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Hot News

Monkeypox 2024 outbreak

On August 14, the World Health Organization (WHO) declared an outbreak of Monkeypox (mpox) in the Democratic Republic of Congo and neighborhood countries as an "international health emergency" (Usher A. Lancet 2024). A new variant of the mpox virus, called strain I, is the cause of this new mpox surge, 2 years after the one that began in the summer of 2022, and was caused by the mpox variant II. Then, more than 83,000 cases were confirmed worldwide and 140 deaths were reported until the end of 2022. Spain was one of the countries with the highest number of cases, more than 7500. Above 95% of cases were reported in men having sex with men. In contrast with COVID-19, the mpox virus does not spread effectively by air (Delea et al., MMWR 2024).

Mpox is a disease caused by a poxvirus that produces skin vesicles that evolve into pustules and scabs, especially around the genital area, and that disappear in 2-4 weeks. Despite the name, the animal reservoir is rodents and not monkeys (Gessain et al., N Engl J Med 2023).

The disease is endemic in central and western Africa, where cases have been reported since the eradication of smallpox in 1980 and universal vaccination was abandoned. Individuals vaccinated against smallpox were cross-protected against mpox (Besombes et al., Emerg Infect Dis 2024).

In the new 2024 mpox outbreak, transmission has been documented through sexual intercourse, but many cases have been reported in infants, children and people with very close contact with infected people. As of July 30, 2024, more than 68% of suspected mpox cases and 85% of deaths in Congo were in people < 15 years old. Thus, it has been suggested that the mpox variant 1b might be more virulent and more transmissible (Ndembi, N. Nature 2024).

So far, more than 20,000 cases of mpox have been reported in the 2024 outbreak in central African countries. More than 600 people have died. In Europe, only Sweden has described cases of infection with the new mpox 1b strain. In Spain, a total of 334 cases of mpox have been reported this year, but all due to variant II, which has been circulating since 2022 (Table 1).

Table 1. Main differences between mpox outbreaks

	2022 mpox	2024 mpox
Viral clade	II	Ib
Origin	Nigeria (and UK, Spain and Portugal)	Democratic Republic of Congo
Situation	Ongoing globally since May 2022	Ongoing in Central Africa since mid-2023
Cases to date	100,000	20,000
Deaths	208	600
Main risk group	Men having sex with men	Children, sex partners, household

There are two effective vaccines against monkeypox, which have been recommended for people belonging to high-risk groups, such as MSM. There are also oral antivirals, such as tecovirimat, which shortens the duration of symptoms and reduces disease severity. Paradoxically, cases of mpox reinfection have been reported in people who are repeatedly exposed to the virus again, including persons who had already suffered the disease and/or being vaccinated. Most of these people have immune abnormalities (e.g., HIV infection) and multiple sexual partners (Jiang et al., Rev Med Virol 2024).

The WHO alert has prompted pushing international efforts to speed vaccination in central Africa and reduce the chances of rapid expansion of mpox clade I within the region and abroad. The Vaccine Alliance program, GAVI, has already started to provide large scale vaccination in Congo (Nishtar S. Lancet 2024).

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