The Ministry of Health (MoH), WHO and partners continue to respond to the Ebola virus disease (EVD) outbreak in the Democratic Republic of the Congo, and remain confident that the outbreak can be contained, despite ongoing challenges. On the evening of 16 November 2018, an armed group attacked the MONUSCO base in Boikene District in the city of Beni, close to the residences of UN Ebola responders. Response operations in Beni were briefly paused and resumed (not to full functionally) on 18 November 2018.

No new confirmed EVD cases were reported on 19 November 2018, while one death occurred in Beni. On 18 November 2018, there were seven new confirmed EVD cases in Beni (3), Katwa (3, including 1 community death) and Butembo (1). Since our last situation report on 13 November 2018 (External Situation Report 15), 40 additional confirmed EVD cases and eight deaths were reported. Overall trends in the outbreak (Figure 1) reflect continued transmission in several cities and villages in North Kivu. Given the persisting delays in case detection and the ongoing data reconciliation activities, trends in weekly incidence (especially in the most recent weeks) must be interpreted cautiously.

As of 19 November 2018, a total of 373 EVD cases, including 326 confirmed and 47 probable cases (Table 1), have been reported from 14 health zones in the two neighbouring provinces of North Kivu and Ituri (Figure 2). Of the total cases, 217 died, including 170 deaths among confirmed cases. Deaths among confirmed cases account for 78% of all deaths (170/217) with a case fatality rate of 52% among all confirmed cases (170/326). Females account for 61% of all confirmed and probable cases. A total of 37 health workers have been infected to date, including 10 deaths. A total of 71 new suspected cases were reported on 19 November 2018 from the affected health zones. Kalunguta, Beni, and Butembo/Katwa remain the principle hotspots of the outbreak. As of 19 November 2018, 130 patients were hospitalized in Ebola treatment centres (ETCs), 40 of whom were confirmed positive for EVD. There were 43 new admissions recorded during the reporting day. The bed occupancy in Beni ETC is at 70%. A total of 110 patients were cured and reintegrated into their communities.

The MoH, WHO and partners continue to monitor and investigate all alerts in affected areas, in other provinces in the Democratic Republic of the Congo and in neighbouring countries. Since the last report was published, alerts were investigated in several provinces of the Democratic Republic of the Congo as well as in South Soudan, Uganda and Zambia. To date, EVD has been ruled out in all alerts from neighbouring provinces and countries. WHO, in collaboration with regional and global partners, has deployed over 119 experts in the nine neighbouring countries (Angola, Burundi, Central Africa Republic, Republic of Congo, Rwanda, South Sudan, Tanzania, Uganda and Zambia) and in non-affected provinces in the Democratic Republic of the Congo to support EVD preparedness activities. A joint mission to support preparedness measures in South Sudan was conducted, with participation from the MoH, UN agencies, including UNOCHA, UNICEF, UNFPA, IOM, and WFP as well as EU/ECHO, NGOs and donors. The findings of the mission will be used to prioritize and coordinate the implementation of EVD readiness actions.
Table 1: Ebola virus disease cases by classification and health zones in North Kivu and Ituri provinces, Democratic Republic of the Congo, as of 19 November 2018

<table>
<thead>
<tr>
<th>Province</th>
<th>Health zone</th>
<th>Confirmed cases</th>
<th>Probable cases</th>
<th>Total cases</th>
<th>Deaths in confirmed cases</th>
<th>Total deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Kivu</td>
<td>Beni</td>
<td>167</td>
<td>9</td>
<td>176</td>
<td>87</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Butembo</td>
<td>11</td>
<td>0</td>
<td>11</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Katwa</td>
<td>23</td>
<td>3</td>
<td>26</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Kalunguta</td>
<td>24</td>
<td>12</td>
<td>36</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Kyondo</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mabalako</td>
<td>67</td>
<td>16</td>
<td>83</td>
<td>36</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Masereka</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Musienera</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mutwanga</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Oicha</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Vuhovi</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ituri</td>
<td>Komanda</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Mandima</td>
<td>16</td>
<td>3</td>
<td>19</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Tchomia</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>326</td>
<td>37</td>
<td>373</td>
<td>170</td>
<td>217</td>
</tr>
</tbody>
</table>

*Numbers are aggregated for Butembo and Katwa health zones.

Figure 1. Confirmed and probable Ebola virus disease cases by week of illness onset, data as of 18 November 2018 (n=370)*

*Case counts in recent weeks may be incomplete due to reporting delays.
Context

North Kivu and Ituri are among the most populated provinces in the Democratic Republic of the Congo. The provinces are affected by intense insecurity and a worsening humanitarian context, with over one million internally displaced people and continuous movement of refugees to neighbouring countries, including Uganda, Burundi and Tanzania. The Democratic Republic of the Congo is concurrently responding to multiple disease outbreaks, including three separate outbreaks of circulating vaccine-derived poliovirus type 2 (cVDPV2) in the provinces of Ituri, Mongala, Maniema and Haut Lomami, Tanganyika and Haut Katanga, and outbreaks of cholera, measles and monkeypox across the country.
Current risk assessment

This outbreak of EVD is affecting north-eastern provinces of the Democratic Republic of the Congo, which border Uganda, Rwanda and South Sudan. Potential risk factors for transmission of EVD at the national and regional levels include: transportation links between the affected areas, the rest of the country, and neighbouring countries; internal displacement of populations; and displacement of Congolese refugees to neighbouring countries. Additionally, the security situation in North Kivu and Ituri continues to hinder the implementation of response activities. On 28 September 2018, based on the worsening security situation, WHO revised its risk assessment for the outbreak, elevating the risk nationally and regionally from high to very high. The risk globally remains low. WHO continues to advise against any restriction of travel to, and trade with, the Democratic Republic of the Congo based on currently available information.

Given the context, including the volatile security situation, sporadic incidents of community reluctance, refusal or resistance, continued reporting of confirmed cases, and the risk of spread to neighbouring countries, an International Health Regulations (IHR) Emergency Committee (EC) on the EVD outbreak in North Kivu, Democratic Republic of the Congo, was convened on 17 October 2018. The EC advised that the EVD outbreak does not constitute a public health emergency of international concern. The EC did, however, express their deep concern emphasising the need to intensify response activities and strengthen vigilance whilst noting the challenging security situation and providing a series of public health recommendations to further strengthen the response. The EC commended the Government of the Democratic Republic of the Congo, WHO, and all response partners for the progress made under difficult circumstances.

Strategic approach to the prevention, detection and control of EVD

WHO recommends implementation of strategies for the prevention and control EVD outbreaks. These include (i) strengthening multi-sectoral coordination of the response, (ii) enhancing surveillance, including active case finding, case investigation, confirmation of cases by laboratory testing, contact tracing and surveillance at Points of Entry (PoE), including adapting strategies to the context of insecurity and high community resistances(iii) strengthening diagnostic capabilities, (iv) improving the effectiveness of case management, (v) scaling up infection prevention and control support to health facilities and communities, (vi) adapting safe and dignified burials approach to the context with the support of anthropologists, (vi) adapting and enhancing risk communication, social mobilization and community engagement strategies, (vii) enhancing psychosocial support to the affected population (viii) improving coverage of risk groups by the ring vaccination.

2. Actions to date

The MoH and other national authorities in the Democratic Republic of the Congo, WHO and partners are implementing several outbreak control interventions, some of the latest activities are summarized below:
Operations continue in Beni, despite the proximity of the attack to the response teams.

Cleaning of the database, line listing and contact follow-up continue, with intensified active case finding in health facilities and communities, particularly in Beni, Kalunguta and Katwa health zones.

Over 20,000 contacts have been registered since the onset of the outbreak. As of 19 November 2018, 4668 were still under follow-up, of whom 4406 (94%) were seen in the previous 24 hours. Over the past week, between 93-94% of contacts were followed-up daily. Most contacts lost to follow-up are in Beni. Surveillance and vaccination teams are continuing to enhance the process of identifying case contacts and potential gaps to overcome the challenges.

A total of 253 alerts from affected areas were received on 19 November 2018. Of these, 98% (243/253) were investigated within 24 hours, 60 were validated as suspected cases and seven were community deaths.

Diagnostic testing capacity has continued to expand as cases spread to new geographic areas. Six field Ebola laboratories providing near-patient testing have been established in Beni, Bunia, Butembo, Goma, Mangina and Tchomia; these are in addition to the national reference laboratory in Kinshasa.

Since the beginning of the response, more than 3845 samples have been tested (including repeat samples). In the week ending 17 November 2018, 78 samples were tested in North Kivu and Ituri.

The ETCs continue to provide therapeutics under the monitored emergency use of unregistered and experimental interventions (MEURI) protocol, in collaboration with the MoH and the Institut National de Recherche Biomédicale (INRB) together with supportive care measures. WHO is providing technical clinical expertise on-site and is assisting with the creation of a data safety management board.

New patients continue to be treated in ETCs. As of 19 November 2018, 40 patients were being treated with a therapeutic under the MEURI framework after evaluation by clinical expert committee. All hospitalized patients received food and psychological support.

Additional capacity is being put into place to support IPC activities, including, but not limited to, the deployment of additional experts to provide support to existing teams and review current strategies, review and enhance training materials and review key messaging for consistency with WHO recommendations.

IPC activities continue with decontamination of households of confirmed cases and health facilities in Beni and Butembo; distribution of personal protective equipment to health facilities in Beni; briefing of health workers in Beni, Butembo and Komanda health zones; and formative supervision of IPC activities in health facilities in Beni.
Points of Entry (PoE)

Monitoring and sanitary control activities continue at PoEs. On 18 November 2018, 96.5% of travellers were screened and no alerts for EVD were notified at the 62 PoEs that reported their activities on that day. Data collection tools, hand washing kits and risk communication materials are available in all PoEs.

As of 18 November 2018, 15.4 million travellers have been screened, 13.7 million travellers washed their hands and 12.6 million travellers have been sensitized on EVD. Since the beginning of the outbreak, as a result of PoE screening, 109 alerts have been notified: 26 alerts were validated and one was confirmed for EVD.

IOM, WHO and the National Program of Hygiene at Borders (PNHF) completed a review workshop on the national PoE Standard Operating Procedures (SOPs) from 12 to 14 November 2018 in Kinshasa. Existing SOPs were revised and adapted for the current outbreak. Case definitions, data collection tools, screening, isolation, risk communication, minimum intervention package and infection prevention control measures were revised.

An IOM, WHO and PNHF Population Mobility Mapping exercise for Kinshasa took place on 19 November 2018 for preparedness with participants from border agencies including the General Directorate of Migration (DGM) and CDC.

Due to several attacks by militias in Butembo and Beni, the relocation of select PoEs is ongoing as suggested by the security commission. Supervisory activities at PoEs in Beni that were halted following the security incident on 16 November 2018, resumed on 19 November 2018.

Six flow monitoring points have been established in Uganda by IOM on the border with the Democratic Republic of the Congo (Hoima, Kasese, Kisoro, Bundibugyo and Ntoroko districts). Flow monitoring points will report regularly on trends in population movements, including the number of travellers observed, traveller origins and destinations, modes of travel, and reasons for travel.

Safe and Dignified Burials (SDB)

As of 19 November 2018, a total of 581 SDB alerts have been officially reported, of which 486 were responded to successfully (84%) by Red Cross and Civil Protection teams.

Between 12 and 19 November 2018, a total of 83 SDB alerts were reported, of which 52 (70%) came from Beni Health Zone followed by Mabalako (14), Butembo area (including Katwa and Vuhovi) (12), Mandima (4) and Bunia (1). The number of SDB alerts that continue to be officially reported, especially from Butembo, remains notably low in relation to the population of the affected areas.

To increase SDB capacity in Butembo, four new teams are being formed: two Red Cross and two Civil Protection teams.

An approach to manage burials in areas non-accessible by SDB teams remains under development with the plan to first pilot the approach in Butembo.
Implementation of ring vaccination protocol

- Vaccination activities were paused in Beni after the security incidents on 16 November 2018, but continued in Katwa, Butembo, Vuhovi and Kalunguta.
- As of 19 November 2018, 518 new contacts were vaccinated in 13 rings in affected health zones, bringing the cumulative number of people vaccinated to 32,626. The current stock of vaccine in Beni is 5920 doses.

Risk communication, social mobilization and community engagement

- The door-to-door advocacy activities continue; 2503 households have been reached in affected areas, including 1386 in Beni. In addition, 22 mass awareness sessions were held, 19 of which were in Katwa.
- A total of 62 media outlets have broadcast messages, placed inserts in magazines and provided spot messages about response activities.
- Community involvement in surveillance is being strengthened among chiefs of the Ngongolio District in Beni, with the support of the Deputy Mayor. To date, 1700 volunteers have been trained to strengthen community-based surveillance across six health areas. Volunteers include women, young people, and community leaders with neighbourhood and street leaders as supervisors.
- WHO and partners are supporting community leadership and ownership of the Ebola response activities by working with local civil society organizations, women at all levels of the community structure, and youth groups through community engagement and peace building activities. Community feedback and anthropological insights are regularly evaluated to support the adaptation of the response strategy.

Operational partnerships

- Under the overall leadership of the MoH, WHO is supporting all major pillars of the EVD preparedness and response. WHO is working intensively with wide-ranging, multisectoral, and multidisciplinary national, regional and global partners and stakeholders for EVD response, research, and preparedness.
- WHO has deployed a total 285 experts in various disciplines to support the EVD outbreak response in the Democratic Republic of the Congo.
- Several international organizations and UN agencies are involved in response and preparedness activities; the organizations and specific contributions are noted below.
  - **European Civil Protection and Humanitarian Aid Operation (ECHO):** MEDEVAC, logistics and operational support
  - **International Organization for Migration (IOM):** cross-border preparedness
  - **UK Public Health Rapid Support Team:** supporting deployments through GOARN (see below)
  - **United Nations Children’s Fund (UNICEF):** community engagement and social mobilization; vaccination
  - **UN High Commission on Refugees (UNHCR):** cross-border preparedness and PoE
  - **World Bank and regional development banks:** medical support
  - **World Food Programme (WFP) and UN Humanitarian Air Service (UNHAS):** nutrition assistance; logistical and operational support
  - **UN mission:** logistical assistance and, together with **UN Department of Safety and Security**
(UNDSS), ensuring the safety of staff on the ground.

- Additional UN agencies include the Inter-Agency Standing Commission, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), and the United Nations Population Fund (UNFPA).

WHO is engaging Global Outbreak Alert and Response Network (GOARN), Emerging and Dangerous Pathogens Laboratory Network (EDPLN), Emerging Disease Clinical Assessment and Response Network (EDCARN), and the Emergency Medical Team (EMT) initiative – as well as regional operational partners and collaboration centres in Africa – to deploy experts and multidisciplinary teams for the response, and to support intensive preparedness and readiness activities in neighbouring and at-risk countries.

Specialized agencies participating in Ebola response include:

- **Africa Centres for Disease Control**: Deployment of health professionals (of various professional categories and seniority levels) to support surveillance and contact tracing, training of local health workers in IPC and social mobilization activities; laboratory services; Central Coordination in Kinshasa; and support with laboratory diagnostic equipment.

- **US Centers for Disease Control (CDC)**: Supporting deployments via GOARN; supporting incident management operations through staff deployments.

- **UK Department for International Development (DFID)**: Supporting surveillance, IPC, risk communication, and community engagement.

- **United States Agency for International Development (USAID)**: Supporting surveillance, infection protection and control, risk communication and community engagement, safe and dignified burials, coordination.

Non-governmental organizations involved in Ebola response are:

- **Adeco Federación (ADECO)**: Supporting IPC, risk communication, and community engagement.

- **Association des femmes pour la nutrition à assise communautaire (AFNAC)**: Supporting IPC, risk communication, and community engagement.

- **Alliance for International Medical Action (ALIMA)**: Supporting patient care and vaccination.

- **CARE International**: Supporting surveillance, infection prevention and control, risk communication and community engagement in the Democratic Republic of the Congo; CARE International is also supporting Ebola preparedness in Uganda.

- **Centre de promotion socio-sanitaire (CEPROSSAN)**: Supporting surveillance, infection prevention and control, risk communication and community engagement.

- **Cooperazione Internationale (COOPE)**: Supporting infection prevention and control, risk communication, and community engagement.

- **Catholic Organization for Relief and Development Aid (CORAID/PAP-DRC)**: Supporting infection prevention and control, risk communication, and community engagement.

- **International Medical Corps**: supporting surveillance, infection prevention and control, and patient care.

- **International Rescue Committee (IRC)**: Supporting infection prevention and control, risk communication, and community engagement.

- **INTERSOS**: Supporting surveillance, and infection prevention and control.

- **MEDAIR**: Supporting surveillance, and infection prevention and control.

- **Médecins Sans Frontières (MSF)**: Supporting infection prevention and control, and patient care.

- **Oxfam International**: Supporting vaccination, community engagement and social mobilization, infection prevention and control, and patient care.

- **Red Cross of the Democratic Republic of Congo**, with the support of the International Federation of Red Cross and Red Crescent Societies (IFRC) and International Committee of
the Red Cross (ICRC): Supporting infection prevention and control, safe and dignified burials, risk communication, and community engagement.

- Samaritan’s Purse: Supporting infection prevention and control as well as risk communication and community engagement.
- Save the Children International (SCI): Supporting surveillance, infection prevention and control, risk communication, and community engagement.

WHO encourages wider coverage of partner operations via this report in response to demand from our planning teams. If you would like to see the activities of your agency or organization appears in the report, please send an email to goarn@who.int.

IHR travel measures and cross border health

WHO advises against any restriction of travel and trade to the Democratic Republic of the Congo based on the currently available information. WHO continues to closely monitor and, if necessary, verify travel and trade measures in relation to this event.

3. Conclusion

The EVD outbreak in the Democratic Republic of the Congo remains serious and unpredictable, with emergence of new confirmed cases and occurrence of deaths. There were security incidents in Béni city during the reporting week, affecting several aspects of the outbreak response operations. The insecurity is being compounded by pockets of misinformation, mistrust and community reluctance to adopt preventive measures. In the given circumstances, containment of the outbreak becomes challenging. As a result, there is a need for continuous concerted efforts to strengthen all aspects of the response operations.