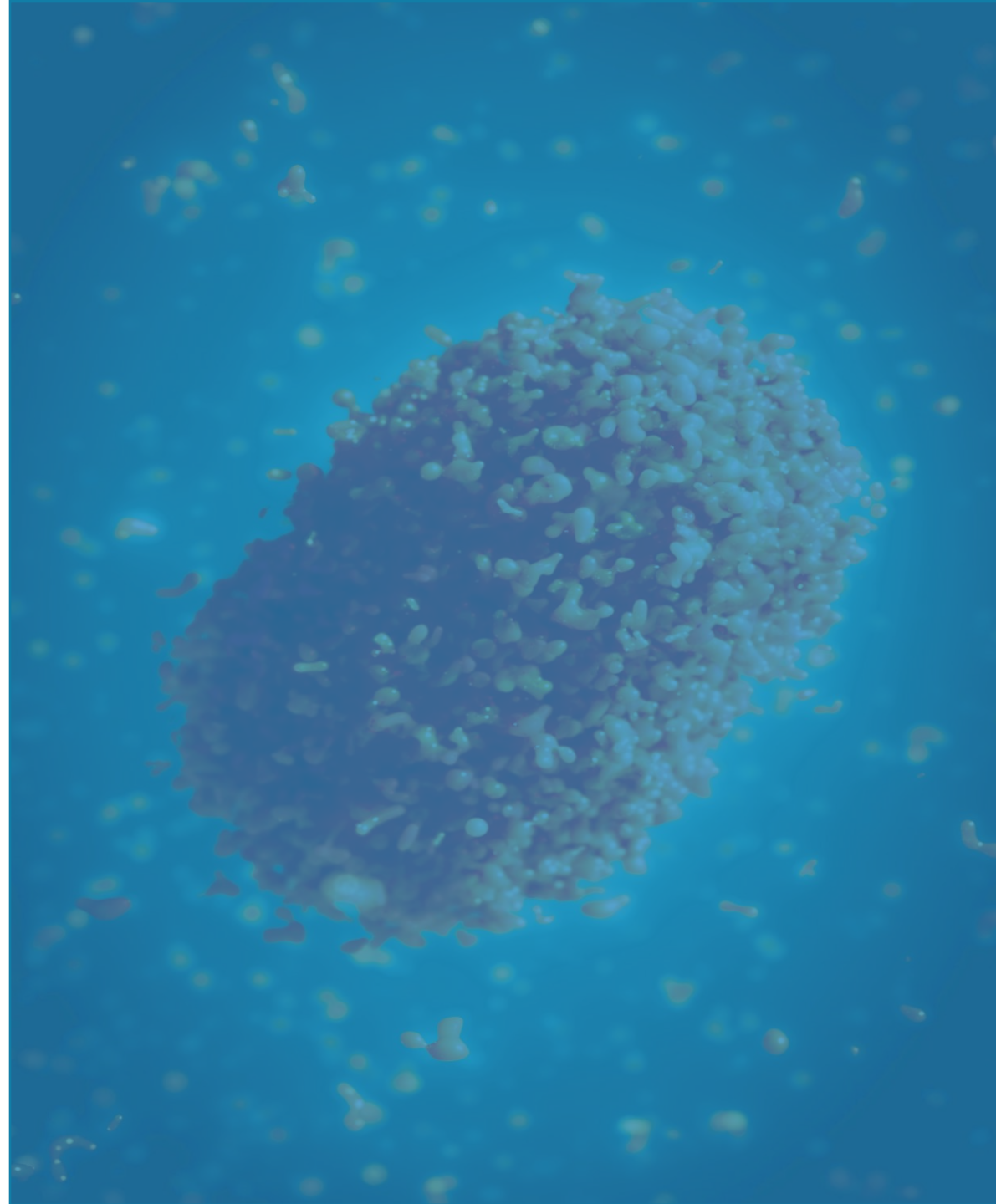

Mpox Update Member States Briefing Session

11 October 2024



Welcome/Chair

Dr Maria D. Van Kerkhove

Director (a.i.), Epidemic and Pandemic Prevention and Preparedness

WHO Health Emergencies Programme

Epidemiological Situation Update

Dr Olivier Le Polain, Unit Head, ARC, WHO Health Emergencies Programme

Dr. Ana Hoxha, Epidemiologist, ARC, WHO Health Emergencies Programme

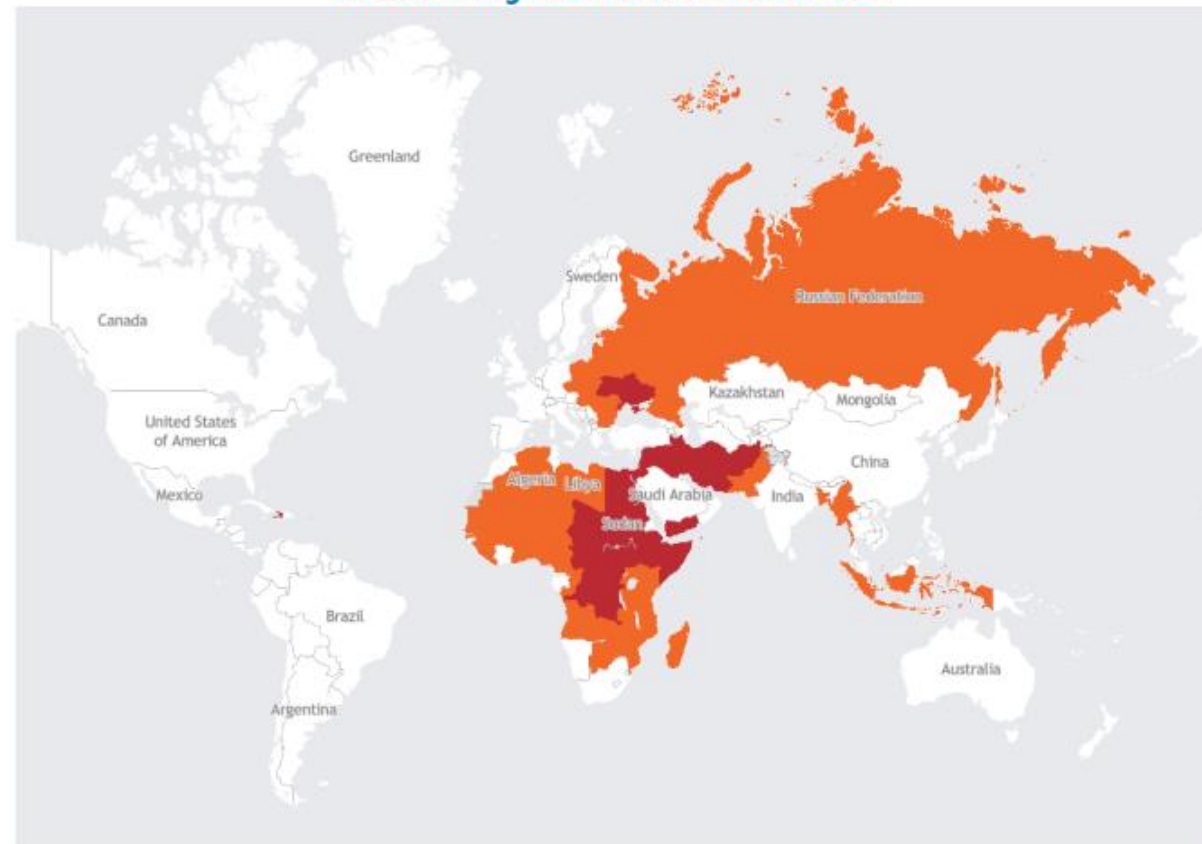
EVENTS AND EMERGENCIES GLOBAL OVERVIEW

6	415	10	7	10	9	3	0	39
NEW EVENTS	ONGOING EVENTS	GRADE 3	PROTRACTED 3	GRADE 2	PROTRACTED 2	GRADE 1	PROTRACTED 1	TOTAL GRADED EMERGENCIES

Multiple ongoing graded events:

- oPt - Lebanon
- Marburg (Rwanda)
- Mpox (15 AFRO countries...)

Graded Emergencies as of 4 October 2024*



*The following global / multi-region emergencies are excluded from the map: Multi-Region Cholera (G3), Multi-Region Dengue (G3), MPOX (G3), COVID-19 (P3). Emergency grades are subject to revisions and changes.

For further details please consult: [HEMS - Health Emergencies Management Suite \(who.int\)](https://www.who.int/emergencies/management-suite).

PHEIC declaration

- On 13 August 2024 Africa CDC declared mpox a **Public Health Emergency of Continental Security (PHECS)**
- On **14 August 2024** the WHO Director-General declared a Public Health Emergency of International Concern for the upsurge of mpox.
- The Director General issued mpox temporary recommendations for member states
- **Standing recommendations** released in August 2023 and **extended** for another year.



WHO Director-General declares mpox outbreak a public health emergency of international concern

Français

14 August 2024 | News release | Reading time: 3 min (789 words)

WHO Director-General Dr Tedros Adhanom Ghebreyesus has determined that the upsurge of mpox in the Democratic Republic of the Congo (DRC) and a growing number of countries in Africa constitutes a public health emergency of international concern (PHEIC) under the International Health Regulations (2005) (IHR).

Dr Tedros's declaration came on the advice of an IHR Emergency Committee of independent experts who met earlier in the day to review data presented by experts from WHO and affected countries. The Committee informed the Director-General that it considers the upsurge of mpox to be a PHEIC, with potential to spread further across countries in Africa and possibly outside the continent.

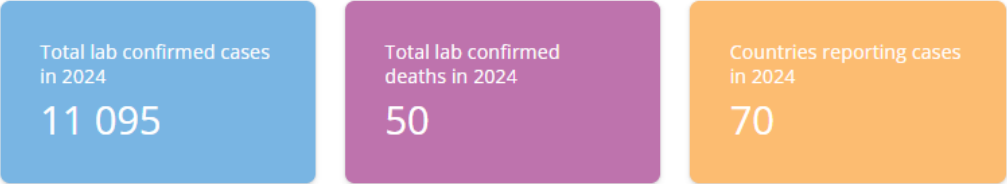
Media Contacts



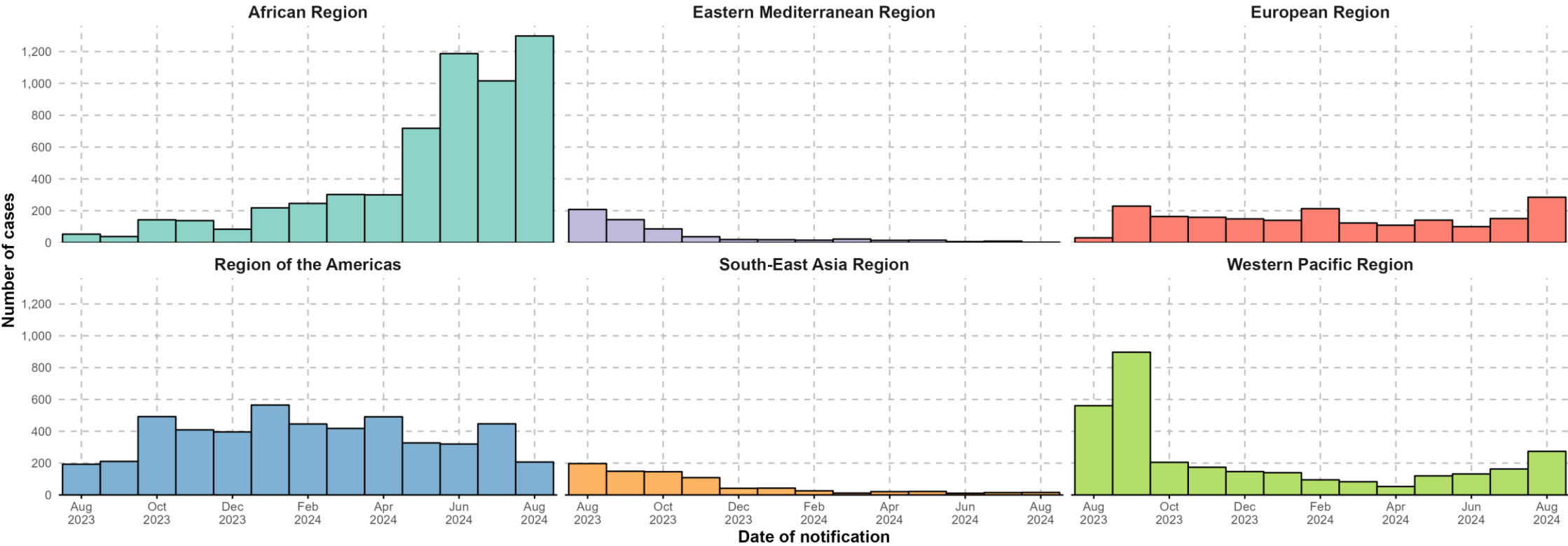
WHO Media Team

World Health Organization
Email: mediainquiries@who.int

Global mpox regional trends, confirmed cases

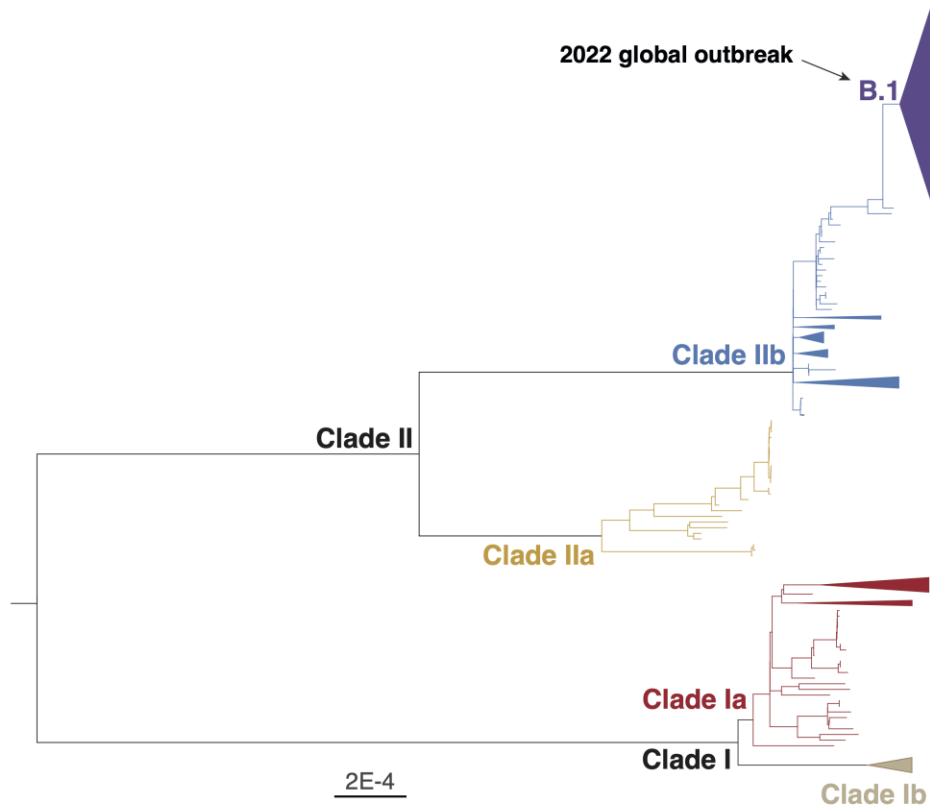


data as of 31 Aug 2024

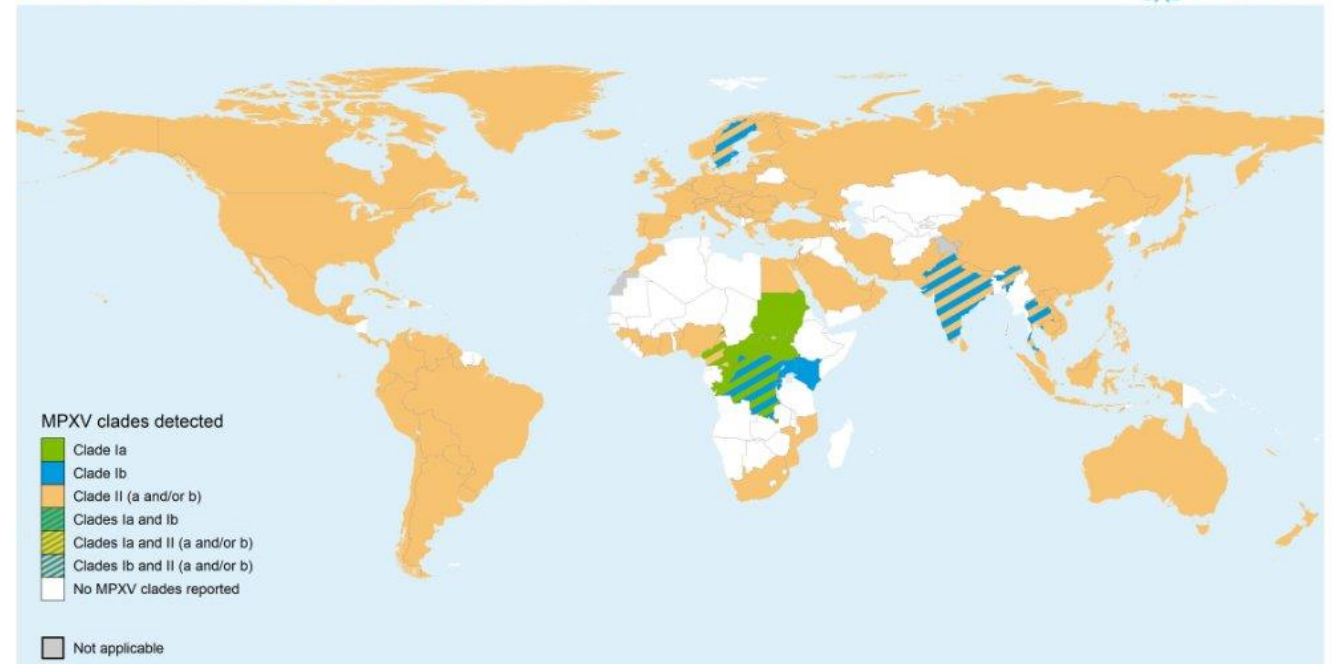


Source: WHO

Monkeypox virus (MPXV) clades detected globally



MPXV clades detected globally
includes imported cases; from 1 Jan 2022, as of 29 Sep 2024

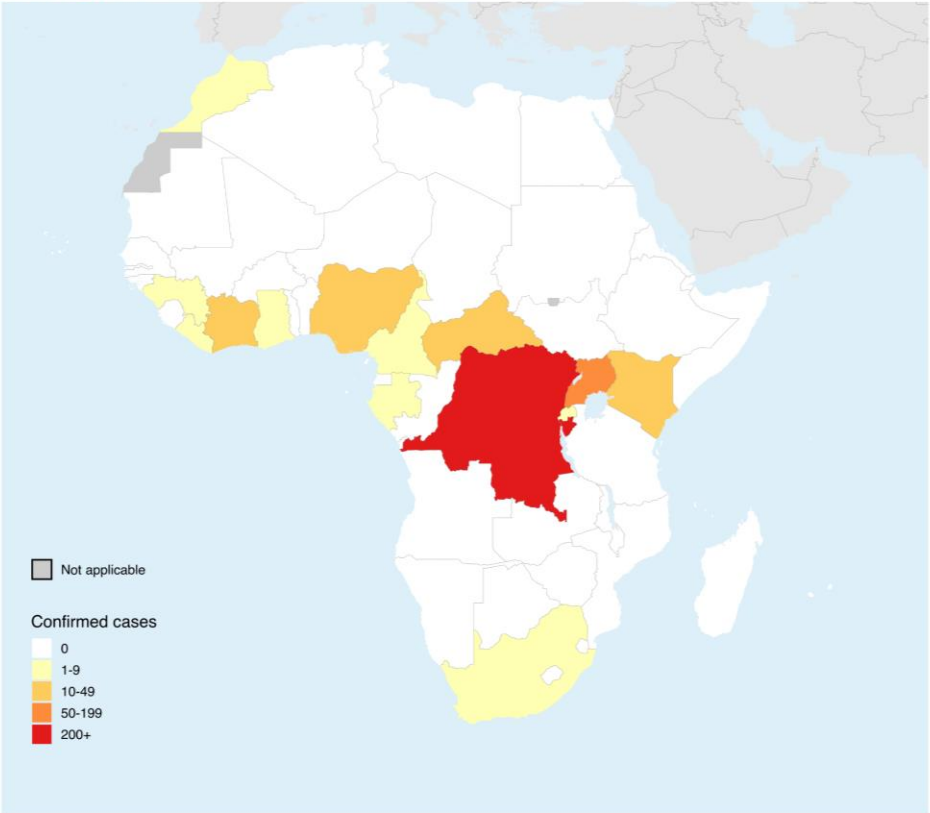


The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. 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
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Focus on Africa (Confirmed cases) As of 06 October 2024

Confirmed mpox cases reported in past six weeks
as of 06 Oct 2024



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
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Total lab confirmed cases
in 2024

7 524

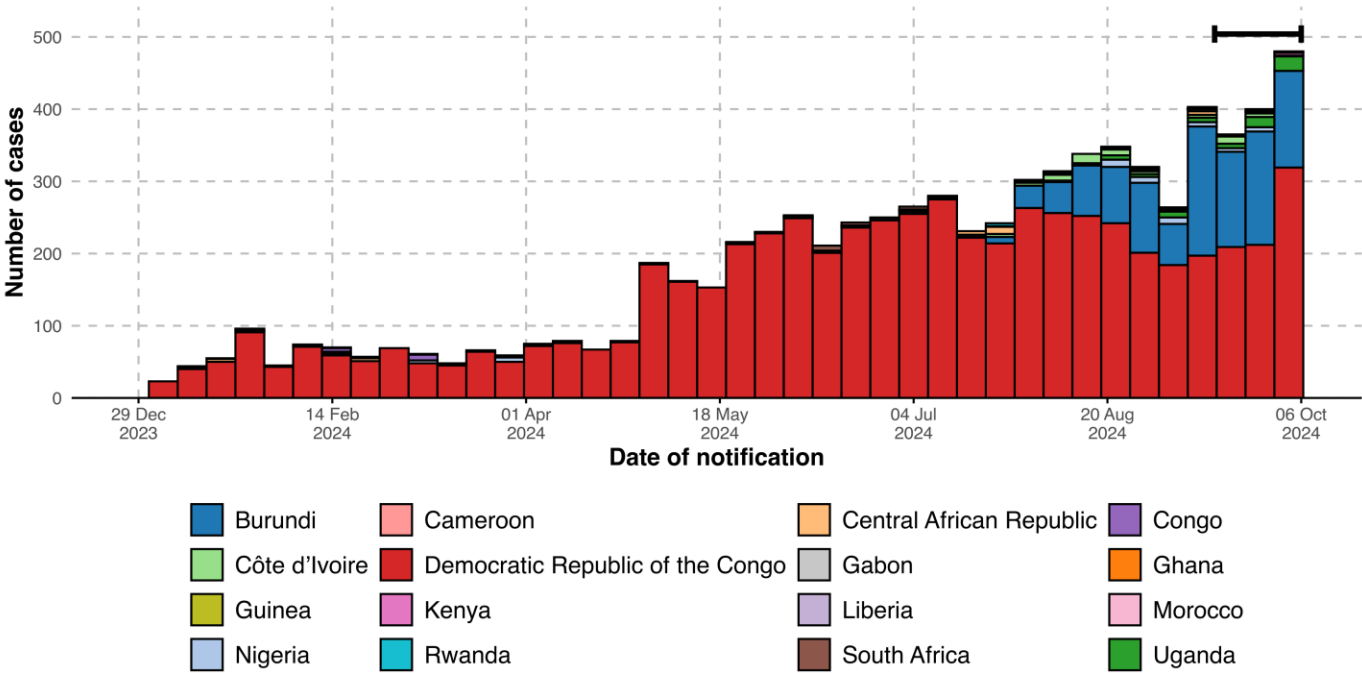
Total lab confirmed
deaths in 2024

32

Countries reporting cases
in 2024

16

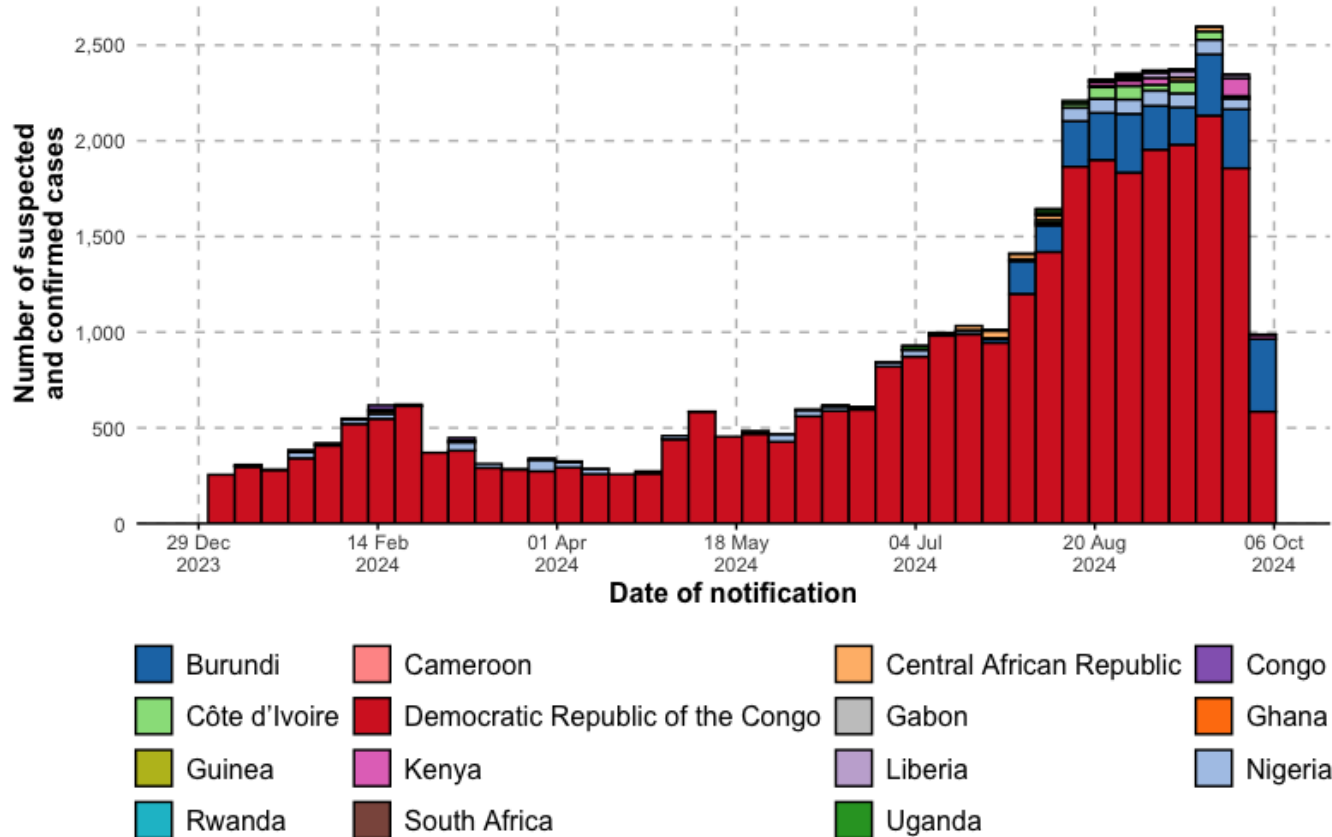
Bracket at end of curve indicates potential reporting delays in recent weeks of data.
Data as of 06 Oct 2024



Source: WHO

Epidemic curve of all reported mpox cases in Africa (including syndromic reporting of suspect cases)

Data as of 06 Oct 2024



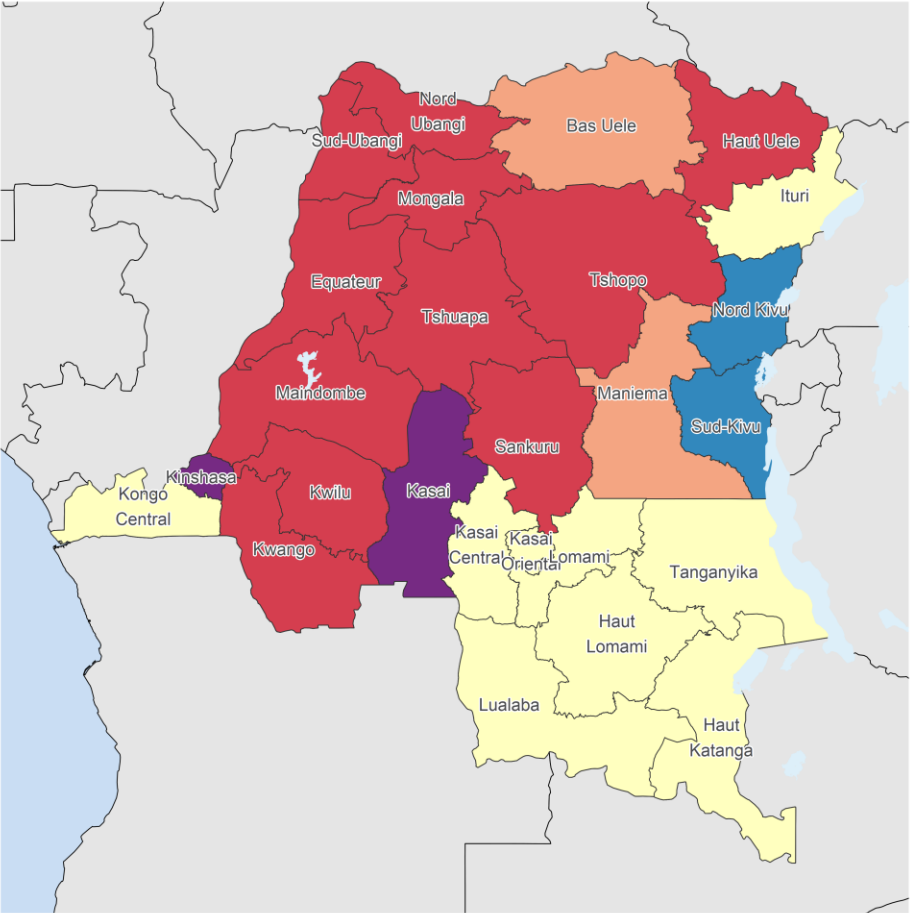
Source: WHO

- Despite efforts in improving diagnostic capacity, **in 2024 approximately 40% of suspected mpox cases in DRC are tested.** Test **positivity rate** at national level in DRC is around **50%**, varying between provinces and affected population.
- WHO is currently showing suspected mpox cases to better present the epidemiological situation in the continent.

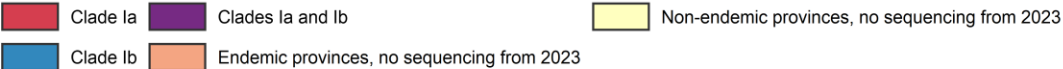
MPXV clades and mpox case distribution in DRC

MPXV clades detected in the Democratic Republic of the Congo

As of 22 Sep 2024



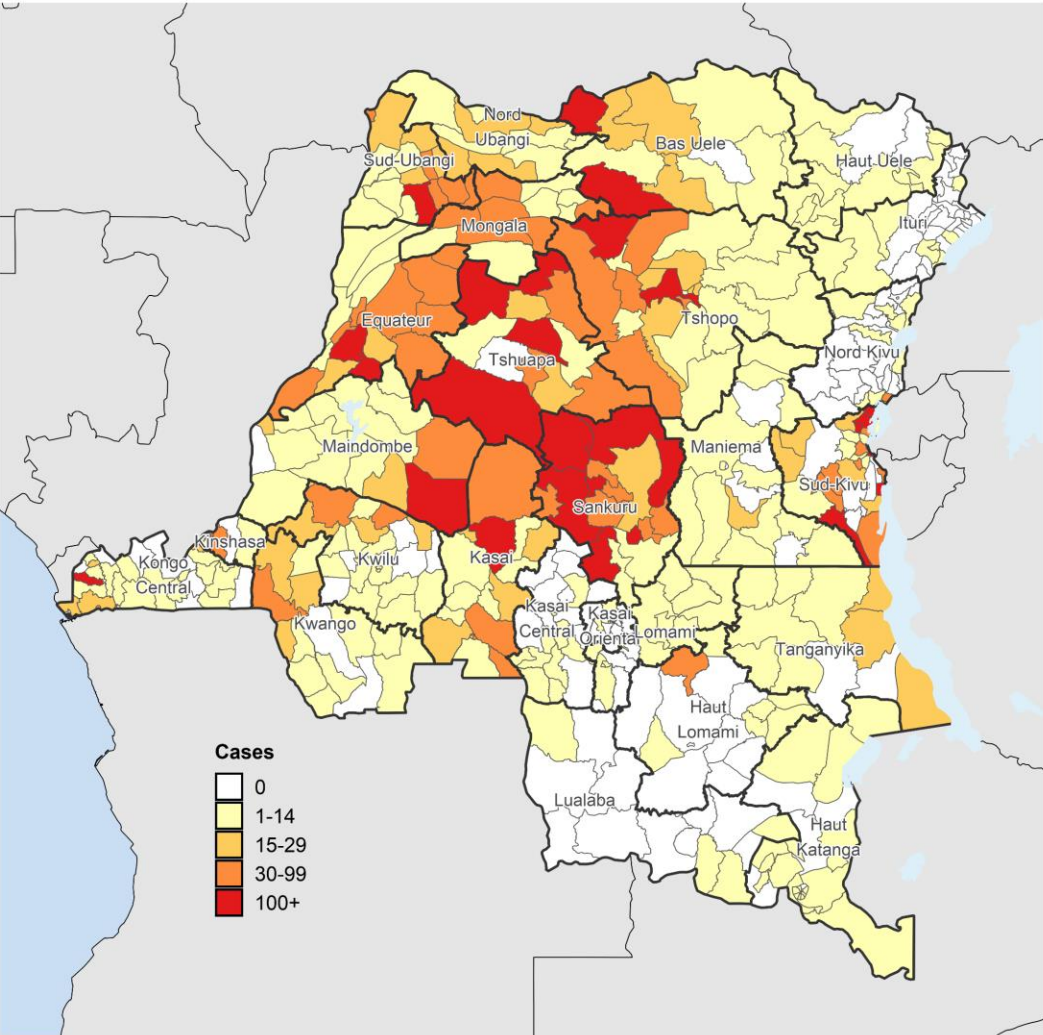
Classification of province



Source: MPXV genome sequences and metadata accessible via INRB, Genbank, and GISAID

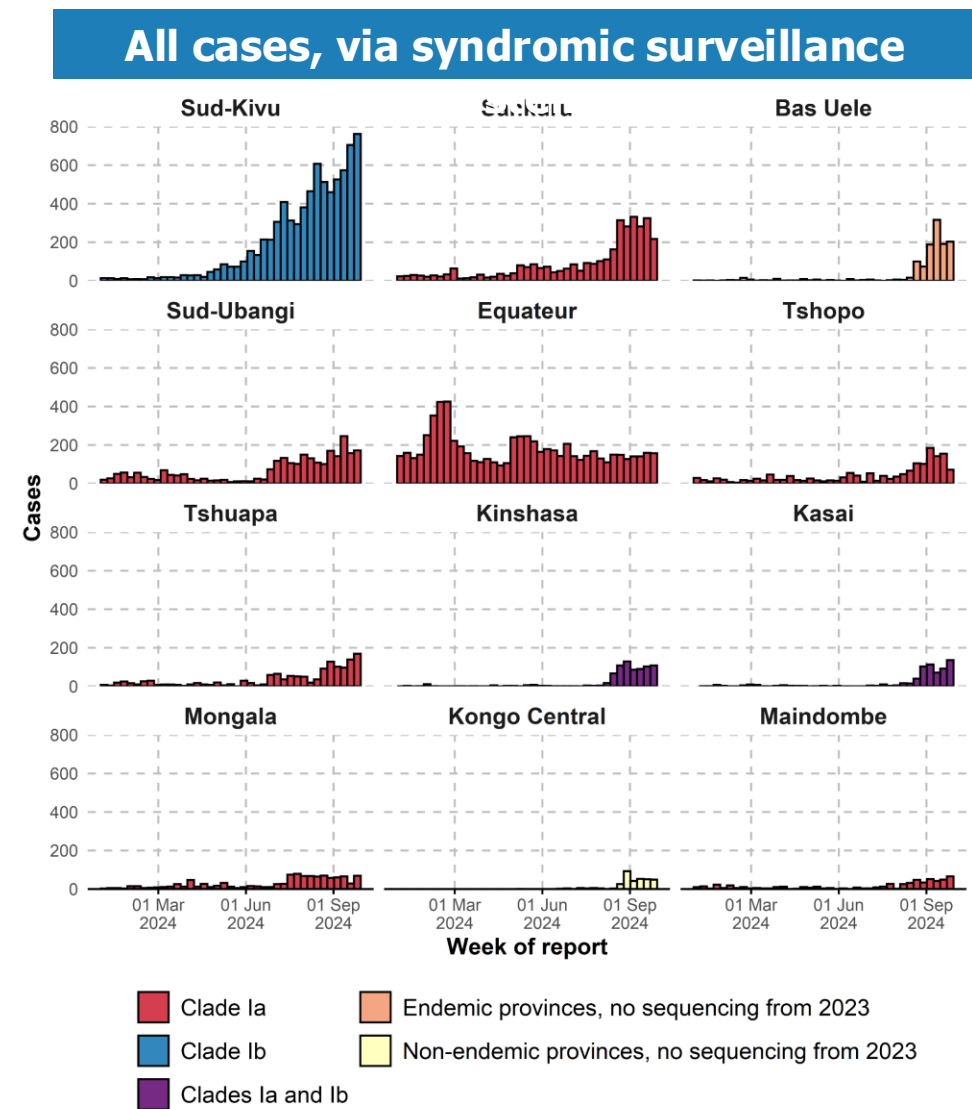
Mpox cases in the past six weeks, Democratic Republic of the Congo

from 19 Aug 2024, as of 29 Sep 2024

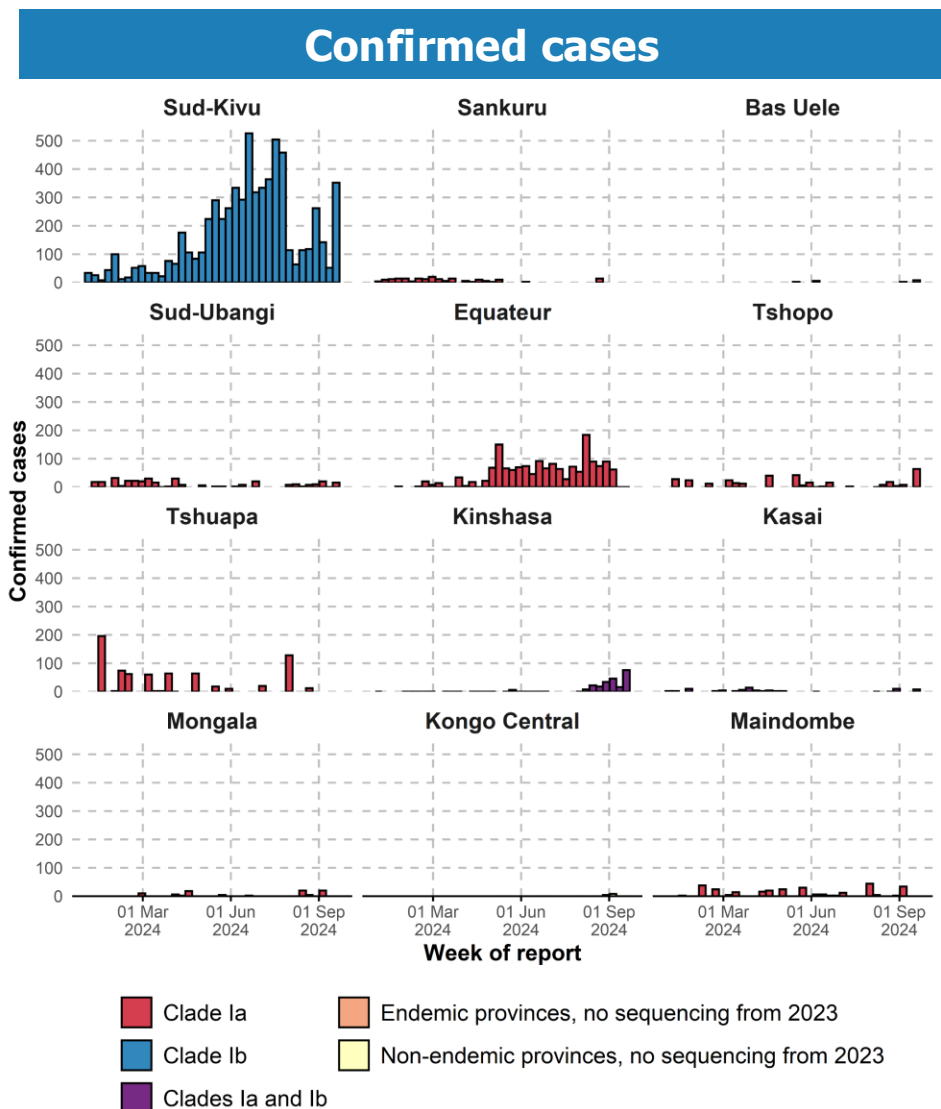


Data source: DRC Ministry of Public Health
Data shown for all cases, via syndromic surveillance system.

DRC: recent trends by province (as of 29 September)



Data source: DRC Ministry of Public Health
Data shown for all cases, via syndromic surveillance system.



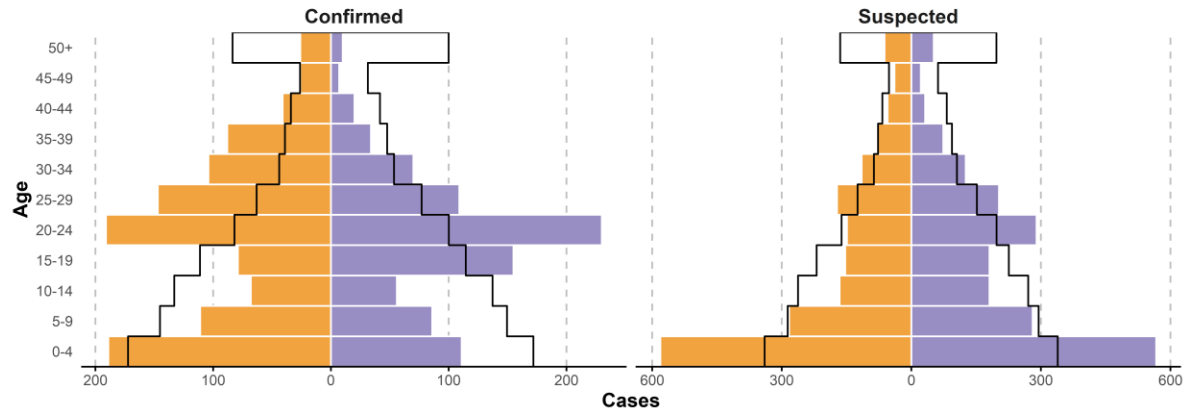
Data source: DRC Ministry of Public Health

Age and sex distribution of mpox cases in DRC

Jan – Sept 2024 (as of 29 Sep)

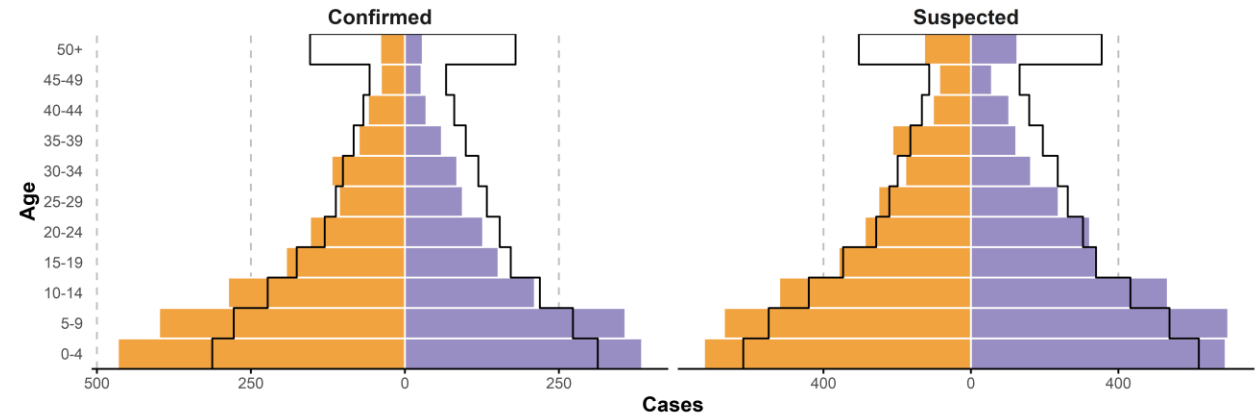
Nord/Sud Kivu

Age-sex distribution of mpox cases vs general population



Endemic provinces within DRC

Age-sex distribution of mpox cases vs general population



Female Male

Data sources: DRC Ministry of Public Health, UN Department of Economics and Social Affairs

Note: Uses modelled estimates of population size by province.

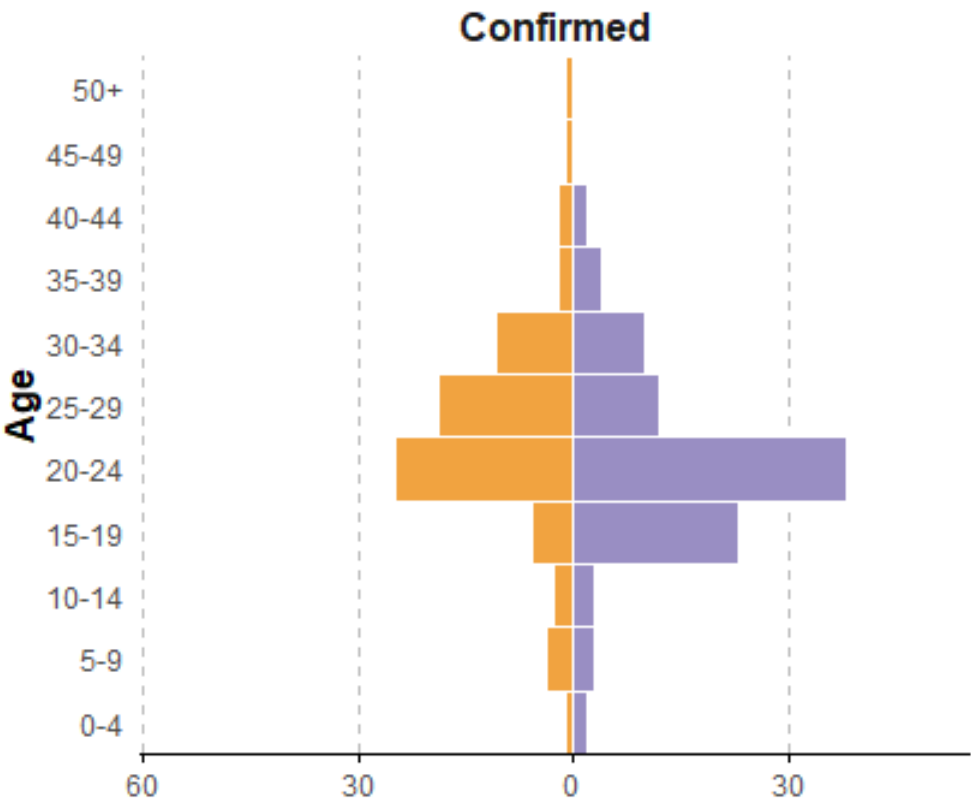
Endemic provinces: Equateur, Sankuru, Tshuapa, Tshopo, Nord Ubangi, Bas Uele, Sud-Ubangi, Mongala, Kwilu, Maindombe, and Maniema.

Note: Black outline represents overall population distribution of DRC

Age and sex distribution of confirmed mpox cases in South and North Kivu (presumed clade Ib): comparing Jan – Mar 2024 with last six weeks (as of 29 Sep)

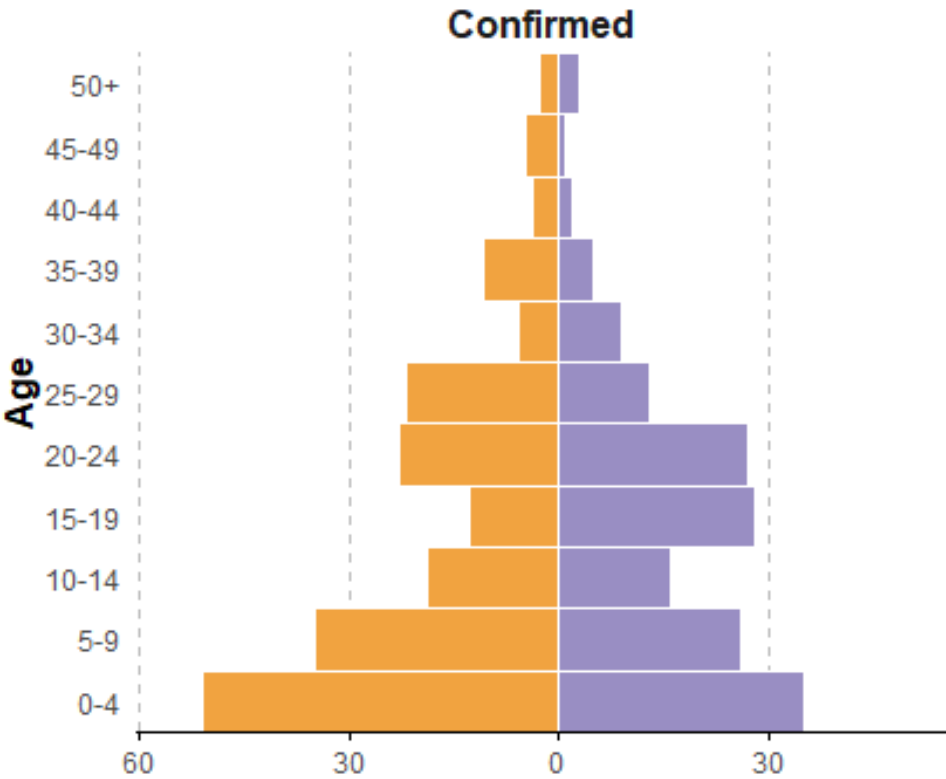
Nord/Sud Kivu (Jan - Mar 2024)

Age-sex distribution of mpox cases vs general population



Nord/Sud Kivu (last 6 weeks)

Age-sex distribution of mpox cases vs general population



Female Male

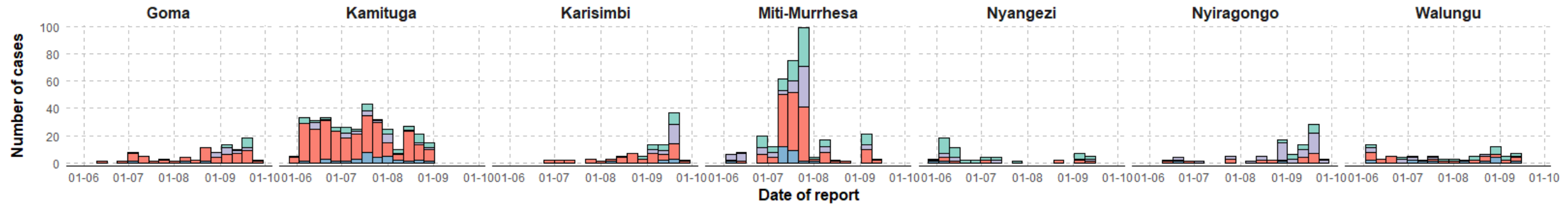
Data sources: DRC Ministry of Public Health, UN Department of Economics and Social Affairs
Note: Uses modelled estimates of population size by province.

Age distribution proportions of cases over time by health zone in Nord/Sud Kivu, last four months

Trends in confirmed cases in high burden health zones

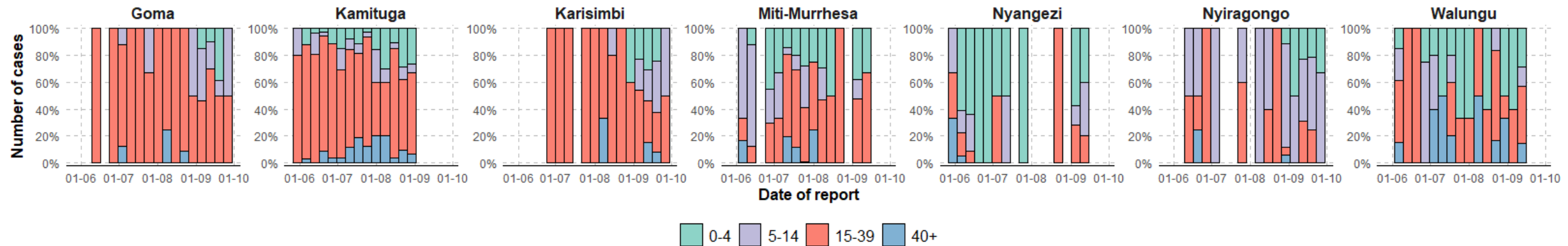
Total cases by age group over time in high burden health zones

data as of 26-09-2024



Proportions of cases by age group over time in high burden health zones

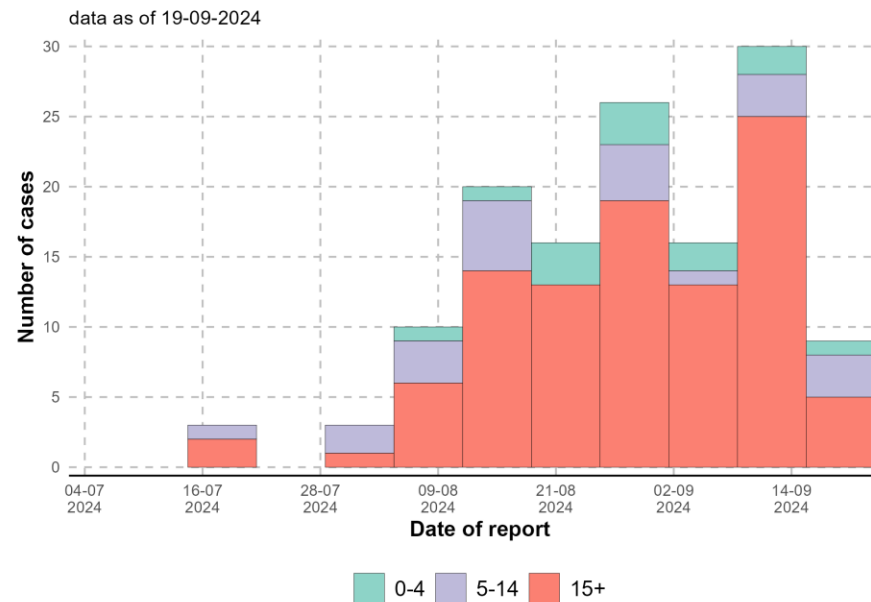
data as of 26-09-2024



Kinshasa

as of 17 Sept

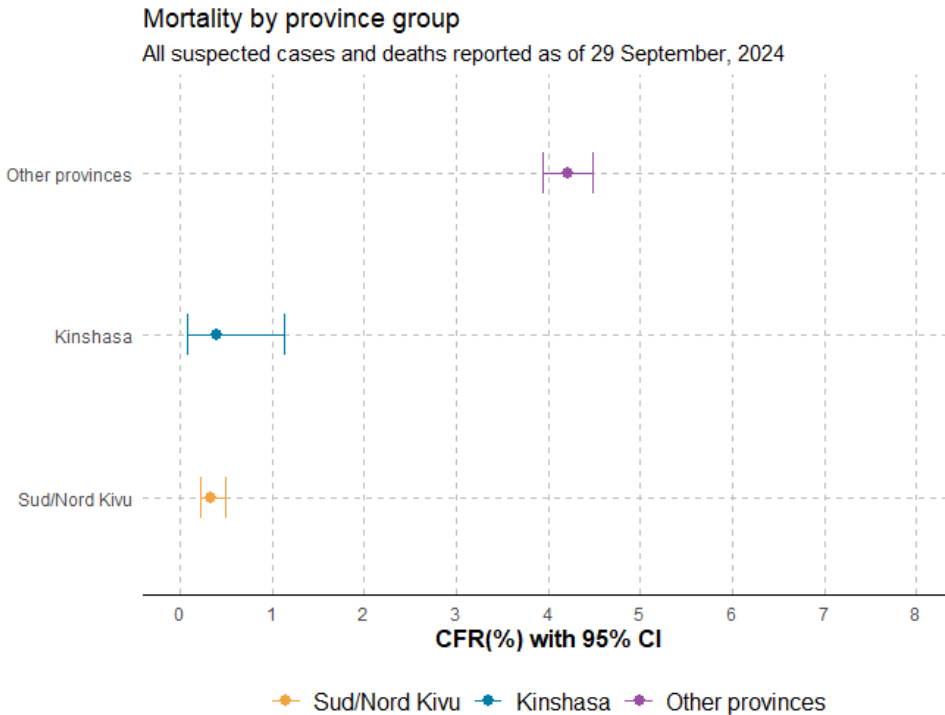
- 137 confirmed cases in Kinshasa since July 2024
- 71 are sequenced and have an assigned clade (30% Clade Ib)
- Sequences are consistent with multiple independent introductions of MPXV into Kinshasa
- Proportionally more adults in both suspected and confirmed cases



Data sources: DRC Ministry of Public Health, UN Department of Economics and Social Affairs
Note: Uses modelled estimates of population size by province.

Mortality of mpox in DRC – syndromic reporting

2024 data

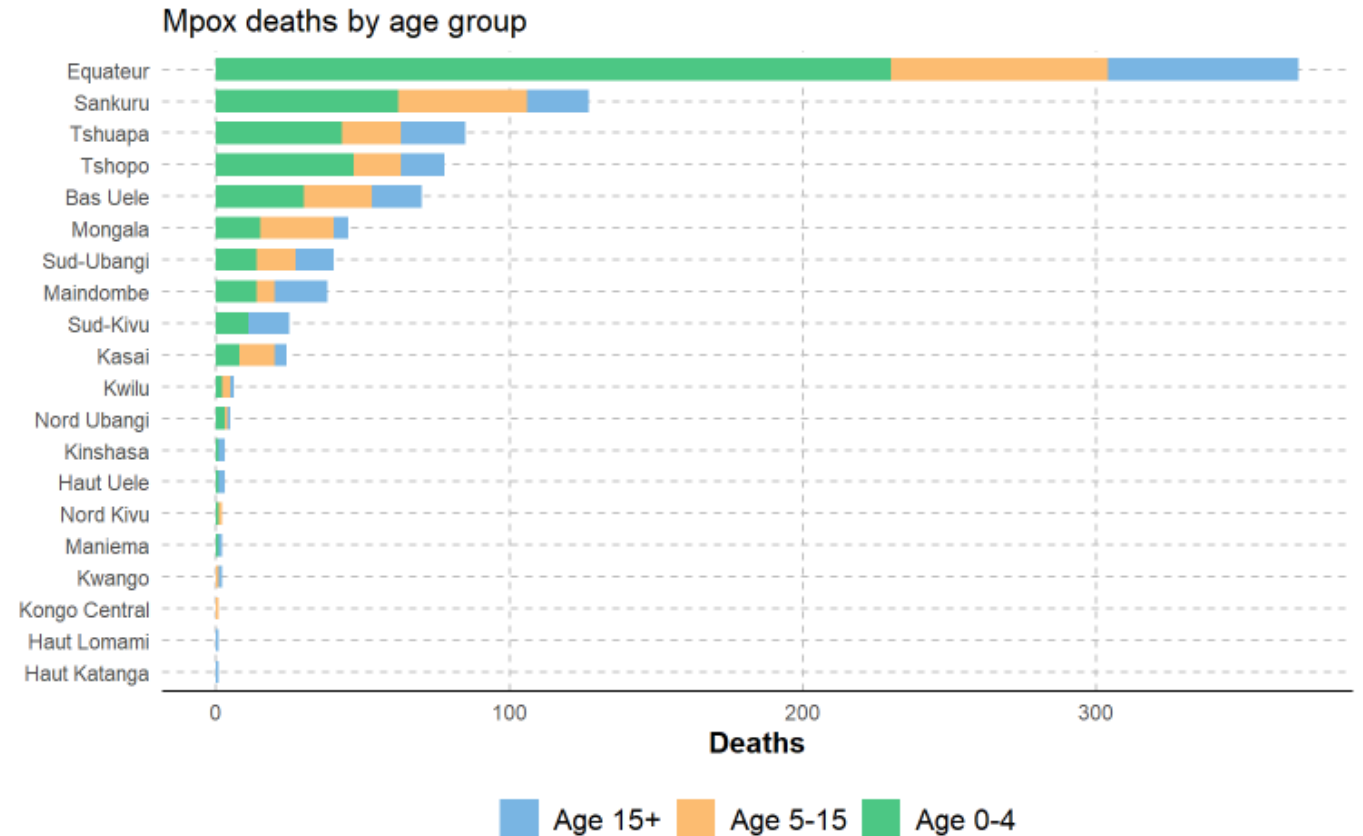


Source: IDSR data since Jan 2024

Based on 8078 cases and 27 deaths in Sud/Nord Kivu;

768 cases and 3 deaths in Kinshasa;

21420 cases and 902 deaths in other provinces.



Countries reporting Clade Ib outside of DRC

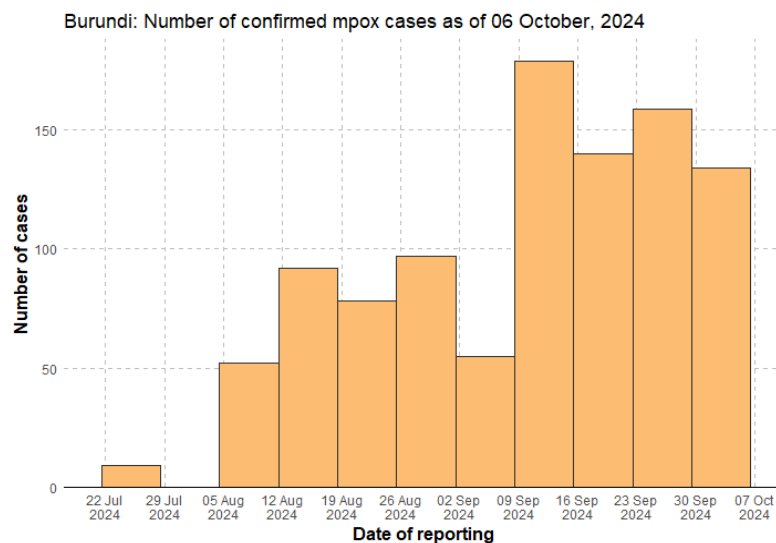
July – September 2024

Country	confirmed cases	confirmed deaths	Distribution	Demographic characteristics
Burundi	1,064	0	Largely concentrated in and around Bujumbura	• Even sex distribution (53.4% Male, 46.6% Female); • Bimodal age distribution with higher incidence in young adults and young children. • 27% are <5 years, 35% are 20 -39 years of age
Uganda	80	0	Multiple districts, including capital	Majority are young to middle-aged adult males (20 – 39 years) followed by young female adults (20 – 29 years)
Kenya	12	0	Multiple counties (including capital) along the major transport corridor from the coast to Uganda and Tanzania	Most (75%) either have recent history of international travel (often male long-haul truck drivers) or are linked to a case with travel history
Rwanda	6	0	3 in capital; 3 in border district	• Most (66%) are adult males; • Half of the cases are 30 – 39 years old • Most cases had recent history of travel to DRC or Burundi
Sweden	1	0	Travel history to Africa	Adult male traveller
Thailand	1	0	Travel history to Africa	Adult male traveller

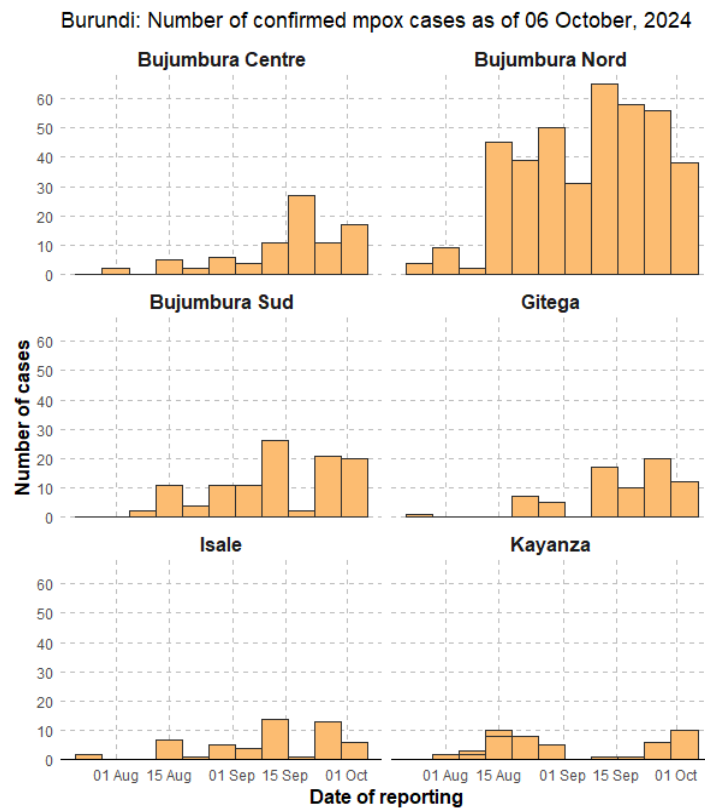
Characteristics of mpox cases in Burundi

as of 6 October

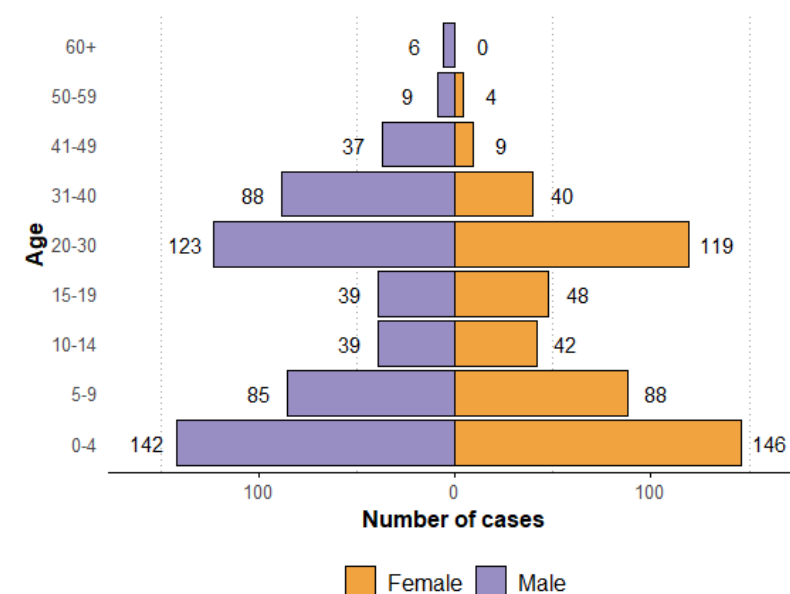
National



Six highest reporting districts



Demographic groups affected

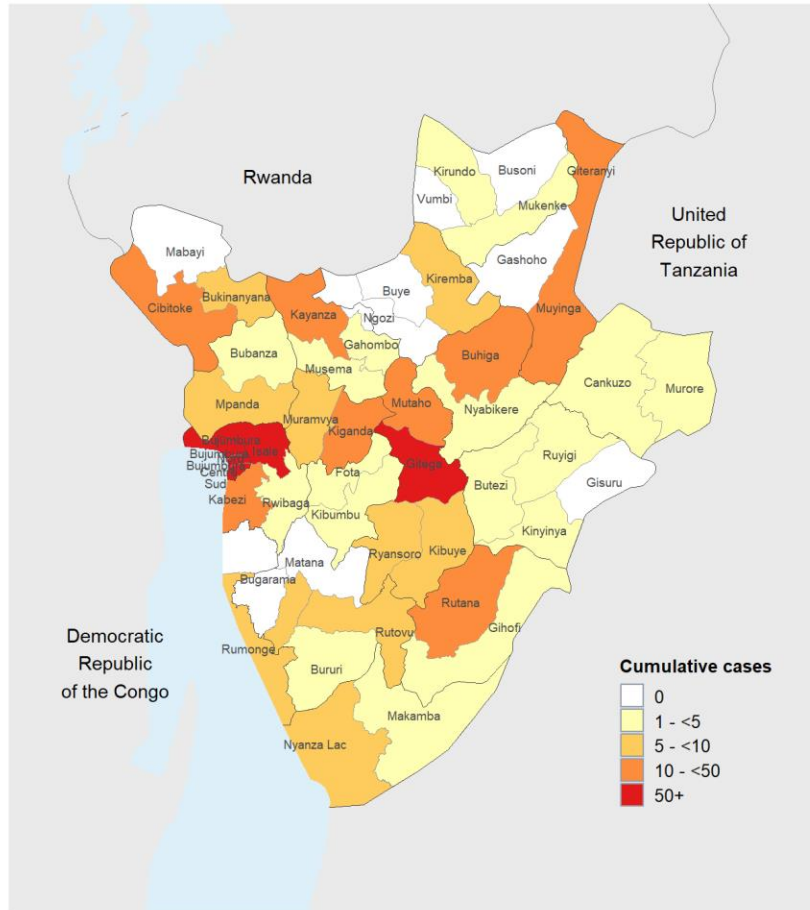


Source: WHO
1,064 cases with age-sex data

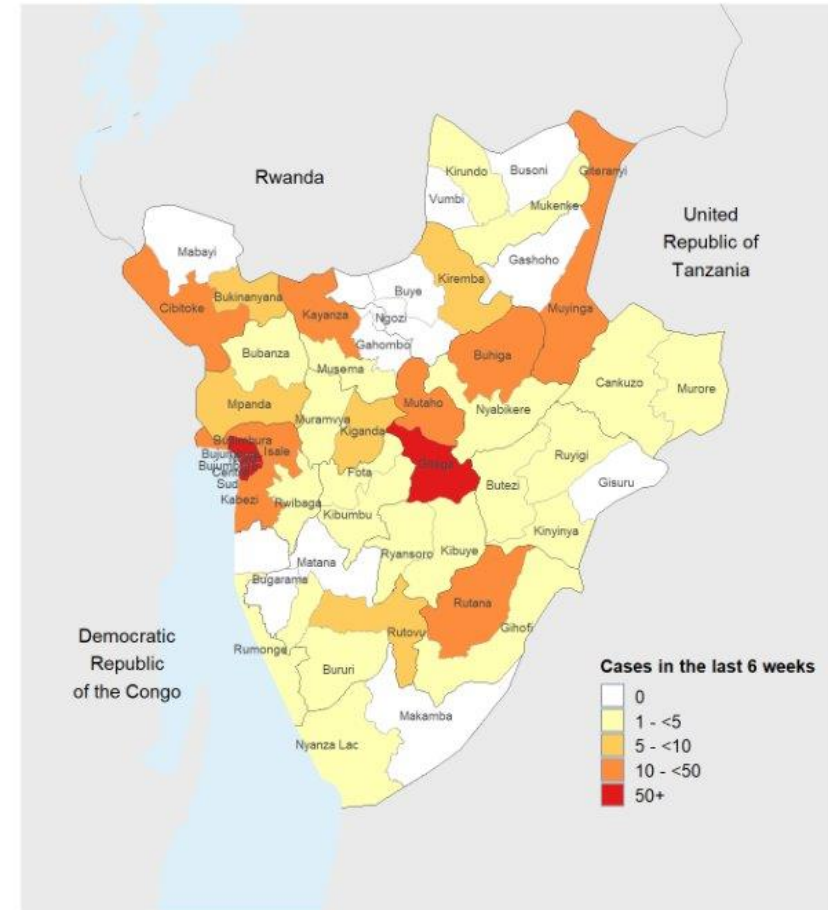
Mpox cases in Burundi

as of 6 October

Cumulative mpox cases as of 06 October 2024



Mpox cases in the last 6 weeks as of 06 October 2024



Current Progress on SPRP

Dr N'da Konan Michel Yao, Director Strategic Health Operations, WHO Health
Emergencies Programme, WHO/HQ mpox Incident Manager

Global and Continental Preparedness and Response Plans

Global SPRP



Africa Continental Plan



WHO Strategic Framework for enhancing mpox prevention and control: <https://www.who.int/publications/i/item/9789240092907>

Global SPRP: <https://www.who.int/publications/m/item/mpox-global-strategic-preparedness-and-response-plan>

Africa continental plan: <https://africacdc.org/download/mpox-continental-preparedness-and-response-plan-for-africa/>

Mpox Global Strategic Preparedness and Response Plan - Updated



RESPONSE STRATEGY

C1 | Strengthened collaborative surveillance and detection

Monitor and share information to improve collective understanding of how an outbreak is evolving, identify specific risk and inform response measures



C2 | Enhanced community protection

Raise awareness and empower communities to adopt protective measures



C3 | Safe and scalable care

Provide safe and quality clinical care for individuals and prevent infections in health settings



C4 | Equitable access to medical countermeasures

Ensure equitable access to effective diagnostics, vaccines and therapeutics for mpox response measures



C5 | Emergency coordination

Strengthen coordination between Member States and partners for public health response appropriate for the local context and risk

OBJECTIVES

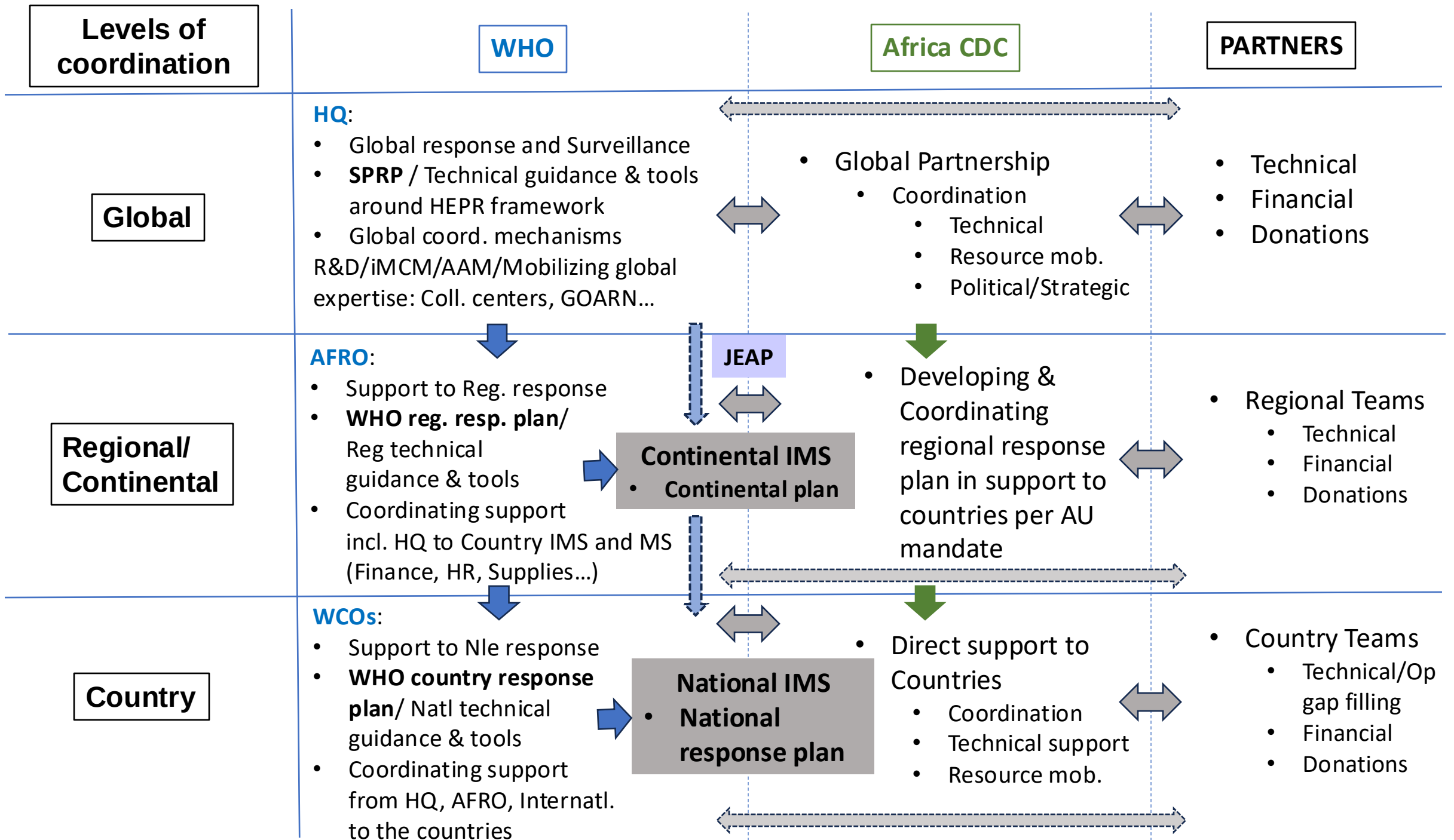
Rapidly Detect And Control Outbreaks

Advance Mpox Research & Access to Countermeasures

Minimize Animal to Human Transmission

GOAL

Stop Outbreaks of Mpox Transmission



Financial Tracking Mechanism (FTM)

- Enhance the transparency of financing needs across different domains, mobilized resources (domestic & international), and associated financing gaps.
- Avoid duplication and help effective targeting of financing needs.
- The FTM will track contributions against the response pillars outlined on the SPRP and CPRP by geographically targeted areas including:
 - ❖ New financial commitments and bilateral assistance
 - ❖ Use of previously committed financing, including reprogrammed finance for projects or contingent financing from donors, IFIs, GHIs and other financing sources
 - ❖ In-kind donations
 - ❖ Innovative financing

Community protection

Critical activities

To ensure community protection, countries should take the following actions:



Set up and use **community listening** mechanisms



Set up and use **community dialogue and engagement** to contextualize and shape response.



Develop and adapt **risk communication products, tools and strategies** tailored to key populations



Gather and use evidence to understand and tackle outbreak dynamics for a data-driven, tailored response



Empower and train **community workers and volunteers** in key response functions, including for **early detection, prompt diagnosis and home based care**



Enable community workers to **protect their physical and mental health**



Identify risk pathways and acceptable ways to prevent of **mpox transmission between animals and humans**



Implement **community IPC** measures and basic **WASH** services



Provide risk-based, context specific advice on **public health and social measures**, monitoring impacts of these measures



Strengthen cross border surveillance, including at **points of entry and during mass gatherings**



Ensure optimal, equitable deployment of **mpox vaccines**

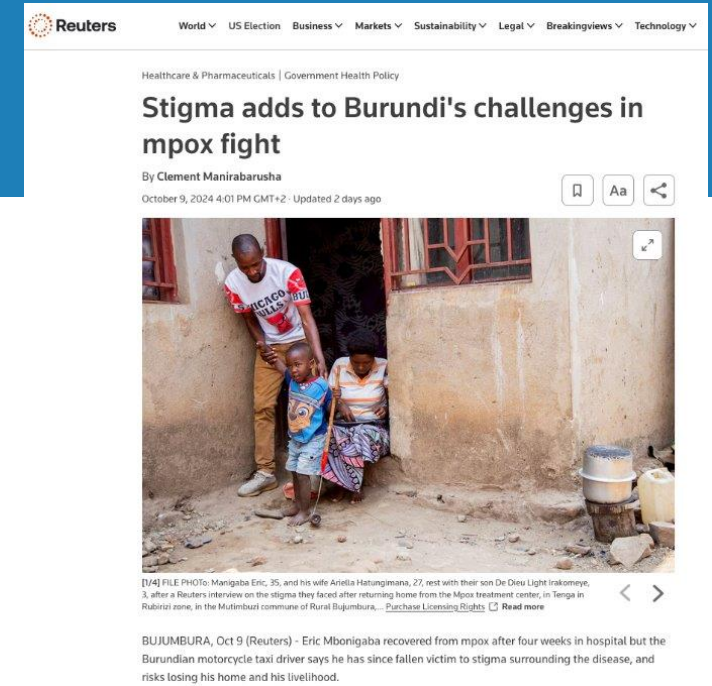


Work in partnership and across multiple sectors to anticipate and counter **social and economic impacts**

Community Protection

Challenges:

- Resources to sustain community-based interventions and prevention efforts.
- Logistical Challenges: Difficulties in reaching remote or high-risk areas due to inadequate infrastructure, supply chain issues, and limited human resources.
- Diverse At-Risk and Vulnerable Populations: Complexity in addressing the needs of different populations
- Stigma and Discrimination: Ongoing fear and prejudice, especially towards marginalized groups, which hinders access to services and discourages reporting.
- Misinformation and Fear: Spread of misinformation and fear around the disease, which affects public perception and trust in health services.
- Low Risk Awareness: Insufficient community knowledge about Mpox transmission, symptoms, and prevention methods.
- Isolating cases of mpox in crowded settings with limited WASH and IPC capacity such as IDP camps



Scalable Care

Achievements:

IPC and WASH

- IPC and WASH mpox Rapid assessment tool for health facilities is in use in several countries
- Guidance for home- based care and isolation in low resource settings is in pipeline for publication
- IPC team lead deployed to DRC
- Additional tools in development include health and care worker exposure risk assessment, IPC for vaccination campaigns
- Webinar on Oct 14 on IPC and WASH in Health facilities and on Oct 29 for IPC and WASH for home based care and isolation in low resource settings
- Revision of guideline (GRADE based) underway to update IPC recommendations

Clinical care

- Clinical team deployed to DRC
- Multiple webinars from HQ and AFRO on patient management, including complicated mpox disease
- Tools for recognition of mpox (screening aide-memoire), and mpox Atlas
- Data tools established to monitor patient outcomes and facility-level capacity in real-time
- MEURI reopened to allow MS to apply for tecovirimat under monitored emergency use protocol (<https://partnersplatform.who.int/>)
- Development of guidelines (GRADE based) underway, and imminent expert meeting to refine measures for "Optimised Standard of Care" (OSOC) in mpox – defining high impact patient interventions

Scalable Care

Challenges:

- Resources to implement IPC and WASH activities (human, financial)
- IPC and WASH in Health facilities scores low indicating inadequate IPC programmes and WASH services in existing health system
- Challenges with PPE availability –overuse/misuse of PPE and supply chain ruptures
- Difficulties of clinical management in high density communities

Risks management

- **PSEAH:** Team deployed, coordinating with partners, and conducting briefings for all stakeholders.
- **Security:** Field deployment of Security Officers and coordination with relevant actors.
- **Financial:** Admin and finance staff positioned close to operations, implementing a risk management framework.

Way forward: Urgent Field Scale-Up for Integrated Interventions in Hotspots

Local Identification of Hotspots based on available information

- Where are the cases originating?
- Who is being affected?
- Analyze both short-term and, if possible, long-term trends.
- How is transmission occurring?
- Which clade is involved?
- Identify knowledge gaps.

Capacity and Service/Interventions Mapping for Gap analysis

- Conduct a W4 analysis of relevant partners by intervention area as per the SPRP
- Map available services and interventions.
- Identify critical gaps in each intervention area within specific geographical regions, focusing on:
 - ✓ Human Resources
 - ✓ Equipment (laboratories, cold chain, treatment centers, etc.) and supplies
 - ✓ Tools & required activities.

W4: Who is doing What, Where, When?

Scale-Up Response Plans

- Establish an effective presence for analytics to guide integrated and targeted interventions, aligned with national and sub-national strategies and plans (including vaccination).
- Allocate tasks to various stakeholders based on comparative advantages and field presence to address identified gaps.
- Coordinate efforts to address gaps in supplies, equipment, and tools.
- Address Staff Incentive Issues Established by the MoH
- Conduct research to fill knowledge gaps and guide local interventions.
- Ensure connections with long-term programs to build capacity.

Access to Countermeasures (iMCM Net, AAM and Vaccination Strategy)

Dr Ana Maria Henao Restrepo, Lead WHO R&D Blueprint for Epidemics, WHO Health Emergencies Programme

Mr Tim Nguyen, Unit Head, EPP, WHO Health Emergencies Programme

A COORDINATED RESEARCH ROADMAP

M P O X V I R U S

Immediate Research Next Steps to Contribute to Control the Outbreak

SEPTEMBER 2024

10 Immediate Next Steps for a Coordinated Mpox Research Roadmap



Obtain additional data on Mpox transmission and epidemiology, including clinical outcomes and risk factors for severe disease.



Define regulatory pathway for “next generation” of medical countermeasures



Evaluate and deploy new rapid and sensitive diagnostic tests (including unbiased tests) that detect all MPXV clades and help differential diagnosis of diseases that can mimic mpox.



Facilitate availability of vaccines in areas with sustained human to human transmission, as part of an integrated response, and promote generation of critical data regarding vaccines safety, effects, and delivery strategies.



Define and implement all elements of optimized clinical standard of care for all MPXV infected patients



Use existing tools to incorporate Good Participatory Practices and community engagement in research including public health research.



Promote the development of new therapeutics and the evaluation of safety and efficacy of prioritized candidate therapeutics for mpox, in coordinated collaborative multicenter trials.



Integrate research into the outbreak response activities.



Conduct research on animal models and use animal models towards the determination of correlates of protection, and support research on immunoassays



Embrace and expand opportunities for coordination and collaboration of all research initiatives with local authorities and research institutions, with researchers from affected countries and the MoH at the centre of the response.

Advancing the mpox research response agenda

VIRTUAL meeting of Principal Investigators of mpox protocols addressing identified research priorities

Tuesday, 8 October 2024 13:00-18:00 (CET)

Epidemiology and genomic sequencing – 21 studies

Lab and diagnostics – 3 studies

Clinical standard of care – 2 studies

Trials therapeutics – 3 studies

Trials vaccines – 7 studies

GCP and community engagement – 1 study and one initiative

Follow –up meetings for thematic areas will follow

Update Mpox vaccine products | Status

Product	LC-16	MVA-BN
EUL / PQ	✗	✓
DRC NRA	✓	✓
18+	✓	✓
12+	✓	✓*
<12	✓	✗
Immuno-compromised	✗	✓
Dose regimen	1	2 (4 wks apart)
Needle	Bifurcated	0.5ml Syringe
Storage	-20 C Long-term 2-8 C Medium-term (2y) Room temp. Short-term (4wks)	-20 C Long-term 2-8 C Short-term (8wks)

Key takeaways

- Both products approved for use in adults by DRC NRA.
- LC-16 only authorized product for children under 12 years.
- MVA-BN recommended for immunocompromised.
- Key risk: ongoing concerns regarding bifurcated needles. e.g., sterilization, HCW training, vial size.

Agree Phased Vaccination Strategy

- **Phase 1 - Stop Outbreaks:** Focuses on interrupting transmission by vaccinating contacts of recent cases and healthcare/frontline workers in areas with active outbreaks. This phase targets those most likely to spread the disease, using fewer vaccine doses to efficiently reduce transmission.
- **Phase 2 - Expand Protection:** Aims to limit further spread by vaccinating high-risk individuals in affected areas, aiming for over 90% coverage. This requires more doses and resources, expanding protection in the community.
- **Phase 3 - Protect for the Future:** Focuses on building population immunity in areas at risk of future outbreaks. It targets all recommended populations, aiming for herd immunity with over 90% coverage. This phase is resource-intensive but effective in reducing transmission.

Vaccination strategy must be implemented as part of a **comprehensive response** that includes

- Enhanced surveillance and case finding
- Community engagement and risk communication
- Contact tracing and public health & social measures
- Community protection and health promotion
- Safe and scalable care

Considerations for clades detected

Clade	Clade 1a	Clade 1b
Endemic/Epidemic	Endemic	Active Outbreak – exponential growth
Urban/Rural	Mainly Rural	Urban & Rural
Provinces affected	Endemic Provinces	Sud & Nord Kivu, Kinshasa + other large cities
Extent of H-H transmission	Limited, not sustained	Sustained
Age group affected	Mostly children	All age groups
Introductions from animal reservoir	Yes	No
Most effective Vaccination Strategy	Phase 1: Targeted vaccination Contribute to reduce the length of outbreaks from zoonotic introductions HCWs/FLWs	Phase 1: Targeted vaccination (contacts of cases) HCWs/FLWs
Constraints	Require vaccine that can be used in children	Require vaccine that can be used in children

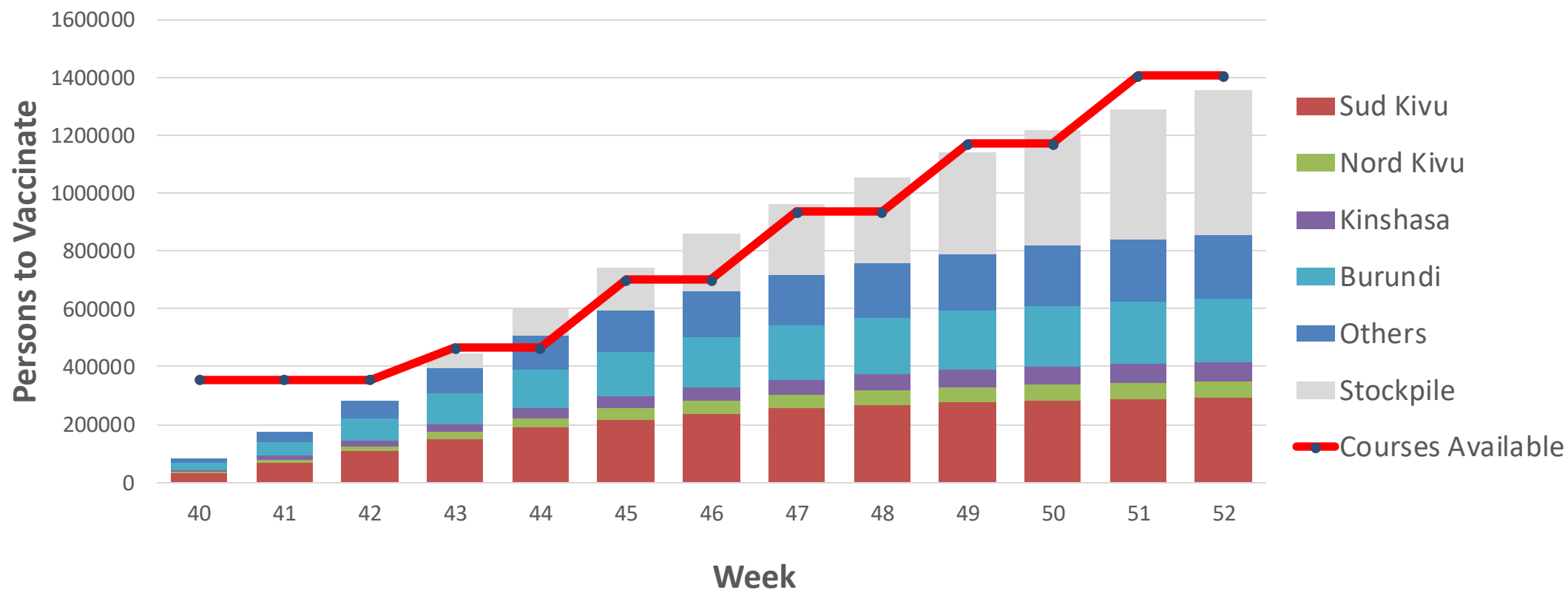
Vaccination Strategy by Phase and Clade

Phase	Clade 1a	Clade 1b	Clade 2
Phase 1 STOP OUTBREAK	Vaccination of contacts Target highest incidence areas HCWs/FLWs	Vaccination of contacts Interrupt human-human transmission HCWs/FLWs	Vaccination of contacts Interrupt human-human transmission HCWs/FLWs
Phase 2 EXPAND PROTECTION	To stop further spread in affected communities, provided additional doses are available. It targets individuals at high risk of severe disease—based on local epidemiology—in affected areas.		
Phase 3 PROTECT FOR FUTURE	Build population immunity increasing population immunity in areas at risk of outbreak expansion or future outbreaks		

People to vaccinate by Phase and Clade

Phase	Clade 1a	Clade 1b	Clade 2
Phase 1 STOP OUTBREAK	~15,000 people Contacts in current 1a areas + HCWs/FLWs	~1.3 million people ~850,000 contacts + HCWs/FLWs (650k in DRC) + 500,000 stockpile	~2000 contacts +~5000 HCWs/FLWs Contacts of approx. 90 cases + HCWs/FLWs
Phase 2 EXPAND PROTECTION Depends on doses available	~8.9 million people Highest incidence at lowest area level	~1 million people (IDPs+refugees)	
Phase 3 PROTECT FOR FUTURE	Demand planning as part of transition to mpox control programme		

Projected Weekly Vaccine Supply and Demand for Clade 1b in Phase 1 to end 2024

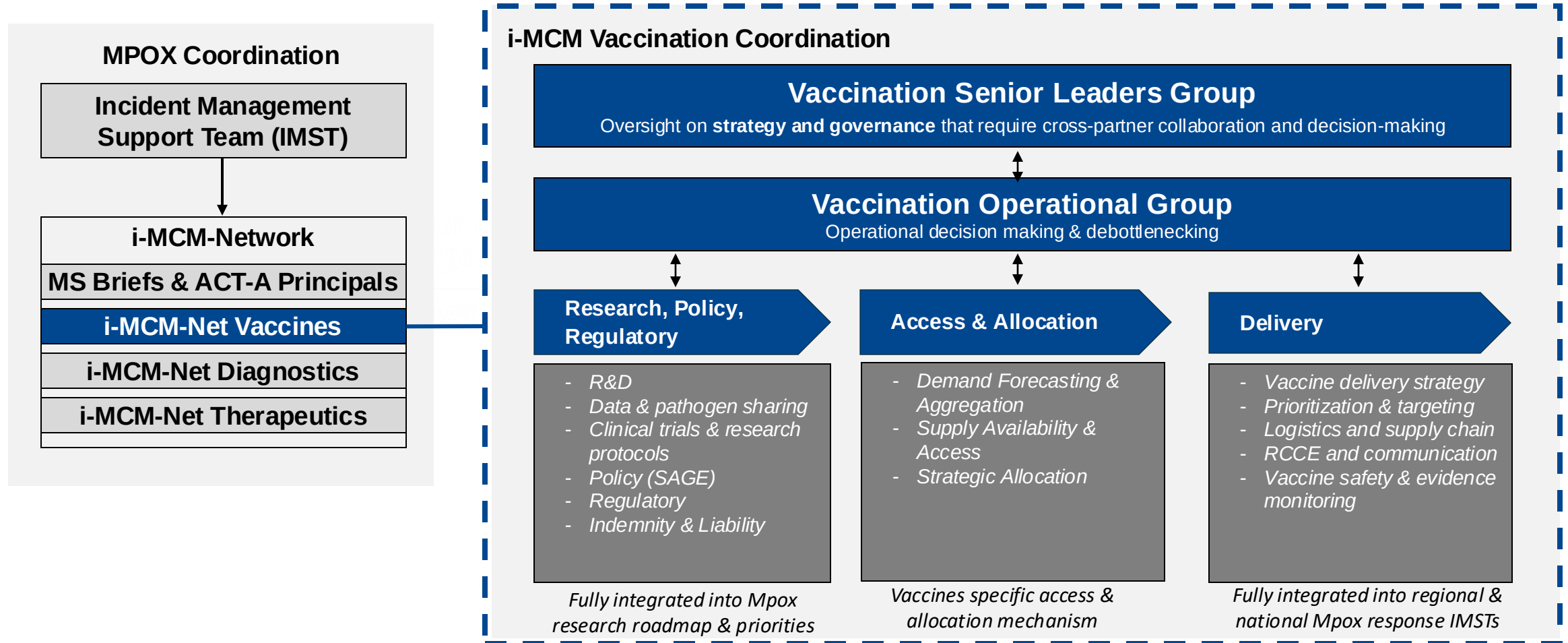


Children- how to protect a population at high risk of infection?

Potential options

Expanded Access under protocol with data collection	NRA and ERC in country authorizes off label use and protocol Country assumes liability	WHO can consider using insurance to cover liability
		Other entity offers insurance
No fault compensation mechanism	By global community	Takes time even if COVID model is used (probably months)
	By Africa CDC	
	By others	

AAM Coordination Structure for Mpox Vaccines



Vaccine Supply Availability (estimation)

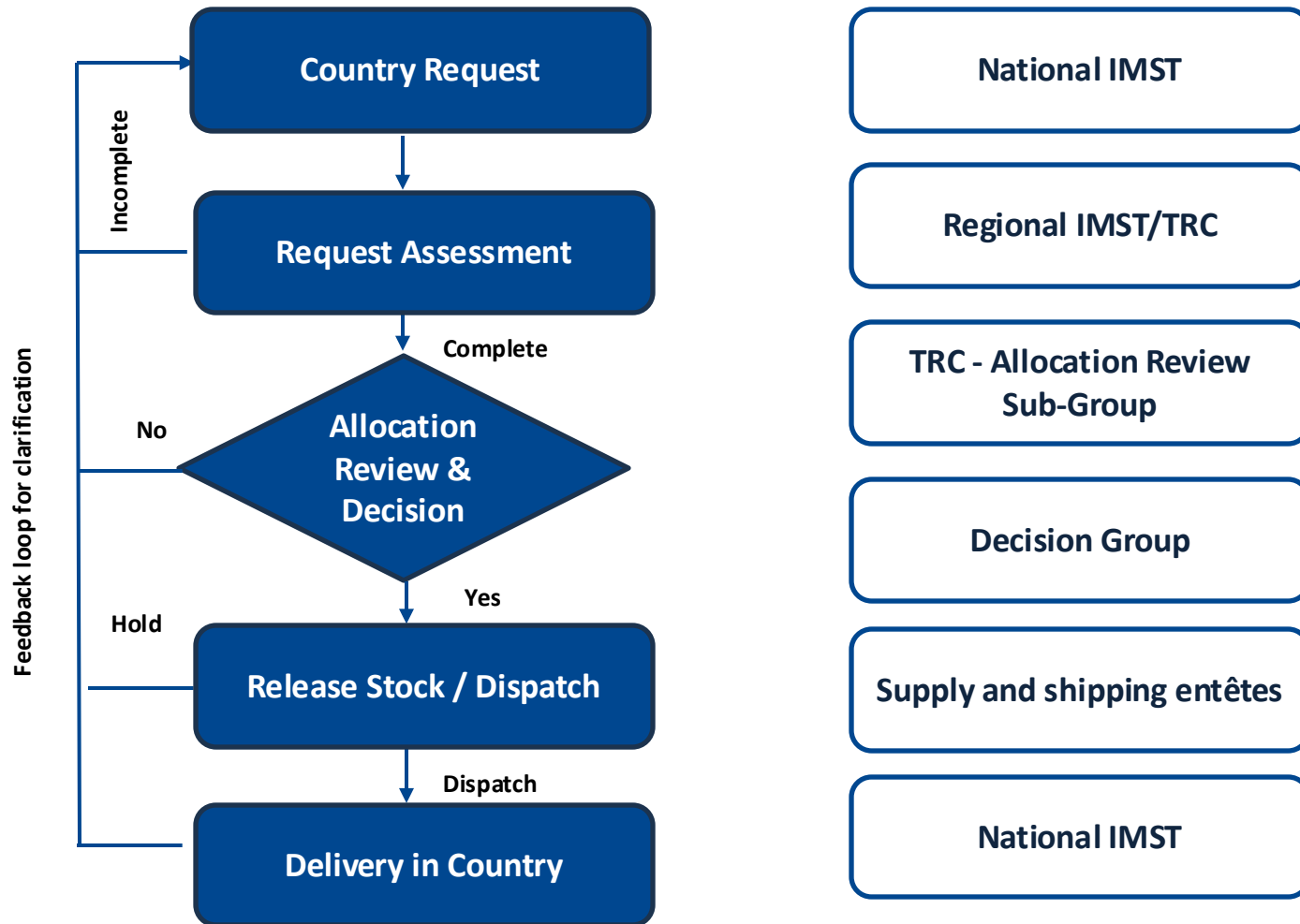
Allocation source	Delivered	Readily available supply global level week of 30 September	Future availability (Oct-Jan)	Total doses
Mpox Access & Allocation Mechanism		≈ 657k doses of (BN)	≈1,967k doses of (BN)	≈2,564k (BN)
Bi-/trilateral agreement	≈ 275k doses of (BN) • USA to Nigeria: 10k • USA to DRC: 50k • Gavi/BN to DRC: 15k • HERA to DRC: 200k	≈ 15k HERA (BN) – 5.4k in process for Rwanda	• Japan to DRC 3 million (LC16)* (Nov/Dec?)	• ≈ 290k (BN) – 275k delivered (BN) • 3 million LC16

- 5.4k MVA-BN doses allocated to Rwanda, expected to be shipped next week
- ≈ **667k MVA-BN doses readily available in October** requiring allocation (125k from BN, 300k US, first batch of 10k France, 100k Spain, 100k Germany, 20k Belgium, 2.3k Portugal, 10k HERA-BN)

Total Available: ≈ 5.85 million

* Donor agreement yet not signed ≈ amount rounded and estimated

Process for mpox vaccines strategic allocation



National Mpox IMST submits a request for mpox vaccines and includes a national vaccination and deployment plan (NDVP).

The regional IMST validates the request based on NDVP and ensures all required evidence and documentation is complete supported by the independent Technical Review Committee (TRC)

The Allocation Review Group reviews the requests and supply proposal, applying the vaccination criteria and recommends allocation

Decision-makers sign off on proposed recommendation

Procuring/donating entity and shipping entities are informed and the shipment of the vaccine and, as needed, ancillaries. are organized

Vaccination starts in-line with agreed vaccination and deployment plans

THANK YOU

Q&A