Mpox

Multi-country external situation report no. 44, published 23 December 2024

KEY FIGURES				
Reporting period: 01 January 2022 – 30 November 2024				
Area	**Number of reported confirmed cases**	**Number of deaths among confirmed cases**	**Number countries reporting cases**	
Global	**117 663**	**263**	**127**	
Reporting period: 01 January – 15 December 2024				
Area	**Number of reported confirmed cases**	**Number of deaths among confirmed cases**	**Number of reported suspected cases**	**Number of deaths among suspected cases**
Africa	**13 769**	**60**	**NA[1]**	**NA[1]**
Democratic Republic of the Congo[2,3]	**9 513**	**43**	**43 862**	**1138**
Burundi	**2 650**	**1**	**NA[1]**	**NA[1]**
Uganda	**1 027**	**6**	**NA[1]**	**NA[1]**
Reporting period: last 6 weeks, 4 November – 15 December 2024				
Africa	**1 904**	**7**	**NA[1]**	**NA[1]**
Democratic Republic of the Congo[2,3]	**137**	**0**	**3 046**	**38**
Burundi	**924**	**1**	**NA[1]**	**NA[1]**
Uganda	**681**	**5**	**NA[1]**	**NA[1]**

Highlights

- In November 2024, the last month for which of complete global surveillance global data are available, 2726 new confirmed mpox cases were reported.
- Outside Africa, a high number of confirmed cases continued to be reported from Australia in November 2024. The country has been experiencing an unprecedented outbreak of clade IIb MPXV, affecting mainly men who have sex with men exposed primarily through sexual contact. In recent months though, there have been early indications of a plateau in monthly reported cases.
- The epidemiological situation in Africa remains especially concerning, and the high case counts continue to be driven by the outbreaks in the Democratic Republic of the Congo, Burundi, and Uganda.
- Clade Ib monkeypox virus (MPXV) has been detected in eight provinces in the Democratic Republic of the Congo: South Kivu, North Kivu, Kinshasa, Kasai, Tshopo, Tanganyika. Haut-Katanga, and Mai'Ndombe. This represents an increase of two provinces (Haut-Katanga and Mai'Ndombe) since the previous edition of this situation report.
- Geographical expansion of clade Ib MPXV continues to be reported outside the Democratic Republic of the Congo, with Pakistan reporting its first recorded case of mpox due to clade Ib MPXV.
- In addition to this, the Sultanate of Oman has reported its first recorded case of mpox due to clade I MPXV. Information on the MPXV subclade is not yet available.

[1] The vast majority (>95%) of suspected mpox cases in all countries in Africa except the Democratic Republic of the Congo are tested, so only confirmed cases are reported.
[2] In some countries, suspected cases that undergo testing are not removed from the overall count of suspected cases, regardless of whether the test result is positive (confirmed case).
[3] For this edition, the national-level case counts for suspected and confirmed cases reported in the Democratic Republic of the Congo are as at **17 November 2024**. Efforts to update these data are ongoing.

In this edition:

Updated global rapid risk assessment

WHO conducted the latest global mpox rapid risk assessment in November 2024. Based on information available at the time, the risk of geographical spread and potential impact on health of mpox were assessed as follows:

Table 1: Overall public health risk and risk of national and international spread, by MPXV clade, as assessed by WHO.

Risks groups*	Overall Public Health Risk	Risk of national and international spread	Confidence in the available information
Clade Ib MPXV **Mostly affecting non-endemic areas for mpox in the Democratic Republic of the Congo and neighbouring countries,** where mpox is spreading mainly through human-to-human close physical contact, including sexual contact. International spread is predominantly linked to sexual contact.	**High**	**High**	**Moderate**
Clade Ia MPXV **Mostly affecting mpox-endemic[4] areas in the Democratic Republic of the Congo,** with sporadic cases reported in other Central and East African countries, where mpox is linked to zoonotic spillover events, as well as human-to-human transmission mainly through close physical contact, including sexual contact.	**High**	**Moderate****	**Moderate**
Clade II MPXV (historically endemic areas) **Nigeria and countries of West and Central Africa where mpox is endemic**, affecting children and adults, and is linked to zoonotic spillover events, as well as human-to-human transmission mainly through close physical contact, including sexual contact.	**Moderate**	**Moderate**	**Moderate**
Clade IIb MPXV*** **Global risk**, where outbreaks predominantly affect adult men who have sex with men and spread predominantly through sexual contact.	**Moderate**	**Moderate**	**Moderate**

** All mpox outbreaks must be considered in their local context for in-depth understanding of epidemiology, modes of transmission, risk factors for severe disease, viral origins and evolution, and relevance of strategies and countermeasures for prevention and control.*

*** The situation in Kinshasa warrants specific focus and is linked to a higher risk of spread.*

**** This group represents a very broad geographical area, with countries and regions that have very diverse health systems and response capacities, and, in selected countries or regional blocs in this group, the risk may vary and/or be assessed as low.*

Individual-level risk is largely dependent on individual factors such as exposure risk and immune status, regardless of geographic area, epidemiological context, biological sex, gender identity or sexual orientation.

[4] In the Democratic Republic of the Congo, an endemic area is considered to be one which has reported mpox cases for at least five consecutive years

Contextual description

This report provides an update on:

- The global mpox epidemiological situation, as of **30 November 2024.** Global surveillance data collection is done monthly, and November is the last month for which complete data are available.
- The epidemiological situation for mpox in Africa (including countries in the WHO African Region and some in the WHO Eastern Mediterranean Region), with data as of **15 December 2024**.

The latest mpox updates can also be found in the WHO mpox surveillance report.

The epidemiological content of the report is based on information from global mpox indicator-based surveillance set up in 2022. This surveillance system mainly collects data on confirmed and probable mpox cases and deaths reported by Member States (MS) to WHO or reported publicly through official MS resources (webpages, surveillance dashboards, as well as epidemiological and situation reports). Given limited access to Polymerase Chain Reaction (PCR) testing of suspected mpox cases in some settings, particularly in the Democratic Republic of the Congo, WHO has also been reporting suspected (clinically compatible) mpox cases which meet the country's national clinical case definition for mpox since the declaration of the public health emergency of international concern (PHEIC) on 14 August 2024.

The indicator of suspected cases should nevertheless be interpreted with care, as suspected cases that undergo testing are not removed from the overall count of suspected cases. In the absence of more detailed information, it is currently not possible to correctly subtract confirmed cases from the total number of suspected cases reported; therefore, the confirmed cases represent a subset of suspected cases. The case definition of suspected mpox cases for the Democratic Republic of the Congo can be found here.

The summary table at the top of the document, therefore, includes reported suspected cases only for the Democratic Republic of the Congo. Furthermore, the rest of the document only refers to suspected cases when describing the trend for the Democratic Republic of the Congo, the country with the highest number of reported suspected cases, many of which never get tested.

For reference purposes, a summary of the previous WHO global mpox rapid risk assessment conducted in August 2024 can be found in Annex 1.

Epidemiological update [5, 6]

Global monkeypox virus (MPXV) distribution

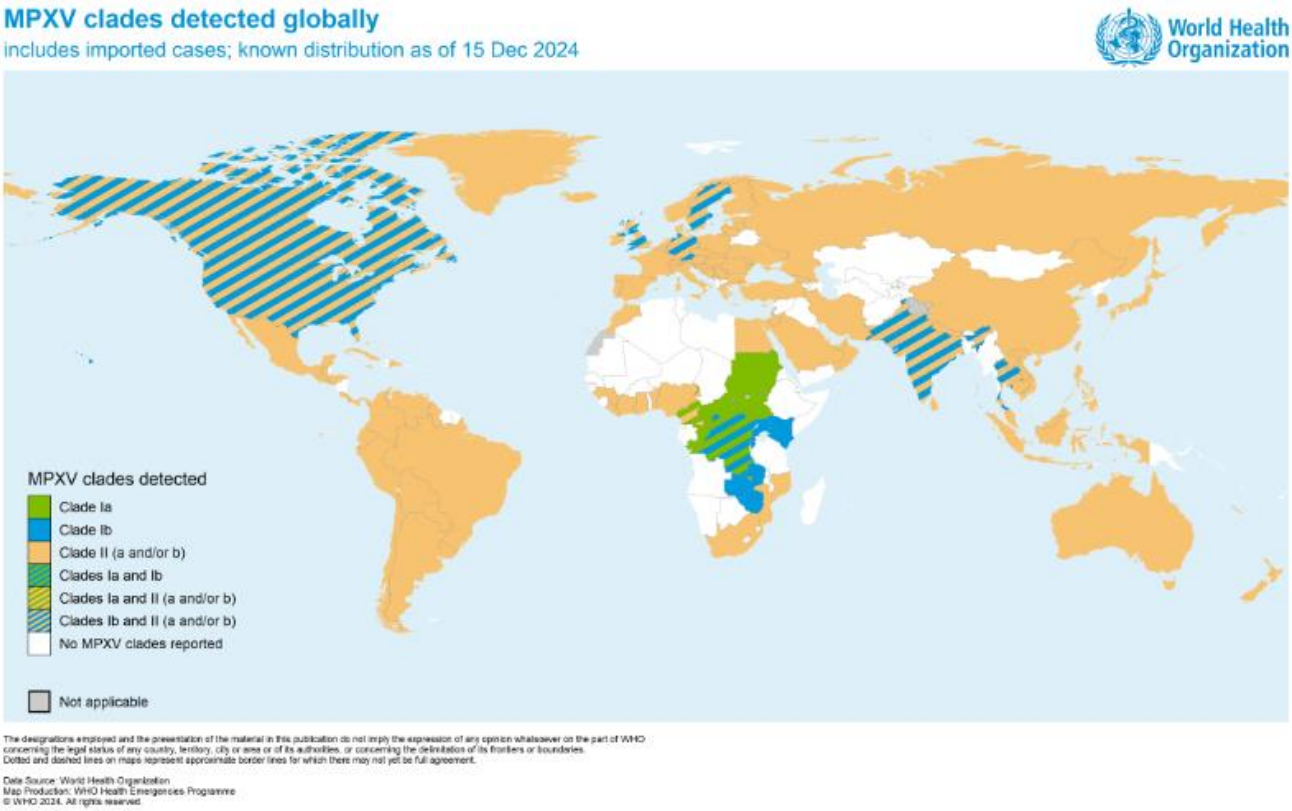
As of 15 December 2024, the distribution of reported MPXV clades by country of detection is as shown in Figure 1. This information is compiled from sequencing conducted and shared via different sources, including open-access databases, peer-reviewed publications, reports, as well as direct communication to WHO, including through its Technical Advisory Group on Virus Evolution (TAG-VE).

To date, eight countries outside of Africa have detected clade Ib MPXV. Sweden, Thailand, Germany, the United States of America and Canada have each detected a single case among travellers from affected countries in East and Central Africa. The United Kingdom of Great Britain and Northern Ireland has detected five cases: two cases among travellers from affected countries in East Africa and three household contacts of one of these travellers. India and Pakistan have each detected a single case among travellers from the United Arab Emirates. No case of mpox due to clade Ib MPXV has been reported by the United Arab Emirates so far. Media reports of further cases in some of these countries are under verification.

In Africa, countries in the west, north and south have reported clade II MPXV, countries in central and eastern Africa have reported clade I MPXV, and Cameroon has reported both clades – clade I MPXV in the eastern part of the country and clade II MPXV in the west.

To date, in Africa, clade Ib MPXV has been detected in the Democratic Republic of the Congo (in South Kivu, North Kivu, Kinshasa, Kasai, Tshopo, Tanganyika, Haut-Katanga, and Mai'Ndonbe provinces), as well as in Burundi, Kenya, Rwanda, Uganda, Zambia, and Zimbabwe.

Figure 1. Geographic distribution of MPXV clades reported to WHO, by country, as of 15 December 2024.



[5] On the African continent there are 47 Member States in the WHO African Region and seven in the Eastern Mediterranean Region.

[6] Slight discrepancies in epidemiological data are expected between this report and the WHO Africa Regional Office, Regional Mpox Bulletin due to different reporting dates. The Regional Mpox Bulletin is available in the following link: Mpox (monkeypox) | WHO | Regional Office for Africa

Overview of mpox outbreaks by virus clade

This section provides an overview of the major mpox outbreaks by MPXV subclade. It is not intended to be an exhaustive list of outbreaks in all settings; rather, it highlights the main characteristics of some outbreaks and the affected populations. Although there is no documented difference in inherent transmissibility of the different MPXV strains, they are affecting different populations in different settings, resulting in distinct outbreak dynamics.

Clade Ia MPXV

Clade Ia MPXV is found primarily in the Democratic Republic of the Congo, where it affects endemic provinces and has increasingly been found in newly affected provinces in recent years, including Kinshasa Province, as well as in the neighbouring Central African Republic, with some cases also reported in the Republic of Congo this year. Cases in the Democratic Republic of the Congo and the Central African Republic involve a higher proportion of children among cases, while in the Republic of Congo, the majority of cases is among adults.

Previously, genomic sequencing analysis had indicated that clade Ia MPXV typically emerged in human populations through zoonotic exposure. Epidemiological data and phylogenetic analysis still suggest that many outbreaks of mpox due to clade Ia MPXV are the result of zoonotic spillover with secondary human-to-human transmission. However, there is emerging evidence that there is increasing sustained human-to-human transmission of clade Ia MPXV in sexual networks in Kinshasa following importation from endemic parts of the country. This may reflect sexual transmission in other provinces, for which evidence was first documented in a cluster of cases in mid-2023.

Clade Ib MPXV

Clade Ib MPXV is predominantly spreading in the eastern provinces of the Democratic of the Congo, and neighbouring countries, with community transmission reported in Burundi and Uganda, clusters of cases reported in Kenya and Rwanda, and travel-related cases in Zambia and Zimbabwe. No human case has been substantively linked to a suspected animal exposure for this clade yet, and current genomic sequencing data suggest that it is transmitted only through close human-to-human physical contact. In the Democratic Republic of the Congo, it has been found in eight provinces: South Kivu, North Kivu, Kinshasa, Kasai, Tshopo, Tanganyika, Haut-Katanga and Mai'Ndombe, and it is the fastest expanding MPXV strain. Community transmission of clade Ib MPXV is ongoing in Burundi and Uganda, where it is the only strain reported and smaller clusters have also been reported in Kenya and Rwanda, while Zambia and Zimbabwe have reported travel-related cases. Imported travel-related cases have also been detected in at least eight countries outside of Africa. In chronological order, these include Sweden, Thailand, India, Germany, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Canada, and Pakistan.

The spread of clade Ib MPXV to new areas seems to occur mostly through transmission among young adults via close physical contact, often sexual contact. Where initial clusters expand and as the outbreak progresses, transmission patterns appear to evolve, with more spread within households and communities through close direct physical contact, leading to a progressive shift in age and sex distribution, with a rising proportion of cases among children.

The multi-country outbreak of mpox driven by clade IIb MPXV that began in 2022 showed that sexual contact can sustain community transmission of MPXV. Likewise, subclades Ia and Ib have also spread through sexual contact; much remains to be understood about transmissibility and sustainability of transmission through non-sexual direct physical contact. In settings where transmission persists, it is likely driven by a combination of sexual, household, and community contact.

Clade IIa MPXV

In 2024, Côte d'Ivoire, Guinea, and Liberia have reported clade IIa MPXV. Recent epidemiological information suggests that Côte d'Ivoire and Liberia are experiencing sustained community transmission of this strain, with cases dispersed over a wide geographical area in these countries. This is a concerning new phenomenon as human-to-human transmission of clade IIa MPXV had not been reported before 2024. Furthermore, co-circulation of clade IIa and clade IIb MPXV has been reported for the first time, in both Côte d'Ivoire and Liberia.

Cases have been reported in adults and children, with many lacking a known epidemiological link, suggesting ongoing, largely undetected community transmission. The modes of transmission are not fully understood and clade IIa MPXV remains the least described MPXV strain in scientific literature. While there is no documented evidence of sexual contact transmission for this strain, it is likely that all forms of close contact contribute to its spread, being documented for the first time in 2024.

Clade IIb MPXV

Most mpox outbreaks in other parts of West, North and Southern Africa, and other parts of the world, are due to clade IIb MPXV, a continuation of the multi-country outbreak that began in 2022. Most regions report circulation of clade IIb lineage B.1, though lineage A.1 is also circulating in some countries in the Eastern Mediterranean Region. The most affected population outside of Africa continues to be men who have sex with men, primarily exposed through sexual contact. In instances where others have been affected, such as women and children, it has not led to sustained transmission, unlike what is being observed for clade I MPXV in the African context. Australia has seen an unprecedented rising trend in cases in recent months, with 1352 confirmed cases reported to WHO in 2024 as of 30 November 2024.

Global trends

This section is a monthly update of the global epidemiological situation, based on the most recent complete information from the mpox global surveillance system, **as of the end of November 2024**. Further details on global trends can be found on the online WHO dashboard.

From 1 January 2022 through 30 November 2024, a total of 117 663 confirmed cases of mpox, including 263 deaths, were reported to WHO from 127 countries/territories/areas (hereafter 'countries') in all six WHO Regions (Table 2). The global Case Fatality Ratio (CFR) among confirmed cases in this period is 0.2%.

A total of 2726 new confirmed cases were reported in November 2024, an 13.2% decline from the preceding month. Most cases in November 2024 were reported from the African Region (71.2%), followed by the Western Pacific Region (10.8%) and the European Region (10.2%). The European Region reported the highest monthly rise in cases in November 2024, compared to October, at 21%, followed by the African Region at 0.3%. The Eastern Mediterranean Region, the Region of the Americas, the South-East Asian Region, and the Western Pacific Region reported declines in cases in November, at 67%, 65%, 46% and 22% respectively.

Table 2. Number of cumulative confirmed mpox cases and deaths reported to WHO, by WHO Region, from 1 January 2022 through 30 November 2024

WHO Region	Total confirmed cases	Total deaths among confirmed cases	New cases reported in October 2024	New cases reported in November 2024	Monthly change in cases (%)
Region of the Americas	66 806	151	586	206	-65.0
European Region	28 682	9	229	277	21.0
African Region	15 267	77	1935	1941	0.3
Western Pacific Region	5039	12	375	294	-22.0
South-East Asia Region	991	11	13	7	-46.0
Eastern Mediterranean Region	878	3	3	1	-67.0
Total	117 663	263	3141	2726	-13.2

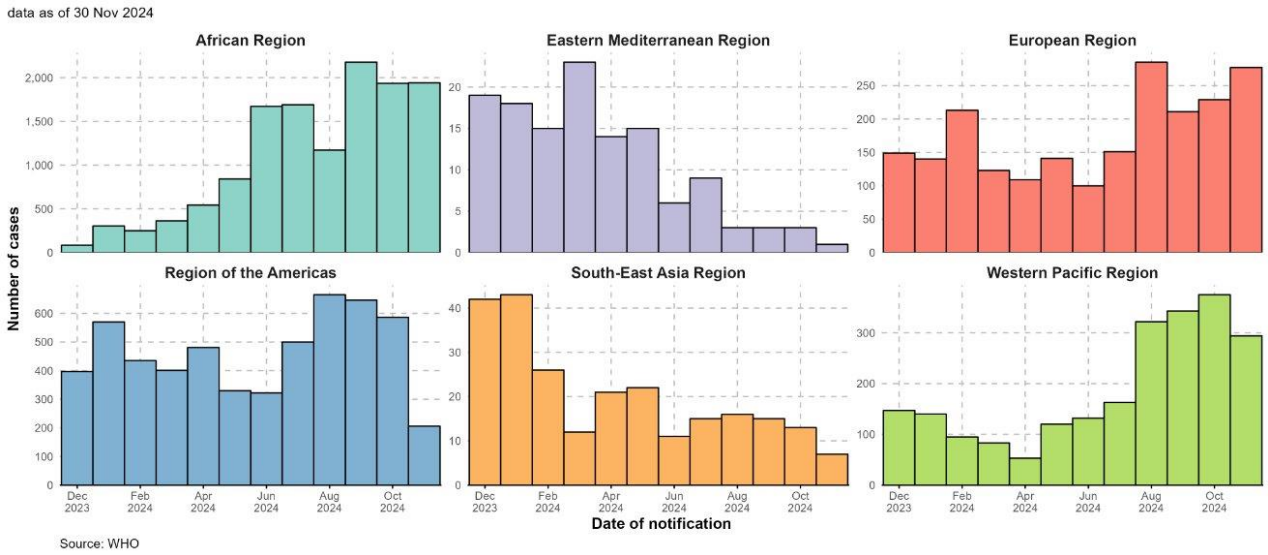
Figure 2 shows that over the past 12 months (1 December 2023 – 30 November 2024), the number of confirmed mpox cases reported monthly in the WHO African Region has been steadily increasing[7], while the Eastern Mediterranean and Southeast-Asia Regions have seen a declining number of cases. In the Americas the trend has remained relatively stable, with a drop in cases in November 2024. The European and Western Pacific Regions observed a decreasing trend in the first half of 2024, but from May to November 2024, the number of mpox cases has been on an increasing trend, with early indications of a plateau in cases in recent months for the Western Pacific.

In the last 12 months an average of 1940 confirmed mpox cases per month has been reported. Most of them were reported by the African Region, followed by the Region of the Americas, and the Western Pacific.

Outside Africa, the highest number of confirmed cases in November 2024 was reported by Australia. The country has been experiencing a growing outbreak of clade IIb MPXV, affecting mainly men who have sex with men infected through sexual contact. However, there have been early indications of a plateau in the monthly number of reported cases in recent months.

[7] Please note that apparent early indications of a plateau in cases in Africa should be interpreted with caution, given incomplete reporting of cases in the Democratic Republic of the Congo for November 2024 as previously indicated

Figure 2. Epidemic curves of monthly aggregated number of confirmed mpox cases reported to WHO, by WHO region, 1 December 2023 – 30 November 2024.

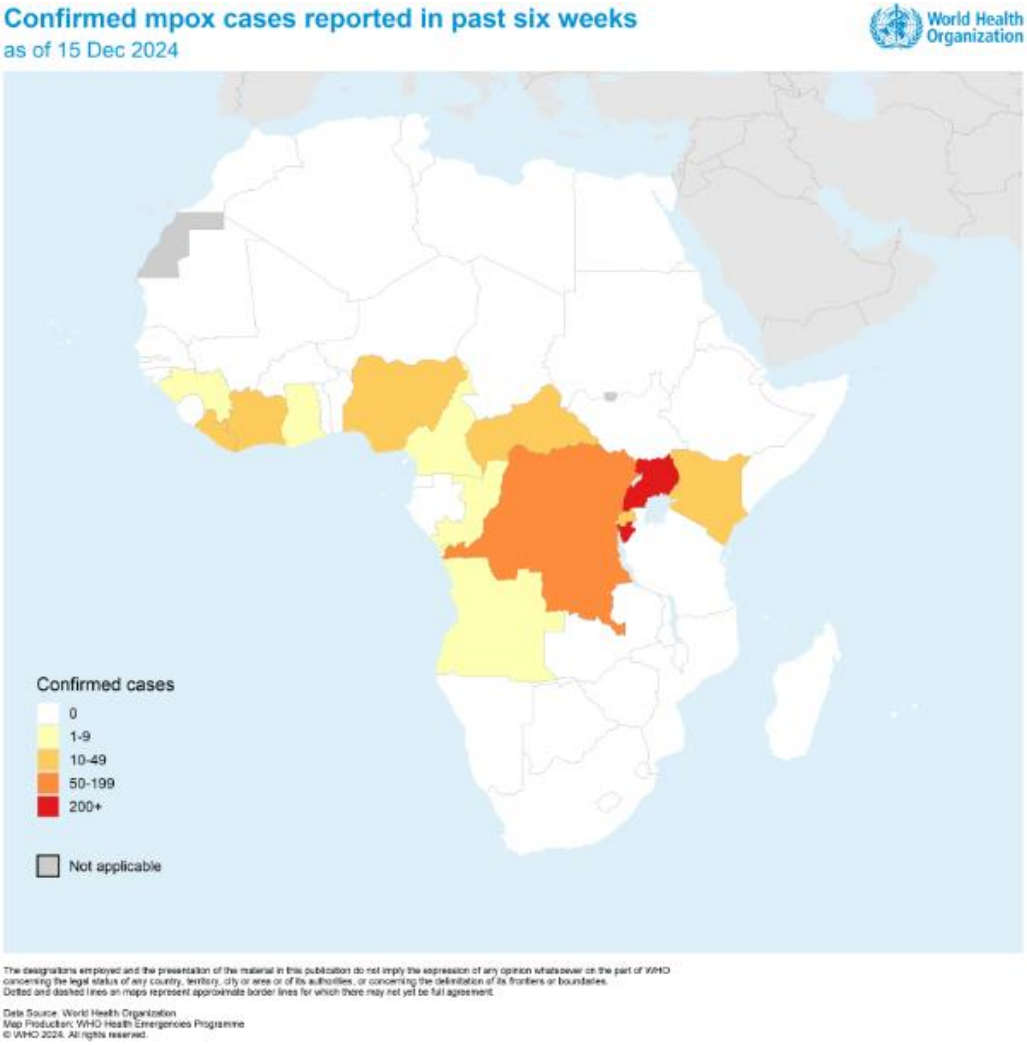


Please note the different Y axis of the regional epidemic curves, in order to allow a better overview of the trend in each region.

Confirmed cases reported in Africa

In Africa, as of 15 December, 13 769 confirmed cases, including 60 deaths (CFR : 0.4%), have been reported by 20 countries in 2024. The most affected country continues to be the Democratic Republic of the Congo (9513 confirmed cases, including 43 deaths)[8], followed by Burundi (2650 confirmed cases, including one death) and Uganda (1027 confirmed cases, including six deaths). Fourteen countries in Africa have reported mpox cases in the last six weeks (two maximum incubation periods of 21 days) and are considered to have active, ongoing outbreaks (Figure 3). Six countries, Gabon, Mauritius, Morocco, South Africa, Zambia and Zimbabwe, have not reported confirmed cases in the last six weeks and could be considered to have transitioned into the control phase of their mpox outbreak, as defined in the Strategic framework for enhancing prevention and control of mpox 2024-2027, if surveillance is deemed to be adequate.

Figure 3. Geographic distribution of reported confirmed mpox cases in Africa, by country, in the last six weeks (4 November 2024 – 15 December 2024).



Focus on the Democratic Republic of the Congo (clade Ia & Ib MPXV)

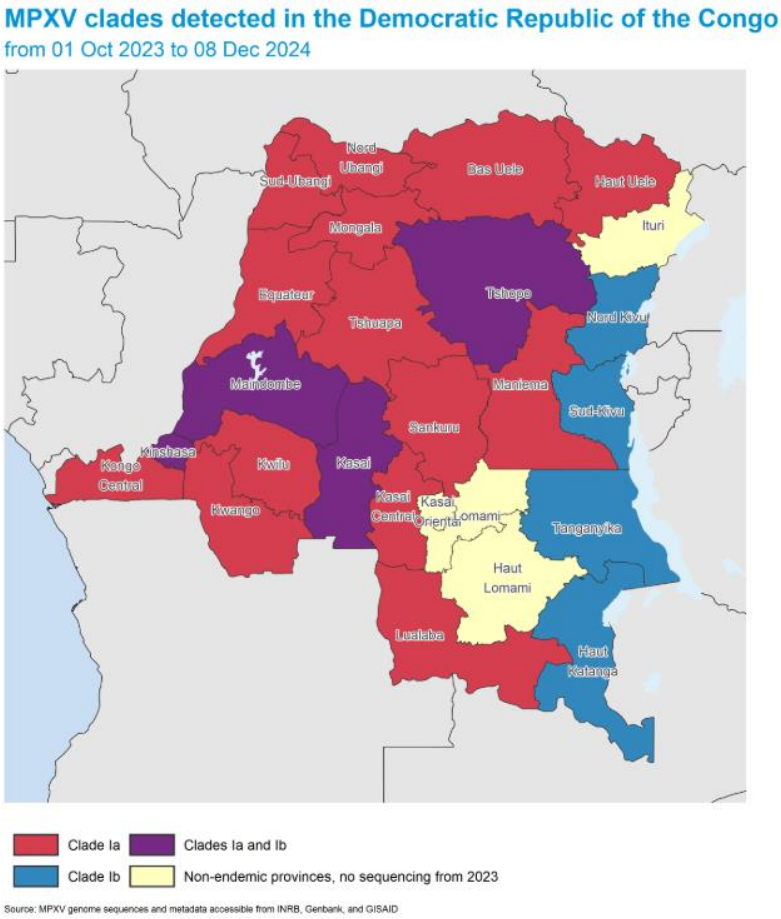
Mpox outbreaks in the Democratic Republic of the Congo are driven by both clade Ia and Ib MPXV strains, which have been detected in different provinces of the country (Figure 4). So far, clade Ib MPXV has been detected in South Kivu, North Kivu, Kinshasa, Kasai, Tshopo, Tanganyika, Haut-Katanga, and Mai'Ndombe provinces. Most of the other provinces have only reported clade Ia MPXV so far, and a few have not yet sequenced the MPXV genome from clinical samples. In 2024, around 10% of MPXV PCR-positive samples in the country have been sequenced, in line with the country's testing strategy, but these are not equally distributed across the different affected provinces. Places with better capacity to transport specimens to the national laboratory are more likely to have samples sequenced than those with more limited

[8] For this edition, the national-level case counts for suspected and confirmed cases reported in the Democratic Republic of the Congo are as at **17 November 2024**. Efforts to update these data are ongoing.

access to the national lab, therefore, the virus clade distribution could be broader and more nuanced than is presented in Figure 4.

Sequencing data of the Kinshasa outbreak has revealed evidence for increasingly sustained human-to-human transmission of subclade Ia. Recent data suggest that as of July 2024, MPXV in Kinshasa has undergone an epidemiological shift with sustained human-to-human transmission and co-circulation of two distinct subclades. Additionally, high rates of APOBEC3-driven changes further support this shift towards human-to-human transmission.

Figure 4. Geographic distribution of clade I MPXV in the Democratic Republic of the Congo, by province, from 1 October 2023 to 8 December [9] 2024



An analysis of the epidemic trend of suspected mpox cases in the 12 most affected provinces of the Democratic Republic of the Congo suggests relatively stable epidemic trends in recent weeks in many of these provinces (Figure 5).

Among the provinces reporting in which only clade Ib MPXV has been detected, South Kivu continues to account for most suspected cases in the country, with more than 800 suspected cases in the last week with available data. In North Kivu, the other province in Figure 5 in which only clade Ib MPXV has been detected, the initial increasing trend observed in August and early September 2024 appears to have plateaued.

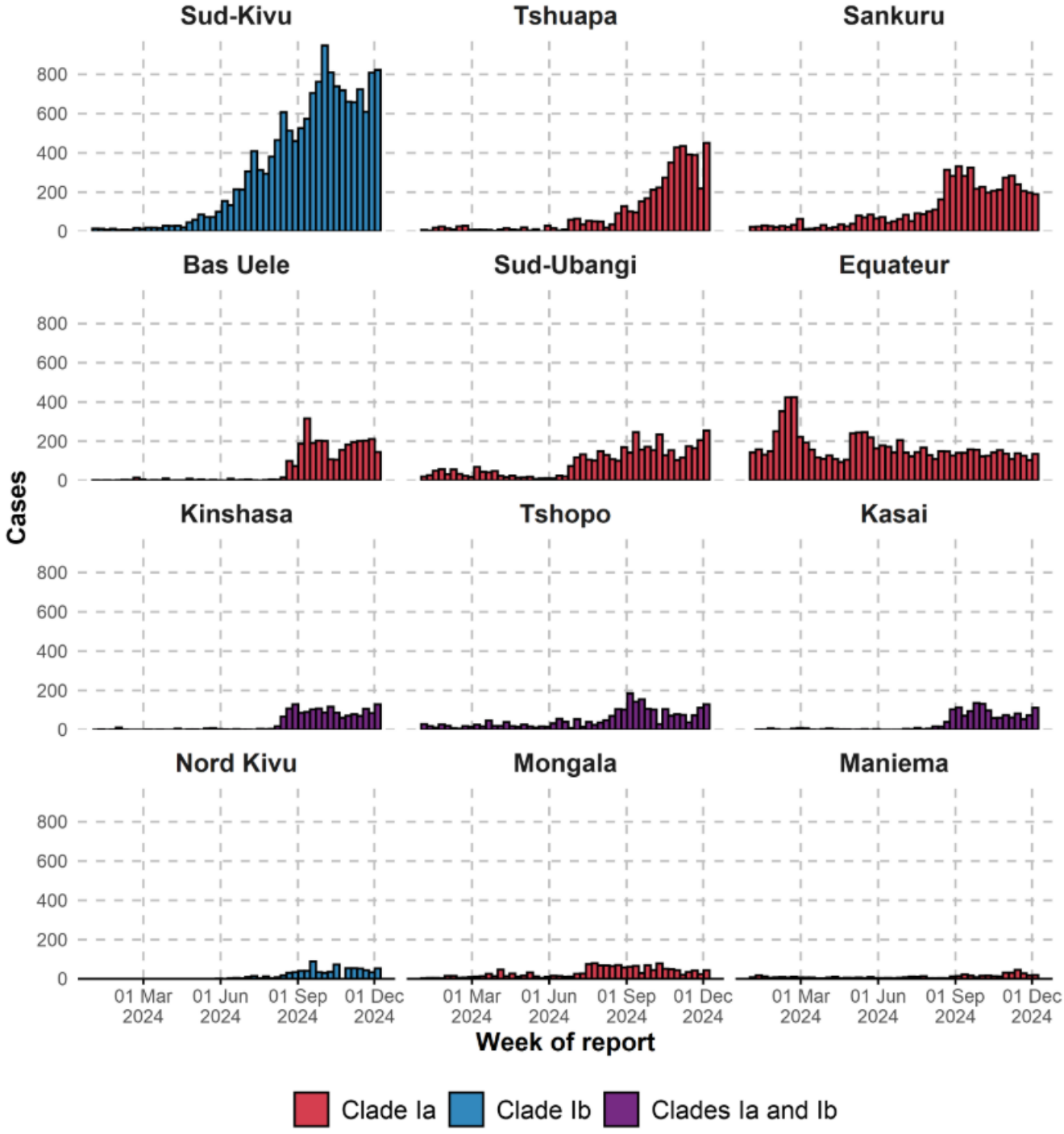
Among the provinces reporting in which only clade Ia MPXV has been detected, Tshuapa province, which had been reporting an increasing trend in cases, has been observing a plateauing trend in recent weeks. The other provinces have also been observing a more stable epidemic trends in recent months. In Equateur province, historically the province most affected by mpox in the country, the trend has been relatively stable in the past months, with less than 200 suspected cases reported each week.

Among provinces in which clade Ia and clade Ib MPXV are known to be co-circulating, including the capital Kinshasa, the trend has been relatively stable in the past months.

[9] This is the most recent complete epidemiological week for which subnational data are available.

These plateauing and declining trends should be interpreted with caution, given possible reporting delays, and need to be corroborated in the coming weeks.

Figure 5. Epidemic curve of reported suspected mpox cases in the most affected provinces of the Democratic Republic of the Congo, 1 January – 8 December[10] 2024.

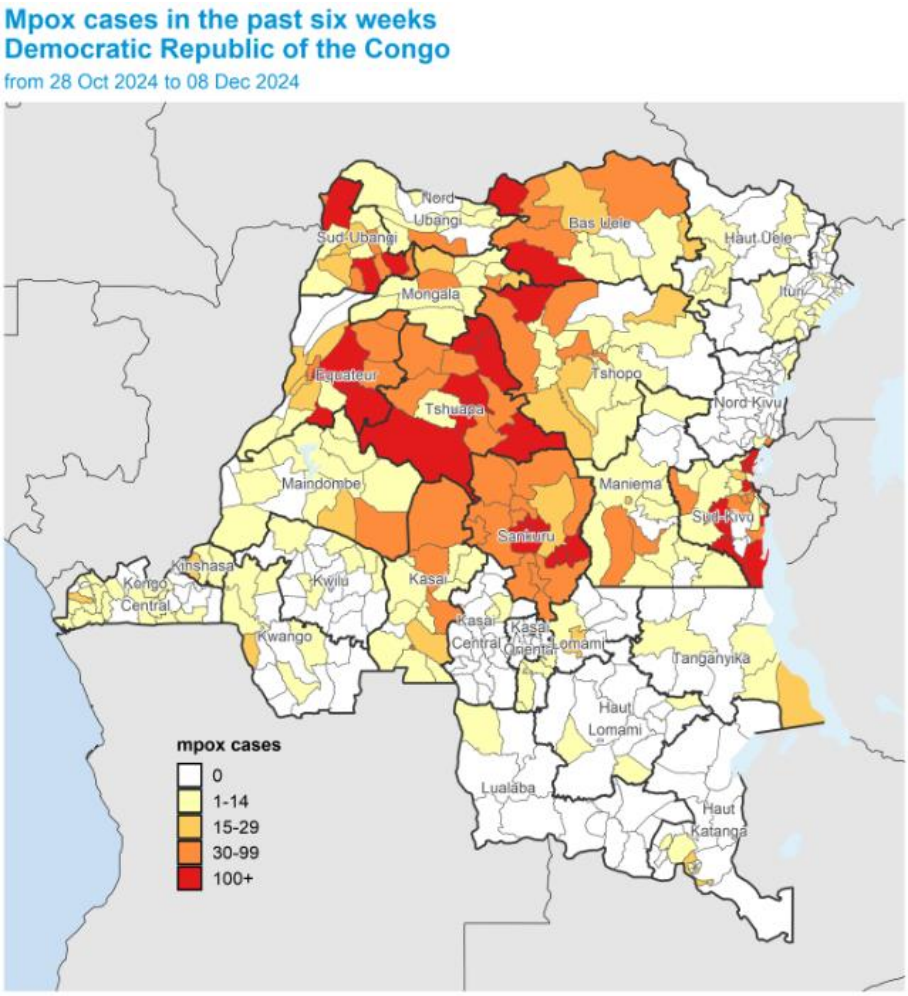


Data source: Democratic Republic of the Congo Ministry of Public Health
Data shown for all cases, via syndromic surveillance system.

[10] This is the most recent complete epidemiological week for which subnational data are available.

The distribution of cases is not homogeneous within these provinces, and transmission is ongoing in a few hotspots with active outbreaks within the affected health zones (Figure 6).

Figure 6. Geographic distribution of suspected mpox cases in the past six weeks, by health zone, in the Democratic Republic of the Congo, 28 October – 8 December[11] 2024.



Data source: Democratic Republic of the Congo Ministry of Public Health
Data shown for all cases, via syndromic surveillance system.

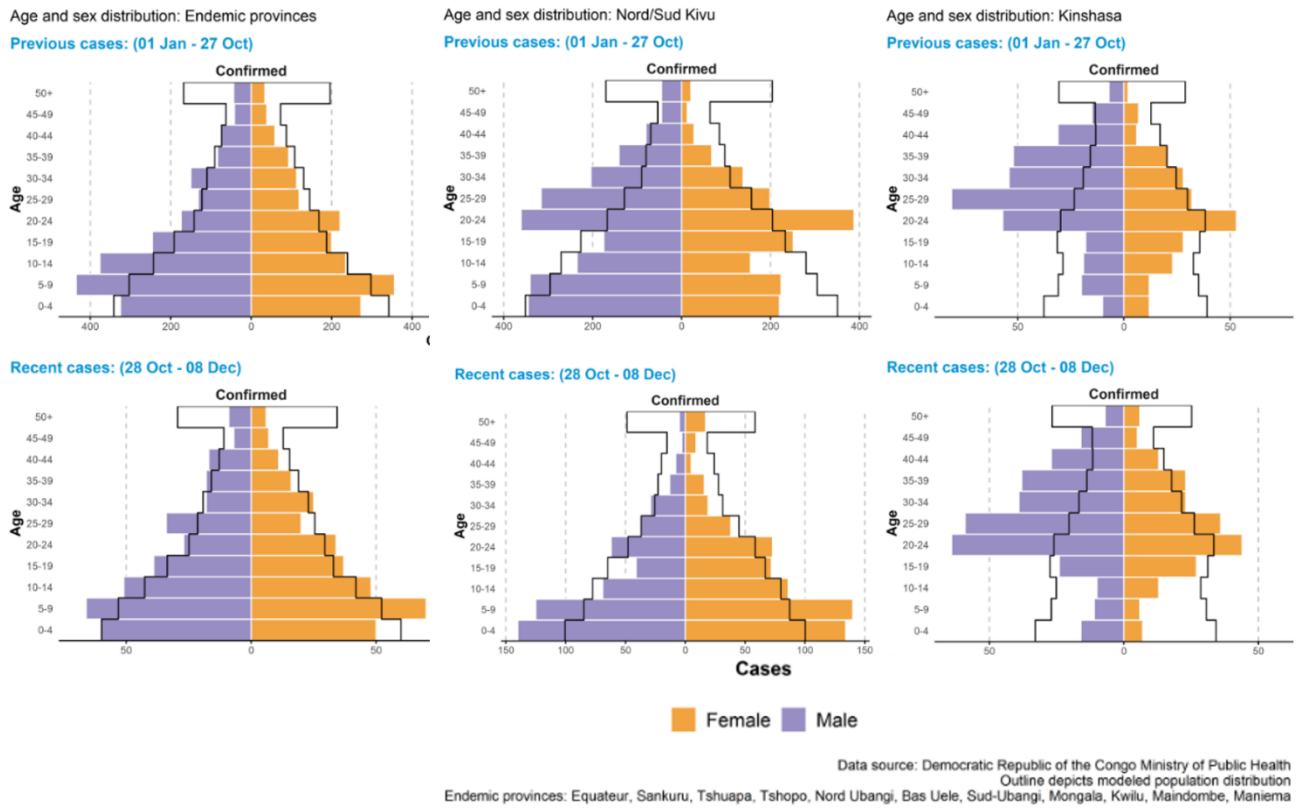
While the initial phase of the clade Ib MPXV epidemic in the eastern part of the country was mostly affecting adults spreading primarily through sexual contact, as clusters expand in the community and the virus spreads in households, the epidemic is now affecting both adults and children, reflecting wider community transmission through close physical contact. This is seen in the evolving age and sex distribution which, in the last six weeks, has seen an increasing proportion of children affected compared to earlier phases of the epidemic, particularly among confirmed cases (centre, Figure 7).

The age and sex distribution of confirmed mpox cases in mpox-endemic provinces (reporting mpox cases for five consecutive years) in the Democratic Republic of the Congo, where outbreaks are predominantly driven by clade Ia MPXV, has more closely approximated the age-sex distribution of the general population over time (left, Figure 7). While children have historically been reported to be the most affected in these provinces, this has largely been a reflection of the underlying population structure. Notably, there is a proportionally lower incidence in those over 50 years of age, likely linked to pre-existing immunity from smallpox vaccination.

In Kinshasa, where clade Ia and Ib MPXV are co-circulating, the proportion of confirmed mpox cases among young adults (those aged 20 – 24 years and 25 – 29 years) appears to have increased in recent weeks (right, Figure 7), compared to earlier in the year. While further investigation is warranted, this appears to corroborate recent indications of sustained human-to-human transmission of clade Ia MPXV in sexual networks,and may suggest a growing importance of sexual contact transmission.

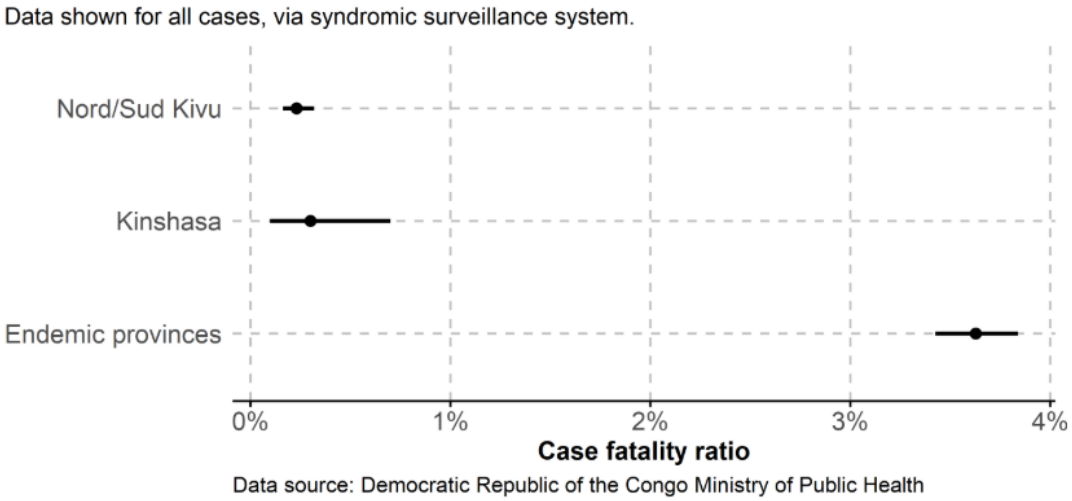
[11] This is the most recent complete epidemiological week for which subnational data are available.

Figure 7. Age and sex distribution of confirmed mpox cases in the endemic provinces, South and North Kivu provinces, and Kinshasa, in the Democratic Republic of the Congo, 1 January – 8 December[12] 2024.



Data on the CFR of all suspected cases reported in the country in 2024 suggest a difference in the CFR estimates for endemic provinces (~3.6%) affected mainly by clade Ia MPXV, Kinshasa (~0.3%) where both subclades are circulating, and North and South Kivu (~0.2%) where clade Ib MPXV is circulating (Figure 8)[13]. It is currently unclear if this difference in case fatality ratio is due to the viral clade or differences in factors such as population vulnerability, healthcare access, demographic characteristics, and case reporting, among others. Of note, the majority of deaths in endemic provinces are reported among suspected (clinically compatible) cases, owing to limited access to diagnostic testing in some remote areas.

Figure 8. Mpox case fatality ratio estimates for suspected mpox cases in South and North Kivu provinces, Kinshasa, and the endemic provinces, in the Democratic Republic of the Congo, 1 January – 8 December[14] 2024.



[12] This is the most recent complete epidemiological week for which subnational data are available.
[13] Notably, the confidence intervals of the CFR estimates for Kinshasa and North and South Kivu overlap
[14] This is the most recent complete epidemiological week for which subnational data are available.

Other countries reporting cases of mpox due to clade Ib MPXV

The clade Ib MPXV outbreak has been expanding from eastern Democratic Republic of the Congo into neighbouring countries, with community transmission reported in Burundi and Uganda, clusters of cases reported in Kenya and Rwanda, and travel-related cases in Zambia and Zimbabwe. Furthermore, cases have also been reported among individuals outside Africa, primarily among those who have a history of recent travel to affected countries in Africa, as summarized in Table 3 below.

Table 3. Confirmed mpox cases and deaths linked to clade Ib MPXV outbreaks reported to WHO, by country*, as of 15 December 2024.

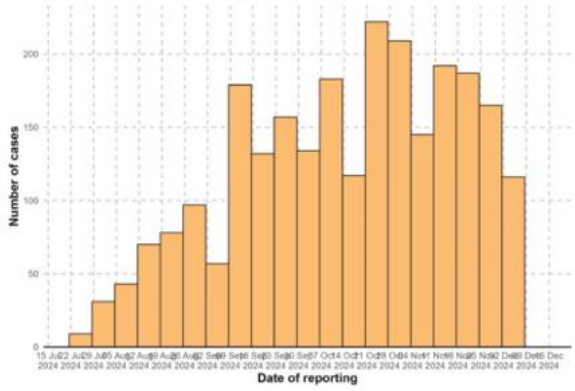
Country	Number reported confirmed cases	Number of deaths among reported confirmed cases	Geographic distribution / Travel link
Burundi	2650	1	Most health districts; Largely concentrated in and around the capitals
Uganda	1027	6	Multiple districts; Largely concentrated in and around the capital
Rwanda	59	0	Multiple districts, including capital
Kenya	29	1	Multiple counties (including capital) along the major road transport corridor from the coast to Uganda and Tanzania
United Kingdom	5	0	Two cases had travel history to East Africa; Three cases are household contacts of one of the travel-related cases
Zimbabwe	1	0	One case with travel history to Tanzania
Zambia	1	0	The case spent most time in a province at the border with the Democratic Republic of the Congo
Sweden	1	0	Travel to East Africa
Thailand	1	0	Travel to East and Central Africa
India	1	0	Travel to United Arab Emirates
Germany	1	0	Travel to East Africa
United States of America	1	0	Travel to East Africa
Canada	1	0	Travel to East Africa
Pakistan	1	0	Travel to United Arab Emirates

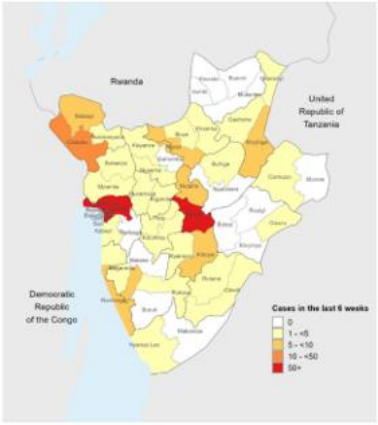
*The Democratic Republic of the Congo is not included in table 3; it has reported cases of both clade Ia and Ib MPXV.

Burundi

From the start of the mpox outbreak in July 2024 to 15 December 2024, Burundi has reported 2650 confirmed mpox cases, including one death (CFR – 0.04%). The country is experiencing community transmission, and the national case count has been increasing over time, with indications of a plateau in recent weeks (left, Figure 9).

Figure 9. Epidemic curve of weekly number of confirmed mpox cases, by reporting epidemiological week (left), and geographical distribution of confirmed mpox cases by health district in the last six weeks (4 November – 15 December 2024) (right), in Burundi

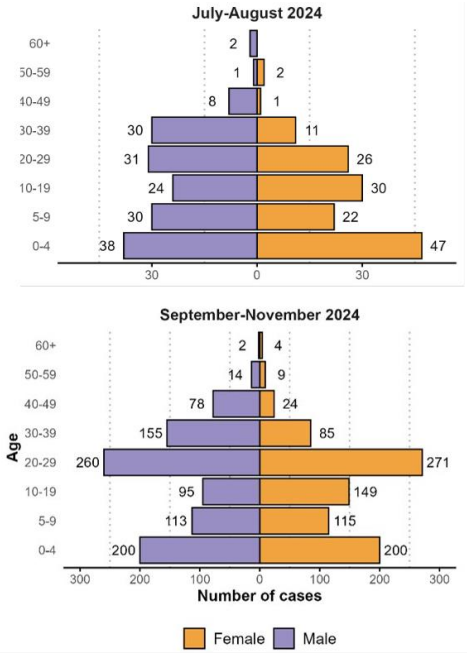




Cases have been reported in at least 94% (46 out of 49) of health districts (right, Figure 9), but the epidemic remains largely concentrated in and around the largest city of Bujumbura and the capital, Gitega. Almost all suspected mpox cases are tested, and test positivity rate is approximately 49%. Only clade Ib MPXV, related to the strains circulating in South Kivu, has been detected in the country, and current evidence suggests exclusive human-to-human transmission of the virus.

There is a bimodal age distribution similar to that observed overall in South Kivu (higher incidence in young children under 5 years of age and among young adults), suggesting similar epidemic dynamics. Notably, in recent weeks, the 20 – 29 years age group has replaced the under 5 years age group as the most affected age group in the country (lower, Figure 10). Household transmission, community transmission, and sexual contact transmission have all been reported to contribute to the spread of mpox in the country. However, the relative contributions of each to mpox spread are unclear.

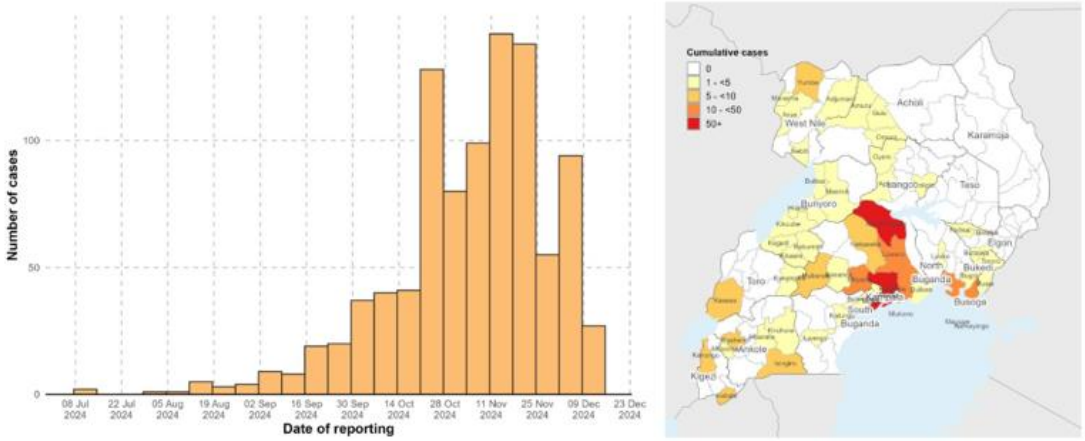
Figure 10. Age and sex distribution of confirmed mpox cases, from July to August 2024 (upper) and from September to November 2024 (lower), in Burundi.



Uganda

From the start of the outbreak in July to 15 December 2024, the country has reported 1027 confirmed mpox cases, including six deaths (CFR – 0.6%). The country is experiencing community transmission, and the national case count has been increasing over time, with indications of a plateau in recent weeks.

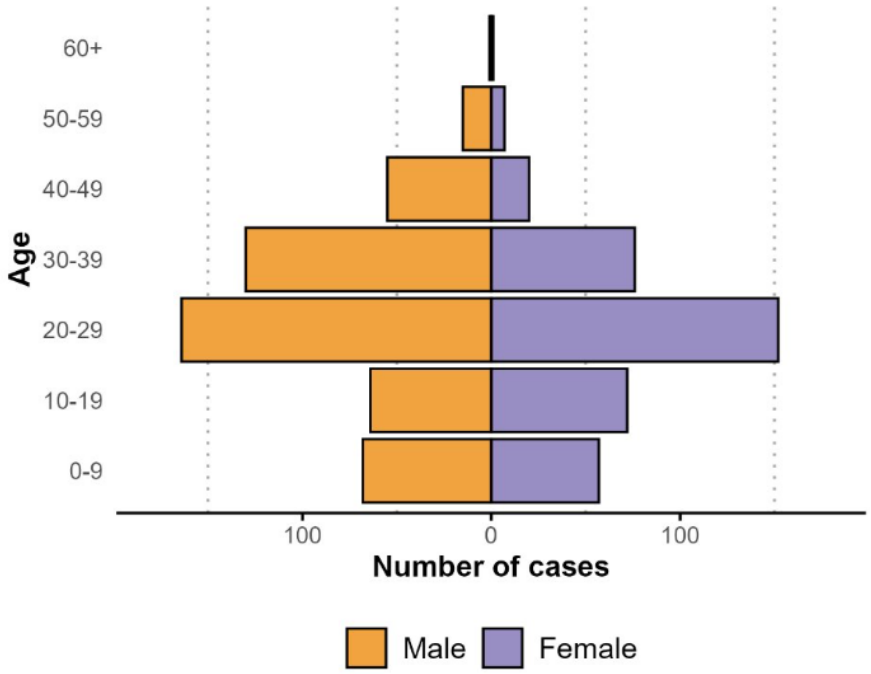
Figure 11. Epidemic curve of weekly number of confirmed mpox cases, by reporting epidemiological week (left) and geographical distribution of confirmed mpox cases in 2024 (right) in Uganda



Cases have been reported in at least 39% (57 out of 146) of districts in the country, but the epidemic remains largely concentrated in and around Kampala, the capital. So far, only clade Ib MPXV, linked to the outbreak in eastern Democratic Republic of the Congo, has been detected in the country, and current evidence indicates that transmission of the virus is occurring exclusively through close, physical human-to-human contact.

Those aged 20 – 29 years are most affected, with sexual contact reported as a major driver of transmission, amplified through networks of sex workers and their clients. However, transmission patterns have been evolving, with growing spread within households and communities through close direct physical contact, leading to a progressive shift in age distribution marked by a rising proportion of cases among children.

Figure 12. Age and sex distribution of confirmed mpox cases in Uganda, 8 July – 15 December 2024.



First case of mpox due to clade Ib MPXV reported from Pakistan

On 2 December 2024, the IHR National Focal Point of Pakistan notified WHO of its first case of mpox due to clade Ib MPXV. The case is an adult male who has been residing in the United Arab Emirates. He travelled to Pakistan on 28 November 2024 and went to a hospital seeking care on the same day, where he was found to be presenting with signs and symptoms consistent with mpox. A sample was collected for testing and he was confirmed to have mpox on 29 November 2024. Subsequent genomic sequencing analysis revealed that he was infected with clade Ib MPXV. The patient was stable and receiving care at the time of reporting. No case of mpox due to clade Ib MPXV has been reported by the United Arab Emirates so far.

First case of clade I MPXV reported from the Sultanate of Oman

On 10 December 2024, the IHR National Focal Point of the Sultanate of Oman notified WHO of its first case of mpox due to clade I MPXV. The case is an adult male residing in Oman who reported travelling to the United Arab Emirates from 20 – 25 November 2024, prior to symptom onset on 30 November 2024. He presented to a health facility on 3 December 2024 with a history of fever, sore throat and widespread skin lesions. He was confirmed to have mpox on 9 December 2024. Investigations into the source of exposure are ongoing. Information on the subclade was not yet available at the time of reporting. No case of mpox due to clade Ib MPXV has been reported by the United Arab Emirates so far.

Global operational updates

The WHO health emergency prevention, preparedness, response and resilience (HEPR) framework underpins both the Strategic Framework for enhancing prevention and control of mpox (2024-2027) and the ongoing emergency response to the mpox Public Health Emergency of International Concern (PHEIC).

Aligned with the HEPR framework, the WHO Global Strategic Preparedness and Response Plan (SPRP) for mpox focuses on strengthening five core components—the **5Cs**:

1. **Emergency coordination:** Efficient coordination for timely crisis response.
2. **Collaborative surveillance:** Real-time data integration for early threat detection.
3. **Community protection:** Engaging communities in prevention and resilience-building measures.
4. **Safe and scalable care:** Equipping health systems to provide essential care with scalable capacity.
5. **Access to and delivery of countermeasures:** Ensuring equitable distribution of medical countermeasures.

This section provides updates on the WHO global mpox response **as of 19 December 2024.**

1. Emergency coordination

- WHO, in partnership with Africa Centres for Disease Control and Prevention (Africa CDC) has provided technical support for the Intra-Action Review (IAR) conducted by the joint WHO-Africa CDC Continental Mpox Response Taskforce and the IARs conducted by prioritized affected countries in Africa.

2. Collaborative surveillance

- Epidemiological data on mpox in Africa are updated weekly and can be accessed on the WHO surveillance report here. The monthly global surveillance update can be found here.
- WHO continues to provide technical support for the implementation of the WHO mpox transmission protocol in the Democratic Republic of the Congo. This protocol serves as a template for Member States and partners to investigate mpox outbreaks in a standardized manner, enabling similar investigations across different settings and allowing for more comparable analysis, and ultimately, increased statistical power.
- The WHO Hub for Pandemic and Epidemic Intelligence convened the Collaboratory Mpox Analytics Community on 17 December 2024 for its last biweekly community call of the year. The focus for the session was mpox in Africa, covering the latest epidemiological update, historical data and trends, as well as the paper on the genomic diversity of clade IMPXV in the Democratic Republic of the Congo from 2018 to 2024.

3. Community protection

- Coordination continues across multiple technical areas including risk communication and community engagement (RCCE), infodemic management, infection prevention and control, community-based surveillance, human-animal interface, and border health.
- On 9 December 2024, WHO launched a collection of technical briefs devoted to community protection for mpox, designed to provide practical information for strengthening person- and community-centred responses to mpox. These briefs are designed for use by people working with and among all affected communities to achieve desired outcomes for emergency mpox responses. The first brief in the series sets out a comprehensive set of actions needed at national, sub-national and local levels for community protection. This publication is available in English and French.
- WHO published a Question-and-Answer (Q&A) item on preventing and managing mpox in schools and learning spaces on 16 December 2024.
- WHO published public health advice for people recovering from or caring for someone with mpox at home in low-resource settings on 19 December 2024, It is available in English and French.
- WHO published public health advice on understanding, preventing and addressing stigma and discrimination related to mpox in French.
- WHO convened the Community Protection Global Partners Meeting on 13 December 2024 with participants from South Kivu, Democratic Republic of the Congo. The focus was on the mpox response in South Kivu, with presentations from representatives of WHO, the provincial public health department, Médecins Sans Frontières (MSF) - Spain and the United Nations Children's Emergency Fund (UNICEF).

- WHO briefed of 2007 beneficiaries including indigenous populations, community health workers, religious leaders, grassroots community leaders, persons with disabilities, displaced persons, leaders of motorcycle taxi drivers' associations, and school officials in Sankuru, Equateur, Tshuapa, Tshopo, Nord Kivu, Sud-Kivu and Kinshasa Provinces on mpox prevention.
- WHO convened the Technical Working Group for interim guidance on social and behavioral research for mpox community protection on 17 December 2024 to advance key outcomes from the multi-stakeholder, multi-disciplinary meeting on social and behavioural research for mpox community protection held in Kinshasa from 27 – 28 November 2024.

4. Safe and scalable care

- WHO convened Guideline Development Group meetings of experts to review the latest available evidence on case management for mpox. Based on the experts' deliberations, the interim guidance on case management for mpox is being updated, with particular regard to care for mpox patients living with HIV, breastfeeding when sick with mpox, and the recommended Personal Protective Equipment (PPE) for mpox.
- Continued support to Member States through the Monitored Emergency Use of Unregistered Investigational Interventions (MEURI) process to access tecovirimat for treatment of severe disease outside of research settings. A Data Safety Monitoring Board meeting has been held, recommending continuation of this process. Requests for access from five Member States are currently being processed.
- Weekly webinars for the WHO African Region continue, covering all aspects of recognition and treatment, including at risk-groups and special circumstances (pregnancy, ocular disease etc).
- WHO is providing ongoing data support through the Global Clinical Platform for clinical characterization of mpox disease and facility monitoring in the Democratic Republic of the Congo.

5. Access to and delivery of countermeasures

Vaccines

- Several countries have accepted the allocation of mpox vaccine doses through the Access and Allocation mechanism (AAM) and shipment arrangements are under preparation.
- The AAM partners are monitoring the progress of the allocation and delivery process to prevent stock expiry and continue to advocate for targeted vaccination in affected hotspots.
- The current priority is to help countries improve their capacity to implement targeted vaccination with existing doses.
- The AAM Supply Working Group (SWG) have established key performance indicators to streamline the vaccine allocation process.
- Countries are getting support to convert pledges into operational funds for implementation of the vaccination plans and strategies.
- A total supply of 4 778 000 vaccines is available for future allocation to mpox-affected countries.

Laboratory and Diagnostics

- Since the opening of the call for Expressions of Interest under the WHO Emergency Use Listing procedure for MPXV diagnostics on 28 August 2024, 67 manufacturers had contacted WHO and 38 among them had a pre-submission call. Following the pre-submission calls, eight manufacturers were invited to submit their applications. Seven Emergency Use Listing dossiers have been received as of 25 November; one application was closed for assessment as the applicant had not provided relevant dossier. Three have been approved for WHO Emergency Use Listing, the assessment of four other products is ongoing, and dossiers for two more diagnostic products are expected. Please find the list of mpox diagnostics approved for Emergency Use Listing here.
- In the latest version of the interim guidance on MPXV diagnostics, WHO provides considerations for laboratory testing strategies depending on the epidemiological setting (no cases, sporadic cases, clusters, community transmission) and indicates that available molecular-based near patient Point-of-Care Tests are able to demonstrate a high level of accuracy, comparable to laboratory-based PCR. In addition, it does not recommend use of rapid antigen tests for detection of MPXV. That notwithstanding, WHO strongly encourages research on rapid antigen tests, since they would be a game changer in the effort to expand diagnostics access to remote areas.
- To fill that gap, WHO, in collaboration with Foundation for Innovative New Diagnostics (FIND) and the Democratic Republic of the Congo, is undertaking an evaluation of six rapid antigen tests.

Mpox resources

Strategic planning and global support

- WHO mpox global strategic preparedness and response plan. Updated 6 September 2024. Available at: https://www.who.int/publications/m/item/mpox-global-strategic-preparedness-and-response-plan
- Mpox continental preparedness and response plan for Africa. 5 September 2024. Available at: https://africacdc.org/download/mpox-continental-preparedness-and-response-plan-for-africa/
- WHO appeal: mpox public health emergency 2024, 27 August 2024. Available at: https://www.who.int/publications/m/item/who-appeal--mpox-public-health-emergency-2024
- Strategic framework for enhancing prevention and control of mpox (2024-2027). May 2024. Available at: https://www.who.int/publications/i/item/9789240092907

International Health Regulations Emergency Committee, Review Committee and recommendations of the Director-General

- Second meeting of the International Health Regulations (2005) Emergency Committee regarding the upsurge of mpox 2024, 28 November 2024. https://www.who.int/news/item/28-11-2024-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-upsurge-of-mpox-2024
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- Extension of the standing recommendations for mpox issued by the Director-General of the World health organization (WHO) in accordance with the International Health Regulations (2005) (IHR), 21 August 2024. Extension of the standing recommendations for mpox issued by the Director-General of the World health organization (WHO) in accordance with the International Health Regulations (2005) (IHR)
- Standing recommendations for mpox issued by the Director-General of the World Health Organization (WHO) in accordance with the International Health Regulations (2005) (IHR), 21 August 2023. https://www.who.int/publications/m/item/standing-recommendations-for-mpox-issued-by-the-director-general-of-the-world-health-organization-(who)-in-accordance-with-the-international-health-regulations-(2005)-(ihr)

Regional information products

- WHO Africa Regional Office, Regional Mpox Bulletin: https://www.afro.who.int/health-topics/mpox-monkeypox
- Joint Continental Situation Report on the Mpox Epidemic in Africa (23 September- 03 November 2024), 6 December 2024. https://africacdc.org/download/joint-continental-situation-report-on-the-mpox-epidemic-in-africa-23-september-03-november-2024/

Surveillance

- Surveillance, case investigation and contact tracing for mpox: Interim guidance, 6 December 2024. https://www.who.int/publications/i/item/B09169
- Considerations for wastewater and environmental surveillance for monkeypox virus: Interim guidance, 25 November 2024. https://www.who.int/publications/i/item/B09178
- Mpox Case Investigation Form (CIF) and minimum dataset Case Reporting Form (CRF), 5 September 2024. https://www.who.int/publications/m/item/monkeypox-minimum-dataset-case-reporting-form-(crf)
- WHO Go.Data: Managing complex data in outbreaks. https://www.who.int/tools/godata
- Technical Guidelines for Integrated Disease Surveillance and Response in the African Region: Third edition, March 2019. https://www.afro.who.int/publications/technical-guidelines-integrated-disease-surveillance-and-response-african-region-third

Laboratory and diagnostics

- Diagnostic testing for the monkeypox virus (MPXV): interim guidance, 9 November 2024. https://iris.who.int/handle/10665/373966
- WHO issues Emergency Use Authorization for Xpert Mpox, a near-point-of-care real-time PCR test, 30 October 2024. https://www.who.int/news/item/30-10-2024-who-lists-additional-mpox-diagnostic-tests-for-emergency-use

- WHO issues Emergency Use Authorization for the Cobas MPXV Qualitative assay, 15 October 2024. https://extranet.who.int/prequal/news/second-mpox-ivd-listed-under-who-emergency-use-listing-procedure
- Mpox disease Emergency Use Listing (EUL) for IVDs Product: cobas MPXV Qualitative assay for use on the cobas 6800/8800 Systems: https://extranet.who.int/prequal/sites/default/files/document_files/cobas-mpxv-qualitative-assay-for-use-on-the-cobas-6800-8800-systems-mpxv-12647-046-00-public-report.pdf
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- Mpox disease Emergency Use Listing Procedure (EUL) for IVDs Product: Alinity m MPXV AMP Kit and Alinity m MPXV CTRL Kit Public Report: https://extranet.who.int/prequal/sites/default/files/document_files/alinity-m-mpxv-amp-kit-and-alinity-m-mpxv-ctrl-kit-public-report.pdf
- WHO Guidance on regulations for the transport of infectious substances 2023 – 2024, 13 June 2024. https://www.who.int/publications/i/item/789240089525
- Diagnostic testing for the monkeypox virus (MPXV): interim guidance, 10 May 2024. https://www.who.int/publications/i/item/WHO-MPX-Laboratory-2024.1
- Genomic epidemiology of mpox viruses across clades. https://nextstrain.org/mpox/all-clades
- WHO Biohub System. https://www.who.int/initiatives/who-biohub
- Mpox Q&A on mpox testing for health workers, 11 December 2023. https://www.who.int/news-room/questions-and-answers/item/testing-for-mpox--health-workers

Clinical management and infection, prevention and control

- Mpox screening tool for health workers. 27 November 2024. https://www.who.int/multi-media/details/mpox-screening-tool-for-health-workers-poster
- Mpox lesions differential diagnosis, 27 November 2024. https://www.who.int/multi-media/details/mpox-lesions-differential-diagnosis-poster
- Mpox triage and clinical assessment for suspected and confirmed cases, 27 November 2024. https://www.who.int/multi-media/details/mpox-triage-and-clinical-assessment-for-suspected-and-confirmed-cases-poster
- Infection prevention and control and water, sanitation and hygiene measures for home care and isolation for mpox in resource-limited settings. Interim operational guide, 18 October 2024. https://www.who.int/publications/i/item/infection-prevention-and-control-and-water--sanitation-and-hygiene-measures-for-home-care-and-isolation-for-mpox-in-resource-limited-settings
- WHO mpox screening form for healthcare facilities entrance https://cdn.who.int/media/docs/default-source/ipc---wash/mpox-screening-form-for-healthcare-facility-entrances.pdf
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  - Steps to put on PPE for mpox (16 August 2024)
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- Clinical characterization of mpox including monitoring the use of therapeutic interventions: statistical analysis plan, 13 October 2023. https://www.who.int/publications/i/item/WHO-MPX-Clinical-Analytic_plan-2023.1
- The WHO Global Clinical Platform for mpox. https://www.who.int/tools/global-clinical-platform/monkeypox
- Atlas of mpox lesions: a tool for clinical researchers, 28 April 2023. https://apps.who.int/iris/bitstream/handle/10665/366569/WHO-MPX-Clinical-Lesions-2023.1-eng.pdf
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- WHO 5 moments for hand hygiene. https://www.who.int/campaigns/world-hand-hygiene-day

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- WHO Emergency Use Listing of LC16m8. https://extranet.who.int/prequal/vaccines/lc16-kmb
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- Package insert of MVA-BN (Imvanex) following WHO prequalification. https://extranet.who.int/prequal/vaccines/p/imvanexr
- Smallpox and mpox vaccine patient information leaflet: fvp-p-479_mpox_1dose_bn_pi-2024_1.pdf (who.int)
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- Meeting of the Strategic Advisory Group of Experts on Immunization (SAGE), 11 – 13 March 2024: conclusions and recommendations. https://iris.who.int/handle/10665/376934
- WHO Vaccines and immunization for monkeypox: Interim guidance, 16 November 2022. https://apps.who.int/iris/bitstream/handle/10665/364527/WHO-MPX-Immunization-2022.3-eng.pdf

Community protection public health advice and risk communication and community engagement (RCCE) resources

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- Public health advice on understanding, preventing and addressing stigma and discrimination related to mpox, 18 November 2024. https://www.who.int/publications/m/item/public-health-advice-on-understanding-preventing-and-addressing-stigma-and-discrimination-related-to-mpox
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- Mpox Q&A, 17 August 2024. https://www.who.int/news-room/questions-and-answers/item/mpox
- Mpox “What we know”: infographics: English: https://www.who.int/multi-media/details/mpox-what-we-know French: https://cdn.who.int/media/docs/default-source/documents/emergencies/outbreak-toolkit/mpox-infographic-fr-v03.pdf?sfvrsn=a4dac1d_1
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  - Français: https://openwho.org/courses/variole-du-singe-introduction
- OpenWHO. Extended training. Monkeypox epidemiology, preparedness and response. 2021.
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- VigiMobile training video: https://www.youtube.com/watch?v=UBfnBKRkAu0
- Adverse Event Following Immunization (AEFI) causality assessment methodology: https://www.who.int/publications/i/item/9789241516990
- Adverse Event Following Immunization (AEFI) causality assessment software: https://gvsi-aefi-tools.org/
- eLearning courses on vaccine safety monitoring https://who.csod.com/selfreg/register.aspx?c=aefi%20causality%20assessment
  - Vaccines safety basics
  - Adverse Event Following Immunization (AEFI) data management
  - AEFI investigation
  - AEFI causality assessment

Other resources

- WHO mpox outbreak toolbox, July 2024. https://www.who.int/emergencies/outbreak-toolkit/disease-outbreak-toolboxes/mpox-outbreak-toolbox
- Responding to the global mpox outbreak: ethics issues and considerations: a policy brief, 19 July 2023. https://www.who.int/publications/i/item/WHO-Mpox-Outbreak_response-Ethics-2023.1
- WHO AFRO Weekly Bulletin on Outbreaks and Other Emergencies. https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-updates

Disclaimer: Caution must be taken when interpreting all data presented, and differences between information products published by WHO, national public health authorities, and other sources using different inclusion criteria and different data cut-off times are to be expected. While steps are taken to ensure accuracy and reliability, all data are subject to continuous verification and change. All counts are subject to variations in case detection, definitions, laboratory testing, and reporting strategies between countries, states and territories.

Annex 1. Previous Rapid Risk Assessment of August 2024

WHO conducted the previous global mpox rapid risk assessment in early August 2024. Based on information available at the time of that risk assessment, the mpox risk of geographical spread and potential impact on health were assessed as follows:

- In the eastern Democratic Republic of the Congo and neighbouring countries: **high**.
- In areas of the Democratic Republic of the Congo where mpox is endemic: **high**.
- In Nigeria and other countries of West, Central and East Africa where mpox is endemic: **moderate**.
- In all other countries in Africa and around the world: **moderate**
  (in selected countries or regional bloc assessments, risk may vary and/or be assessed as low).

Individual-level risk is largely dependent on individual factors such as exposure risk and immune status, regardless of geographic area, epidemiological context, biological sex, gender identity or sexual orientation.