

Building a resilient research architecture and capability to protect us all

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WHO Monkeypox research
2nd-3rd June 2022

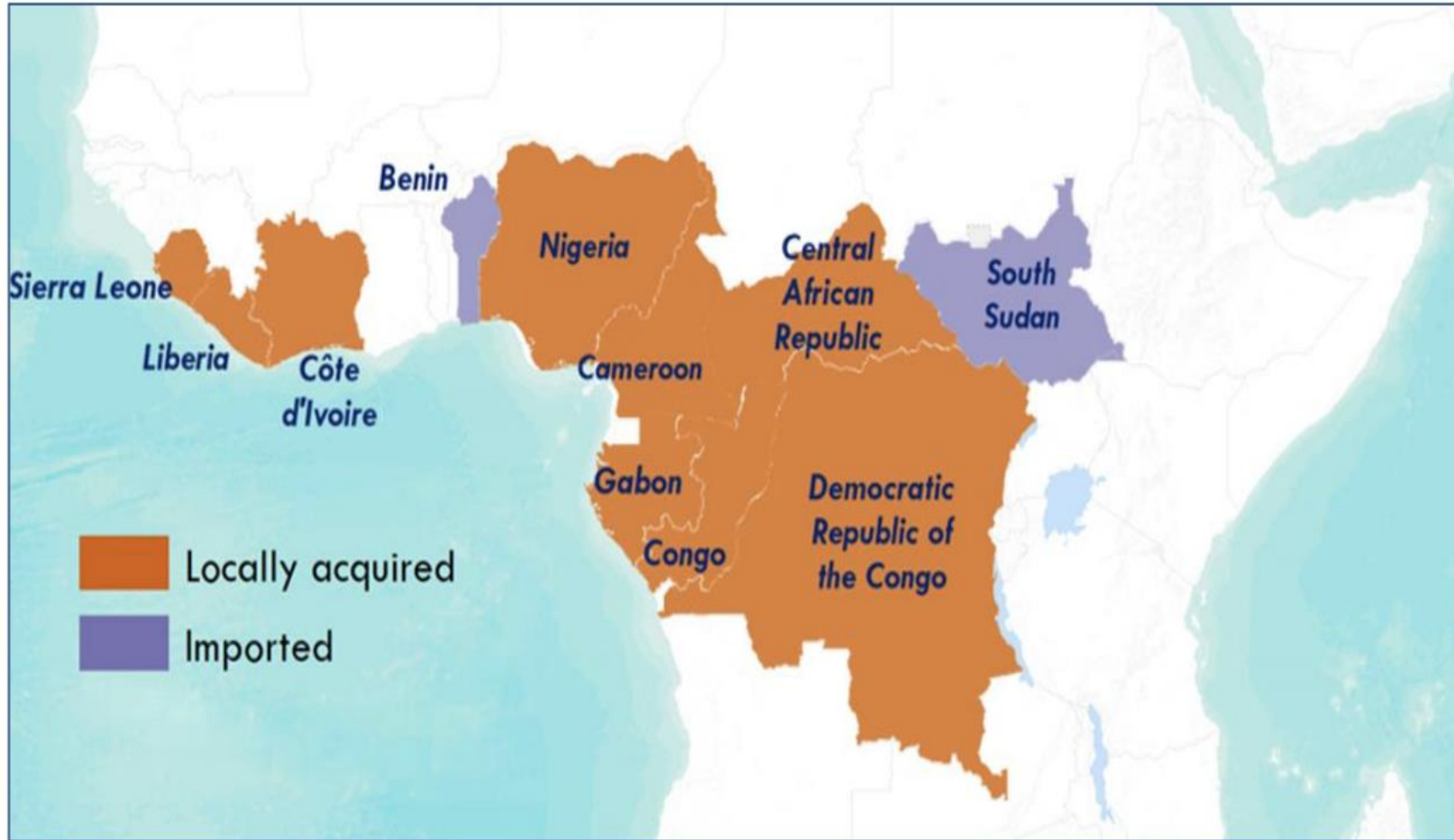


**World Health
Organization**



R&D Blueprint
Powering research
to prevent epidemics

Monkeypox is a viral zoonotic disease endemic in more than 9 African countries



Therefore it is critical that we support their control efforts with renewed vigor!

Control here is a critical step to prevent importation in other countries and importantly to reduce the burden in the endemic countries

WHO has and is currently updating/developing a number of tools to support the control efforts

Laboratory testing for the monkeypox virus

Interim guidance
23 May 2022



Key points

- The goal of the global response to the multi-country outbreak of monkeypox is to stop the outbreak.
- Any individual that meets the suspected case definition for monkeypox should be offered testing.
- The recommended specimen type for diagnostic confirmation of monkeypox in suspected cases is skin lesion material, including swabs of lesion exudate, roofs from more than one lesion, or lesion crusts.
- Laboratory confirmation of specimens from a suspected case is done using nucleic acid amplification testing (NAAT), such as real-time or conventional polymerase chain reaction (PCR). NAAT can be generic to orthopoxvirus (OPXV) or specific to monkeypoxvirus (MPXV, preferable).
- All manipulations in laboratory settings of specimens originating from suspected, probable or confirmed cases of monkeypox should be conducted according to a risk-based approach.
- In addition to NAAT, sequencing is useful to determine virus clade and to understand epidemiology. Member States are strongly encouraged to share MPXV genetic sequence data in available and publicly accessible databases.
- Member States are requested to immediately notify WHO under the International Health Regulations (IHR) 2005 of positive laboratory results, including a generic OPXV laboratory test that awaits confirmation.
- WHO can assist Member States to access testing through referral. If the need arises, Member States can contact the relevant WHO Regional Office.

Surveillance, case investigation and contact tracing for Monkeypox

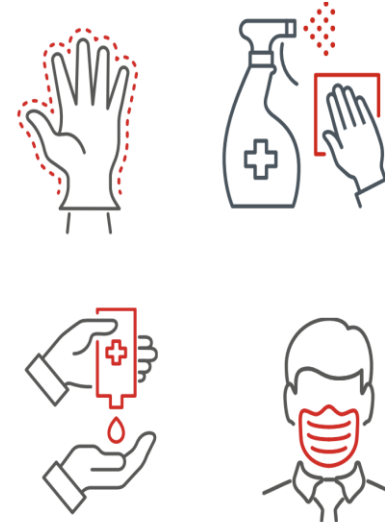
Interim guidance
22 May 2022



Key points

- There is currently a multi-country outbreak of monkeypox in several regions of the world, the full extent and impact of which remains unclear. The overall goal of surveillance, case investigation and contact tracing in this context is to break chains of human to human transmission and stop the outbreak.
- The key objectives of surveillance and case investigation for monkeypox in the current context are to rapidly identify cases and clusters in order to provide optimal clinical care; to isolate cases to prevent further transmission; to identify and manage contacts; to protect frontline health workers; and to tailor effective control and prevention measures.
- The situation is rapidly evolving and WHO expects there will be more cases of monkeypox identified as surveillance expands in non-endemic countries. Immediate actions focus on: informing those who may be most at risk for monkeypox virus (MPXV) infection with accurate information; stopping further spread; and protecting frontline workers.
- Clinicians should report suspected cases immediately to public health authorities.
- Probable and confirmed cases of monkeypox should be reported immediately to WHO through IHR national focal points (NFPs) under the International Health Regulations (IHR 2005).
- If monkeypox is suspected, case investigation should consist of clinical examination of the patient with appropriate PPE, questioning the patient about possible sources of infection, and safe collection and dispatch of specimens for MPXV laboratory examination.
- In the current context, as soon as a suspected case is identified, contact identification and contact tracing should be initiated.
- Contacts should be monitored at least daily for the onset of any signs/symptoms for a period of 21 days from

Monkeypox protective measures



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Public health advice for gay, bisexual and other men who have sex with men on the recent outbreak of monkeypox

An outbreak of a disease called monkeypox is currently taking place in many countries that do not typically have cases. This can be concerning, especially for people whose loved ones or community have been affected. Some cases have been identified through sexual health clinics in communities of gay, bisexual and other men who have sex with men.

It is important to note that the risk of monkeypox is not limited to men who have sex with men. Anyone who has close contact with someone who is infectious is at risk. However, given that the virus is being identified in these communities, learning about monkeypox, how it spreads and how to protect yourself will help ensure that as few people as possible are affected and that the outbreak can be stopped.

How to use this document:
This document contains information on how monkeypox spreads, what to do if you think you have symptoms and how to protect yourself and others. It can be used by community leaders, influencers, health workers and people attending social events and parties to inform and engage communities of men who have sex with men.

Information on this outbreak is changing rapidly as we learn more.
Check [who.int](https://www.who.int) for the most up to date information.

What you need to know:

An outbreak of a disease called monkeypox is happening in some countries where the virus is not typically found. Some of these cases are being found in communities of gay, bisexual and other men who have sex with men. Transgender people and gender-diverse people may also be more vulnerable in the context of the current outbreak.

Symptoms include:

- Rash with blisters on face, hands, feet, eyes, mouth and/or genitals
- Fever
- Swollen lymph nodes
- Headaches
- Muscle aches
- Low energy

You can catch monkeypox if you have close physical contact with someone who is showing symptoms. This includes touching and being face-to-face.

Monkeypox can spread through close skin-to-skin contact during sex, including kissing, touching, oral and penetrative sex with someone who has symptoms. Avoid having close contact with anyone who has symptoms.

Protect yourself and others by:

- Isolating at home and talking to a health worker if you have symptoms
- Avoid skin-to-skin or face-to-face contact, including sexual contact with anyone who has symptoms
- Clean hands, objects, and surfaces that have been touched regularly
- Wear a mask if you are in close contact with someone with symptoms



These are some examples. Other guidance are in the pipeline regarding clinical management, vaccine strategies etc.

The entire of WHO is generating daily epidemiological updates, guidance and assessing the level of risk regularly

Multi-country monkeypox outbreak in non-endemic countries: Update

29 May 2022

Outbreak at a glance

Since 13 May 2022, monkeypox has been reported to WHO from 23 Member States that are not endemic for monkeypox virus, across four WHO regions. Epidemiological investigations are ongoing. The vast majority of reported cases so far have an established

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First case of monkeypox reported in WHO's Eastern Mediterranean Region

24 May 2022, Cairo, Egypt – The first case of monkeypox in WHO's Eastern Mediterranean Region has been reported by the Ministry of Health and Prevention in the United Arab Emirates as countries continue to scale up detection and response capacities for this viral disease. The patient is currently receiving treatment and additional suspected cases are being investigated.

As of 23 May, 131 confirmed cases have been reported from 18 countries across the different WHO regions, with an additional 106 suspected cases being investigated. The confirmed cases are reported from non-endemic countries that do not usually report monkeypox outbreaks. There are no associated deaths to date.

"More suspected cases are being reported in our Region but not yet confirmed. In anticipation of additional confirmed cases in the Region, WHO urges countries to report against the WHO case definition and share information on cases reported on a timely basis. We are committed to providing information for health ministries, health workers, communities and people to inform them of monkeypox and how to protect themselves and their loved ones," said Dr Ahmed Al-Mandhari, WHO Regional Director for the Eastern Mediterranean.

As the situation rapidly evolves, WHO's Regional Office for the Eastern Mediterranean is working closely with countries to scale up preparedness and response plans for monkeypox. The Regional Office continues to work closely with all countries to ensure that potential cases are quickly identified, tested and responded to.

PAHO

Pan American Health Organization

World Health Organization

Epidemiological Alert

Monkeypox

in non-endemic countries

20 May 2022

Given the occurrence of cases of monkeypox in countries within and outside of the Region of the Americas, the Pan American Health Organization / World Health Organization (PAHO/WHO) shares with its Member States a series of considerations in relation to the identification of cases, the isolation, identification and follow-up of contacts, the clinical management, and the prevention and control of healthcare-associated infections. Guidance regarding available treatment and vaccines is also provided.

Situation Summary

On 15 May 2022, the World Health Organization (WHO) was notified of 4 confirmed cases of monkeypox from the United Kingdom. Two days later, two other countries reported cases: Portugal and Sweden. All of the cases had no reported history of travel to an area endemic for monkeypox and there was no epidemiological link between the cases reported in different countries. As of 20 May 2022, 11 countries have reported cases: Australia, Belgium, Canada, France, Germany, Italy, Portugal, Spain, Sweden, the United Kingdom, and the United States of America. (1, 2, 3)

In the Region of the Americas, 3 cases of monkeypox have been reported, in Canada (2 cases) and the United States of America (1 case).

Monkeypox ICD-10 B04 (7, 8)

Monkeypox is commonly found in Central and West Africa, where there are tropical forests and animals that can carry the virus.

Monkeypox is a viral zoonosis caused by the monkeypox virus, which belongs to the Orthopoxvirus genus, which includes variola virus (which causes smallpox). There are two genetically distinct strains of monkeypox virus: the Congo Basin (Central African) strain and the West African strain. Human infections with the West African strain appear to cause less severe disease compared to the Congo Basin strain.

Technical Brief (interim) and Priority Actions: Enhancing Readiness for monkeypox in WHO South-East Asia Region

WHO Regional Office for South-East Asia
28 May 2022

Summary

- Situation

Since 13 May 2022, cases of monkeypox have been reported to WHO from Member States that are not endemic for monkeypox virus.
- Recommended priority actions

Surveillance: Clinicians' awareness is the key for detection of monkey pox. Hence, sensitization of clinicians working at relevant health services at public and private sectors is critical. Once a suspected case is identified, clinicians should report immediately to public health authorities; the samples be referred for laboratory testing; and case investigation and contact tracing should be initiated.

Laboratory testing: Laboratory will confirm monkey pox infection on the basis of nucleic acid amplification testing (NAAT), using real-time or conventional polymerase chain reaction (PCR). Planning for genomic sequencing for characterization of monkey pox viruses and sharing data for public health decision making are important.

Clinical management & Infection Prevention and Control (IPC): Health workers caring for suspected or confirmed patients need to implement standard, contact and droplet precautions. It is necessary to isolate patients and continue transmission-based precautions until resolution of symptoms. WHO interim guidance on clinical management and IPC is pending.

Vaccination: Based on previous SAGE recommendations, Member States may consider vaccination of close contacts as post-exposure prophylaxis or pre-exposure vaccination of laboratory personnel and health workers. WHO interim guideline for vaccination for monkey pox prevention and control is pending.

Risk communication and community engagement: Proactively communicating information related to
- World Health Organization

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Statement - Monkeypox in the European Region: what we know so far and how we need to respond

31 May 2022

The WHO European Region remains at the epicentre of the largest and most geographically widespread monkeypox outbreak ever reported outside of endemic areas in western and central Africa. The learning curve has been steep over the past 2 weeks. We now have a critical opportunity to act quickly, together, to rapidly investigate and control this fast-evolving situation.

Today, I would like to outline what we have seen and learned, and what still needs to be understood, and to set us on the right path in tackling this challenge.

What have we seen and learned?

Even as new patients present every day, investigations into past cases show that the outbreak in our region was certainly underway as early as mid-April. Strong surveillance and diagnostic systems in several European countries, along with swift cross-border information-sharing mechanisms with the support of WHO and other partners, are to be commended for the outbreak coming to light.

Based on the case reports to date, this outbreak is currently being transmitted through social networks connected largely through sexual activity, primarily involving men who have sex with men. Many – but not all cases – report
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- WHO Africa
- ## WHO is supporting African countries to strengthen monkeypox surveillance and response actions
- 31 May 2022
- Brazzaville, 31 May 2022** – Seven African countries have cumulatively reported to the World Health Organization (WHO) nearly 1400 monkeypox cases (1392 suspected, 44 confirmed) so far this year. This case count is for the year up until mid-May and is based on preliminary reports.
- The cases have been reported from Cameroon, Central African Republic, the Democratic Republic of the Congo, Liberia, Nigeria, the Republic of the Congo and Sierra Leone. The number of cases in 2022 are slightly fewer than half of cases reported in 2021.
- While the virus has not spread to new non-endemic countries in Africa, within countries with outbreaks, the virus has been expanding its geographic reach in recent years. For example, until 2019, monkeypox in Nigeria was reported mainly in the south of the country but since 2020, the virus has moved into central, eastern and northern parts of the country.
- ## MONKEYPOX

Key priorities

1. **CONTAIN:** At present the outbreak in non-endemic countries is still containable. WHO encourages countries to
 - Raise awareness
 - Detect cases : enhance clinical recognition of the disease to ensure early detection of cases and isolation of patients
 - Stop chains of transmission : intensified surveillance in certain population groups, cluster investigation and contact tracing
 - Protect Health care workers and prevent transmission in health care settings (PPE, Infection prevention and control)

To do:

- *adapt and strengthen existing surveillance systems, laboratory and testing capacities*
- *Utilize the **Case Reporting Form (CRF)** once published to better understand the clinical characterization across regions*
- *If using **therapeutics** : collect standardized data or use clinical trial protocols to understand effectiveness*
- *Use, adapt and strengthen **care pathways** with appropriate **IPC measures** to prevent onwards transmission and access to **symptomatic care** elements such as good primary care, pain control and skin care.*

Key priorities (cont)

2. Ensure effective communication strategies to **avoid stigmatisation** of certain population groups and reduce impact on societies, travel and trade. Continue to communicate what we know, what is being done to respond and continue to update and publish products as data becomes available.

3. Risk based strategies: Utilize countermeasures and Public health interventions based on **need, risk and benefit** including basic public health interventions (therapeutics, vaccines, testing, diagnostics and sequencing)
Apply measures **commensurate to the risk** (for instance promote safe gatherings)

4. Global Collaboration

- Continue sharing information, diagnostic resources and data. Use standardised protocols to enable comparison of data between countries
- Support the development of global mechanisms to ensure equitable access to countermeasures (vaccine, therapeutics, diagnostics) based on public health needs . WHO virtual stockpile
- Accelerate the research agenda for monkeypox

5. Strengthen One Health approach in endemic countries



6. Identify the knowledge gaps and accelerate the research agenda

Identify the knowledge gaps and accelerate the research agenda



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During TODAY'S consultation with your support will review the available evidence in terms of:

- Our understanding the dynamics of monkeypox transmission, epidemiology and the clinical characteristics of the disease.
- Available evidence regarding therapeutics, diagnostics and vaccines licensed and under development.
- Novel approaches for further evaluation of monkeypox therapeutics and vaccines.
- **Countries perspectives in terms of research priorities and opportunities.**

Identify the knowledge gaps and accelerate the research agenda



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EXPECTED OUTCOMES

Baseline information to outline **a Research Roadmap** enumerating knowledge gaps, and outlining priority research

A defined list of **next steps to address the above** for the scientific community in general and for WHO in particular

Thank you