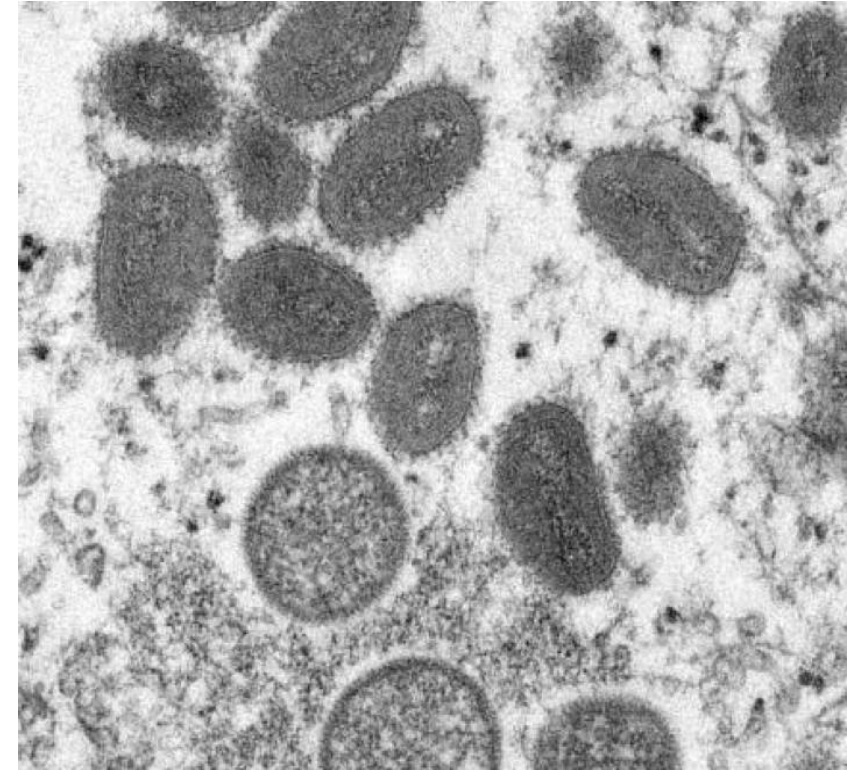


# Multi-Country monkeypox Outbreak:

Global overview of current monkeypox epidemiology

**2 June 2022**

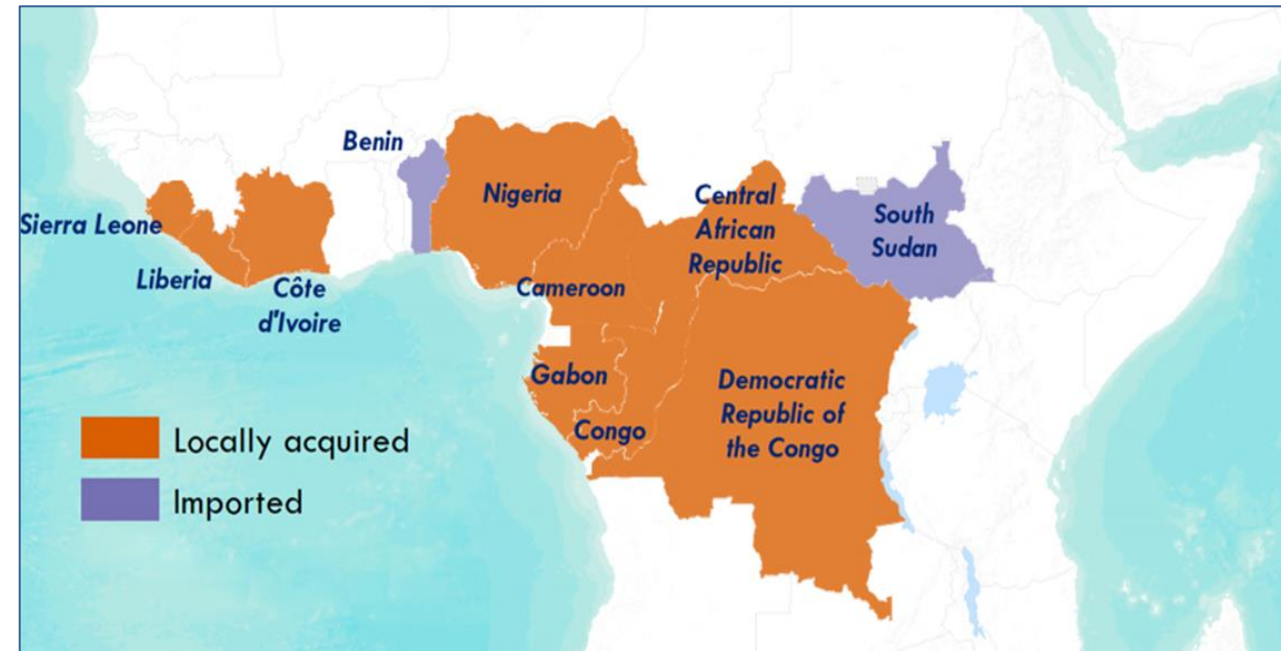
Dr Maria Van Kerkhove (on behalf of MPX IMST)  
Unit head Emerging Diseases and Zoonoses Unit, WHO Health Emergencies Programme



*Photo: CDC*

# Monkeypox

- Monkeypox is a viral zoonotic disease
- Part of the *Orthopoxvirus* genus which includes variola virus (smallpox) and cowpox virus
- Endemic in 9+ African countries
- There are two main strains, one which typically has caused more severe illness (Congo clade) than the other (West African clade). Only the West African clade has been identified in the multi-country outbreak.
- The reservoir host is still unknown, although rodents incidental hosts and play a part in transmission, typically through hunting, preparation or consumption of meat (game)



# Monkeypox in endemic countries

- In 2022, cases have been reported by Cameroon, Central African Republic, the Democratic Republic of the Congo, Nigeria, and the Republic of the Congo.
- WHO receives reports through established surveillance (IDSR) in endemic countries in the African region.
- Laboratory strengthening in endemic countries is a priority to enable confirmation of suspected cases.
- Working closely with African countries, regional institutions, technical and financial partners, WHO is supporting efforts to bolster laboratory diagnosis, disease surveillance, readiness and response actions to prevent further infections.
- Providing expertise through technical guidance on testing, clinical care, preventing and controlling infections and educate the public about monkeypox and its risks, and how to collaborate with communities to support disease control efforts.

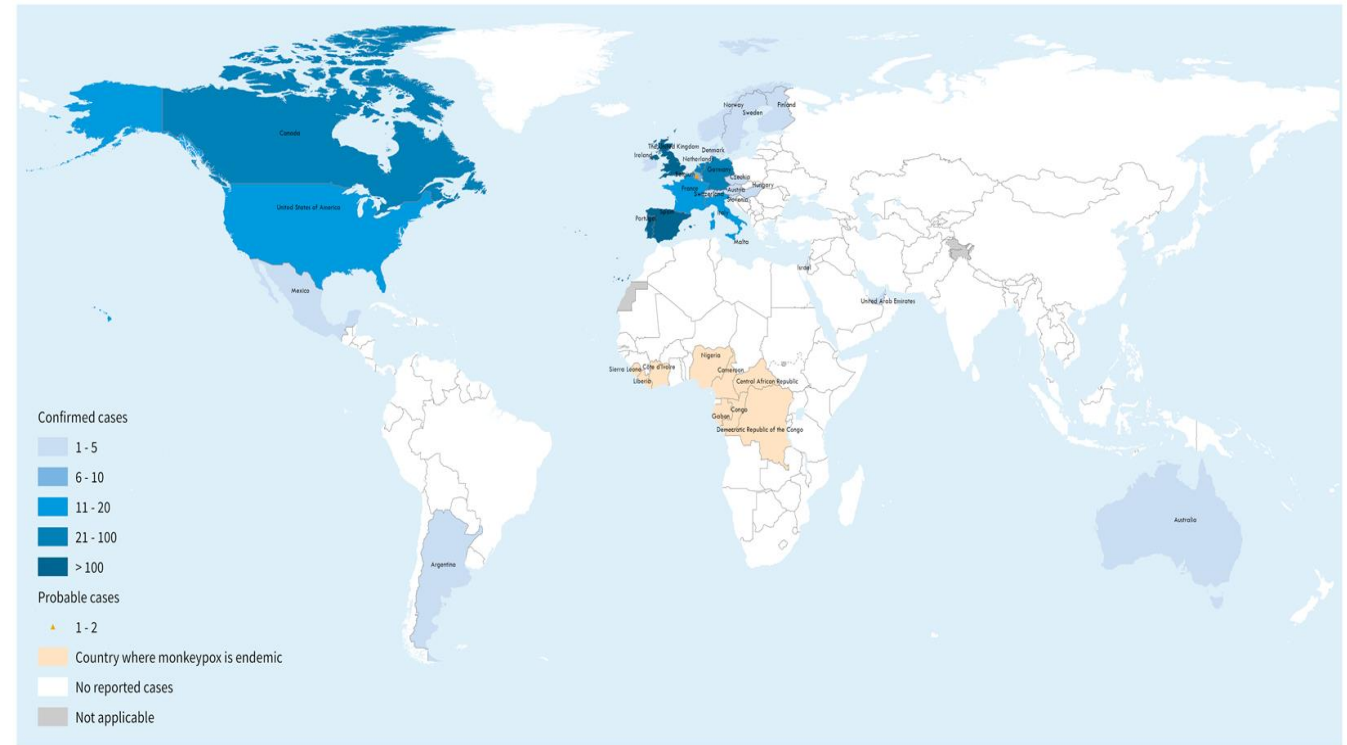
# Cases of monkeypox in non-endemic countries

13 May to 1 June 2022

Region	Country	Confirmed	Probable
AMRO	Argentina	2	
	Canada	26	
	Mexico	1	
	United States of America	18	
EMRO	United Arab Emirates	4	
EURO	Austria	1	
	Belgium	10	2
	Czechia	5	
	Denmark	2	
	Finland	1	
	France	17	
	Germany	44	
	Hungary	1	
	Ireland	4	
	Israel	2	
	Italy	14	
	Malta	1	
	Netherlands	26	
	Norway	1	
	Portugal	119	
	Slovenia	2	
	Spain	142	
	Sweden	4	
	Switzerland	4	
	The United Kingdom	190	
WPRO	Australia	2	
Total	26 countries	643	2

## Confirmed and probable cases of monkeypox in non-endemic countries

(since 13 May 2022, as of 1 June 2022 16:00 CEST)



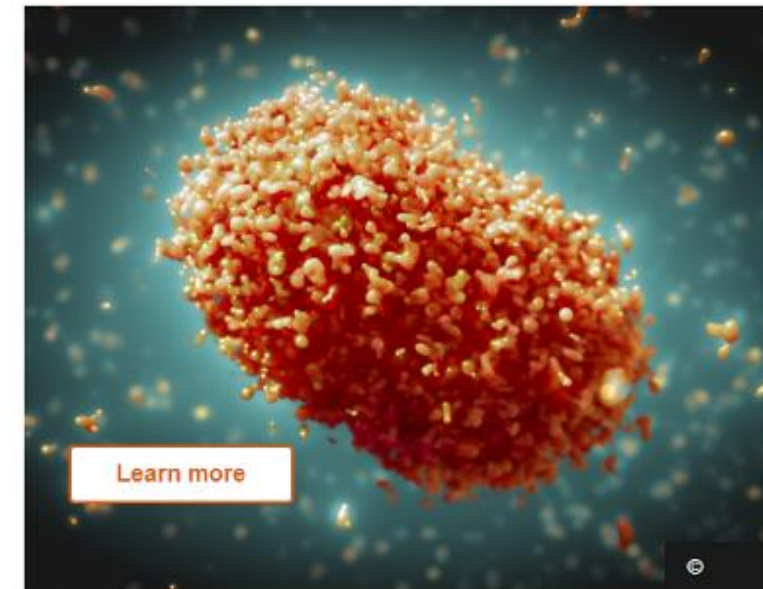
The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization  
Map Production: WHO Health Emergencies Programme  
Map Date: 1 June 2022

# Monkeypox in non-endemic countries

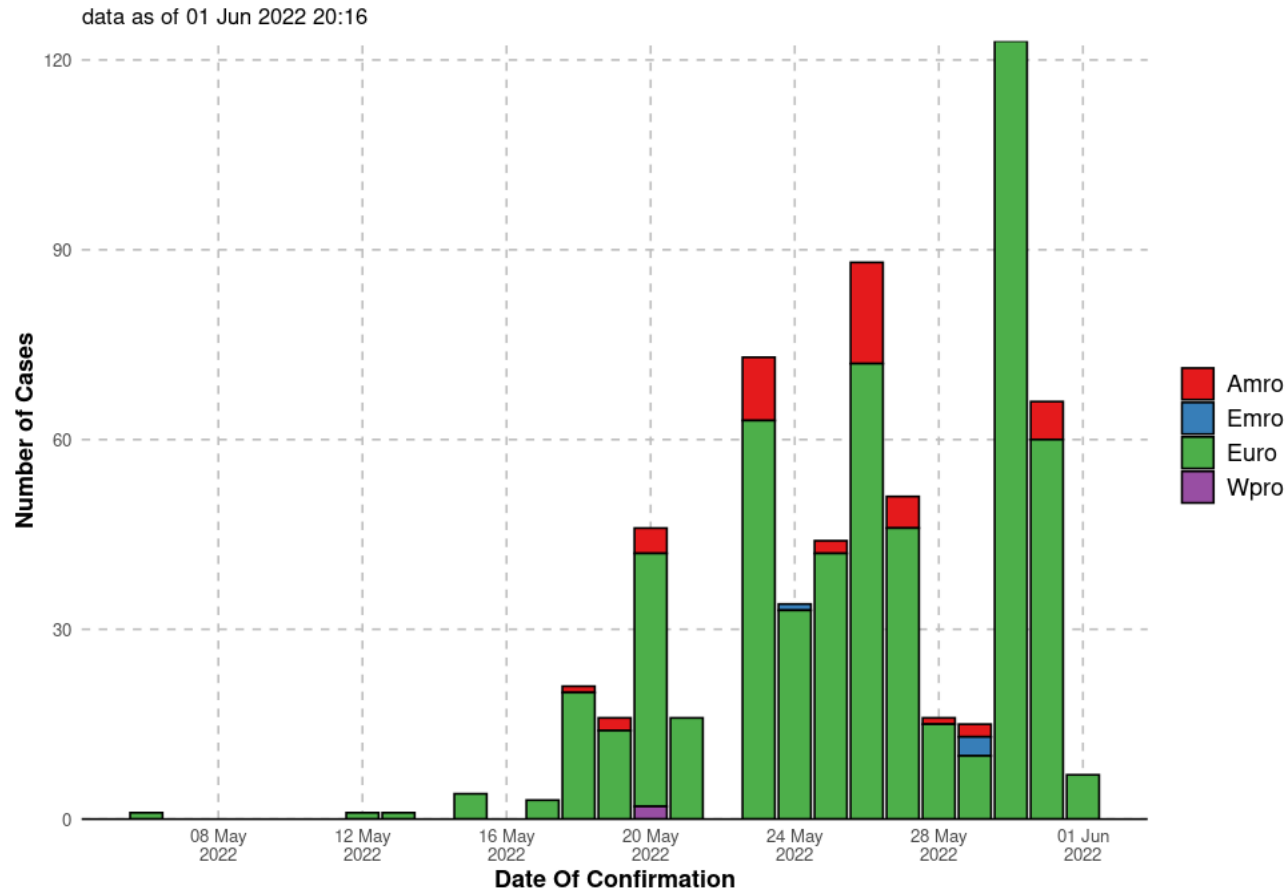
- Since 13 May 2022, monkeypox has been reported to WHO from 26 Member States that are not endemic for monkeypox, across four WHO regions (as of 1 June)
- Public health outbreak investigations are ongoing: including extensive case finding and contact tracing, laboratory investigation, clinical management and case isolation
- The factors leading to this outbreak are not yet known. Initial cases have presented through primary care or sexual health services
- The outbreak of monkeypox in many non-endemic countries at once is highly unusual. Early epidemiology of initial cases notified to WHO by countries shows that cases have been largely, but not exclusively, been reported amongst men who have sex with men (MSM)
- Outreach activities are being put in place for the communities identifies to be at risk; at the present time includes outreach to social networks of MSM and their close contacts, health workers and laboratory workers.
- Wide geographic scope of many sporadic cases indicate the widespread human to human transmission is underway; virus may have been circulating unrecognized for several weeks/months.

## Monkeypox



<https://www.who.int/health-topics/monkeypox>

# Epidemic Curve by region and date of confirmation (public database)



Source: global.health linelist - official reporting only.  
where dates are not available, showing date of database entry



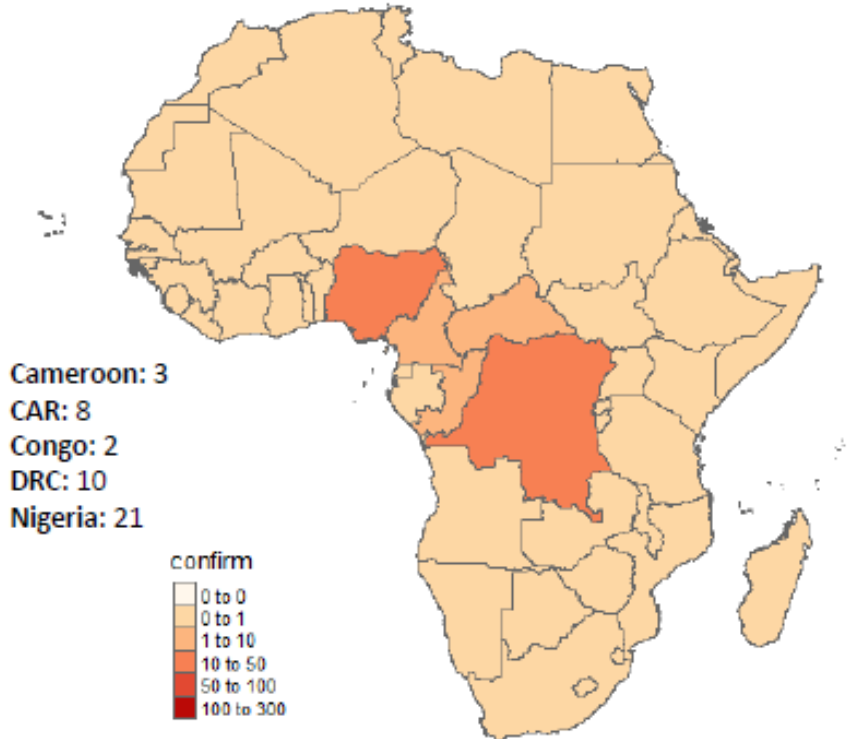
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programme

# Summary of the Situation in AFRO – 2022 Jan 1 - present

## Confirmed cases

- 44 cases confirmed in five countries



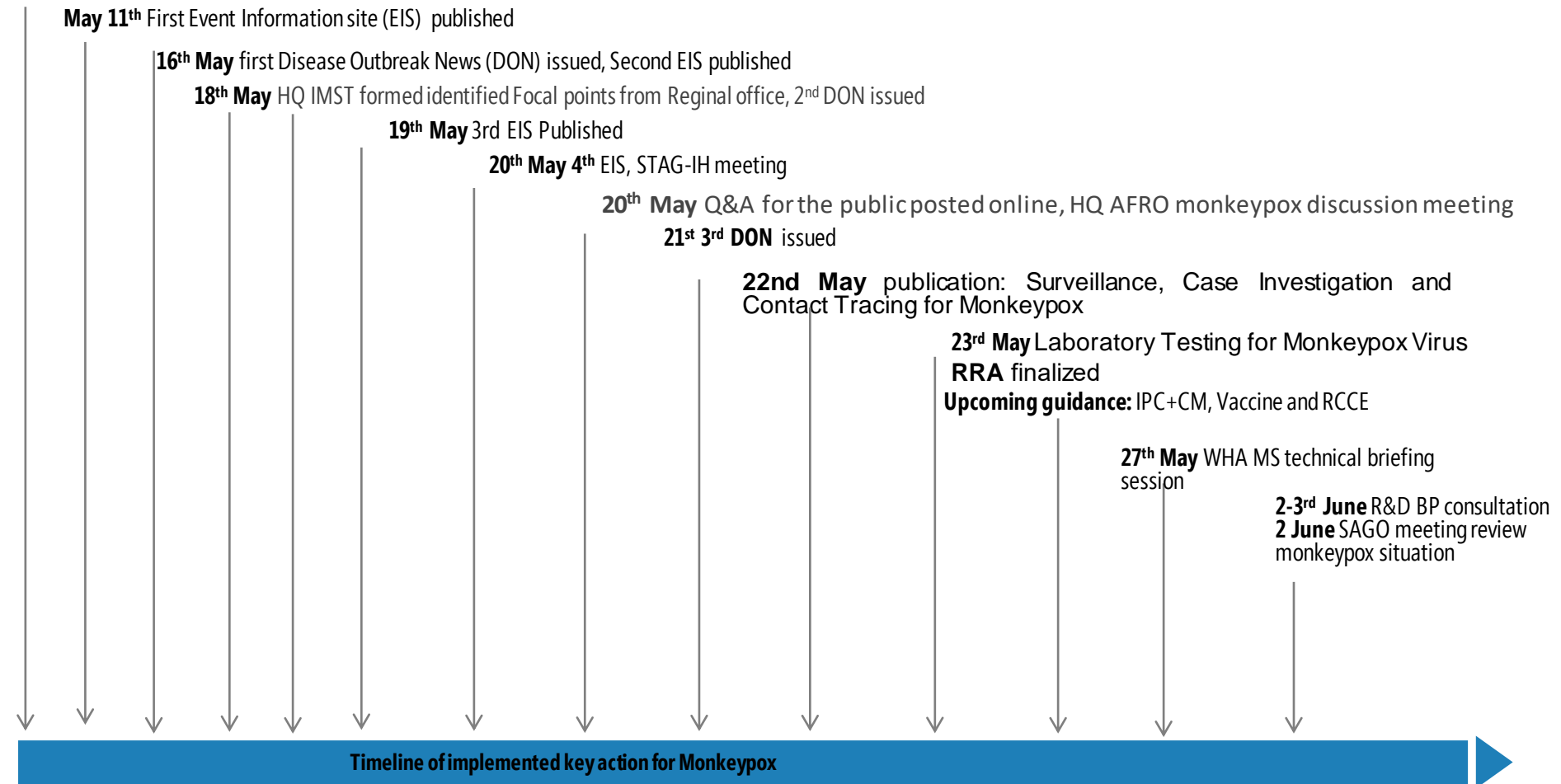
## Endemic / AFRO countries

Country	Confirmed cases	Suspected cases	Deaths
Cameroon	3	25	2
Central African Republic	8	17	2
Republic of Congo	2	7	3
Democratic Republic of the Congo	10	1284	58
Liberia		4	0
Nigeria	21	66	1
Sierra Leone		2	0
<b>Cumulative</b>	<b>44</b>	<b>1405</b>	<b>66</b>

Source: Update on the human monkeypox situation in the African Region 30 May 2022

# Timeline of WHO key actions

**7 May 2022**, WHO was informed of a confirmed case of monkeypox with no secondary cases, followed by unrelated family cluster and cases among MSM. .



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# Key Priorities

1. **CONTAIN:** The goal is to stop the outbreak. WHO encourages countries to

- Raise awareness
- Detect cases: enhance clinical recognition to ensure early detection of cases and isolation of patients
- Stop transmission : intensify surveillance, case-finding, cluster investigation and contact-tracing
- Protect health workers and prevent transmission in health care settings (PPE, Infection prevention and control)

*To do:*

- *adapt and strengthen surveillance, laboratory and testing capacities*
- *Use the **Case Reporting Form** (CRF) once published to better understand the clinical picture 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 continued...

**2. Ensure effective communication** to raise awareness and **avoid stigmatisation**. 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:** Use public health interventions (testing, contact-tracing and isolation) and deploy countermeasures (therapeutics, vaccines, diagnostics and sequencing) based on **need, risk and benefit**.

Apply measures **commensurate to the risk** (for instance regarding safe gatherings)

## 4. Global Collaboration

- Continue sharing information, diagnostic resources and data.
- Use standard protocols to enable comparison of data between countries
- Develop global mechanisms to ensure access to countermeasures (vaccine, therapeutics, diagnostics) based on public health need
- *Accelerate research for monkeypox*

## 5. Strengthen One Health approach

# Critical unknowns affecting the response

- Transmission patterns and factors that facilitate spillover and human-to-human spread
  - Human-to-human transmission
  - Zoonotic transmission, reverse zoonotic transmission and animal source/reservoir(s)
  - Infectious period, symptomatic/asymptomatic spread
  - Amplification events
- Extent of unrecognized infection in endemic and non-endemic countries, risk of further spread globally
- Molecular epidemiology, genetic sequences needed
- Clinical characteristics, severity of disease and risk factors for severe disease
- Immunity from vaccination; immunity from infection
- Interventions and impact of interventions
  - To prevent severe disease/death
  - To protect at risk groups and prevent onward spread

# WHO call for action

- Health authorities at all levels, clinicians, health and social sector partners, and academic, research and commercial partners to **respond quickly** to stop the multi-country outbreak of monkeypox.
- Rapid action must be taken before the virus can be allowed to establish itself as a human pathogen with efficient person-to-person transmission in both **endemic and non-endemic contexts**.
- **Lessons learned** from the eradication of smallpox and from the management of other emerging zoonotic diseases must be urgently considered in the light of these rapidly evolving events.
- **Advance research** to better inform prevention, detection and response actions for monkeypox globally

<https://www.who.int/health-topics/monkeypox>