MONTHLY SCIENTIFIC REVIEW
ON MPOX VIRUS

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All informations comes from a valid and credible source.

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Situation at a glance

- As of 26 January 2026, the country has reported 617 mpox cases, including 229 confirmed cases of clade 1b mpox, with no deaths reported to date, across 8 regions.
- As of 10 February 2026, two mpox cases imported from Madagascar have been detected on Réunion Island.
- In Mayotte, six mpox cases imported from Madagascar have recently been confirmed.
- In the Comoros, twelve confirmed mpox cases imported from Madagascar have been identified.

Scientific articles

This section presents relevant articles published on peer-reviewed scientific journals or pre-print platforms.

This week, discover breakthroughs in chikungunya surveillance, and clinical description.

2026-02-12

Discovery of potential antiviral compounds and accelerating the therapeutic discovery against monkeypox virus.

Journal: Sci Rep

Authors: Faisal Ahmad, Afifa Navid, Muhammad Irfan, Fahad Nasser Almajhdi, Tajamul Hussain, Dilber Uzun Ozsahin, Hassan Ayaz, Yasir Waheed

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2026-02-20

Characteristics and Transmission Dynamics of Global Travel-Related Mpox Cases Caused by Clade Ib Monkeypox Virus.

Journal: Emerg Infect Dis

Authors: Henry Laurenson-Schafer, Martina McMenamin, Lennox Kesington Ebbarnezh, Ioannis Karagiannis, Viema Biaukula, Rosamund Lewis, Masaya Kato, Michel Muteba, Jeremias D Naiene, Felix Sanni, Tshewang Dorji, Lorenzo Subissi, Marc-Alain Widdowson, WHO Mpox Collaborative Surveillance Group, Ana Hoxha, Olivier le Polain de Waroux

We examined 89 travel-related clade Ib monkeypox virus cases detected in 33 countries during August 2024-July 2025. Most cases were approximately men; about one third led to secondary transmission. Secondary transmission risk was highest among sexual, then household, contacts. Those groups should be the focus of response strategies and interventions.

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2026-02-20

Monkeypox Virus Antibodies in Healthy Persons after Vaccination with MVA-BN, United Kingdom.

Journal: Emerg Infect Dis

Authors: Victoria H Sheridan, Craig W Duffy, Jake Dunning, Lance Turtle, Julian A Hiscox, Krishanthi S Subramaniam, ISARIC4C Investigators

A 2-dose regimen of the vaccine modified vaccinia Ankara-Bavarian Nordic (MVA-BN) can generate neutralizing antibodies for monkeypox virus clades Ib and IIb. We observed higher response to clade IIb; that result provides evidence that MVA-BN vaccination can induce cross-neutralizing antibodies for monkeypox virus clade Ib as well as for clade IIb.

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2026-02-27

Evolutionary and Modification Features of Two Monkeypox Virus Strains: Insights from Integrated Genomic and Epigenomic Analyses.

Journal: Viruses

Authors: Zhongru Zhao, Bohan Zhang, Jingwan Han, Dandan Lin, Yongjian Liu, Lei Jia, Hanping Li, Jingyun Li, Xiaolin Wang, Hongling Wen, Lin Li

This study integrates genomic and epigenomic analyses of two MPXV strains, revealing distinct clades with high APOBEC3-associated SNP rates and 5hmC, 6mA modifications, with the E.4 lineage showing greater epigenetic complexity.

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2026-02-10

Multiplex PCR to Differentiate Monkeypox Virus Clades.

Journal: Emerg Infect Dis

Authors: Christopher T Williams, Alessandra Romero-Ramirez, Adeleye Adesola Semiu, Samuel Oluwafunmbi Ifabumuyi, Caitlin Greenland-Bews, Susan Gould, Dominic Wooding, Collette Allen, Anushri Somasundaran, Nicodemus Nnabuike Mkpuma, Dorcas Gado, Jolly Amoche Adole, Abdulakeem Eniola Amoo, Abisola Ajoke Adeyemi, Laure Bosquillon de Jarcy, Christine Goffinet, Jake Dunning, Malcolm G Semple, International Severe Acute Respiratory, Emerging Infection Consortium Investigators,, Esto Bahizire, Afolabi Akinpelu, Thomas E Fletcher, Ana Cubas-Atienzar, Cristina Leggio, Adeyinka Adedeji, Adesuyi A Omoare, Thomas Edwards

We designed a multiplex quantitative PCR to differentiate monkeypox virus clades. For clinical samples collected in the United Kingdom and Nigeria, sensitivity was 78% (95% CI 67.67%-86.14%) and specificity 94% (95% CI 80.84%-99.30%); for samples with cycle thresholds <35, sensitivity was 98% (95% CI 91.72%-99.96%) and specificity 94% (95% CI 80.84%-99.30%).

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2026-02-20

Editorial: Advancements and challenges in Mpox research.

Journal: Front Microbiol

Authors: Qi Peng, Lingbao Kong

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2026-02-23

Pathogenicity and antiviral treatment of Clade Ib Monkeypox virus infection in mice.

Journal: Antiviral Res

Authors: Jérémie Prévost, Nikesh Tailor, Geoff Soule, Sarah J Medina, Kevin Tierney, Kimberly Azaransky, David Safronetz

This study establishes a lethal mouse model for clade Ib MPXV infection, demonstrating sustained human-to-human transmission. It confirms the efficacy of tecovirimat, cidofovir, and brincidofovir in treating this clade, despite previous data suggesting otherwise.

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Relevant news

This section presents official reports from health agencies, manufacturers and press releases with reliable sources.

2026-02-25

Monkeypox (Mpox): confirmation of two new cases

Source: ARS

Two new mpox cases confirmed; contact-tracing and reactive vaccination initiated. Mpox spreads via close contact, causing rash, fever, and lymphadenopathy. Isolation, barrier measures, and vaccination recommended.

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2026-02-23

Monkeypox (Mpox): two new cases confirmed in Reunion Island

Source: ARS

ARS teams in Reunion Island are conducting contact tracing, offering support, medical follow-up, and reactive vaccination for Mpox cases. Key measures include strict isolation, barrier gestures, mask and glove use, and reactive vaccination for at-risk contacts. Transmissi

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2026-02-09

Smallpox B (mpox): Launch of the vaccination campaign in Reunion

Source: ARS

Monkeypox cases in Réunion by February 2026, transmitted via close contact, including sexual intercourse, with marginal droplet transmission. Symptoms include skin rash, mucous membrane ulceration, and flu-like symptoms. Vaccination is recommended for high-risk groups, an

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2026-02-10

Monkeypox (Mpox): confirmation of a second imported case in Réunion

Source: ARS

A second imported monkeypox case was confirmed in La Réunion, with no epidemiological link to the first case. The patient, returning from Madagascar, was isolated, and contacts were traced for follow-up and potential vaccination. Monkeypox spreads via close contact with l

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2026-02-05

6 cases of monkeypox (Mpox) identified in Mayotte since the beginning of the year

Source: ARS

Mayotte reports 6 Mpox cases, enhancing surveillance, care, and border controls. Transmission occurs via direct contact, especially during sexual relations. Travelers to Madagascar and Comoros advised to follow barrier measures. Public health resources and hotline available.

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2026-02-05

Health surveillance in Réunion. Bulletin of February 6, 2026.

Source: PRS

The bulletin reports on health surveillance in Réunion, highlighting Mpox cases in Madagascar, leptospirosis recurrence with 17 cases, chikungunya and dengue cases, stable influenza-like illness, and low bronchiolitis levels in children under 2.

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2026-02-05

Health surveillance in Mayotte. Bulletin of February 6, 2026.

Source: PRS

In Mayotte, 3 new Mpox cases were reported in week 06, totaling 6 cases since week 02-2026, with no documented spread. Flu epidemic ended, but bronchiolitis and SARS-CoV-2 positivity rates are rising. Chikungunya cases increased to 15 in week 05, while malaria cases are decreasing.

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2026-02-26

Tpoxx doesn’t improve on placebo in achieving key mpox outcomes, phase 3 trial concludes

Source: CIDRAP

Tecovirimat showed no significant benefit over placebo in treating clade 2 mpox, with similar clinical resolution, pain reduction, and lesion healing rates in a phase 3 trial of 412 participants.

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2026-03-02

Analysis suggests rope squirrels are a natural reservoir of mpox virus

Source: CIDRAP

A 2023 outbreak of mpox in sooty mangabeys in Côte d'Ivoire was linked to a fire-footed rope squirrel, with genomic sequencing showing nearly identical viral strains. Fecal samples and behavioral evidence support this transmission route. Given the hunting and consumption of these animals in the region, this finding highlights the risk of zoonotic mpox transmission.

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2026-02-10

Monkeypox (mpox): confirmation of a second imported case in Reunion

Source: ARS

This is a person residing in Reunion Island, identified as part of the regional enhanced surveillance system, and who presented symptoms suggestive of the illness several days after returning to Reunion Island. The diagnosis was confirmed by biological analyses. In this context, preventive measures are reminded to the population. Download the full press release

See details

2026-03-10

Recent pandemic viruses, including SAR-CoV-2, spread directly to people without adaptation, researchers say

Source: CIDRAP

The study found no evidence of pre-outbreak adaptation in zoonotic viruses like Ebola, Marburg, mpox, influenza A, and SARS-CoV-2, except for 1977 H1N1, suggesting a lab origin. SARS-CoV-2 likely spread directly to humans without prior adaptation.

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Clinical Studies

This section presents relevant clinical trials.

2025-02-19

Phase 3 Infant Safety & Immunogenicity Trial of MVA-BN® in DRC

Status: Recruiting

Sponsor(s): Jean-Pierre Van geertruyden, Ace Africa, PENTA Foundation, Bavarian Nordic, European and Developing Countries Clinical Trials Partnership (EDCTP), University of Kinshasa, CEPI

Phase 3 trial in DRC evaluates safety and immunogenicity of full vs. half-dose MVA-BN mpox vaccine in 4-24 month-olds, aiming to optimize dosing.

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2026-01-23

A Randomized Clinical Trial Investigating the Safety, Reactogenicity, and Immunogenicity After Immunization With an mRNA-based Mpox Vaccine Candidate in Africa

Status: Recruiting

Sponsor(s): BioNTech (Group), Coalition for Epidemic Preparedness Innovations

This is a randomized, double-blind, placebo-controlled study which aims to assess the safety, reactogenicity, and immunogenicity after one and two doses of BNT166a or placebo in healthy participants.

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2025-02-19

Phase 3 Maternal Safety & Immunogenicity Trial of MVA-BN® in DRC

Status: Active not recruiting

Sponsor(s): Jean-Pierre Van geertruyden, PENTA Foundation, Ace Africa, European and Developing Countries Clinical Trials Partnership (EDCTP), Bavarian Nordic, University of Kinshasa

Phase 3 trial in DRC evaluates MVA-BN mpox vaccine safety & immunogenicity in 359 pregnant/ postpartum women, comparing maternal vs. postpartum dosing & immune transfer to neonates.

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2024-12-03

Tecovirimat for Treatment of Monkeypox Virus - Study Extension Providing Standard of Care Only

Status: Completed

Sponsor(s): National Institute of Allergy and Infectious Diseases, Institut National de Recherche Biomédicale. Kinshasa, République Démocratique du Congo

The purpose of the PALM007 extension is to further characterize the clinical and natural history of mpox, and to provide standard of care (SOC) during the ongoing outbreaks.

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2025-02-17

DiagRaMIE Mpox Virus-RDC for the Diagnostic of Monkeypox

Status: Not yet recruiting

Sponsor(s): Assistance Publique - Hôpitaux de Paris, NG Biotech, Commissariat A L'energie Atomique

NG-Test is a rapid, accessible monkeypox diagnostic alternative to PCR, with a detection limit of 1.10^4 pfu/mL and no cross-reaction, currently undergoing clinical validation for CE marking.

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Guidelines and practical information

This section lists official manuals of recommendations for clinical practice or public health policy published by leading health organizations.

COREB	**Mpox Practical Guidance (2025)**
WHO	**Infection prevention, control, and WASH measures for home care and isolation for mpox in resource-limited settings: Interim operational guidance (2025)**
NIAID	**NIAID Research Agenda for Mpox (2024)**
UKHSA	**Mpox: Scenarios and technical elements for preparedness and response to clade I (2024)**
HAS	**Opinion of the Haute Autorité de Santé on the vaccination strategy against Mpox (2024)**
WHO	**Temporary recommendations issued to States Parties regarding the PHEIC associated with the upsurge of mpox (2024)**
WHO	**Strategic Framework for Enhancing Mpox Prevention and Control, 2024–2027 (2024)**
WHO	**Surveillance, case investigation and contact tracing for mpox (monkeypox): Interim guidance (20 March 2024)**
WHO	**Diagnostic testing for monkeypox virus (MPXV): Interim guidance (2023)**
COREB	**Monkeypox virus infection: Operational sampling procedure (2023)**
COREB	**Monkeypox virus infection: Identification and clinical management in France (2023)**
SPF	**Case and contact definitions and procedures for contact tracing (2023)**
ECDC	**Public health considerations for mpox in EU/EEA countries (2023)**

WHO	**Public health advice on mpox in congregate settings**
WHO	**Public health advice for gay, bisexual and other men who have sex with men regarding the recent mpox outbreak**
HCSP	**Revision of the smallpox preparedness and response plan (2022)**
WHO	**Monkeypox strategic preparedness, readiness and response: Operational planning guidelines (2022)**
WHO	**Vaccines and immunization for monkeypox: Interim guidance (2022)**
WHO	**Monkeypox Strategic Preparedness, Readiness and Response Plan (2022)**
WHO	**Public health advice for sex workers on mpox (2022)**
WHO	**Risk communication and community engagement: Public health advice on understanding, preventing and addressing stigma and discrimination related to mpox (2022)**
ECDC	**Monkeypox infection prevention and control guidance for primary and acute care settings (2022)**
ECDC/ WHO	**Risk communication and community engagement approaches during the mpox outbreak in Europe (2022)**
ECDC	**Considerations for contact tracing during the mpox outbreak in Europe (2022)**
WHO	**Clinical characterization of mpox, including monitoring of therapeutic interventions (2022)**
WHO	**Clinical management and infection prevention and control for monkeypox: Interim rapid response guidance (2022)**
ECDC	**Navigating mpox: Considerations for gay, bisexual and other men who have sex with men (2022)**

COREB	**Monkeypox: Dermatological diagnostic support and symptomatic management (2022)**
HCSP	**Guidance for managing confirmed mpox cases at risk of severe disease and high-risk contacts (2022)**
HCSP	**Prevention measures against Monkeypox virus infection (2022)**
HCSP	**Guidance for managing suspected, probable or confirmed Monkeypox virus cases (2022)**

Fact sheets

Transmission

Mpox is a zoonotic infectious disease caused by the mpox virus (MPXV), belonging to the Poxviridae family and Orthopoxvirus genus, similarly to smallpox. There are two known clades of MPXV: clade I originate from eastern regions in Central Africa and clade II prevalent in West Africa. Clades I and II are further subdivided into four distinct subclades: Ia, Ib, IIa, and IIb. Variants Ib and IIb which emerged in recent years exhibit APOBEC-3 type mutations, indicative of viral adaptation to human hosts. Clade I MPXV infections are at greater risk of severe disease, with a case fatality rate (CFR) ranging from 3 - 10%, while clade II MPXV generally causes milder symptoms, lower viremia and a CFR of 1 - 3%. The global mpox outbreak caused by the clade IIb in 2022-2023 showed a CFR of less than 0.1%./n/nClades Ia and IIa are transmitted from animals to humans through contact with live and dead animals through hunting or consumption of contaminated bushmeat. The animal reservoir remains unknown but African rodents such as tree squirrels, and Gambian pouch rats are currently considered to be strong candidates. Secondary human-to-human transmission of these clades occasionally occurs via respiratory droplets, direct close contacts with body fluids or skin abrasions, or through contaminated. Clades Ib and IIb have demonstrated sustained human-to-human transmission. Populations at higher risk of zoonotic transmission include small households or communities living in rural areas, where animal reservoirs may reside. High-risk groups for community transmissions also include sex workers, MSM with multiple sexual partners, or any other individuals with multiple casual sexual partners.

Diagnosis

Due to the range of health conditions that cause similar-appearing skin lesions, clinical differentiation of mpox is difficult without laboratory diagnosis. Detecting viral nucleic acids using polymerase chain reaction (PCR) is the gold standard technique for confirming MPXV diagnosis. The reliability of results depends on the type of biological specimen, with optimal samples obtained directly from skin lesions. In the absence of visible epidermal wounds, testing can be conducted on mucosal specimens using oropharyngeal or rectal swabs. Point-of-care and antigen rapid diagnostic test are rapid, cost-effective and easily interpretable diagnostic tools for use by health workers. POC tests such as GeneXPert (Cepheid, U.S.) and Standard M10 MPX/OPX® (SD Biosensor, South Korea) show promising clinical sensitivity on lesion samples and oropharyngeal swabs for clade I MPXV diagnosis.

Symptoms

The incubation period of MPXV ranges from 2 to 21 days, although some people may contract the infection without developing symptoms. Patients are considered infectious from the time of symptom onset until skin lesions have crusted and a fresh layer of skin has formed underneath. The disease is often mild, self-limiting with symptoms usually resolving spontaneously in two to four weeks but may last longer in immunocompromised individuals. Symptoms can be severe, and patients may develop multiple lesions. Complications may occur, such as septicemia, encephalitis. Higher case fatalities have been observed in vulnerable groups, such as young children, individuals with a weakened immune system or with advanced

HIV infection. Contracting mpox during pregnancy may lead to complications, such as congenital mpox, stillbirth or even death of the newborn. MPXV is classified as a risk group 3 (RG-3) pathogens and requires stringent containment and appropriate safety measures to minimize risk to laboratory personnel. Primary preventive vaccination is recommended for health workers, including laboratory personnel at risk for repeated exposure.

Treatment

Therapeutic management relies mainly on supportive care. One antiviral, tecovirimat, developed to treat smallpox, has been approved by the FDA and EMA as a compassionate use for the treatment of mpox. Several clinical studies (UNITY, EPOXI, MOSA, STOMP, PALM007, PLATINUM/PLATINUM-CAN) are underway in different regions of the world to evaluate the clinical efficacy of tecovirimat in treating mpox in adults and children.

Vaccination

There are currently three vaccines approved for the prevention of mpox. These third-generation smallpox vaccines contain non-replicating or minimally replicating strains of vaccinia virus such as MVA-BN (Bavarian Nordic, Denmark), LC16 (KMB Biologics, Japan) and OrthopoxVac (Russia). The most administered vaccine has been the MVA-BN, for which a favorable safety profile with mild side. The vaccination is recommended for the residents of high-risk areas, sex workers, MSM, health workers exposed to mpox, and contacts of mpox patients, including children. MVA-BN is not yet widely available in countries where the disease is endemic.