Congo Declares End of Ebola Outbreak

May 20, 2021
The Democratic Republic of the Congo (DRC) officially declared the end of the 12th Ebola outbreak, which killed six people in its eastern province of North Kivu. Since the outbreak was declared on February 7, 2021, a total of 12 cases have been reported, including six deaths in the province. The outbreak was contained using Merck's Ebola vaccine, which was given to more than 1,600 of the patients' contacts, and contacts of contacts, the international medical charity Doctors Without Borders (Medecins Sans Frontieres, or MSF) said.

In news: Congo declares the end of the 12th Ebola outbreak in the country
Placing it in syllabus: Disaster Management
Dimensions

- What is Ebola virus disease?
- What is a Global Health Emergency ?
- How is Ebola spread?
- What are zoonotic diseases?
- Which countries were affected by Ebola?

Content:

What is Ebola virus disease?

- **Ebola virus disease (EVD)**, formerly known as **Ebola haemorrhagic fever**, is a rare but severe, often fatal illness in humans.
- Occasional outbreaks of this **disease occur mostly on the African continent.**
- EVD most **commonly affects people and nonhuman primates** (such as monkeys, gorillas, and chimpanzees).

- The **average EVD case fatality rate is around 50%.** Case fatality rates have varied from 25% to 90% in past outbreaks.

Cause:

It is caused by an infection with a **group of viruses within the genus Ebolavirus**, which include:

- Ebola virus (species Zaire ebolavirus)
- Sudan virus (species Sudan ebolavirus)
- Taï Forest virus (species Taï Forest ebolavirus, formerly Côte d'Ivoire ebolavirus)
- Bundibugyo virus (species Bundibugyo ebolavirus)
- Reston virus (species Reston ebolavirus)
- Bombali virus (species Bombali ebolavirus)

Only four (Ebola, Sudan, Taï Forest, and Bundibugyo viruses) have caused disease in people.

Ebola virus was **first discovered in 1976 near the Ebola River** in what is now the Democratic Republic of Congo. Since then, the virus has been infecting people from time to time, leading to outbreaks in several African countries.

Based on similar viruses, scientists believe EVD is animal-borne, with bats or nonhuman primates being the most likely source. Infected animals carrying the virus can transmit it to other animals, like apes, monkeys, duikers and humans.

Signs and Symptoms:

- Symptoms may appear anywhere from 2 to 21 days after contact with the virus, with an average of 8 to 10 days.
- The course of the illness typically progresses from "dry" symptoms initially (such as fever, aches and pains, and fatigue), and then progresses to "wet" symptoms (such as diarrhea and vomiting) as the person

becomes sicker.

Primary signs and symptoms of Ebola often include some or several of the following:

- Fever
- Aches and pains, such as severe headache and muscle and joint pain
- Weakness and fatigue
- Sore throat
- Loss of appetite
- Gastrointestinal symptoms including abdominal pain, diarrhea, and vomiting
- Unexplained hemorrhaging, bleeding or bruising
- Other symptoms may include red eyes, skin rash, and hiccups (late-stage).

Many common illnesses can have the same symptoms as EVD, including influenza (flu), malaria, or typhoid fever. Therefore, it **can be difficult to clinically distinguish EVD from other infectious diseases**. Many symptoms of pregnancy and Ebola disease are also quite similar.

Confirmation that symptoms are caused by Ebola virus infection are made using the following diagnostic methods:

- antibody-capture enzyme-linked immunosorbent assay (ELISA)
- antigen-capture detection tests
- serum neutralization test
- reverse transcriptase polymerase chain reaction (RT-PCR) assay
- electron microscopy
- virus isolation by cell culture.

Prevention and Care:

- Community engagement is key to successfully controlling outbreaks.

- Good outbreak control relies on applying a package of interventions, namely case management, infection prevention and control practices, surveillance and contact tracing, a good laboratory service, safe and dignified burials and social mobilisation.
- **Vaccines to protect against Ebola have been developed** and have been used to help control the spread of Ebola outbreaks in Guinea and in the Democratic Republic of the Congo (DRC).
- Early supportive care with rehydration, symptomatic treatment improves survival. Two **monoclonal antibodies (Inmazeb and Ebanga) were approved for the treatment of Zaire ebolavirus (Ebolavirus) infection** in adults and children by the US Food and Drug Administration in late 2020.

What is a Global Health Emergency?

The World Health Organisation defines a global health emergency, also known as a Public Health Emergency of International Concern as “an extraordinary event which is determined to constitute a public health risk to other states through the international spread of disease and to potentially require a coordinated international response”.

This definition implies a situation that is:

- serious, sudden, unusual or unexpected;
- carries implications for public health beyond the affected state’s national border; and
- may require immediate international action.

It is an event where disease has the risk to spread internationally.

The WHO outlines how one of the defining factors of such a pandemic is when an international response may be required; taking in a multi-national approach to containing the spread of disease, like Coronavirus.

The declaration of such an emergency inclines countries to step-up their preparation and prevention against the spread of the virus.

How is Ebola spread?

- Scientists think people are initially infected with Ebola virus through contact with an infected animal, such as a fruit bat or nonhuman primate. This is called a spillover event.
- After that, the virus spreads from person to person, potentially affecting a large number of people.

The **virus spreads through direct contact** (such as through broken skin or mucous membranes in the eyes, nose, or mouth) with:

- Blood or body fluids (urine, saliva, sweat, feces, vomit, breast milk, amniotic fluid, and semen) of a person who is sick with or has died from Ebola virus disease (EVD).
- Objects (such as clothes, bedding, needles, and medical equipment) contaminated with body fluids from a person who is sick with or has died from EVD.
- Infected fruit bats or nonhuman primates (such as apes and monkeys).
- Semen from a man who recovered from EVD (through oral, vaginal, or anal sex). The virus can remain in certain body fluids (including semen) of a patient who has recovered from EVD, even if they no longer have symptoms of severe illness.

People **remain infectious as long as their blood contains the virus.**

When people become infected with Ebola, they do not start developing signs or symptoms right away. This period between exposure to an illness and having symptoms is known as the **incubation period.**

A person **can only spread Ebola to other people after they develop signs** and symptoms of Ebola.

What are zoonotic diseases?

- Zoonotic diseases (also known as zoonoses) are caused by germs that spread between animals and people.
- Zoonotic diseases are caused by harmful germs like viruses, bacteria, parasites, and fungi.
- Zoonotic diseases are very common around the world. Scientists estimate that more than 6 out of every 10 known infectious diseases in people can be spread from animals, and 3 out of every 4 new or emerging infectious diseases in people come from animals.

The common ways by which people can get infected with germs that can cause zoonotic diseases include:

- **Direct contact:** Coming into contact with the saliva, blood, urine, mucous, feces, or other body fluids of an infected animal. Examples include petting or touching animals, and bites or scratches.
- **Indirect contact:** Coming into contact with areas where animals live and roam, or objects or surfaces that have been contaminated with germs. Examples include aquarium tank water, pet habitats, chicken coops, barns, plants, and soil, as well as pet food and water dishes.
- **Vector-borne:** Being bitten by a tick, or an insect like a mosquito or a flea.
- **Foodborne:** Eating or drinking something unsafe, such as unpasteurized (raw) milk, undercooked meat or eggs, or raw fruits and vegetables that are contaminated with feces from an infected animal. Contaminated food can cause illness in people and animals, including pets.

Waterborne: Drinking or coming in contact with water that has been contaminated with feces from an infected animal

Which countries were affected by Ebola?

EVD first appeared in 1976 in 2 simultaneous outbreaks, one in what is now Nzara, South Sudan, and the other in Yambuku, DRC.

The latter occurred in a village near the Ebola River, from which the disease takes its name.

The 2014–2016 outbreak in West Africa was the largest Ebola outbreak since the virus was first discovered in 1976. The outbreak started in Guinea and then moved across land borders to Sierra Leone and Liberia.

Table: Chronology of previous Ebola virus disease outbreaks

Year	Country	EVD	Cases	Deaths	Case fatality
2021	Guinea	Zaire	Ongoing		
2021	Democratic Republic of the Congo	Zaire	Ongoing		
2020	Democratic Republic of the Congo	Zaire	130	55	42%
2018-2020	Democratic Republic of the Congo	Zaire	3481	2299	66%
2018	Democratic Republic of the Congo	Zaire	54	33	61%
2017	Democratic Republic of the Congo	Zaire	8	4	50%

Mould your thought: Write a short note on the origin, spread and management of Ebola Virus Disease.

Approach to the answer:

- Introduction
- Discuss the causes and symptoms of EVD
- Discuss the spread of the disease
- Mention the preventive measures and management of the disease
- Conclusion