

TODAY'S IMPORTANT CURRENT AFFAIRS

UPSC

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MPOX VIRUS

Source: The post is based on the article published in “**THE HINDU**”.

In News: India has reported its first case of the Clade 1 variant of Mpox which, according to Health Ministry sources, has been confirmed in a 38-year-old youth who landed in Kerala last week from the UAE.

Syllabus: *Mains – GS III (Science and Tech – Virus & Diseases) & Biotechnology*

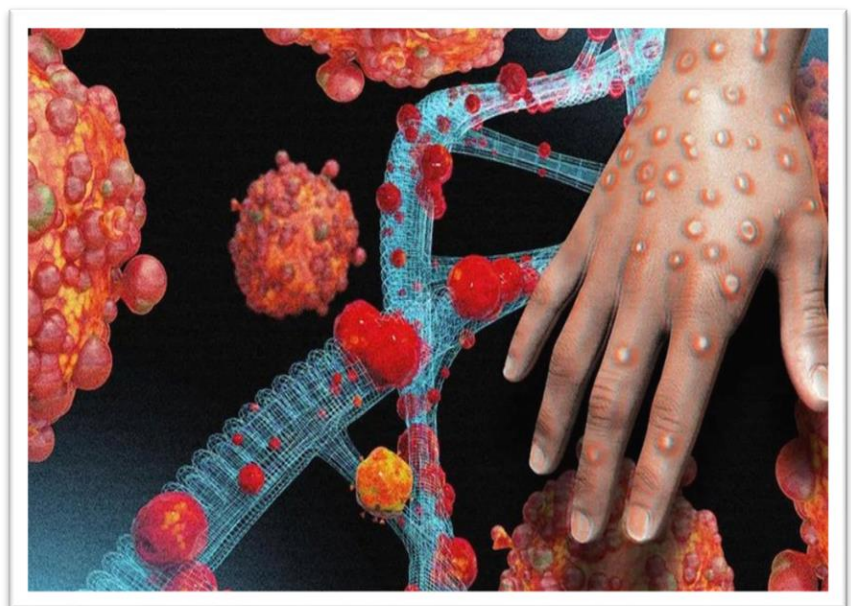
Why it's name changed?

The WHO decided to change the name of **monkeypox to mpox** in November of that year following racist insinuations towards some communities. The name was changed from "**monkeypox**" to "**mpox**" to avoid stigma towards monkeys and reflect the virus's direct human infectivity.

What is mpox?

✚ It is a **viral zoonotic disease** (transmission from animals to humans) and is identified as a pox-like disease among monkeys hence it is named **Monkeypox**. It is **endemic to Nigeria**.

✚ It is **caused by Mpox virus**, a member of the **Orthopoxvirus**



genus in the family Poxviridae this virus is an orthopoxvirus, which is a genus of viruses that also includes the variola virus, which causes smallpox.

- ✚ The natural host of the virus remains undefined. But the disease has been reported in many animals.

Sources: Animals known to be sources of Monkeypox virus include **monkeys and apes, a variety of rodents** (including rats, mice, squirrels and prairie dogs), Gambian pouched rats, **dormice and rabbits.**

Outbreaks:

- ✓ It was first reported in 1958, in monkeys in the **Democratic Republic of Congo (DRC)** and in humans in 1970, also in the DRC.
- ✓ In 2017, Nigeria experienced the largest documented outbreak, 40 years after the last confirmed case.
- ✓ Subsequently, the disease has been reported in **many West and Central African countries.**

Symptoms:

- Infected people break out in a **rash that looks a lot like chicken pox.** But the fever, malaise, and headache from Monkeypox **are usually more severe than in chicken pox infection.**
- In the early stage of the disease, Monkeypox **can be distinguished from smallpox because the lymph gland gets enlarged.**

Transmission:

According to the WHO, cases occur close to tropical rainforests inhabited by animals that carry the virus. Monkeypox virus infection has been detected in squirrels, Gambian poached rats, dormice, and some species of monkeys.

- ❖ Primary infection is through **direct contact with the blood, bodily fluids, or cutaneous or mucosal lesions of an infected animal.** Eating **inadequately cooked meat of infected animals** is also a risk factor.
- ❖ **Human-to-human transmission** can result from close contact with infected respiratory tract secretions, skin lesions of an infected person or objects recently contaminated by patient fluids or lesion materials.

- ❖ Transmission can also **occur by inoculation or via the placenta** (congenital monkeypox).

Human-to-human transmission of the virus is, however, limited. It can be through contact with bodily fluids, lesions on the skin, the respiratory tract or through the eyes, nose or mouth or by virus-contaminated objects, such as bedding and clothing.

Global Outbreaks:

Mpox gained global attention during a widespread outbreak that affected over 100,000 people in more than 118 countries in 2022-2023. Since the 2022 declaration of Mpox as a Public Health Emergency of International Concern by the WHO, 30 cases were reported in India.

Global Public Health Emergency:

Since the 2022 declaration of Mpox as a Public Health Emergency of International Concern by the WHO, 30 cases were reported in India. The World Health Organization (WHO) declared Mpox a **global public health emergency** again in August 2024 due to the spread of a new and deadlier strain of the virus, clade 1b.

Genomes: There are two distinct clades of the virus: clade I (with subclades Ia and Ib) and clade II (with subclades IIa and IIb). In 2022–2023 a global outbreak of mpox was caused by the clade IIb strain.

Vulnerability:

It spreads rapidly and **can cause one out of ten deaths** if infected.

Treatment and Vaccine:

- There is **no specific treatment or vaccine available** for Monkeypox infection. In the past, the **anti-smallpox vaccine was shown to be 85% effective** in preventing Monkeypox.
- But the world was declared free of **smallpox in 1980** so the vaccine isn't widely available anymore.
- Currently, there is **no global system in place to manage the spread of Monkeypox**, with each country struggling to contain any outbreak whenever it occurs.

- Detection of viral DNA by polymerase chain reaction (PCR) is the preferred laboratory test for mpox.

Precautions:

- Improved surveillance and response, raise awareness of the disease and avoid contact with wild animals, especially monkeys.
- Any animals that might have come into contact with an infected animal should be quarantined, handled with standard precautions and observed for monkeypox symptoms for 30 days.
- It is important to refocus attention on other diseases. There is a drop in the number of reported cases of endemic diseases as people are not seeking care in health facilities, owing to **Covid-19**.

About	It is a viral infection caused by the monkeypox virus (MPXV). It was first reported in humans in 1970, predominantly in African regions.
Types	There are two known types (clades) of mpox virus a. Clade I– It originated in Central Africa b. Clade II– It originated in West Africa
Symptoms	Fever, headache, muscle aches, back pain, low energy, swollen lymph nodes, and pox-like rashes which last for about 2-3 weeks.
Transmission	It can spread from animals to humans (zoonotic transmission) or between humans (through direct contact with body fluids or sexual contact)

Note: Video related this pdf is updated in our YouTube Channel

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