

5. Ebola Death in Democratic Republic of Congo

Prelims Syllabus: Science and Technology - Medicine and Pharmaceuticals

Mains Syllabus: GS-III Awareness in the fields of IT, Space, Computers, robotics, Nano-Technology, Bio-technology and Issues Relating to Intellectual Property Rights.

Why in News?

- World Health Organization (WHO) has announced that the Democratic Republic of Congo (DRC) has recently recorded a second Ebola death in days following more than seven weeks without a new case.

Key Points:

- The Ebola outbreak in DRC has killed more than 2000 people since 2018. (Almost killed about two thirds of those it infected).
- The cases appear when the Democratic Republic of Congo had been due to mark an end to the second-deadliest outbreak of the virus on record.
- Flare-ups or one-off transmissions (sudden outburst) are common towards the end of Ebola outbreaks, and a new case does not necessarily mean that the virus will spread out of control again.
- It is not yet clear how the new cases emerged. Neither there was any contact with other Ebola patients, nor the patient was a survivor of the virus which could have relapsed.

About Ebola Virus Disease:

- Ebola virus disease 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.
- **Transmission:** Fruit bats of the Pteropodidae family are natural Ebola virus hosts.
- Animal to human transmission is Possible.
- Human-to-human transmission: Ebola spreads via direct contact (through broken skin or mucous membranes) with:
 - ✓ Blood or body fluids of a person who is sick with or has died from Ebola.
 - ✓ Objects that have been contaminated with body fluids (like blood, feces, vomit) from a person sick with Ebola or the body of a person who died from Ebola.

Diagnostic Methods:

- Antibody-capture Enzyme-linked Immunosorbent Assay (ELISA). It also tests Acute Encephalitis Syndrome and Kyasanur Forest Disease.
 - ✓ Antigen-capture detection tests
 - ✓ Serum neutralization test
 - ✓ Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) assay
 - ✓ Electron microscopy
 - ✓ Virus isolation by cell culture.
- **Vaccines:** An experimental Ebola vaccine, called rVSV-ZEBOV proved highly protective against EVD in a major trial in Guinea in 2015.

