

Ebola virus disease outbreak in North Kivu and Ituri Provinces, Democratic Republic of the Congo – sixth update

7 August 2019

Summary

Main conclusions

This rapid risk assessment addresses the impact of active chains of Ebola virus disease (EVD) transmission reported outside the outbreak's epicentre, specifically in Goma, a provincial capital in the Democratic Republic of the Congo (DRC). Goma has an airport serving international flights to several African countries, including the Republic of the Congo, Ethiopia, Uganda and Zambia, which increases the risk that EU/EEA citizens living and travelling in the DRC get infected and eventually introduce the disease to the EU/EEA.

On 17 July 2019, the Director General of the World Health Organization (WHO) declared the Ebola outbreak in the DRC a Public Health Emergency of International Concern (PHEIC), following the recommendations of the International Health Regulations (IHR 2005) Emergency Committee.

It is expected that new EVD cases will be reported in the coming weeks. A wider geographical extension is possible, given the context described below and recent reports of EVD having been introduced to new areas where EVD transmission had not been previously reported.

As of 3 August 2019, WHO and the Ministry of Health of the DRC have reported 2 753 EVD cases, including 2 659 confirmed and 94 probable cases. This epidemic in North Kivu and Ituri Provinces is the largest ever recorded in the DRC and the second largest worldwide. A total of 1 843 deaths occurred during the reporting period, including 1 749 deaths (confirmed cases). As of 31 July 2019, 149 healthcare workers have been reported among the confirmed cases, including 41 deaths.

Over the past 21 days for which data are available (13 July–3 August 2019), 17 different health zones reported confirmed or probable EVD cases.

Since June 2019, there has been an increase of confirmed EVD cases reported from new areas or non-neighbouring health zones. Recently, there have been two separate introductions of EVD into the area of Goma, a regional capital and international traffic hub. On 14 July 2019, a confirmed EVD case infected in Butembo was reported in Goma. The case was admitted to the Ebola Treatment Centre (ETC) in Goma and died during transfer back to an ETC in Butembo.

On 30 July 2019, the first confirmed case was reported for the Nyiragongo health zone in Goma. The case arrived in Goma on 13 July 2019, developed symptoms on 22 July 2019, was detected and isolated in an ETC

on 30 July 2019, and died on 31 July 2019. As of 3 August, two family members of this case have tested positive for EVD, including one of the case's children (31 July 2019) and the case's wife (1 August 2019).

Since week 24/2019, successive introductions of the disease into previously unaffected health zones and areas at a significant distance from the epicentre demonstrate that the current EVD disease outbreak can rapidly spread to other regions. Sustained transmission in Goma has still not been demonstrated, and a large number of direct contacts of cases in Goma are still under surveillance. A wider geographical extension is possible, given the prolonged humanitarian crisis in the region, intensive cross-border population flows to and from neighbouring provinces and countries, and the observed adverse impact of security incidents and community resistance that interferes with the implementation of EVD prevention and control measures. Cases in major cities such as Goma warrant special consideration, but the major risk remains connected to outbreak hotspots, with viral circulation in communities that were affected previously.

EVD prevention and control activities continue in order to offer high-quality case management. Activities include ring vaccination campaigns, campaigns to improve infection prevention and control in healthcare facilities, safe and dignified burials, entry screening, and strategies to increase engagement and ownership in affected communities.

There are significant challenges to controlling this outbreak because it is in a densely-populated region experiencing a long-lasting humanitarian and security crisis. The affected region is characterised by insufficient prevention control practices in many health facilities and persistent reluctance in the community to accept EVD response activities.

The probability that EU/EEA citizens living or travelling in EVD-affected areas of the DRC will be exposed to the virus is low, provided that they adhere to recommended precautionary measures. The overall risk of introduction and further spread of the Ebola virus within the EU/EEA remains very low. However, the risk can only be eliminated by entirely stopping transmission at the local level in the DRC.

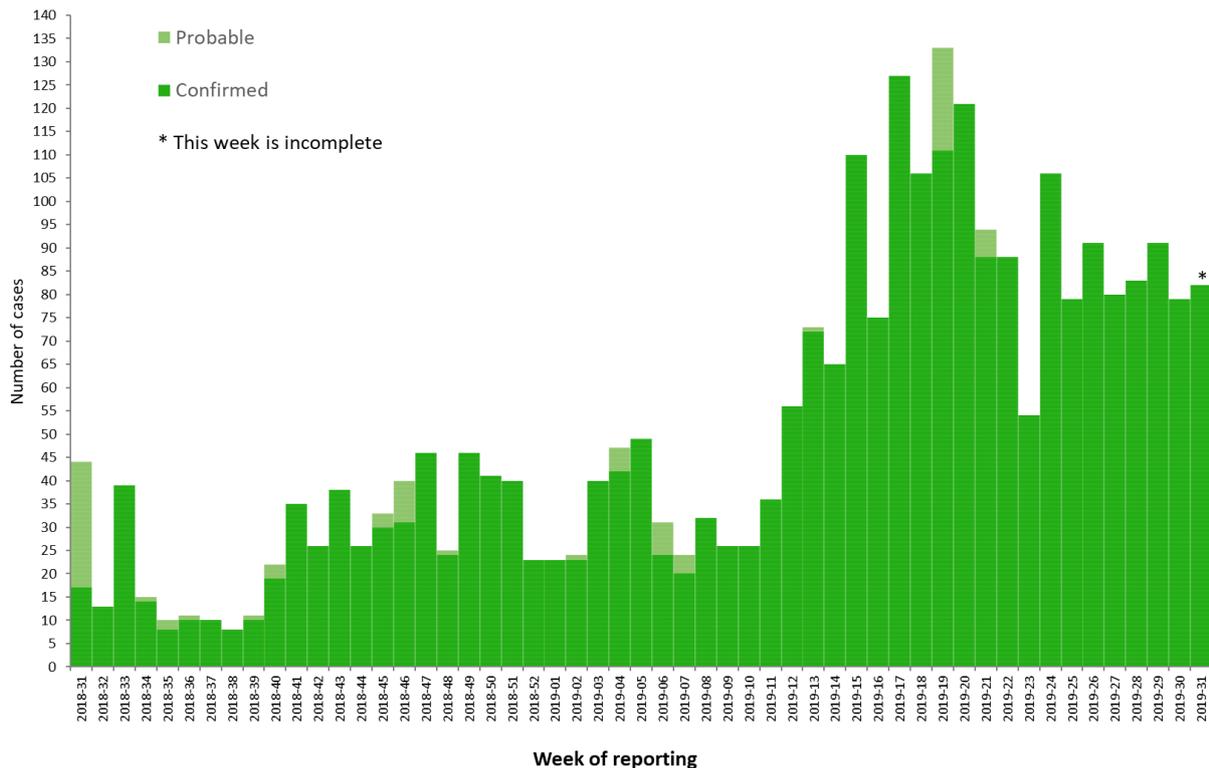
Event background

On 1 August 2018, the Ministry of Health of the Democratic Republic of the Congo (DRC) reported an Ebola virus disease (EVD) outbreak in North Kivu Province, with four laboratory-confirmed cases [1]. To date, this outbreak, which has now been going on for a year, is the largest outbreak of EVD ever recorded in the DRC and the second largest worldwide. This is the first EVD outbreak of Zaire ebolavirus species (ZEBOV) detected in North Kivu and Ituri Provinces, and the tenth EVD outbreak in the DRC since the discovery of the virus in 1976. The results of the phylogenetic analysis of the causative ZEBOV in the North Kivu outbreak revealed that there was no link between the current outbreak and the earlier outbreak in Équateur Province in 2018 [2,3].

Since 11 May 2018 and as of 3 August 2019, WHO and the Ministry of Health of the DRC have reported 2 753 cases of EVD, including 2 659 confirmed and 94 probable cases [4]. Among the reported cases and as of 31 July 2019, 149 were healthcare workers, 41 of whom died [5]. A total of 1 843 deaths have occurred during the reporting period (overall case-fatality ratio: 67%). As of 31 July 2019, of the 2 713 cases with reported age and gender, 56% were female and 29% were under 18 years of age [6].

The epidemic curve of confirmed and probable EVD cases is presented by date of reporting in Figure 1. It shows cases reported until 3 August 2019. The number of reported cases appears to have reached a plateau in the last week, with around 80 to 90 cases per week. It is worth noting that data for week 31 of 2019 in Figure 1 are incomplete, meaning that the case number for this week is likely to increase slightly as further data are received.

Figure 1. Distribution of confirmed and probable EVD cases and health zones reporting cases, by week of reporting in North Kivu and Ituri Provinces, DRC, as of 3 August 2019



Note: As the Ministry of Health of the DRC is regularly curating data, these figures are likely to change in the coming days.
 Source: Adapted from the Ministry of Health of DRC [5] and WHO [4].

Since June 2019, there has been an increase of confirmed EVD cases reported from new areas or non-neighbouring health zones. Recently, there have been two separate introductions of EVD into the area of Goma, a regional capital and international traffic hub.

On 14 July 2019, Goma Health Zone reported its first confirmed EVD case. The case was in close contact with EVD cases. The case was infected in Butembo and travelled by bus to Goma, where the case was admitted to the Ebola Treatment Centre (ETC). The case died during transfer to an ETC in Butembo.

On 30 July 2019, the first confirmed case was reported for Nyiragongo health zone at the outskirts of Goma. The case arrived in Goma on 13 July 2019, first developed symptoms on 22 July 2019, was detected and isolated in an ETC on 30 July 2019, and died on 31 July 2019. As of 3 August, two family members of this case tested positive for EVD, including one of his children (31 July 2019) and his wife (1 August 2019).

Table 1 presents the number of EVD cases per health zone in the affected provinces. Since the start of the outbreak, 26 health zones in two provinces have reported confirmed or probable EVD cases: Alimbongo, Beni, Biena, Butembo, Goma, Kalunguta, Katwa, Kayna, Kyondo, Lubero, Mabalako, Manguredjipa, Masereka, Mutwanga, Musienene, Nyiragongo, Oicha and Vuhovi Health Zones in North Kivu Province and Ariwara, Bunia, Nyankunde, Komanda, Mambasa, Mandima, Rwampara and Tchomia Health Zones in Ituri Province (Table 1, Figure 2).

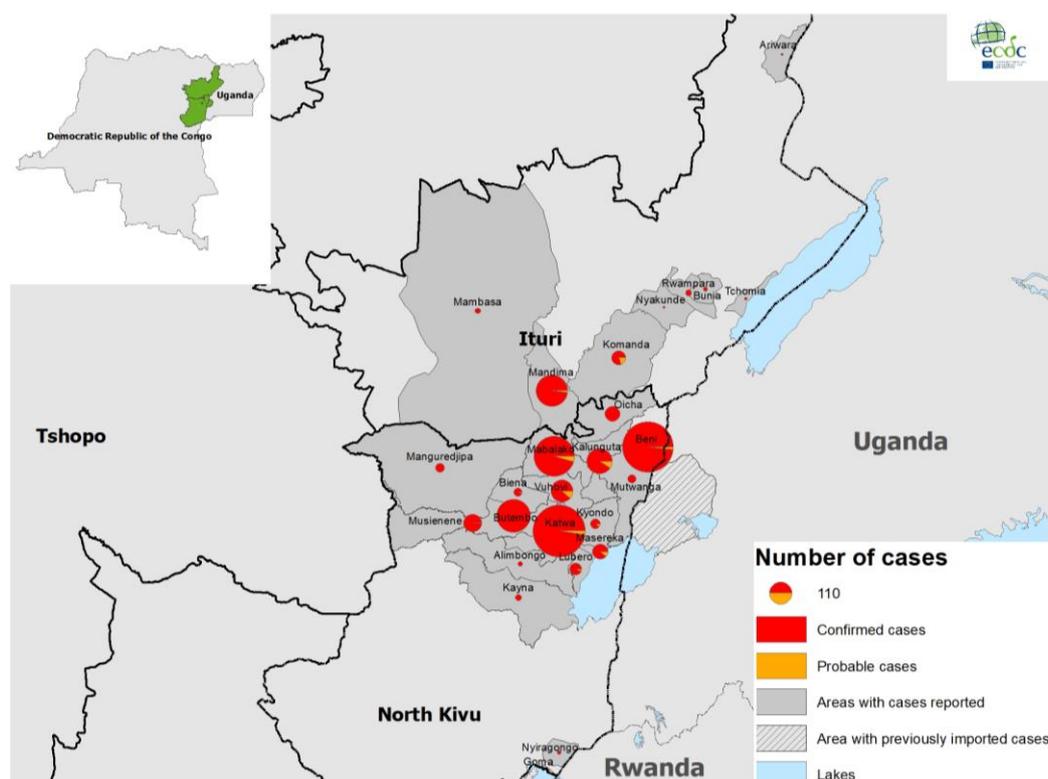
The most affected health zone since the beginning of the outbreak is Katwa, with 624 confirmed and 16 probable cases. In the last 21 days (13 July–3 August 2019), 74% of the 262 confirmed cases were reported in Beni (126), Mandima (52) and Mabalako (15).

The following health zones have not reported any new confirmed cases within the last 21 days: Alimbongo, Biena, Kyondo, Musienene in North Kivu Province; and Ariwara, Bunia, Nyankunde, Rwampara and Tchomia in Ituri Province (Table 1 and Figure 3) [4].

Table 1. Number of EVD cases by health zone, 11 May 2018–3 August 2019

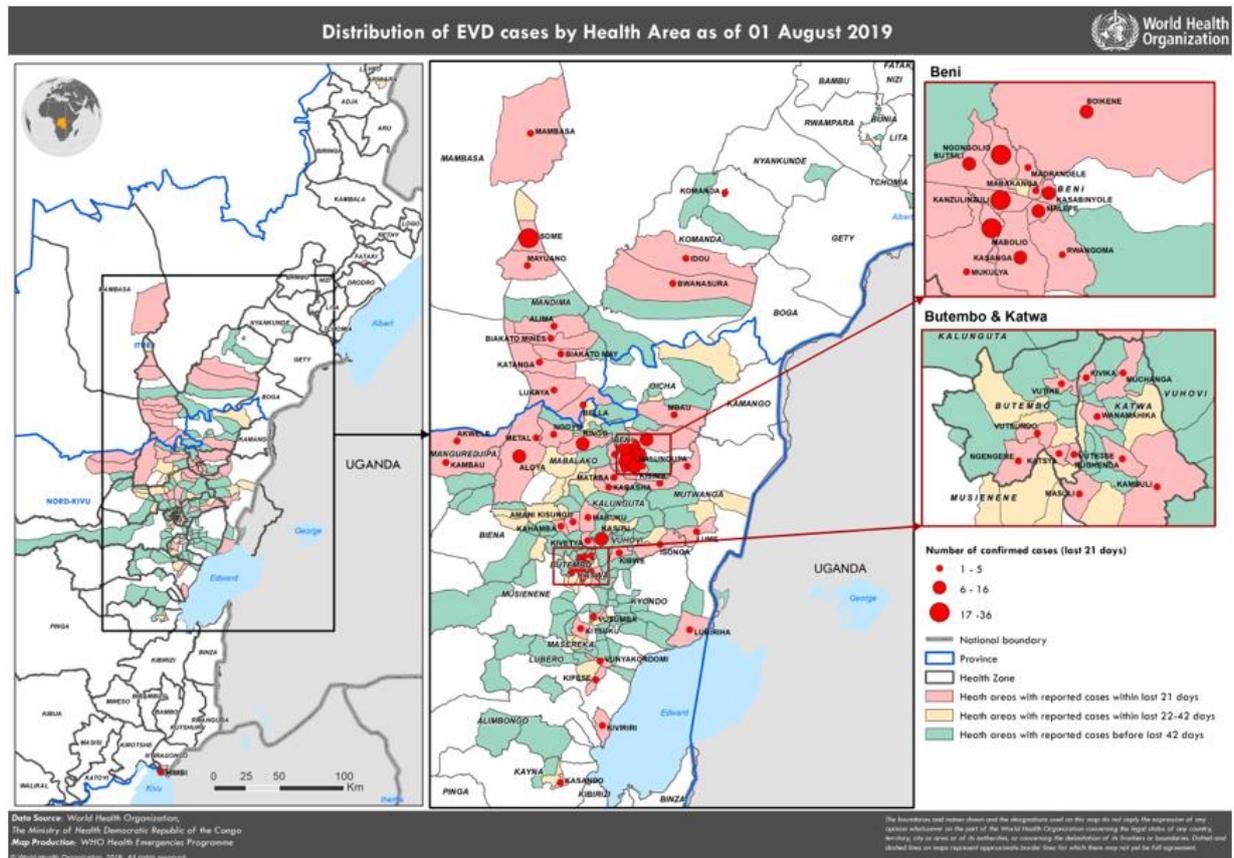
Health zone	Number of confirmed cases	Number of probable cases	Confirmed and probable cases		Number of deaths	
			Sum	%	Sum	%
North-Kivu	2 372	81	2 453	89.1	1 677	91.0
Katwa	624	16	640	23.2	450	24.4
Beni	592	9	601	21.8	387	21.0
Mabalako	365	16	381	13.8	277	15.0
Butembo	262	1	263	9.6	303	16.4
Kalunguta	136	14	150	5.4	72	3.9
Vuhovi	101	13	114	4.1	48	2.6
Musienene	73	1	74	2.7	30	1.6
Masereka	49	6	55	2.0	22	1.2
Oicha	51	0	51	1.9	25	1.4
Lubero	31	2	33	1.2	6	0.3
Kyondo	20	2	22	0.8	15	0.8
Manguredjipa	18	0	18	0.7	12	0.7
Biena	16	1	17	0.6	13	0.7
Mutwanga	16	0	16	0.6	8	0.4
Kayna	9	0	9	0.3	5	0.3
Alimbongo	5	0	5	0.2	2	0.1
Nyiragongo	3	0	3	0.1	1	0.1
Goma	1	0	1	<0.1	1	0.1
Ituri	287	13	300	10.9	166	9.0
Mandima	228	4	232	8.4	127	6.9
Komanda	36	9	45	1.6	24	1.3
Rwampara	8	0	8	0.3	3	0.2
Mambasa	7	0	7	0.3	4	0.2
Bunia	4	0	4	0.1	4	0.2
Tchomia	2	0	2	0.1	2	0.1
Ariwara	1	0	1	0.0	1	0.1
Nyakunde	1	0	1	0.0	1	0.1
Total	2 659	94	2 753	100	1 843	100

Source: Adapted from the Ministry of Health of the DRC [5] and WHO [4].

Figure 2. Geographical distribution of EVD cases by health zone, North Kivu and Ituri Provinces, DRC, since the beginning of the outbreak, as of 3 August 2019

Source: Adapted from the Ministry of Health of the DRC [5] and WHO [4].

Figure 3. Geographical distribution of confirmed and probable Ebola virus disease cases by week of illness onset by health zone and health areas, as of 1 August 2019*



* Data in recent weeks are subject to delays in case confirmation and reporting, as well as ongoing data cleaning.
Source: WHO DON 2 August 2019 [6].

Disease background

Information on EVD is available in the previous risk assessments [7-11], the [ECDC factsheet on Ebola and Marburg virus diseases](#) updated on 15 May 2019 [12], WHO's fact sheet [13], the ECDC technical report '[Investigation and public health management of people with possible Ebola virus disease infection](#)' updated 19 July 2019 [14] and replacing the following ECDC technical reports: 'Public health management of persons having had contact with Ebola virus disease cases in the EU' [15] and '[Infection prevention and control measures for Ebola virus disease, management of healthcare workers returning from Ebola-affected areas](#)' [16], both developed during the 2014–2016 EVD outbreak in West Africa.

Additional information regarding therapy and vaccines can be found in the ECDC update on treatment and vaccines for Ebola virus disease and in WHO's FAQs on EVD vaccine [17-19]. On 7 May 2019, the Strategic Advisory Group of Experts (SAGE) revisited the possible vaccination strategies and concluded that ring vaccination currently remains the most effective strategy for this DRC Ebola outbreak [20]; it should cover high-risk groups, including the extended network of contacts and local and international healthcare and frontline workers [21]. No vaccine is currently available for tourists visiting the DRC [17].

Disease characteristics

Infections with Ebola viruses cause a severe disease in humans called Ebola virus disease (EVD). Ebola viruses are highly transmissible through direct contact (e.g. through mucous membranes or broken skin) with organs, blood or other bodily fluids (e.g. saliva, urine, vomit) of living or dead infected persons or any surfaces and materials soiled by infectious fluids. The principal mode of transmission in outbreaks among humans is person-to-person, as a result of direct contact with symptomatic cases or the corpses of infected individuals, as well as indirect contact via their infectious body fluids.

Risk assessment questions

This is the sixth update of a rapid risk assessment originally produced on 9 August 2018 [8]. This report was triggered by the active transmission of EVD in Goma, which is outside the outbreak's epicentre [22] as the city is a provincial capital with an airport serving international flights to several African countries, including the Republic of the Congo, Ethiopia, Uganda and Zambia. This rapid risk assessment addresses the impact of active chains of EVD transmission reported in the urban centre of Goma in North Kivu on the risk to EU/EEA citizens living and travelling in DRC and the risk of EVD introduction to the EU/EEA and the spread of the disease in the EU/EEA.

ECDC threat assessment for the EU

Since week 12/2019, the weekly number of cases has increased to over 50, ranging from 54–127. After week 24/2019, the weekly case number reached a plateau of around 80 to 90 cases per week, illustrating a persistence of viral circulation in both affected provinces (Figure 1). Multiple re-introductions of the virus in previously affected zones have been reported, and new health zones have been affected [6]. In the last 21 days (13 July–3 August), 17 different health zones reported EVD cases, with Beni Health Zone as the main epicentre of the outbreak (48% of the 262 cases), followed by Mandima and Mabalako.

WHO and EVD response partners, under the coordination of the DRC government, are supporting the implementation of EVD prevention and control measures and the management of EVD cases [23].

In 2018, WHO's Strategic Advisory Group of Experts (SAGE) approved the compassionate use of the rVSV-ZEBOV-GP vaccine for outbreaks of EBOV-Zaire in DRC. Under this framework, vaccination covers the following high-risk groups:

- contacts and contacts of contacts (i.e. ring vaccination),
- local and international healthcare and frontline workers in affected areas, and
- healthcare and frontline workers in areas at risk of outbreak expansion [21].

The vaccine for the DRC 2018–2019 outbreak is offered under the Expanded Access framework, with informed consent and in compliance with good clinical practices [24]. From 8 August 2018–21 July 2019, the EVD ring vaccination campaign successfully managed to vaccinate approximately 171 052 people at risk, including 31 016 healthcare workers/frontline workers and 34 522 children between 1 and 17 years of age, despite challenges due to the security context, community resistance, and vaccine hesitancy among the population of the affected areas [23].

SAGE interim recommendations on vaccination against EVD propose the implementation of innovative operational vaccination strategies for the EVD outbreak in the DRC (such as pop-up vaccination, targeted geographical vaccination, enlarging ring vaccination to include a second and third barrier of immunised individuals around each EVD case, and alternative dosing schedules for the rVSV-ZEBOV-GP vaccine) [20]. The ring vaccination strategy has probably countered a wider spread of the disease in the community and remains a major asset for the control of this long-lasting EVD outbreak. Complete contact tracing, defined by WHO as the identification and follow-up of persons who may have come into contact with a person infected with the Ebola virus, is essential because it allows timely and comprehensive implementation of ring vaccination and early isolation of symptomatic individuals. However, the success of ring vaccination ultimately depends on vaccination coverage of the entire contact network and local healthcare workers.

Despite the mobilisation of EVD response actors, significant challenges remain due to the complex setting, marked by a prolonged humanitarian crisis and unstable security context, both of which interfere with the EVD response activities. EVD response still faces challenges to implement fully early detection of cases and vaccination of contacts, safe and dignified burial, vaccination of healthcare workers, enhancement of the Points of Entry (PoE) programme, case management with investigational therapeutics, and heightening infection prevention and control implementation at the local healthcare facility level [23]. Improvements in the ownership of outbreak control activities by affected communities and the need to gain the confidence of the community are included in the response activities. A recent change in the DRC governmental coordinating structure for the response to the North Kivu Outbreak promises to change the dynamic of operations in the area of the outbreak.

The occurrence of EVD case clusters in conflict zones with limited healthcare infrastructure and a highly mobile population is still a major concern for the control of the EVD outbreak. Furthermore, other outbreak-prone diseases could potentially jeopardise the availability of resources for the prevention and control of the EVD epidemic (e.g. cholera).

The increased number of cases in the last weeks and the expanding geographical spread outside the outbreak's epicentre and into the city Goma (> 1 000 000 inhabitants) are reasons for concern. The introduction of the virus into areas outside the outbreak's epicentre demonstrates the challenge encountered by the PoE screening programme and the fact that the significant level of transmission observed in the epicentre could favour expansion of the epidemic into unaffected areas. The new cases reported in Goma suggest that a new wave of human-to-human transmission may be unfolding. It is therefore likely that additional cases will be identified in the coming months. Sustained transmission in Goma has not been demonstrated, and a large number of direct contacts of the cases in Goma are still under surveillance. However, the experience from the West Africa outbreak (2013–2016) has shown that outbreak response is now probably at a critical stage. A wider geographical extension is possible, given the prolonged humanitarian crisis in the region, intensive cross-border population flows to and from neighbouring provinces and countries, and the adverse impact of

security incidents and community resistance that is interfering with the implementation of EVD prevention and control measures. Cases in major cities such as Goma warrant special consideration, but the biggest risk still remains connected to outbreak hotspots.

On 28 September 2018, WHO upgraded the assessment of the public health risk to 'very high' at national and regional levels. The global risk was assessed as 'low' [25].

On 17 July 2019, the International Health Regulations (IHR 2005) Emergency Committee met for the fourth time since the outbreak was declared on 1 August 2018. On the same day, the Director General of the World Health Organization (WHO) declared the Ebola outbreak in the DRC a Public Health Emergency of International Concern (PHEIC), following the recommendations of the International Health Regulations (IHR 2005) Emergency Committee [26]. The Committee raised concerns regarding the possible extension of the outbreak from its epicentre, which has been previously associated with the introduction of the virus into a number of other locations. The Committee recognised the potential increase of national and regional risks and the need for an intensified and coordinated action to manage these risks [26].

WHO still advises against any restriction on travel to, and trade with, the DRC based on the information currently available. WHO's risk assessment remains valid; the risk at national and regional level remains 'very high', while the global risk level remains 'low' [6,26]. Since 24 July 2019, Saudi Arabia has suspended Hajj visas for travellers coming from the Democratic Republic of the Congo after WHO declared a PHEIC on the Ebola epidemic [27]. Rwanda has reinforced screening procedures and public safety at entry points after the recent cases were reported in Goma [28].

Risk to EU/EEA citizens living and travelling in the DRC

To date, no travel-associated EVD cases have been reported among travellers returning to Europe from the DRC in 2018 and 2019. Although the risk of EVD transmission at local and regional level is very high, the probability that EU/EEA citizens living or travelling in EVD-affected areas of the DRC will be exposed to the virus remains low, provided that they adhere to the recommended precautionary measures outlined in the 'Options for response'.

The risk of a tourist becoming infected with Ebola virus during a visit to DRC and developing disease after returning to the EU is extremely low, even if the visit included travel to the local areas from which primary cases have been reported. Transmission requires direct contact with blood, secretions, organs or other bodily fluids of dead or living infected persons or animals – all unlikely exposures for the average tourist.

Staff members of humanitarian, religious and other organisations, and particularly healthcare workers who are in direct contact with patients and/or local communities in the affected areas, are more likely to be exposed to the virus. The increasing case numbers and extended geographical spread increases the risk for EU/EEA citizens working and living in affected areas to become exposed to the virus. However, the risk remains low provided that they strictly adhere to recommended precautionary measures.

The risk may be reassessed if sustained transmission is reported in populated areas, such as Goma, given that active transmission has been reported in Goma and rates of transmission within outbreak affected areas of North Kivu and Ituri provinces are continuing and extending to new high risk areas and across border in recent months [6].

Training on occupational health and safety in EVD-affected areas can be found on the WHO ePROTECT web page and in ECDC's technical document 'Safe use of personal protective equipment in the treatment of infectious diseases of high consequence - A tutorial for trainers in healthcare settings', which aims to provide trainers with practical information on different options for the use of personal protective equipment in European healthcare settings [29-31].

Risk of introduction and spread within the EU/EEA

The most likely route by which the Ebola virus could be introduced to the EU/EEA is through infected people from affected areas travelling to Europe. As EU destinations can only be reached by transit flights via Kinshasa (DRC), Addis Ababa (Ethiopia), and Entebbe (Uganda), the risk of EVD-infected individuals arriving in the EU/EEA remains very low. The risk is further reduced by the fact that exit screening is in place at Goma airport.

Although active transmission is reported, no sustained local transmission has been associated to the recent cases in Goma. The preparedness and response activities in the past months and the rapid and comprehensive contact tracing combined with ring vaccinations around the cases in Goma aims to prevent tertiary spread or sustained transmission [6]. However, active transmission in large urban setting such as Goma, the provincial capital and a regional traffic hub, is a development that should be closely monitored.

An EVD-infected medical evacuee arriving in the EU/EEA would pose a very low risk of further spread because the majority of the EU/EEA Member States have the capacity to manage EVD patients. In the event of an EVD-infected traveller arriving in the EU/EEA, the risk of further spread is very low if the case is promptly identified and isolated, and – if symptomatic – contacts are properly informed and followed up. However, the risk can only be eliminated by entirely stopping transmission at the local level in the DRC.

During the substantially larger EVD outbreak in West Africa in 2014 (approximately 28 600 cases and 11 300 deaths), only one local transmission occurred in the EU/EEA (in Spain): a healthcare worker attending to an evacuated EVD-infected patient [32].

Risk of EVD transmission through substances of human origin

A full assessment of the risk of EVD transmission through substances of human origin was published in May 2018 and updated in 2019 [33,34].

Options for response

EU/EEA visitors and residents of affected areas

EU/EEA visitors and residents in EVD-affected areas are at low risk of becoming infected in the community if they apply the following precautionary measures:

- Avoid contact with symptomatic patients/their bodily fluids, bodies and/or bodily fluids from deceased patients.
- Avoid consumption of bush meat and contact with wild animals, both alive and dead.
- Wash and peel fruit and vegetables before consumption.
- Wash hands regularly using soap or antiseptics.
- Ensure safe sexual practices.

Access of vaccine candidates in the EU/EEA

- Opportunities should be explored for EU/EEA Member States to streamline regulatory approval for procurement and use of EVD vaccine candidates.

Screening of travellers

To reduce the likelihood of EVD being introduced into the EU/EEA, the following options for response can be considered:

- Where exit screening is implemented at an airport, a traveller presenting with symptoms (e.g. fever >38 °C) should not be allowed to board a flight.
- A passenger who develops EVD-compatible symptoms while on board a flight should be isolated and his/her condition ascertained upon arrival.
- Should the passenger be confirmed as having EVD, contact tracing of passengers should be initiated in accordance with the recommendations for aircraft contact tracing set out in the RAGIDA guidelines [35].
- Travellers who have stayed in a recently affected area should be made aware that if they develop symptoms compatible with EVD within the incubation period of 21 days after arrival in an EU/EEA Member State, they should self-isolate, contact health services and mention potential exposure to Ebola virus. Secondary transmission to caregivers in the family and in healthcare facilities cannot be ruled out if no measures are taken for infection prevention and control.

Options for information and communication

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

- the possibility of exposure to Ebola virus while in affected areas;
- 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 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; and
- the procedure for contacting public health authorities if infection is suspected.

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

- the possibility of EVD among travellers returning from affected areas;
- the clinical presentation of the disease and need to enquire 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; and

- the imperative need for strict implementation of barrier management, use of personal protective measures and equipment and disinfection procedures in accordance with specific guidelines and WHO infection control recommendations when providing care to EVD cases.

Source and date of request

ECDC internal decision, 1 August 2019.

Consulted experts

ECDC experts (in alphabetic order): Agoritsa Baka, Sergio Brusin, Dragoslav Domanovic, Laura Espinosa, Celine Gossner, Josep Jansa, Marybelle Stryk, Ariana Wijermans and Johanna Young.

Experts from WHO have reviewed the risk assessment, but the views expressed in this document do not necessarily represent the views of WHO.

Disclaimer

ECDC issues this risk assessment document based on an internal decision and in accordance with Article 10 of Decision No 1082/13/EC and Article 7(1) of Regulation (EC) No 853/2004 establishing a European centre for disease prevention and control (ECDC). In the framework of ECDC's mandate, the specific purpose of an ECDC risk assessment is to present different options for response on a certain matter. The responsibility on the choice of which option to pursue and which actions to take, including the adoption of mandatory rules or guidelines, lies exclusively with the EU/EEA Member States. In its activities, ECDC strives to ensure its independence, high scientific quality, transparency and efficiency.

This report was written with the coordination and assistance of an Internal Response Team at the European Centre for Disease Prevention and Control. All data published in this risk assessment are correct to the best of our knowledge at the time of publication. Maps and figures published do not represent a statement on the part of ECDC or its partners on the legal or border status of the countries and territories shown.

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