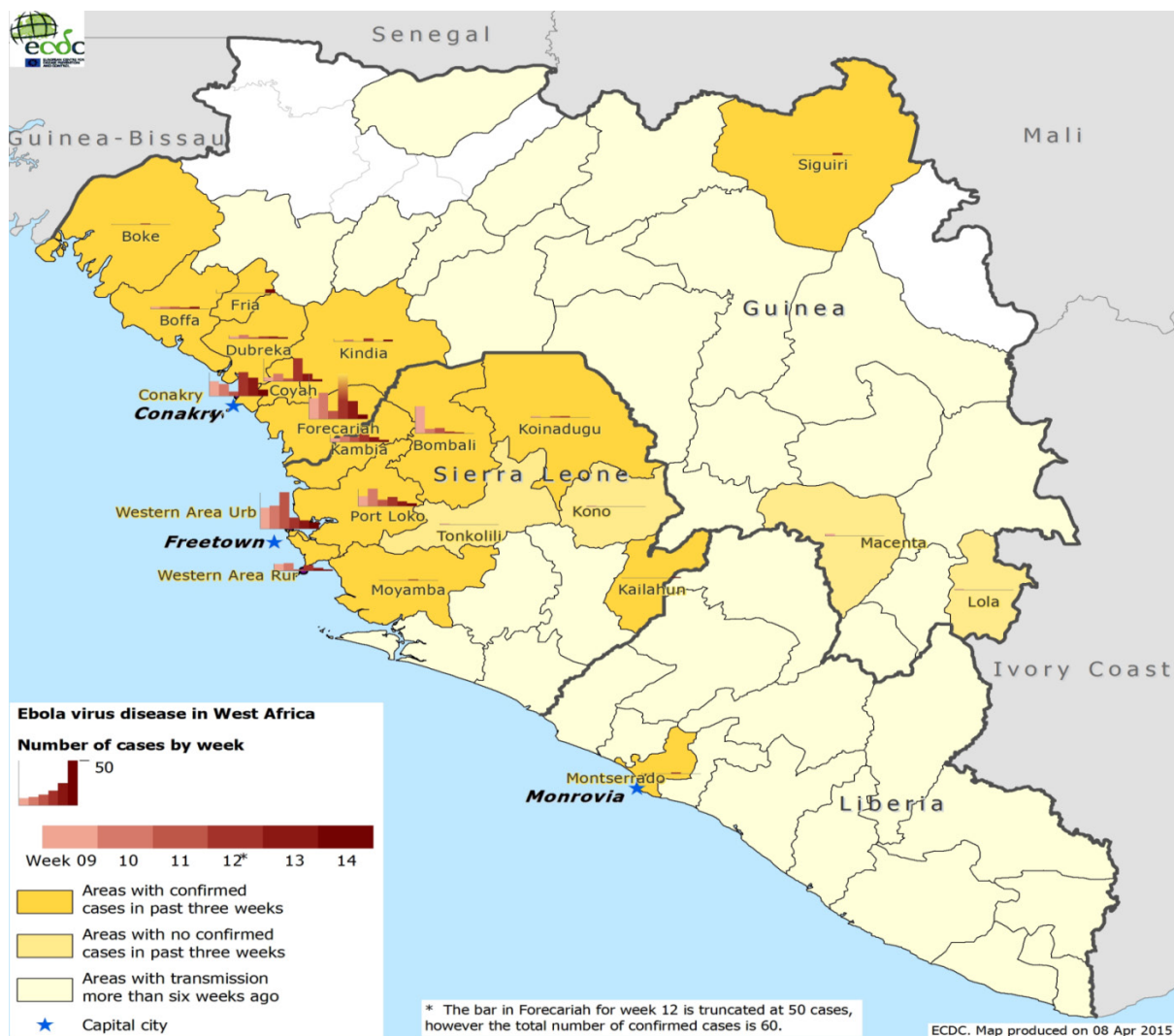


Figure 4. Distribution of cases of EVD, by week of reporting; Guinea, Sierra Leone and Liberia; as of week 14/2015



Source: Data from ministries of health reports (suspected, probable and confirmed cases)

Healthcare workers

Up to 5 April 2015, 861 healthcare workers (HCWs) are reported to have been infected with EVD in Guinea (186), Liberia (372) and Sierra Leone (303); 499 of them have succumbed to the disease.

Outside of the three most affected countries, two Ebola-infected HCWs were reported in Mali, 11 in Nigeria, one in Spain (infected while caring for an evacuated EVD patient), two in the UK (both infected in Sierra Leone), and six in the USA (two infected in Sierra Leone, two in Liberia, and two infected while caring for a confirmed case in a Texas hospital).

Table 1. Number of Ebola cases and deaths among healthcare workers, as of 5 April 2015

Country	Cases	Deaths
Guinea	186	94
Liberia	372	184
Mali	2	2
Nigeria	11	5
Sierra Leone	303	221*
Spain	1	0
United Kingdom	2	0
United States	6	1
Total	883	507

* Data as of 17 February 2015

Source: Data are based on official information reported by ministries of health and WHO.

Risk for outbreaks of vaccine-preventable diseases

Routine childhood vaccination services have been interrupted in Guinea, Liberia and Sierra Leone as a result of the Ebola outbreak, and there is an increasing risk of outbreaks of vaccine-preventable diseases (VPD), particularly measles. Measles is highly transmissible, has the potential for explosive outbreaks, and measles outbreaks are often early signs of failing health systems. A recent study published in Science [13] estimates that there were approximately 778 000 unvaccinated children between nine months and five years in the three countries at the beginning of the Ebola epidemic. An additional 20 000 children became susceptible to measles every month that Ebola disrupted routine vaccinations. In the year before the outbreak, up to 127 000 cases of measles could have been expected in the region. An additional 100 000 cases, including 2 000 to 16 000 deaths, could be expected because of the eighteen months during which routine immunisation services have been disrupted.

As of 1 April, 843 suspected cases have been reported from current outbreaks of measles in Guinea [14]. There is also a meningitis outbreak in Kouroussa district, with one reported death (personal communication). In light of the decline in Ebola cases and due to the fact that the risk of vaccine-preventable disease outbreaks outweighs the risk of increased Ebola virus transmission, intensified routine vaccination activities and/or vaccination campaigns need to be conducted while at the same time maintaining all recommended infection prevention measures.

Medical evacuations and repatriations from EVD-affected countries

Since the beginning of the epidemic, and as of 9 April 2015, 65 individuals have been evacuated or repatriated worldwide from the EVD-affected countries. Of these, 38 individuals have been evacuated or repatriated to Europe. Thirteen were medical evacuations of confirmed EVD-infected patients to Germany (3), Spain (2), France (2), the UK (2), Norway (1), Italy (1), the Netherlands (1), and Switzerland (1). Twenty-five asymptomatic persons have been repatriated to Europe as a result of exposure to Ebola in West Africa. These countries were the UK (13), Denmark (4), Sweden (3), the Netherlands (2), Germany (1), Spain (1) and Switzerland (1).

Twenty-seven persons have been evacuated to the United States.

Table 2. Medical evacuations by country of origin as of 9 April 2015

Evacuated to	Evacuated from			Status	
	Sierra Leone	Liberia	Mali	Confirmed	Exposed
Germany	3	1	0	3	1
Spain	1	1	1	2	1
France	1	1	0	2	0
United Kingdom	15	0	0	2	13
Norway	1	0	0	1	0
Italy	1	0	0	1	0
Netherlands	2	1	0	1	2
Switzerland	2	0	0	1	1
Denmark	4	0	0	0	4
Sweden	3	0	0	0	3
USA	22	5	0	7	20
Total	55	9	1	20	45

Figure 5. Medical evacuations and repatriations due to Ebola infection or exposure to Ebola virus, as of 9 April 2015



ECDC threat assessment

The significant decrease in new EVD cases in the three most affected countries reported by WHO since mid-January 2015 and the halt of the geographical spread of the outbreak are positive developments. The largest decrease has been in Liberia where no new cases have been detected since the last confirmed case died two weeks ago on 27 March 2015. However, the epidemic is not being controlled at the same pace in all three countries, and there is a risk that transmission will be reintroduced to areas and countries that have been declared Ebola-free. A resurgence of cases remains a possibility until all contacts of all cases are identified and monitored for 21 days without developing symptoms. Failing to achieve zero cases in the presence of strong surveillance in all regions of the three countries could result in continued low intensity, human-to-human transmission with recurrent outbreaks, or flare-ups.

The tail end of the outbreak requires more resources for epidemiological surveillance. As new cases are decreasing, contact-tracing and active case finding must be stepped up to ensure that no cases go undetected. This is the right moment to shift resources from case management to early detection of cases, rapid diagnosis, contact tracing, and re-building the trust in preventive and curative health services.

The risk of EVD spreading to the countries that share borders with Guinea, Liberia and Sierra Leone remains real because of frequent cross-border movement of people and insufficient Ebola surveillance in the border areas.

Risk of exposure to EVD for EU citizens and travellers in affected West African countries

Exposure in the community

- As stated in earlier risk assessments [15], the risk of infection through daily interaction in the community is low if visitors and long-term residents adhere to the recommended precautions. The declining number of new EVD cases over the past weeks has further reduced the already low probability of exposure to Ebola-infected persons. People who visit friends and relatives in the affected countries are at higher risk because they are likely to have more and closer contacts in the community and participate in activities known to be associated with Ebola virus transmission.

Exposure in healthcare settings

- The risk of exposure to EVD in healthcare facilities is still present. The level of risk is related to how well infection control measures are implemented and the nature of the care required. The risk is neither limited to centres dedicated to the care of EVD patients nor is it limited to geographical areas with ongoing transmission.
- The risk of exposure to Ebola virus is obviously higher for HCWs and volunteers who provide assistance in settings where infection control measures are not fully or incorrectly implemented. The risk is extremely high for HCWs who carry out invasive medical procedures or provide care to EVD patients without proper infection control measures and personal protective equipment [16].

Risk of importation to the EU

The risk of EVD being imported into the EU and the risk of transmission occurring within the EU following an importation remains low or very low because of the range of risk reduction measures that have been put in place by Member States and affected countries.

If the downward trends continue in Guinea, Liberia and Sierra Leone, the likelihood of EVD-infected individuals arriving in the EU is expected to decrease further. However, as long as the epidemic continues, the possibility of EVD-infected people arriving in the EU by direct or indirect flights from affected countries or on board freighters or passenger ships remains.

Exit-screening at the point of departure from an Ebola-affected area is more likely to identify a traveller with possible Ebola infection than screening passengers who arrive in the EU. However, screening for symptoms at the point of departure will not stop asymptomatic, infected people from boarding an international flight, who could develop symptoms during the flight or after arrival in the EU. The Emergency Committee recommended on 9 April that exit screening should be maintained until no new cases are reported for 42 days after the last confirmed case tested negative.

Almost all EU/EEA countries have issued temporary travel advice against non-essential travel to EVD-affected countries. However, a substantial number of EU professionals are involved in the international response to the Ebola outbreak [17].

As the number of EVD patients falls, it is expected that the number of international healthcare workers required for case management will also decrease. A gradual scaling-down of Ebola treatment centres has started, and it is expected that the number of healthcare workers returning to the EU will increase in the coming weeks.

International travel to the affected countries is expected to increase over time, which in turn implies an increase in the number of returning travellers. This will not necessarily result in an increased risk of importation of EVD cases to the EU because of the falling number of new EVD cases in the affected countries.

It is likely that the need for repatriations and medical evacuations will decrease as the epidemic continues to decline and fewer international staff are engaged in the response. The probability that a person who has returned from an affected country and develops a fever within 21 days, has actually contracted EVD is small. Investigations must take into account other diseases than EVD to determine the cause of the fever, which could be caused by, for example, Lassa or dengue fever, malaria, or influenza. In this context it is important to keep in mind that the affected countries are at high risk for malaria [3].

Previously, ECDC considered the risk of importation to Europe via routes used by undocumented migrants from West Africa who arrive at the southern coast of the Mediterranean as a remote possibility. As the epidemic slows down, this possibility also diminishes.

Several other risks are also reduced but cannot be excluded, e.g. the travel and transportation risks; the risks related to biosafety and transmission through substances of human origin; the risk of Ebola virus transmission in

the EU following importation, repatriation and medical evacuation; and the risks from infected individuals seeking medical care in the EU/EEA.

Options for risk reduction

The risk reduction measures for individual protection and the options for mitigating the risk of importation and spread in the EU recommended in previous risk assessments remain valid [15].

Reduction of the risk of infection in West Africa

To reduce the risks of EVD infection, non-essential travel to the affected areas should be avoided. WHO does not recommend any travel or trade restrictions to the affected countries [18].

Visitors and residents in EVD-affected areas should strictly follow precautionary measures:

- Avoid contact with symptomatic patients and their bodily fluids.
- Avoid contact with corpses and/or bodily fluids from deceased patients.
- Avoid contact with wild animals (including primates, monkeys, forest antelopes, rodents and bats), both alive and dead, and consumption of bush meat.
- Wash hands regularly, using soap or antiseptics.

Generic precautions for travelling in West African countries also apply to the prevention of EVD infection or the mitigation of its consequences:

- Wash and peel fruit and vegetables before consumption.
- Avoid unprotected sexual intercourse.
- Avoid habitats which might be populated by bats, such as caves, isolated shelters or mining sites.
- Identify appropriate in-country healthcare resources prior to travelling.
- Ensure that your travel insurance covers medical evacuation in the event of illness or accident in order to limit exposure to local health facilities.

Following the declaration of the Public Health Event of International Concern (PHEIC) on 8 August 2014, WHO recommended the following measures:

- Affected countries are requested to conduct exit screening of all persons at international airports, seaports and major land crossings for unexplained febrile illness consistent with potential Ebola infection. Exit screening would not detect an incubating passenger who has not yet developed fever [19]. The WHO Emergency Committee that met on 9 April strongly reiterated the need for continued exit screening in the three affected countries. Such exit screening must be maintained for at least 42 days after the last case has twice tested negative for Ebola; countries are encouraged to maintain exit screening until human-to-human transmission has stopped in the entire sub region.
- There should be no international travel of known Ebola cases or contacts of cases, unless the travel is part of an appropriate medical evacuation. To be fully effective, this measure should restrict asymptomatic contacts of EVD cases from leaving the EVD-affected country on an international flight until the 21-day incubation period has passed.

Screening of travellers

Some EU Member States implemented entry screening to complement the exit screening protocols in place in the affected countries. Complementing exit screening with entry screening may be considered:

- when there are doubts about the efficiency of exit screening;
- to detect any individual who develops a fever between the time of departure and the time of arrival. This could be considered in particular for long-haul flights with multiple connections, extending beyond 12 hours.

Complementing temperature screening with a visual review and a health questionnaire may be considered:

- to increase the performance of screening relying only on temperature screening;
- to identify possibly contagious travellers missed by temperature screening;
- to identify travellers who had high-risk exposure so they can be monitored or quarantined.

Travel restrictions and passenger screening on arrival at sea ports, airports or ground crossings in non-affected countries that do not share borders with affected countries is currently not recommended by WHO [19]. In view of the decreasing risk of EVD-infected passengers arriving by air in the EU, entry screening measures implemented by the United Kingdom, Belgium and France should be reviewed.

Healthcare settings

To reduce the risk of transmission in the EU following importation of Ebola virus, the following options are available:

- Implementation of infection control measures for EVD during the treatment of cases. Transmission to healthcare workers can be prevented by the strict application of infection control measures as recommended by WHO. According to WHO guidelines [16], the following measures are essential for the safe medical care of EVD patients:
 - Isolation rooms with dedicated bathroom
 - Availability of personal protective equipment
 - Personnel adequately trained to use the equipment
 - HCWs returning from affected areas have a different probability of exposure than general travellers. They should be given pertinent information upon their return. In addition, they should undergo an individual exposure assessment as early as possible. ECDC published a document on the public health management of HCWs returning from Ebola-affected areas [20].
 - A document entitled 'Assessing and planning for medical evacuation flights to Europe for patients with Ebola virus disease and people exposed to Ebola virus' provides decision-makers with additional information when there is a perceived need to medevac an infected or exposed person from an Ebola-affected country to an EU Member State [21].

Public health measures

- Contact tracing and contact management of contacts of a case. ECDC has produced a document for the management of those who had contact with EVD cases [22].
- Raising awareness and sensitising healthcare workers in the EU about EVD, and supporting them with resources that will help them identify and manage potential EVD patients.
- Additional information and communication to travellers departing from EVD-affected countries.
- Raising awareness among returning travellers from affected areas, or any person having had a contact with probable or confirmed cases, about disease symptoms and appropriate actions (self-isolation and seeking medical care mentioning potential exposure).

Options for information and communication

In order to minimise the time between onset of symptoms and isolation and diagnosis, people who return from Ebola-affected areas should be informed about:

- the possibility of exposure to Ebola while in the affected countries;
- the clinical presentation of the disease and the need to seek immediate medical care if symptoms develop;
- the need to immediately disclose their travel history when seeking medical care, and to preferably do so before arriving at a healthcare facility;
- the need to indicate possible contact with sick individuals or wild animals while in the EVD-affected country;
- how to contact public health authorities for support if infection is suspected (leaflets, phone numbers, telephone hotline).

In addition, healthcare providers in the EU should be informed of and sensitised about:

- the possibility of EVD among returning travellers from affected areas;
- the clinical presentation of the disease and the need to inquire about travel history and contacts with family and friends visiting from EVD-affected countries;
- the availability of protocols for the ascertainment of possible cases and procedures for referral to healthcare facilities;
- the imperative need for strict implementation of barrier management, use of personal protective equipment and disinfection procedures, in accordance with specific guidelines and WHO infection control recommendations when providing care to suspected EVD cases [16,23].

Healthcare providers and support staff should be provided with training before caring for EVD patients (e.g. stress management). ECDC has developed guidance for supporting healthcare providers and public health authorities in the EU to identify and manage potential EVD patients.

ECDC resources

- Ebola and Marburg fevers – factsheet for health professionals [24]
- ECDC Rapid Risk Assessment: Outbreak of Ebola virus disease in West Africa, 8th update, 18 November 2014 [9]
- ECDC Rapid Risk Assessment: Outbreak of Ebola virus disease in West Africa, 9th update, 30 January 2015 [10]
- Assessing and planning medical evacuation by air to the EU for patients with Ebola virus disease and people exposed to Ebola virus [25]
- Case definitions for Ebola patients in the EU [26]
- Algorithm for the laboratory diagnosis of Ebola virus disease [27]
- Contact management algorithm [28]
- Public health management of healthcare workers returning from Ebola-affected areas [20]
- Public health management of persons having had contact with Ebola virus disease cases in the EU – update [22]
- Options for preparing for gatherings in the EU in the context of the current outbreak of EVD in West Africa [29]

Supporting information

Disease background information

Infections with African Ebola viruses cause a severe disease in humans called Ebola virus disease. There are five species of the genus *Ebolavirus* (Filoviridae family): *Zaire ebolavirus*, *Sudan ebolavirus*, *Reston ebolavirus*, *Tai Forest ebolavirus* and *Bundibugyo ebolavirus* [24,30]. The current outbreak in West Africa is caused by *Zaire ebolavirus*.

Additional disease background information can be found in a previous risk assessment, available from:

<http://ecdc.europa.eu/en/publications/Publications/Risk-assessment-Ebola-haemorrhagic-fever-Zaire-ebolavirus-Sierra-Leone-Liberia-Guinea-Spain-United-States.pdf>.

Treatment and vaccine development

Supportive care, including rehydration with oral or intravenous fluids, and treatment of specific symptoms improves survival. There is as yet no proven treatment available for EVD. However, several potential treatments including blood products, immune therapies and drug therapies are currently being evaluated. No licensed vaccines are available yet, but potential vaccines are undergoing human safety and efficacy testing. Effectiveness trials to prevent Ebola virus infection were initiated in March 2015.

Additional information is available on the ECDC website:

http://ecdc.europa.eu/en/healthtopics/ebola_marburg_fever/Pages/treatment-vaccines.aspx

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