

DRC (Equateur)

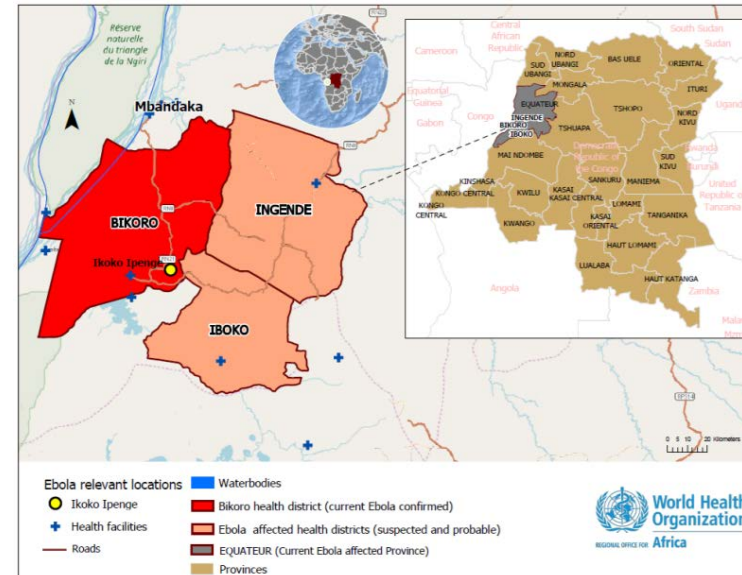
Ebola Virus Disease (EVD)

Equateur province in DRC has been affected by an outbreak of the Ebola virus disease (EVD). The outbreak is believed to have begun in early April and was officially declared on 8 May. Since 3 May, 39 suspected cases have been reported, two of which have been laboratory confirmed. The full scale of the outbreak is still being determined as poor infrastructure and the remote location constrain response to the outbreak.

NEED FOR INTERNATIONAL ASSISTANCE



IMPACT



Geographical distribution of the EVD outbreak in DRC (WHO 11/05/2018)

Anticipated scope and scale

The outbreak has so far affected only Equateur province. Cases have been confirmed in **Bikoro health zone**, with further suspected cases reported in **Ingende** and **Iboko health zones** as well as in **Waganta health area** in the provincial capital Mbandaka. There is a moderate risk of the outbreak spreading within the region due to the proximity to the Congo river, which connects the affected region to Kinshasa, Brazzaville (Republic of Congo), and Bangui (CAR). A global spread of the outbreak is at present unlikely due to the remoteness of the affected area.

Key priorities



39 cases of Ebola
including two confirmed by lab



CFR: 48.7%
19 deaths so far



Medical supplies
shortages in affected area

Humanitarian constraints



Access to the affected area is limited due to poor road conditions. An airstrip near Bikoro was being assessed to be used for airlifts from the provincial capital Mbandaka, and at least one airlift had been carried out by 12 May.

Limitations

Epidemiological information about the outbreak is limited. There is no demographic breakdown available for the current suspected cases. This makes it hard to analyse the exact causes and consequences, as well as the expected trajectory of the current outbreak.

Crisis impact

An outbreak of the Ebola Virus Disease (EVD) (Zaire ebolavirus species) was identified in Bikoro Health Zone, in Equateur province in western DRC. The first suspected cases were reported on 3 May and the outbreak was declared by the Ministry of Health on 8 May. As of 14 May, 39 total cases have been registered, including two confirmed, 12 suspected, and 25 probable cases. 19 deaths have been recorded (CFR: 48.7%) (WHO 13/05/2018). Three health workers have been affected (two suspected, one probable case), one of whom has died (WHO 11/05/2018).

All 32 initial cases were recorded in the catchment area of the health facility at Ikoko-Impenge, in the remote Bikoro health zone, which is 30km from the Bikoro health zone office (WHO 10/05/2018, WHO 11/05/2018). The health facility at Ikoko-Impenge is close to Ingende and Iboko health zones. Suspected and probable cases have been reported in Iboko (WHO 11/05/2018, WHO 13/05/2018) and suspected cases were hospitalised in Bikoro (WHO 10/05/2018). On 13 May, two probable cases in Waganta health zone in the provincial capital Mbandaka tested positive in a rapid test. The samples were then sent to Kinshasa for confirmation (WHO 13/05/2018). 393 contacts of cases are currently being monitored in Bikoro, Iboko, and Mbandaka (WHO 13/05/2018).

EBV cases as of 13 May 2018

Health zone	Confirmed	Probable	Suspected	Total
Bikoro	2	20	7	29
Iboko	0	3	5	8
Waganta (Mbandaka)	0	2	0	2
Total	2	25	12	39

Source: WHO 13/05/2018

According to WHO, the risk of the outbreak spreading is high (WHO 11/05/2018). The biggest risk of the disease spreading comes from the fact that Bikoro lies on Lake Tumba, with access to the Congo river. There are concerns that people travelling to major urban centres on the river could spread the disease, either downstream to Kinshasa (DRC's capital) and Brazzaville (the capital of the Republic of Congo), or upstream (along the Ubangi river) to Bangui (capital of the Central African Republic (CAR)) (Stat News 09/05/2018).

WHO is reportedly in discussions with the governments of DRC and the Republic of Congo to install controls along Congo river to monitor the movement of boats (Stat News 09/05/2018). In Mbandaka, the capital of Equateur province and nearest major urban centre, health workers are reportedly monitoring arrivals (The Atlantic 11/05/2018). Population movement in the area is significant. Fishing at Lake Tumba is the primary economic activity in Bikoro, with fish being transported to Brazzaville, Kinshasa, and Mbandaka (IFRC 14/05/2018). Furthermore, people from Ingende and Iboko health zones are fishing at Lake Tumba and pass through Bikoro on a daily basis (IFRC 14/05/2018).

Health: Health staff and supplies are needed to respond to the outbreak. Health facilities in the affected area do not have sufficient medical supplies (IFRC 12/05/2018). In Bikoro health zone, there are three hospitals and 19 health centres. Most of these facilities have a limited functionality and medical supplies are often out of stock (WHO 11/05/2018). The Bikoro Reference General Hospital is located in Bikoro town (MSF 12/05/2018). Some 13,700 people are served in the Bikoro health zone (Ministry of Health 2013). Health facilities in the zone rely on international organisations to deliver supplies (WHO 08/05/2018). There is a need for mobile laboratories and rapid diagnostic tests (RDTs) in the affected area (WHO 11/05/2018). A mobile laboratory was deployed to Bikoro on 12 May (WHO 13/05/2018). There needs to be a system in place for monitoring people who came in contact with the disease (WHO 11/05/2018).

Safe burials need to be ensured to prevent the infection of people who take part in funerals for deceased Ebola cases. Reportedly, some of the suspected cases had attended funerals (Stat News 09/05/2018).

Communities in the affected area need to be targeted with community outreach activities and for social mobilisation, to disseminate information and contribute to surveillance (IFRC 12/05/2018).

WASH: Water and sanitation in the affected area is poor (AfricaNews 12/05/2018). Regular hand washing is necessary for people visiting Ebola patients in a health facility or caring for patients at home (WHO 12/02/2018).

Humanitarian and operational constraints

There are major operational constraints due to the remoteness of the affected area. For an access map of Bikoro territory, see back page.

Bikoro health zone is located over 250km from the capital of Equateur province, Mbandaka (WHO 11/05/2018). Road access is very difficult, particularly during the rainy season. The direct route between Mbandaka and Bikoro, which is 128km long and takes 12 hours, is in a degraded state, with several bridges in disrepair, and is currently not being used (Logistics Cluster 11/05/2018). The alternative route Mbandaka-Kalamba-Bokatola-

Bikoro is 296km long. The route between Kalamba and Bokatola is in a bad state between PK 67 and PK 90 (Logistics Cluster 11/05/2018). Most of the route from Bokatola to Bikoro is a secondary road (Logistics Cluster 11/05/2018). Ikoko-Impenge is located at least 30km from the central office of Bikoro. While WHO notes that Ikoko-Impenge is not accessible by road, IFRC states that there is road access, however that it is difficult due to the ongoing rainy season (WHO 10/05/2018, WHO 11/05/2018, IFRC 14/05/2018) IFRC also notes that roads are impassable during the rainy seasons and the affected area can only be accessed by motorcycles and helicopters (IFRC 14/05/2018).

There is an airport in Mbandaka (Logistics Cluster 11/05/2018). There is an airstrip located between 8 and 35km Bikoro (sources vary) (WHO 11/05/2018, WHO 10/05/2018). As of 11 May, the airstrip at Bikoro was being assessed in order to establish an UNHAS airlift between Kinshasa-Mbandaka-Bikoro (WHO 11/05/2018). The first flight between Kinshasa-Mbandaka-Bikoro was conducted on 12 May (WHO 13/05/2018). A medical helicopter was established between Mbandaka and Bikoro (WHO 13/05/2018).

While maps by the Logistics cluster show functioning waterways between Mbandaka and Bikoro, it is unclear whether these can be used for humanitarian access to Bikoro (Logistics Cluster 11/05/2018).

In Bikoro territory (which is the administrative unit that contains Bikoro health zone), telephone signal coverage is poor, particularly in rural areas (CAID 2017). There is no telephone network in Ikoko-Impenge (WHO 11/05/2018). Electricity coverage in the affected area is poor (AfricaNews 12/05/2018).

WHO noted that accommodation of staff and working space in Bikoro as well as communication with the affected area are difficult (WHO 11/05/2018). Some international staff have reported facing problems or delay securing visas to visit DRC, due to extra scrutiny in place amidst the electoral tensions.

Response operations need to take into account local languages. 90% of the population of Bikoro speaks Lingala, with 40% speaking Ntomba (Lontomba), 40% speaking Ekonda dialect of Mongo and 20% speaking Lomongo dialect of Ekonda. In a 300km radius of Bikoro, over 40 languages are spoken (Translators Without Borders 08/05/2018).

Vulnerable groups

Health workers are particularly vulnerable during an EVD outbreak. As they are providing care for Ebola patients, they are exposed to high health risks and need to follow health protocols to avoid infection (WHO 12/02/2018). Furthermore, health workers can face stigmatisation in their communities even after the end of the outbreak (France24 02/09/2014). Three health workers have already been suspected to be infected in the current outbreak, one of whom died (WHO 11/05/2018).

As many women are fulfilling a role as caregivers in their households, they are exposed to health risks if they provide care for Ebola patients in their families (UN 28/08/2014, Universite de Gand 2016).

People handling burials face health risks as well, as they could come in contact with infected bodies. They could also be in need of psychological assistance after the end of the outbreak (MSF 21/10/2016).

Aggravating factors

Rainy season

The rainy season is currently ongoing in the affected region. This could further impact the poor state of the infrastructure and increase physical access constraints (IFRC 10/05/2018). The rainy seasons in Equateur province generally last from April to June and from July to January (CAID 2017).

Political instability

Insecurity is high across the country, particularly in the eastern part of the country since October 2017. A general election is planned but has been continuously postponed since December 2016 and on 5 November 2017 it was once again postponed until December 2018. The resulting political environment is unstable. As the overall security situation deteriorates further this will likely lead to more displacement (VOA 05/11/2017).

Contextual information

Cause, transmission, and symptoms

The EBV is often fatal in humans, with the average CFR being around 50%. Humans can be infected by coming in contact with infected animals. Human-to-human transmission occurs through direct contact with bodily fluids, blood, secretions, and organs of infected people or with surfaces such as clothing that are contaminated with these fluids of infected people. This human-to-human transmission can also occur during burials when there is a direct contact with the infected body of a deceased person. (WHO 12/02/2018).

The incubation period varies between 2 to 21 days. Symptoms initially include headache, muscle pain, fever fatigue, and a sore throat, followed by symptoms such as vomiting, diarrhea, rash, and sometimes internal and external bleeding (WHO 12/02/2018).

Treatment

Survival can be improved with oral or intravenous re-hydration and treatment of symptoms. A proven treatment is not yet available. An experimental vaccine has been tested in Guinea and has shown to be highly protective against Ebola (WHO 12/02/2018).

Previous outbreaks

This is the first Ebola outbreak in Bikoro health area, and the fourth Ebola outbreak in Equateur province (WHO 10/05/2018). Equateur was previously affected by outbreaks in 1976, 1977, and 2014 (WHO 10/05/2018). Ebola is endemic in DRC (WHO 08/05/2018). The confirmed Ebola strain of the current outbreak is the same as in previous outbreaks (UNICEF 10/05/2018).

DRC has previously been affected by eight Ebola outbreaks, most recently in May 2017, when Likati in Bas-Uele province was affected (WHO 10/05/2018). The response to the 2017 outbreak is used by WHO as a model for the current response (WHO 08/05/2018).

Risk factors

Local medical practices and burials with a close contact to the deceased could lead to a further spreading of the disease (Reuters 11/05/2018).

Vaccines, control and prevention

An experimental vaccine for Ebola was developed in 2016 but has not been licensed yet. It requires being stored at -60°C to -80°C. As of 11 May, WHO was waiting for approval to use the vaccine in the affected area (Reuters 11/05/2018). In the 2017 Ebola outbreak in DRC, 52 cases had been recorded before the government approved use of the vaccine (Reuters 29/05/2017).

Other disease outbreaks

DRC is currently affected by the outbreak of various other diseases. A cholera outbreak is ongoing, with over 9,000 suspected cases in 2018 so far (CFR: 2.4%) (WHO 04/05/2018). The cholera outbreak is also affecting Equateur province (WHO 06/04/2018). Over 3,000 cases of measles have been registered in 2018 until the beginning of March (CFR: 0.9%) (WHO 04/05/2018). Furthermore, outbreaks of Rabies, Monkeypox, and Poliomyelitis are ongoing (WHO 04/05/2018). The significant impact of Ebola on the health system, including fear of and stigma against health workers, can cause detrimental health outcomes for patients in need of treatment for other diseases (IPS 01/12/2014, Journal of Public Health 2015).

Key characteristics

- **Demographic profile:** The total population of Equateur province is 1.6m. Bikoro territory, which is an administrative unit that covers a much larger geographic area than the Bikoro health zone, has a total population of 498,079 people. In Bikoro territory, 45% of the population belongs to the Ntomba group, 30% to the Ekonda, 15% to the Ngele-a-ntando, and 10% to the pygmies.
- **Food security figures.** While some 7.7m people across DRC are in need of food assistance, food insecurity largely affects eastern DRC (FEWSNET 04/2018). In the latest available IPC data, for the period June-December 2017, there were some 112,000 people classified in Crisis (IPC Phase 3) in Equateur province (IPC 06/2018).
- **Health statistics:** In Bikoro territory, there are three hospitals and 52 health centres. Most health infrastructure is not built of durable materials and shortages of medicine are common.

Sources: (CAID 2017, Population Data 2017)

Response capacity

Local and national response capacity

The Ministry of Health is leading the National Coordination Committee (CNC) which includes WHO, MSF, UNICEF, CDC, among others, and meets daily (UNICEF 10/05/2018). The Ministry of Health is coordinating an interagency response team deployed to Bikoro, which is supported by various agencies including WHO, UNICEF, and MSF (WHO 11/05/2018). A joint assessment mission including the Ministry of Health, WHO, MSF, and the Red Cross was planned to be deployed on 12 May (IFRC 14/05/2018).

In Bikoro, Iboko, and Ingende health zones, the Ministry of Health and MSF are monitoring cases and contacts (WHO 11/05/2018).

The Provincial Minister of Health is leading a coordination team at the provincial level which consists of six commissions including epidemiological surveillance, WASH, and logistics (UNICEF 10/05/2018). The committee for communication is planning to provide psychosocial assistance in the affected areas (WHO 11/05/2018). Social mobilisation teams are raising awareness with posters and information material in the affected areas (WHO 11/05/2018).

The Bikoro General Reference Hospital and the Ikoko-Impenge health centre are carrying out surveillance activities (WHO 10/05/2018).

The Red Cross deployed a team to Equateur province, in addition to 40 local volunteers (IFRC 12/05/2018). The Red Cross has been using stocks from the previous Ebola outbreak in 2017 for the current response, including disinfectants, Ebola kits, stretchers, and informational posters (IFRC 12/05/2018). Together with the IFRC, the Red Cross is working on providing WASH assistance, surveillance, contact tracing, and dignified and safe burials, as well as the prevention and control of infection and social mobilization (IFRC 12/05/2018). The IFRC notes that local Red Cross volunteers and staff are crucial for the response as they are embedded in the communities and can thus work on raising awareness and provide surveillance (IFRC 12/05/2018). The Red Cross is planning to train another 150 volunteers in addition to the staff and volunteers with previous experience responding to Ebola (IFRC 12/05/2018).

An information campaign is being conducted in the affected area, to create social awareness and mobilisation. Radio Okapi is supporting the broadcasting of information (WHO 13/05/2018).

International response capacity

The international support to the response is being coordinated by WHO and partners of the Global Outbreak Alert and Response Network (GOARN), including MSF, UNICEF, and IFRC (WHO 11/05/2018). On 10 May, the health cluster was activated (WHO 11/05/2018).

WHO announced on 11 May it was sending a group of experts by helicopter to the affected area and was clearing the airstrip to allow for the delivery of supplies (Reuters 11/05/2018). WFP has been supporting WHO in setting up an airbridge between Kinshasa-Mbandaka-Bikoro with six flights per week (WHO 13/05/2018). WHO also supported the establishment of a medical helicopter flight between Mbandaka and Bikoro (WHO 13/05/2018).

WHO has been providing support to the Ministry of Health and other partners to activate the Emergency Operations Centre to coordinate the response (WHO 10/05/2018). WHO has been involved in the preposition of personal protective equipment sets and an interagency emergency sanitary kit for 10,000 people for a span of three months (WHO 11/05/2018). WHO's response plan include setting up a treatment center and providing immediate \$1 million in assistance (New York Times 11/05/2018).

In Bikoro health zone, MSF is setting up a centre for the management and treatment of cases (WHO 10/05/2018, MSF 09/05/2018).

\$2 million from the Central Emergency Response Fund (CERF) have been allocated for response to the outbreak (CERF 11/05/2018).

In Angola, Burundi, CAR, the Republic of Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia, WHO is preparing to carry out activities related to preparedness and readiness for the Ebola virus (WHO 11/05/2018).

MONUSCO is providing logistical support (WHO 13/05/2018).

Information gaps and needs

It is currently difficult to estimate the extent of the outbreak due to the lack of sufficient demographic and epidemiological information (WHO 11/05/2018, WHO 10/05/2018).

There is no demographic breakdown of the suspected cases available and it is therefore unknown which age or population groups are most affected.

There is very little information available about sectoral needs of the affected population other than health, despite lessons learned that Ebola outbreaks often cause complex, multi-sectoral needs.

Lessons learned

- For the response to and prevention of an Ebola outbreak, WHO recommends the following strategies: (i) coordination of the response, (ii) enhanced surveillance, (iii) laboratory confirmation, (iv) contact identification and follow-up, (v) case management, (vi) infection prevention and control, (vii) safe and dignified burials, (viii) social mobilization and community engagement, (ix) logistics, (x) risk communication, (xi) vaccination, (xii) partner engagement, (xiii) research and (xiv) resource mobilization. (WHO 11/05/2018)
- Two-way communication with affected communities is crucial during a response to an Ebola outbreak. The effectiveness of the response increases when the information provided for communities is appropriate and targeted and when the concerns of affected communities are heard. Thus communities can provide feedback on the response, which contributes to trust-building and community ownership of solutions (IFRC 09/05/2018). Community engagement can also be improved by determining with community leaders the best way to engage with the people (Healio 04/2015).
- The response to the Ebola outbreak in Likati, Bas-Uele province, was successful due to early alert of suspected cases, increased national laboratory capacities, an early declaration of the outbreak, a rapid local and national response with international support, and access to flexible funding (WHO 08/05/2018).

- During the response to the Ebola outbreak in Likati, Red Cross teams went out to villages in the affected region to actively find cases instead of waiting for patients to present themselves at health centres (IFRC 09/05/2018).
- Safe and dignified burial needs to be provided for fatalities of the disease since the bodies of Ebola patients remain infectious after death. During the response to the Ebola outbreak in Likati, teams ensuring safe and dignified burials included a community engagement person to speak with affected families (IFRC 09/05/2018).
- Health care workers need to strictly follow infection protocol precautions to avoid being infected themselves. Infection of health care workers has been frequent in other outbreaks (WHO 12/02/2018).
- During the response to the Ebola outbreak in Likati, several helicopters were used at some locations in the affected regions. For some people at these locations, this was the first time they had seen a helicopter. Red Cross volunteers formed security belts around the landing sites to contain people and to ensure safe landing and take-off of the helicopters (IFRC 09/05/2018).
- The West Africa Ebola outbreak of 2014 showed that Ebola also had a secondary impact on the health system, as people were scared of the outbreak and thus did not go to health facilities, and because health care workers were affected by the disease, which impacted the treatment of diseases other than Ebola (Healio 04/2015).
- Further secondary effects of EVD outbreaks can impact other sectors as well. Lessons learned from Sierra Leone showed that the EVD outbreak had an impact on livelihoods, as farming activities were reduced and planted seedlings decayed. Experiences from Sierra Leone furthermore indicate increased incidence of teenage pregnancy in relation to the EVD outbreak (Restless Development 27/02/2015).
- Following an EVD outbreak, survivors can be subject to stigmatisation. Many survivors of the West Africa Ebola outbreak of 2014 were shunned by their communities and had difficulties getting jobs (BBC 04/12/2015).
- Survivors of EVD as well as communities and health workers can be in need of psychosocial assistance even after the end of the outbreak. People may need support after losing members of their families during the outbreak. After the end of the outbreak in Liberia, MSF opened a clinic that specifically targeted survivors of Ebola as well as people who had lost family members and people who had worked in burial teams, providing physical and mental care (MSF 21/10/2016).

- During the West Africa Ebola outbreak of 2014, there were safety concerns for health workers and people in burial teams as there were cases of threats by communities (UNMEER 23/11/2014).

Past EVD outbreak in DRC, 2017

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Past EVD outbreak in DRC, 2003

- Humanitarian actors have to take into account the stigmatisation of frontline health workers. Rejection of health workers can hamper the mobilisation and the containment of the outbreak. Some Red Cross volunteers who helped in the 2003 outbreak in DRC were still regarded as witchdoctors three years later (France24 02/09/2014).

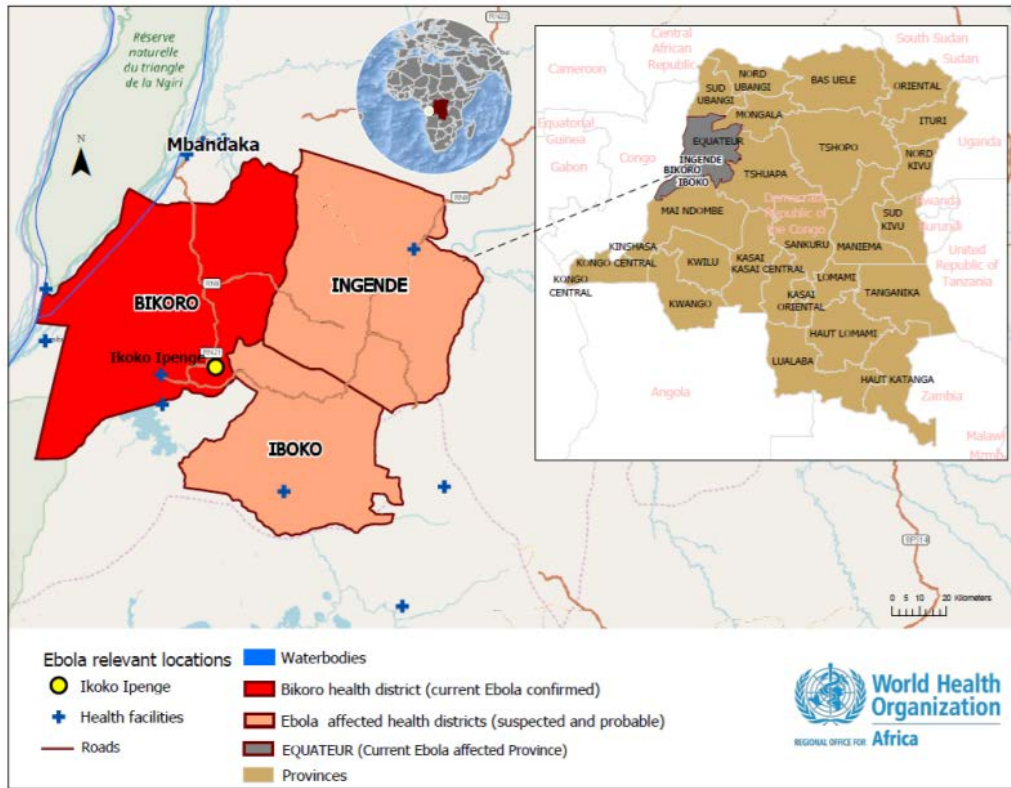
Past EVD outbreak in DRC, 1995

- In 1995, an outbreak in Kinshasa was prevented by a rapid identification and isolation of cases, tracing of people who had been in touch with Ebola cases and monitoring their temperature for 21 days, and engaging with the community and their leaders to provide information on safe burials and to alleviate rumours about the disease (Chatham House 17/10/2014).

EVD outbreak, 2013–2014

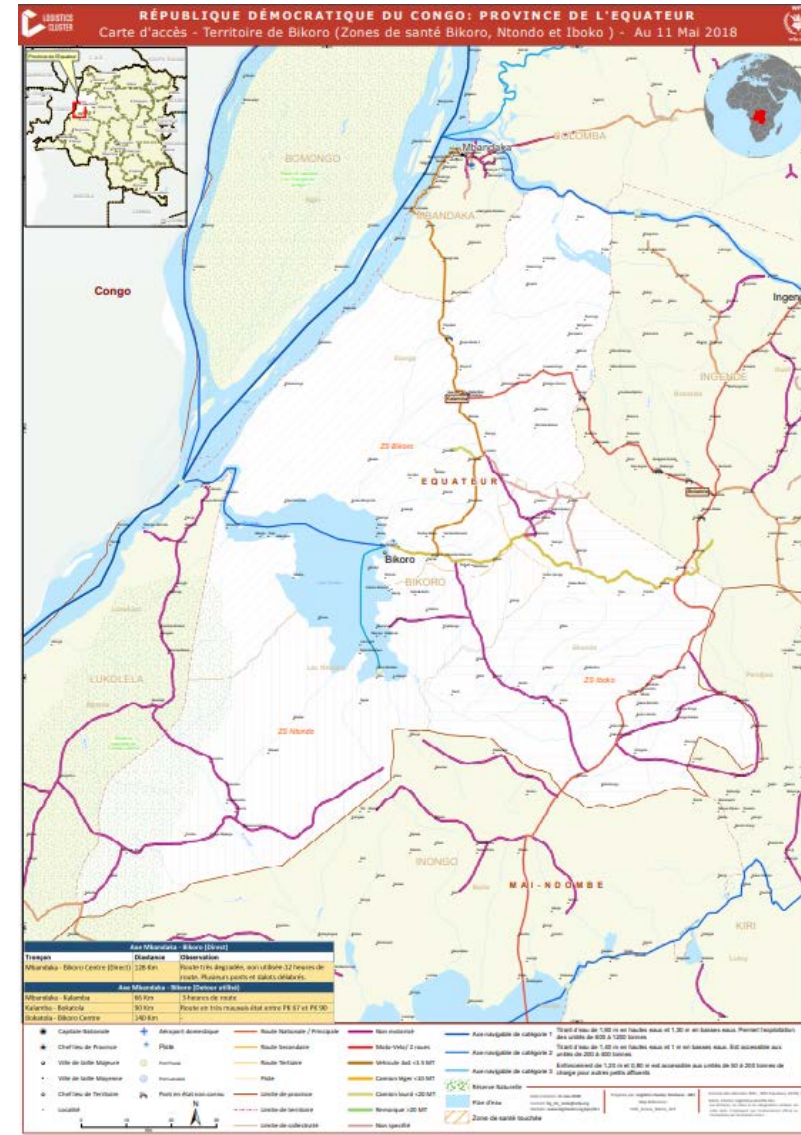
- When certain conditions are met -such as changes in the interactions between humans and their environment, dysfunctional and under resourced health systems, national and international indifference, lack of effective timely response, high population mobility, local customs that can exacerbate morbidity and mortality, spread in densely populated urban centres, and a lack of trust in authorities- what might once have been a limited outbreak can become a massive, nearly uncontrollable epidemic (NEJM 23/09/2014).

Geographical distribution of the EVD outbreak in DRC as of 11 May 2018



Source: WHO 11/05/2018

Access map Bikoro territory



Source: Logistics Cluster 11/05/2018