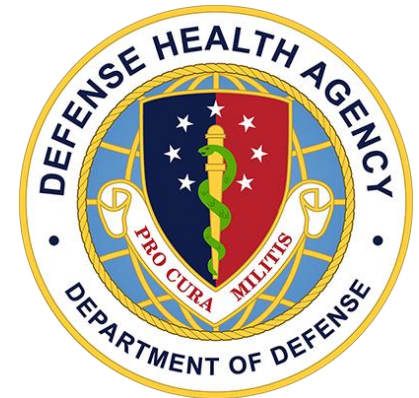


Department of Defense
Armed Forces Health Surveillance Branch
Integrated Biosurveillance Section
Northeastern DRC Ebola Surveillance Summary
30 NOV 2018



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DEPARTMENT OF DEFENSE (AFHSB/IB)

Northeastern DRC Ebola Surveillance Summary #15

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CASE REPORT: Between 30 APR and 28 NOV 2018, the Democratic Republic of the Congo (DRC) Ministry of Health (MOH) has reported 426 (+33) Ebola virus disease (EVD) cases (379 (+33) confirmed and 47 probable), as well as 87 (+14) suspected cases, from 14 health zones in North Kivu and Ituri provinces in northeastern DRC. Beni, Butembo, Kalunguta, and Katwa in North Kivu Province remain EVD outbreak hotspots, reporting 91% of the newly confirmed cases since 23 NOV. Since NOV 11, new cases have only been reported in North Kivu Province. While the initial peak of confirmed and probable cases occurred in AUG, a second peak has occurred between OCT and NOV (see epidemic curve). Among the 426 confirmed and probable cases, 245 (+23) deaths (case fatality proportion 58%) have been reported. In North Kivu Province, confirmed and probable cases have been reported from Beni (190 (+9)), Mabalako (83), Kalunguta (45 (+5)), Katwa (45 (+10)), Butembo (17 (+6)), Masereka (7), Kyondo (5 (+1)), Oicha (4 (+1)), Musienene (3), Vuhovi (3 (+1)), and Mutwanga (2) health zones. In neighboring Ituri Province, cases have been reported from Mandima (19), Tchomia (2), and Komanda (1) health zones. Children continue to be disproportionately affected by this outbreak. Between 14-20 NOV, WHO reported that of the 43 newly confirmed and probable cases, 30% were in children <17 years of age, including seven cases in newborns and infants. Delays in case identification continue to create greater opportunities for further EVD exposure within communities, with the majority of confirmed cases not being identified until ≥ 5 days after symptom onset. On 29 NOV, WHO announced that the current outbreak is the second largest EVD outbreak in history, behind the 2014-2016 EVD outbreak in West Africa (28,610 cases, 11,308 deaths).

BACKGROUND: Persistent insecurity, population density and mobility, and community resistance remain compounding factors in this outbreak. There are over 100 armed opposition groups in North Kivu Province, with the Allied Democratic Forces (ADF), Force de Résistance Patriotiques en Ituri (FRPI), Mai-Mai Mazembe-Union pour la protection des innocents (MM MAZEMBE-UDPI), and Nande Mai-Mai groups active in the affected health zones. Contact tracing in Kalunguta Health Zone is currently disrupted due to security concerns. On 16 NOV, armed rebels attacked a UN Organization Stabilization Mission in the DRC (MONUSCO) base in Boikene District, Beni, near the Emergency Operations Center (EOC) and several hotels lodging UN responders. While no responders were injured in the attack, field activities, including vaccinations, were temporarily suspended, but resumed on 18 NOV. On 30 OCT, the UN Security Council [adopted](#) Resolution 2439 (2018), which condemned attacks by armed groups in DRC and their role in hindering outbreak response activities, and called for the immediate cessation of hostilities by all armed groups, including the ADF. On 9 NOV, the outbreak became the largest in DRC's history, surpassing the 318 cases during the first recorded outbreak of EVD in 1976. On 13 NOV, WHO [stated](#) the outbreak in northeastern DRC is likely to continue into 2019, with containment largely dependent on the security situation in the affected areas.

Along with the outbreak, DRC is simultaneously responding to outbreaks of circulating vaccine-derived poliovirus type 2 (cVDPV2), cholera, malaria, measles, and monkeypox across the country. The majority of these diseases are endemic to the DRC. On 14 NOV, a WHO official stated that children affected by a concurrent malaria outbreak in Beni likely contracted EVD in local healthcare facilities as a result of the reuse of medical instruments by traditional healers. On 28 NOV, WHO launched a four-day anti-malarial drug campaign in Beni, targeting up to 450,000 people with anti-malarial drugs and mosquito nets. According to [WHO](#) on 22 NOV, healthcare facilities have been identified as a source of EVD transmission, with medications administered via injections as a notable cause of infection in treatment of febrile symptoms. As of 28 NOV, no confirmed EVD cases have been reported outside of the DRC during the current outbreak; however, the high level of population movement between the affected areas and neighboring countries continues to create opportunities for cross-border disease transmission. On 17 OCT, the WHO International Health Regulations (IHR) Emergency Committee [determined](#) that the EVD outbreak does not constitute a Public Health Emergency of International Concern (PHEIC). WHO assesses the risk of EVD spread within DRC and regionally as very high and the global risk as low.

ADVISORIES: On 29 NOV, the U.S. DoS issued its fifth [security alert](#) in NOV 2018 for U.S. citizens in DRC, due to a possible terrorist threat against USG facilities in Kinshasa. The U.S. Embassy in Kinshasa has remained closed since 26 NOV. Additionally, the U.S. DoS has identified the area of DRC affected by this outbreak as a "[Do Not Travel](#)" zone due to armed group activity and military operations. On 19 OCT, CDC updated its travel notice for EVD in DRC to [Alert-Level 2, Practice Enhanced Precautions](#). As of 26 NOV, screening at 67 (+5) points of entry (POEs) in DRC is being conducted; 16.8 (+1.4) million travelers have been screened to date. In JUN 2018, WHO [updated](#) the Regional Strategic EVD Readiness Preparedness Plan for DRC, with neighboring countries reprioritized based on proximity to the current outbreak in DRC and the current capacity of the health system to cope with EVD. Priority 1 countries include Burundi, Rwanda, South Sudan, and Uganda; Priority 2 countries include Angola, Central African Republic, Republic of Congo, Tanzania, and Zambia. WHO continues to support these countries with EVD preparedness activities.

(+xx) represents the change in number from the previous AFHSB Surveillance Summary of 23 NOV 2018.

Information has been verified unless noted otherwise. For questions, comments, or requests for information, contact AFHSB/IB at NIPR: dha.ncr.health-surv.list.ib-alert-response@mail.mil or SIPR: dha.ncr.health-surv.mbx.health-surveillance-group@mail.smil.mil

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MEDICAL COUNTERMEASURES AND DIAGNOSTICS: As of 26 NOV, there have been 41 (+2) EVD cases (12 (+2) deaths) among healthcare workers (HCWs), with the majority among nursing staff. Ebola Treatment Units (ETUs) have been established in Beni, Butembo, Goma, Mandima, Mangina, and Tchomia health zones, with mobile testing labs in Beni, Bunia, Butembo, Goma, Mangina, and Tchomia. On 20 NOV, a WHO-convened, National Institute of Allergy and Infectious Diseases (NIAID) and Institut National de Recherche Biomédicale (INRB)-led consortium of international partners began a multi-drug randomized controlled trial (RCT) of EVD investigational therapeutics in patients of any age with confirmed EVD. The aim of the RCT is to obtain reliable data on the safety and efficacy of mAb114, remdesivir, and Zmapp. The RCT is expected to expand to additional ETUs once protocols have been updated and a fourth-arm of the study (REGN-EB3) has been added.

As of 28 NOV, 37,559 (+4,061) contacts of EVD cases and front-line HCWs in DRC have been vaccinated since 8 AUG 2018 (see Table); at least 9,700 (+1,400) vaccine recipients have been children >1 year of age. As of 27 NOV, 242 (+40) vaccination rings (including 48 (+3) in HCWs and front-line workers) have been established. On 16 NOV, the MOH announced the completion of targeted geographic vaccination in Kanihunga Village within Kalunguta Health Zone, a vaccination strategy that consists of targeting households or villages around a confirmed case when security situations preclude a ring vaccination strategy. On 7 NOV, the Uganda MOH began preventive vaccination of 3,000 front-line HCWs in five high-risk districts that border DRC (see Map for Uganda Districts). As of 27 NOV, 1,316 (+547) HCWs from 40 (+17) health facilities in Bundibugyo, Kasese, and Ntoroko districts have been vaccinated with rVSV-ZEBOV. No cases of EVD have been recorded in Uganda during the current outbreak.

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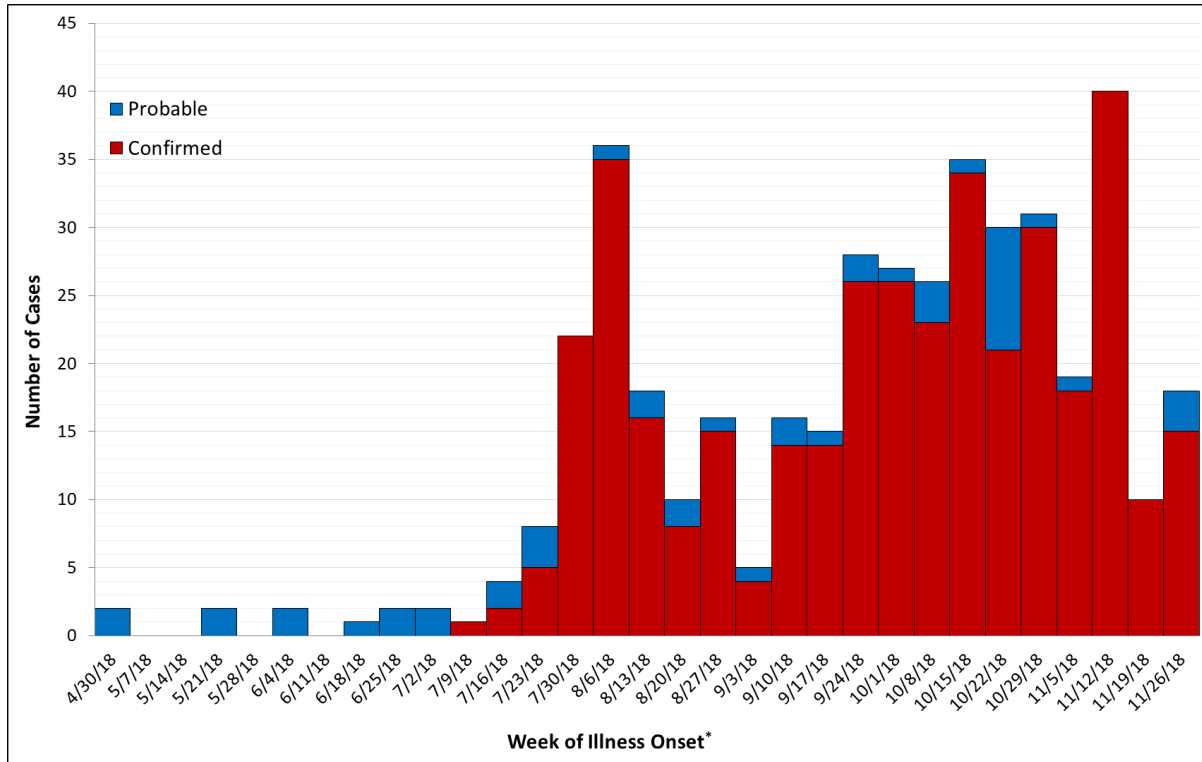
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Epidemic Curve. Confirmed and Probable Ebola Cases in Northeastern DRC by Week of Illness Onset (n=426), as of 28 NOV 2018



Sources: DRC MOH, WHO

*The week of illness onset is estimated and is subject to change due to case reclassification, retrospective investigation, and enhanced surveillance.

Table. Number of Individuals Vaccinated by Province and Health Zone, as of 28 NOV 2018

Province		Number Vaccinated
North Kivu	Beni	17,733 (+1,206)
	Katwa	5,270 (+1,976)
	Mabalako	4,544
	Butembo	2,980 (+990)
	Kalunguta	1,788 (+37)
	Masereka	732
	Oicha	521 (+343)
	Bunia	434
	Mutwanga	431 (+139)
	Vuhovi	359
	Kyondo	241
	Musienene	234
	Alimbongo	34
Ituri	Mandima	1,663
	Tchomia	355
	Komanda	240
Total		37,559

Source: DRC MOH

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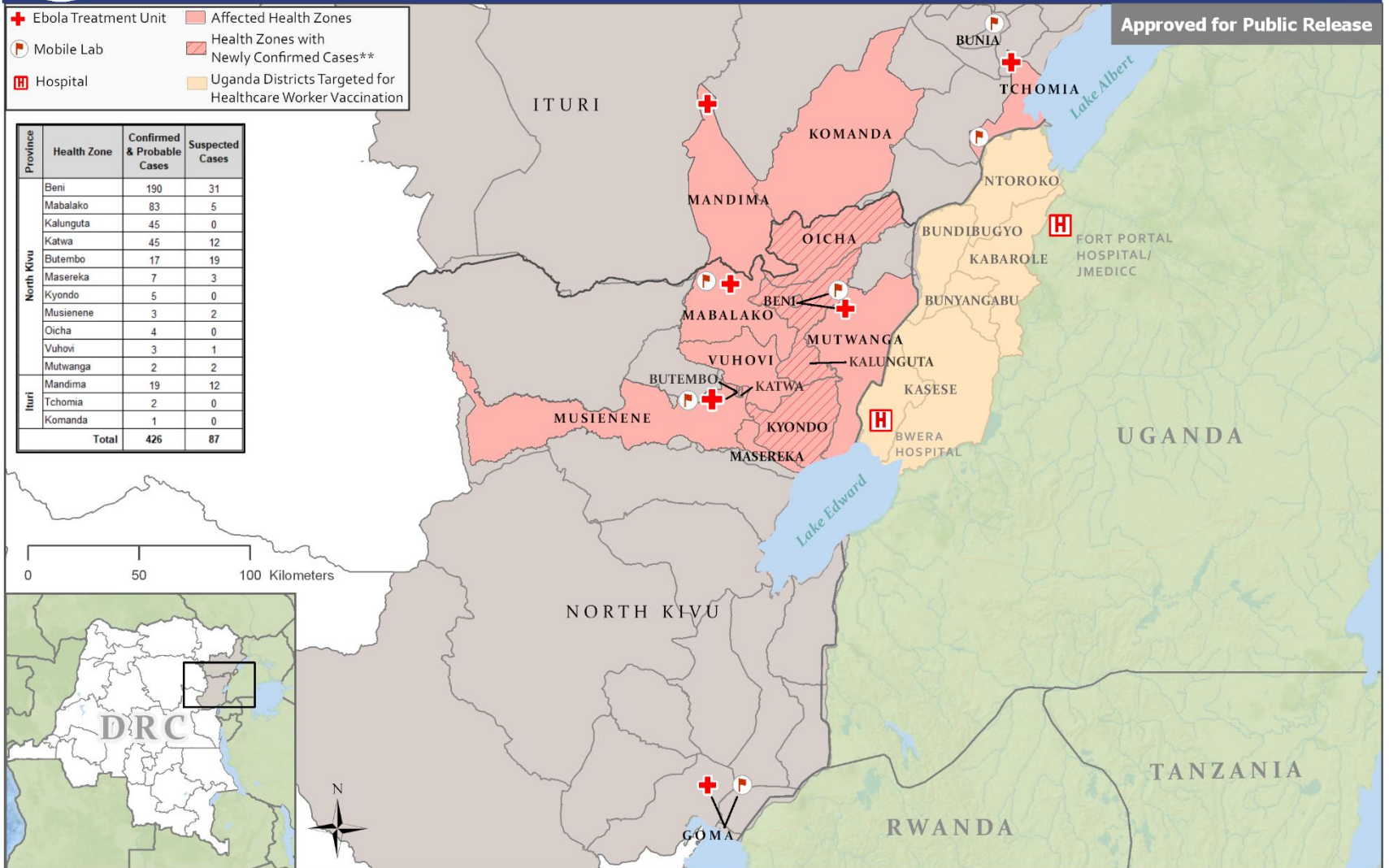
Ebola Virus Disease Outbreak in Northeastern Democratic Republic of the Congo (DRC)*



- + Ebola Treatment Unit
- P Mobile Lab
- H Hospital
- Affected Health Zones
- Health Zones with Newly Confirmed Cases**
- Uganda Districts Targeted for Healthcare Worker Vaccination

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Province	Health Zone	Confirmed & Probable Cases	Suspected Cases
North Kivu	Beni	190	31
	Mabalako	83	5
	Kalunguta	45	0
	Katwa	45	12
	Butembo	17	19
	Masereka	7	3
	Kyondo	5	0
	Musienene	3	2
	Oicha	4	0
	Vuhovi	3	1
Ituri	Mutwanga	2	2
	Mandima	19	12
	Tchomia	2	0
	Komanda	1	0
Total		426	87



Sources: CDC, DRC MOH, WHO AFRO, USG, Uganda MOH
 *As of 28 NOV 2018
 **Since 23 NOV 2018

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