

UGANDA

Anticipation of Ebola Virus Disease

As of 18 August, 91 cases of Ebola and 50 deaths (CFR 54.9%) have been reported in Ituri and Nord Kivu provinces of DRC. Conflict and insecurity in both areas are aggravating the crisis and increasing the risk the disease will spread further. Conflict is hampering humanitarian access of health workers to the local population, as well as driving displacement across the border to Uganda. Around 99,400 refugees from DRC have arrived in Uganda since January 2018, and the number of new refugees in Uganda from the two Ebola-affected provinces rose in July to 250 a day from 170 a day. The Ebola outbreak itself is also a cause for cross-border migration, as people try to leave the affected areas.

Cross-border movement means the spread of the disease to Uganda remains a risk. Uganda's preparedness plans are reportedly good. Screening activities for refugees have been in place in reception centres and settlements in Uganda since the May 2018 Ebola outbreak in DRC. It is likely, however, that some landing sites in Uganda do not yet have screening facilities, and health and sanitation facilities in refugee settlements are often inadequate.

Description	Nord Kivu						Ituri	Total
	Goma	Beni	Butembo	Oicha	Mabalako	Musienene	Mandima	
Probable cases	0	0	2	1	21	1	2	27
Confirmed cases	0	5	0	0	52	0	7	64
Total cases	0	5	2	1	73	1	9	91
Total deaths	0	3	2	1	40	1	3	50

DRC Ebola Virus Disease Outbreak – Epidemiological Situation as of 18 August 2018

Source: DRC MoH

PROBABILITY



NEED FOR INTERNATIONAL ASSISTANCE



IMPACT



Key priorities



91 Ebola cases in DRC
as of 18 August



50 deaths
CFR: 54.9%



+288,700 DRC refugees
in total in Uganda



+99,400 DRC refugees
in Uganda since January 2018

Humanitarian constraints



Insecurity in DRC hampers the activities of aid workers. Access is severely restricted in conflict-affected areas in Ituri. In Nord Kivu, several IDP sites are not accessible for humanitarian organisations.

Limitations

Violence and insecurity in the affected areas of DRC is hampering access of health workers to the population, therefore a more accurate picture of the spread of the virus is unavailable.

Current impact

DRC: An Ebola virus outbreak was declared in Nord Kivu on 1 August, after four of six samples from patients affected by an 'unknown disease' tested positive. (MoH 06/08/2018) This outbreak is the second in DRC in 2018, following one in Equateur province in May. Tests have identified the current strain of the virus as serotype Zaire, the same that affected the Equateur province and which was contained thanks to the successful use of Merck's vaccine (which is only effective against the Zaire strain) (MoH 02/08/2018, Reuters 02/08/2018, Radio Okapi 01/08/2018, Le Monde 01/08/2018).

As of 18 August, the DRC Ministry of Health (MoH) reported 91 cases, of which 64 were confirmed and 27 suspected. Fifty deaths have been reported (CFR 54.9%). (DRC MoH 16/08/2018) Thirteen healthcare workers (11 confirmed, one probable) have been affected, one of whom died (WHO 20/08/2018) According to the MoH, field teams also identified 2,157 contacts – people who may have been in contact with the virus (VOA 19/08/2018, Reuters 17/08/2018). The affected areas are Goma, Beni, Butembo, Oicha, Mabaloko, and Musienene in North Kivu province, and Mandima in Ituri province (MoH 18/08/2018). Both provinces border Uganda.

Uganda: On 11 August, Ugandan medical authorities issued a "high risk" alert due to the Ebola outbreak in DRC. (Daily Star 11/08/2018) UNHCR said it was monitoring possible Ebola infections among refugees fleeing to Uganda from conflict in North Kivu and Ituri provinces. The number of refugees arriving in Uganda from these two Ebola-affected provinces increased in July to 250 a day from 170 a day. Most crossings were at the Kisoro border point. (VOA 12/08/2018)

WHO reported on 15 August that three alert cases of suspected Ebola had been identified in the border district of Kasese, all of which were confirmed negative. Two of these cases originated from the DRC. Samples from the third case, a pregnant woman who died at Kaganda hospital in Kasese district due to antepartum haemorrhage, also tested negative. (Mena FM 16/08/2018, Xinhuanet 16/08/2018)

Uganda hosts approximately 1,470,981 refugees, of whom 288,766 come from DRC. Of those, 78,043 stay in the Rwamwanja settlement in Kamwenge district; 59,134 stay in Kyangwali settlement in Hoima district; 51,884 stay in Kyaka II settlement in Kyegegwa district; 48,061 stay in Nakivale settlement in Isingiro; and 40,986 stay in Kampala. (UNHCR 13/08/2018)

Anticipated impact

DRC: The outbreak continues to spread. If the effect of the aggravating factors – conflict and limited humanitarian access in the area – is not mitigated, the outbreak will probably

spread further. The WHO Director General voiced concern on 16 August that insecurity in Ituri province was hindering WHO response activities and called on parties to the conflict to allow humanitarian access to all areas to contain the Ebola outbreak (WHO 16/08/2018).

The fear of infection was a significant driver of displacement during previous Ebola outbreaks. The stigmatisation of the disease in rural communities exacerbates this fear, along with a general lack of health services. During the Ebola outbreak in West Africa, population movement was recognised as a critical issue, particularly as it increases the risk of transmission into large urban centres (ALNAP/ODI 2017).

Uganda: There have been no further reports since the first three suspected cases tested negative on 15 August. Additionally, the WHO found that Uganda had responded quickly and effectively to reduce the risk of the outbreak spreading into the country. (WHO 16/08/2018) Furthermore, measures put in place in May in response to the previous Ebola outbreak in DRC remain relevant, as Uganda started screening for Ebola at Sweswe Reception Center at Kyaka II Refugee Settlement (Xinhuanet 15/05/2018) Also in May, UNICEF reported that the MoH and partners were coordinating preparedness activities and had intensified screening for Ebola at all border entry points (UNICEF 31/05/2018). Although health authorities have robust measures in place at regulated access points to prevent the outbreak from spreading in Uganda, potential unregulated arrivals across porous borders pose a risk. Thousands of refugees from DRC have crossed Lake Albert to reach western Uganda in 2018. It is unknown if any failed to register with the authorities upon arrival, thus avoiding medical screenings for Ebola and passing through communities unchecked. (NG 16/4/2018).

Given the potential for cross-border spread, concern centres on the districts in border areas and the refugee settlements hosting arrivals from DRC. Uganda hosts 288,766 refugees from DRC. Of those, 99,447 arrived in Uganda in 2018. UNHCR noted an increase in refugee crossings in July (VOA 12/08/2018). By comparison, only 44,000 Congolese crossed into Uganda in all of 2017. (UNHCR 14/05/2018, UNHCR 16/3/2018)

The WHO has identified five districts as high-risk: Kasese (with 694,987 people), Hoima (572,986 people), Kabarole (298,989 people), Bundibugyo (224,387 people), and Ntoroko (67,005 people). These districts account for 4.3% of the Ugandan population (City Population 2017). If cases are confirmed in these areas, the disease will probably spread locally. However, it is also likely that the disease will be successfully contained within the area given the current level of preparedness, including health screening and checkpoints. (WHO 16/08/2018)

Health: In DRC's Beni territory, health infrastructure is inadequate for the most part, which impedes the delivery of quality services. Health facilities often face shortages of medical

supplies, and they lack equipment and qualified staff to respond properly to the outbreak. (CAID 31/03/2017).

In **Uganda**, the national policy allows refugees to access public services (NG 16/4/2018). Although this is largely seen as a progressive policy, it means that significant increases in arrivals can strain Uganda's limited services, including health services (Save the Children 18/4/2018). It is unclear whether the most overstretched health services could cope with a sharp escalation in health needs if Ebola were to spread in the area.

Adequate preparations should be made to provide psychosocial support to Ebola survivors. Many survivors witness the deaths of family members and they are often unable to attend burials or, due to risk of virus transmission, see the corpses of their loved ones. Upon hospital discharge and return to their community, survivors are frequently stigmatised and isolated, sometimes even by family members. The physical sequelae of EVD may impede resumption of work, with significant psychosocial impacts (WHO 11/04/2018).

WASH: About 13.1 million people in **DRC** need water, sanitation, and hygiene (WASH) support. (OCHA 19/01/2018) Adequate WASH infrastructure and access are crucial to prevent Ebola virus from spreading. Safe disposal of medical waste in areas affected by the outbreak is particularly crucial. However, water and sanitation infrastructure are poor in parts of Nord Kivu, including in places hosting IDPs. (OCHA 10/07/2018)

In **Uganda**, basic services in refugee-hosting districts are overstretched, compromising the quality of services for both refugees and host communities. Sanitation coverage among refugees remains below 40%. (UNICEF 1/2/2018) Cholera and other diarrheal illnesses have spread across the Kyangwali refugee settlement, leading to mortalities. This has been exacerbated by insufficient household latrines, the sharing of communal block latrines, inadequate water and soap supplies, and limited WASH awareness programmes. A cholera outbreak that was first reported at Sebagoro landing site on 11 February affected more than 2,000 people by 4 April, with 40 fatalities, most of them refugees from DRC. (UNHCR 03/2018, Observer 04.04.2018)

Education: Outbreaks can seriously affect educational services. Some past Ebola outbreaks led schools to close for up to seven months, depriving millions of children of education. (UNICEF 13/02/2015)

Vulnerable groups affected

Health workers are at particular risk of exposure, if they lack access to proper protective gear (Direct Relief 15/08/2018). Two healthcare staff are known to have died because of Ebola in 2018 during the previous and current outbreaks (Telegraph 07/08/2018, News24 21/05/2018).

Humanitarian constraints

In the DRC, humanitarian constraints hinder efforts to respond appropriately to the crisis. Humanitarian access in Nord Kivu and Ituri is limited as much of DRC's 1,700km road network is in poor condition. Most roads are made of dirt, and only 11% are paved. (OCHA 31/07/2018) Most humanitarian access to Nord Kivu is by air, but this is affected by the rainy season, the poor quality of landing tracks, and financial constraints, all of which impede the delivery of aid. (OCHA 31/07/2018, FEWSNET 12/2016)

The security environment is also a major constraint for humanitarian actors. Violence and clashes between the Congolese army and armed militias threaten the delivery of humanitarian assistance. Some affected areas in Nord Kivu (displacement sites in particular) are inaccessible to humanitarian actors because of insecurity. It was reported that more than 18,000 people living in Beni have had almost no access to humanitarian assistance since January 2018 due to security constraints. Access is severely restricted in most of the conflict-affected areas in Ituri as well. Unlike the outbreak in Equateur, where the security situation was mostly stable, one of the main challenges of the response in Nord Kivu is the difficulty for humanitarian agencies to reach populations in need. (OCHA 31/07/2018, OCHA 09/04/2018, Guardian 02/08/2018)

Violence against humanitarian actors is a recurring issue in Nord Kivu. Robberies, lootings, kidnapping, and killings are regularly reported. In the first three months of 2018, three kidnappings were reported and two local NGO workers were killed. In 2017, seven kidnappings were reported. (OCHA 31/07/2018)

Attacks on health facilities and aid workers have been regularly reported in Nord Kivu in 2018, particularly in Goma, Rutshuru, and Mushikiri villages. Ongoing intercommunal violence and conflict restrict access to healthcare (Insecurity Insight 05/2018, Insecurity Insight 03/2018, Insecurity Insight 02/2018, WHO 02/2018, MSF 16/01/2017).

Key characteristics of host population and area

Demographic profile

DRC: The population of Nord Kivu is 6,655,000. The population of Ituri is 4,241,236. (INS RDC 2014)

Uganda: WHO has identified five high-risk districts of Uganda that share a border with DRC: Bundibugyo, Hoima, Kabarole, Kasese, and Ntoroko. (WHO 16/08/2018) The population numbers are 224,387 in Bundibugyo, 572,986 in Hoima, 298,989 in Kabarole, 694,987 in Kasese, and 67,005 in Ntoroko. Additional entry points are Kagadi, Kibaale, and Kisoro districts. The population numbers are 351,033 in Kagadi, 140,947 in Kibaale, and 281,705 in Kisoro. (City Population 2017)

Health statistics

DRC: Under-5 mortality rate: 94.3/1,000; neonatal mortality rate: 29/1,000 (UNICEF)

Uganda: Under-5 mortality rate: 53/1,000; neonatal mortality rate: 19/1,000 (UNICEF)

WASH statistics

DRC:

Population using unimproved sanitation services: 42%.

Population defecating in open: 10%.

Population using unimproved drinking water services: 13% (UNICEF 2017)

Uganda:

Population using unimproved sanitation services: 60%.

Population defecating in open: 7%.

Population using unimproved drinking water services: 37% (UNICEF 2017)

Response capacity

DRC

International and local response to the outbreak is ongoing. In Nord Kivu, local NGOs execute 49% of humanitarian projects. There are 71 operational actors, including 17 operating in the health sector. In Beni territory, seven organizations are implementing health projects. (OCHA 14/05/2018)

Many international actors were already in place to respond to the Equateur outbreak, and their medical staff and equipment remain in DRC. Four Red Cross volunteers have been deployed in a Beni hospital. WHO and the local Red Cross committee have started providing support teams to local and national health authorities. Oxfam and CARE announced that they began awareness-raising activities with local communities and providing WASH assistance (CARE 07/08/2018, IFRC 02/08/2018, Oxfam 02/08/2018, Le Monde 01/08/2018). UNICEF has installed 35 chlorination points, as well as handwashing units in 45 public places and in health facilities in the affected areas of Beni and Mangina in North Kivu, and started communication activities. (UNICEF 14/08/2018 UNICEF 15/08/2018) On 14 August, Médecins Sans Frontières (MSF) opened an Ebola treatment centre in Mangina. MSF is also working along the route between Mambasa and Makeke in Ituri province, visiting health facilities to set up isolation rooms, undertaking surveillance activities, and liaising with community health workers to raise awareness about Ebola. (MSF 14/08/2018)

The Ministry of Health is understood to be strengthening surveillance capacities in 18 international points of entry (PEOs) in North Kivu. The MoH will make similar efforts at POEs in other vulnerable provinces. The ministry identified more than 30 additional internal transit points for migrants and displaced people; similar surveillance activities are ongoing at these points, including hand hygiene, screening, management of alerts, and risk communication. The MoH will also enhance surveillance activities at refugee transit centres and other congregation sites. (WHO 14/08/2018)

In Beni, the DRC Government has set up a free number that people can call to report suspected Ebola cases in their community (UNICEF 15/08/2018) According to WHO, 3,220 doses of the rVSV-ZEBOV Ebola vaccination are available in the country, and additional doses have been requested. (WHO 08/08/2018) On 8 August, the MoH, with support from WHO and partners, began Ebola ring vaccination activities for high-risk populations. Ring vaccination contains an outbreak by vaccinating and monitoring a ring of people around each infected individual (Medicine Net 05/13/2016). By 15 August, five rings around 13 recently confirmed cases were identified. Within these initial rings, more than 500 contacts and their contacts consented and received the Ebola vaccine (WHO 17/08/2018)

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The Ministry of Health opened an Ebola screening facility at Entebbe International Airport in May 2018, after the outbreak was declared in northwest DRC's Equateur province. (Xinhua 14/08/2018, Vanguard 09/05/2018)

Following the declaration on 1 August 2018 of the Ebola outbreak in DRC's North Kivu, WHO conducted a formal rapid risk assessment and prioritised, *inter alia*, Uganda as a country in which to enhance operational readiness and preparedness. Five teams from the Stop Transmission of Polio Program were repurposed to provide support in Uganda. According to WHO, Uganda has the laboratory capacity to test for EVD and other VHF's by polymerase chain reaction. As of June 2018, 32 risk communicators had been trained in Uganda and additional risk communication activities had been initiated. (WHO 14/08/2018) ECHO is supporting by deploying humanitarian experts and operating the EU humanitarian air service ECHO Flight in Ebola-affected areas of DRC (transporting personnel, medical supplies and equipment). (ECHO 15/08/2018)

MSF is part of the national task force to ensure effective preparations have been made to tackle the risk of cross-border contagion. (MSF 14/08/2018) UNHCR, together with WHO, UNICEF, and other partners and with the Ministry of Health of Uganda, intensified screening for Ebola at all border entry points. Additional health workers have been deployed in the border districts to improve response capacity (VOA 12/08/2018) The Ministry of Health, with support from partners including WHO, has deployed preparedness teams in the five high-risk districts of Uganda that share a border with DRC. These include Bundibugyo, Hoima, Kabarole, Kasese, and Ntoroko. (WHO 16/08/2018)

Medical Team International continued screening refugee arrivals in Ntoroko town council, and two handwashing facilities were set up in the town. Refugees from DRC arriving in Ntoroko district are reportedly being closely monitored, according to WHO. (WHO 14/08/2018)

UNHCR-supported MoH Rapid Response team to plan training for health workers in viral haemorrhagic fevers in the refugee hosting district. The team of 12 trainers will concurrently train health workers in the refugee hosting districts of Isingiro, Kikuube, Namuwenge, and Kyegegwa. They will also train health workers at the border refugee entry points (WHO 14/08/2018). Screening of people entering Uganda from DRC was ongoing in all high-risk districts at official border entry points and some unofficial entry points (WHO 14/08/2018).

Since May, refugees have been screened for Ebola at Sweswe Reception Center at Kyaka II Refugee Settlement (Xinhuanet 15/05/2018) According to UNDP, the typical procedure for reception of refugees in Uganda includes a stay of one to three days in a reception centre, where health screenings are performed (UNDP 2017). At Sebagoro collection point, screening for Ebola began in May (UNHCR 05/2018).

Contextual information

Cause and symptoms of Ebola

The average CFR for the EBV is around 50%. However, case fatality rates varied from 25% to 90% in past outbreaks. It is transmitted through wild animals and other infected humans via bodily fluids. Transmission can also occur during burial, when direct contact occurs with the infected body of a deceased person. (WHO 12/02/2018) Initial symptoms include headache, muscle pain, fever, fatigue, and a sore throat. These symptoms are usual followed by vomiting, diarrhoea, rash, and sometimes internal and external bleeding. The incubation period varies from two to 21 days. (WHO 12/02/2018)

Previous outbreaks of Ebola in DRC

This is the tenth outbreak in the country since the disease appeared in 1976, but the first in Nord Kivu. (Centers for Disease Control and Prevention accessed 02/08/2018) The current outbreak is the second in DRC this year. The first one, in Equateur province, was declared over on 24 July and involved 54 cases, including 33 deaths. (CFR: 61.1%) (WHO 25/07/2018)

The virus was contained during the outbreak in Equateur province thanks to a prompt local and international response, as well as the vaccination of more than 3,300 people. (Al Jazeera 01/08/2018)

Previous outbreaks in Uganda

Ebola Outbreaks

Ebola broke out in Kibaale district in the Western Region of Uganda in October 2012. A total of 24 probable and confirmed cases were recorded, of which 11 were laboratory confirmed by the Uganda Virus Research Institute (UVRI). A total of 17 deaths were reported. (WHO 04/10/2012) The Ministry of Health in Uganda reported seven cases (six confirmed, one probable) of Ebola haemorrhagic fever in Luweero and Kampala districts In November 2012. Of these cases, four people died. (WHO 30/11/2012)

Marburg Virus Disease

Marburg and Ebola viruses are both members of the Filoviridae family (filovirus). Though caused by different viruses, the two diseases are clinically similar. Both are rare and can cause dramatic outbreaks with high fatality rates (WHO 10/2017). On 17 October 2017, the Ugandan Ministry of Health notified WHO of a confirmed outbreak of Marburg Virus Disease in Kween District, Eastern Uganda. The MoH officially declared the outbreak on 19 October 2017. As of 14 November, three cases were reported, including two confirmed cases and one probable case. All three cases resulted in death (WHO 15/11/2018).

Cholera and RVF

Between 29 April and 22 June 2018, 92 suspected cholera cases – including 26 confirmed and one death (CFR 1.1%) – were reported in Kampala. A low level of cholera transmission was a concern in two suburbs, Makindye and Kawenpe. (WHO 22/06/2018) An outbreak of Rift Valley fever was reported in Isingiro and Kasese districts on 29 June. The two cases were unrelated and each district confirmed one case (WHO 06/07/2018)

Lessons learned

Uganda has accumulated experience from past outbreaks. Among the successful strategies were:

- Uganda has standing multi-sectoral and multidisciplinary task force committees on epidemics that include partners and NGOs at the national and district level.
- Uganda has built a good laboratory network within districts, regional referral hospitals and at the national level. The samples for detection of Ebola are analysed in Entebbe at the UVRI. Uganda has also built capacity in specimen collection, processing, packaging, and storage and an efficient specimen shipment mechanism.
- Uganda has developed local capacity for social mobilisation during epidemics, and developed local experience in case management, infection prevention, and control. (Mbonye et al 2014)

Education is a significant predictor of knowledge and attitude towards filoviruses. Communities in Uganda that had been affected by filovirus outbreaks know about control and prevention mechanisms. They can identify suspect cases and are aware of the modes of transmission. Meanwhile, outside previously affected areas, the level of knowledge about filoviruses is still below average and needs to be improved (Nyakarahuka et al 2017)

Outbreaks in or near urban spaces involve a high number of anonymous, untraceable interactions every day. This makes contact tracing and surveillance efforts difficult (ALNAP/ODI 2017).

Psychosocial support for the affected population is crucial throughout the EVD response. Advocacy efforts are needed at different levels to ensure that this support is available during response (IFRC 07/2016).

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 mobilisation and community engagement, (ix) logistics, (x) risk communication, (xi) vaccination, (xii) partner engagement, (xiii) research and (xiv) resource mobilisation. (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 helps build trust 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).

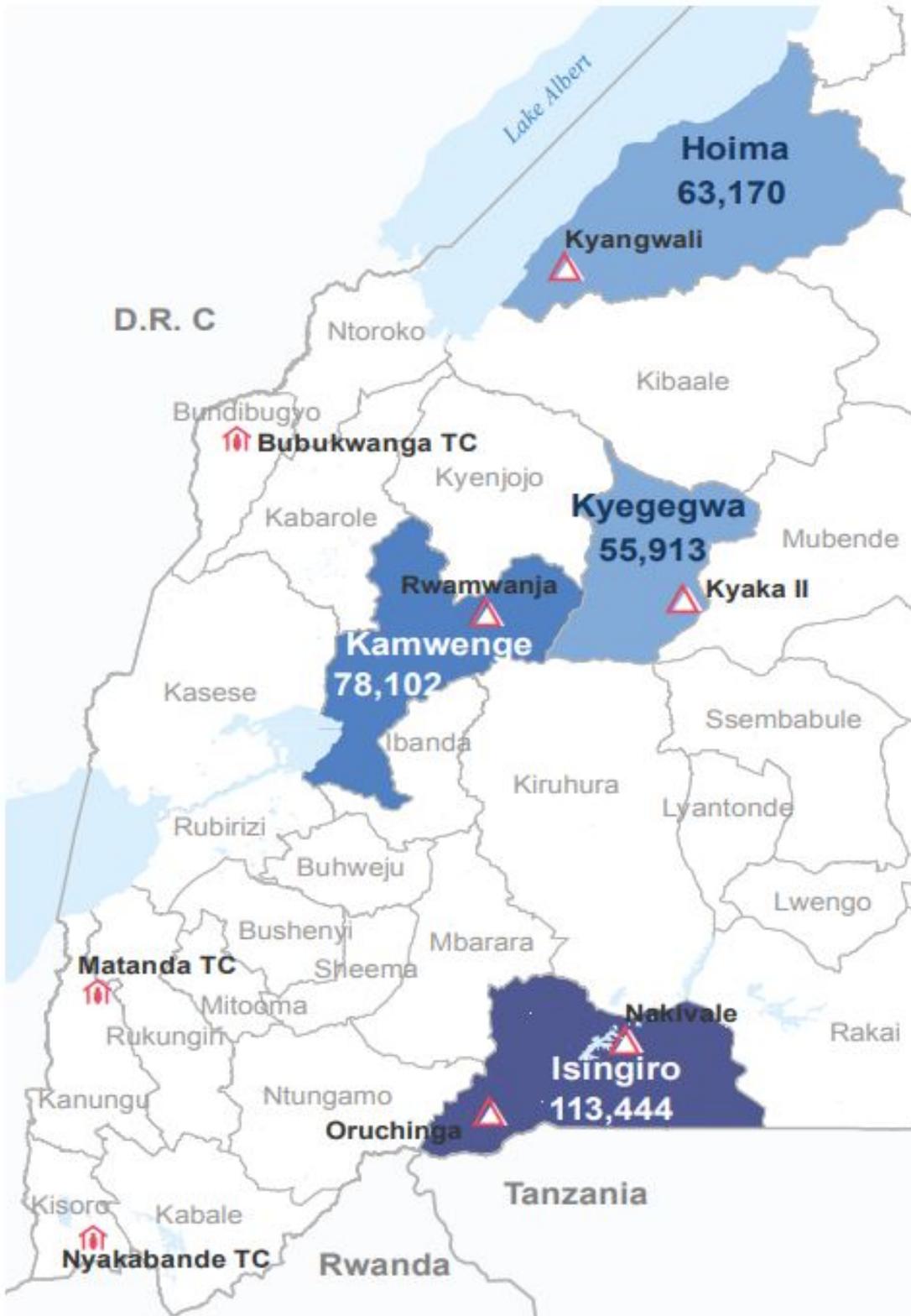
Safe and dignified burial is essential as the bodies of Ebola patients remain infectious after death. During the response to the Ebola outbreak in DRC's Likati, teams ensuring safe and dignified burials included a community engagement person to speak with affected families (IFRC 09/05/2018).

Healthcare workers need to follow infection protocol precautions strictly to avoid being infected themselves. Healthcare workers were infected frequently during past outbreaks (WHO 12/02/2018).

Languages spoken in the affected areas are diverse, including seven in Beni territory. About 80% of the population in Beni territory speaks Swahili, though Nande/Kinande is the first language for 78% of the population. Mbuba is the first language for 20% of the

population and should not be overlooked in the response and information exchange with affected populations. In Uganda, key languages include Swahili, Nyankore, Konzo (a variety of Nande) and Tooro. (TWB 03/08/2018)

Map: DRC refugee distribution in Uganda on 13 August 2018



Source: UNHCR 13/08/2018