

Мрох

Multi-country external situation report no. 43, published 9 December 2024

| KEY FIGURES | | | | | | |
|--|--|----------------------------|--|---|--|--|
| Reporting period: 01 January | y 2022 – 31 October | 2024 | | | | |
| Area | Number of reported confirmed cases | | Number of deaths among confirmed cases | | Number countries reporting cases | |
| Global | 115 101 | | | 255 | 126 | |
| Reporting period: 01 January | y – 1 December 2024 | 1 | | | | |
| Area | Number of reported confirmed cases | Numl deaths confirme | | Number of reported suspected case | Number of deat among suspecters es cases | |
| Africa | 13 171 | 57 | | NA ¹ | NA ¹ | |
| Democratic Republic of the Congo ^{2,3} | 9513 | 4 | 3 | 43 862 | 1138 | |
| Burundi | 2334 | 1 | | NA ¹ | NA ¹ | |
| Uganda | 785 | 4 | | NA ¹ | NA ¹ | |
| Reporting period: last 6 wee | ks, 21 October – 1 I | December 2 | 2024 | | | |
| Africa | 2412 | 5 | | NA ¹ | NA ¹ | |
| Democratic Republic of the Congo ^{2,3} | 565 | 0 | | 6797 | 100 | |
| Burundi | 1047 | 1 | | NA ¹ | NA ¹ | |
| Uganda | 632 | 4 | Ļ | NA ¹ | NA ¹ | |

Highlights

- On 22 November 2024, the Emergency Committee under the International Health Regulations 2005 (IHR, 2005) was unanimous in expressing the view that the ongoing upsurge of mpox still meets the criteria of a public health emergency of international concern (PHEIC) and that the WHO Director-General be advised accordingly. The WHO Director-General concurred with the advice of the Committee that the event continues to constitute a PHEIC and issued revised temporary recommendations to this effect.
- WHO updated its assessment of the public health risk posed by mpox in November 2024. A breakdown of the assessment findings are detailed in this report.
- Since the last situation report, two additional countries have confirmed travel-related cases of mpox due to clade Ib MPXV for the first time: Canada and the United States of America.
- One country, Angola, has reported mpox cases for the first time ever, since the last situation report.

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:

- <u>Second Emergency Committee meeting</u>
- <u>Updated global rapid risk assessment</u>
- <u>Contextual description</u>
- Epidemiological update
 - Overview of mpox outbreaks by virus clade
 - Global trends
 - <u>Confirmed cases reported in Africa</u>
 - Focus on the Democratic Republic of the Congo (clade Ia & Ib MPXV)
 - Other countries reporting cases of mpox due to clade Ib MPXV
 - Detection of first mpox cases in Angola
 - First case of mpox due to clade Ib MPXV in the United States of America
 - First case of mpox due to clade Ib MPXV in Canada
 - <u>Second clade Ib MPXV importation detected in the United Kingdom of Great Britain and Northern</u>
 <u>Ireland</u>
- Global operational updates
 - Emergency coordination
 - <u>Collaborative surveillance</u>
 - <u>Community protection</u>
 - Safe and scalable care
 - Access to and delivery of countermeasures
- <u>Mpox resources</u>
- Annex 1. Previous Rapid Risk Assessment of August 2024

Second Emergency Committee meeting

On 22 November 2024, the WHO Director-General convened the Emergency Committee under the International Health Regulations 2005 (IHR, 2005) to advise him on whether the upsurge of mpox continues to constitute a public health emergency of international concern (PHEIC) and, if so, on the proposed temporary recommendations to States Parties as they respond to the event.

Key aspects of the meeting proceedings included:

- An update, by the WHO Secretariat, on the global mpox epidemiological situation, the resulting public health risk, and the actions WHO has taken, with States Parties and partners, since the declaration of the PHEIC in August 2024;
- An update, by the representatives of Burundi, the Democratic Republic of the Congo, Kenya, Rwanda and Uganda, on the mpox epidemiological situation in their countries and their current response efforts, needs and challenges;
- The deliberations by the Committee on whether the event still constitutes a PHEIC or not, and if so, the appropriate temporary recommendations to issue to States Parties.

Following deliberations, the Committee was unanimous in expressing the view that the ongoing upsurge of mpox still meets the criteria of a PHEIC and that the WHO Director-General be advised accordingly. Notwithstanding some progress towards controlling the spread of mpox resulting from national and international response efforts, the Committee noted the rising number and continuing geographic spread of mpox cases, especially those due to clade Ib monkeypox virus (MPXV); the operational challenges in the field in need of stronger national committee, therefore, considered that the determination by the WHO Director-General that the upsurge of mpox still constitutes a PHEIC would be warranted.

The WHO Director-General concurred with the advice of the Committee that the event continues to constitute a PHEIC and issued revised temporary recommendations to that effect.

The full report of the proceedings, and the revised Temporary Recommendations, can be accessed here.

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 mpox risk of geographical spread and potential impact on health 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 la MPXV Mostly affecting mpox-endemic 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.

Contextual description

This report provides an update on:

- The global mpox epidemiological situation, as of **31 October 2024.** Global surveillance data continues to be collected monthly, and October is the last month for which complete data are available. The collection of data for November 2024 is ongoing and these data will be reflected in the next edition of this report.
- 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 **1 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 <u>here</u>.

The summary table at the top of the document includes all reported suspected cases for the Democratic Republic of the Congo only. 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.

A summary of the previous WHO global mpox rapid risk assessment conducted in August 2024 can be found in <u>Annex 1</u>.

Epidemiological update ^{4, 5}

Global monkeypox virus (MPXV) distribution

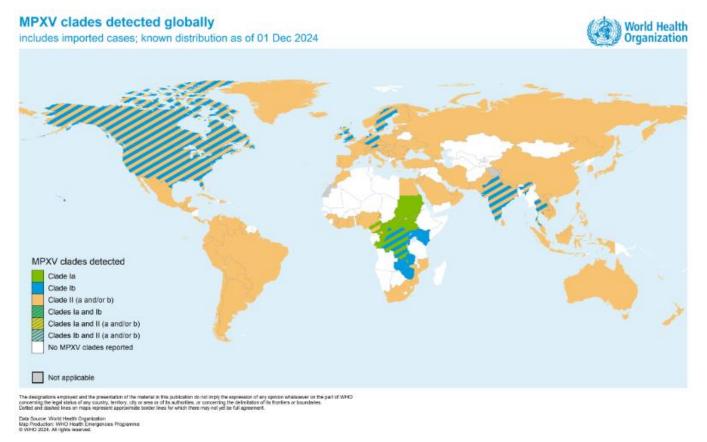
As of 1 December 2024, the distribution of reported MPXV clades by country of detection is as shown in Figure 1. This information is compiled from sequencing conducted and shared via different sources, including open-access databases, peer-reviewed publications, reports, as well as direct communication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

To date, seven 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 has detected one case in a traveller from the United Arab Emirates. No case of mpox due to clade Ib MPXV has been reported by the United Arab Emirates so far.

In Africa, countries in western, northern and southern Africa 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, clade Ib MPXV in Africa has been detected in the Democratic Republic of the Congo (in South Kivu, North Kivu, Kinshasa, Kasai, Tshopo and Tanganyika 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 1 December 2024.



⁴ On the African continent there are 47 Member States in the WHO African Region and seven in the Eastern Mediterranean Region.

⁵ 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: <u>Mpox (monkeypox) | WHO |</u> <u>Regional Office for Africa</u>

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 la 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 now some emerging evidence that there is also 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 <u>cluster of cases in mid-2023</u>.

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 six provinces: South Kivu, North Kivu, Kinshasa, Kasai, Tshopo and Tanganyika, 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 seven 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 and Canada.

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. 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 Côte d'Ivoire and Liberia.

Cases have been reported in adults and children, with many lacking a known epidemiological link, suggesting ongoing, 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 bemen 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 1052 confirmed cases reported to WHO in 2024 as of 31 October 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 October 2024**. Further details on global trends can be found on the <u>online WHO dashboard</u>.

From 1 January 2022 through 31 October 2024, a total of 115 101 reported confirmed cases of mpox, including 255 deaths, were reported to WHO from 126 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 3233 new confirmed cases were reported in October 2024, an 11% decline from the preceding month. Most cases in October 2024 were reported from the African Region (71.0%), followed by the Western Pacific Region (11.6%) and the Region of the Americas (9.8%). The Western Pacific Region reported the highest monthly rise in cases in October 2024, compared to September, at 9.3%, followed by the European Region at 8.5%. The Region of the Americas, the South-East Asia, and the African Regions reported declines in cases in October, at 45%, 13%, and 8.2% respectively. The number of cases in the Eastern Mediterranean Region remained the same.

Table 2. Number of cumulative confirmed mpox cases and deaths reported to WHO, by WHO Region, from 1

 January 2022 through 31 October 2024

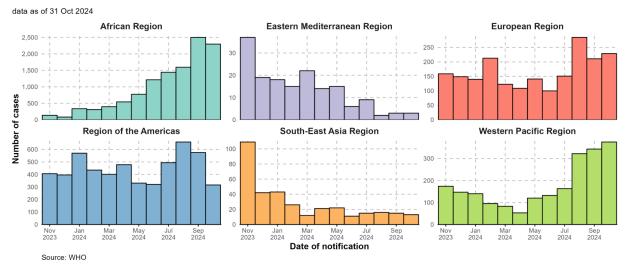
| WHO Region | Total confirmed cases | Total deaths among confirmed cases | New cases reported in September 2024 | New cases reported in October 2024 | Monthly change in cases (%) |
|---------------------------------|-----------------------------|--|---|---|-----------------------------------|
| Region of the Americas | 66 300 | 147 | 575 | 316 | -45.0 |
| European Region | 28 405 | 9 | 211 | 229 | 8.5 |
| African Region | 13 792 | 75 | 2502 | 2297 | -8.2 |
| Western Pacific Region | 4745 | 10 | 343 | 375 | 9.3 |
| South-East Asia Region | 984 | 11 | 15 | 13 | -13.0 |
| Eastern Mediterranean Region | 875 | 3 | 3 | 3 | 0.0 |
| Total | 115 101 | 255 | 3649 | 3233 | -11.4 |

Figure 2 shows that over the past 12 months (1 November 2023 – 31 October 2024), the number of confirmed mpox cases reported monthly in the WHO African Region has been steadily increasing, while the Eastern Mediterranean and Southeast-Asia Regions have seen a declining number of cases. In Europe and in the Americas the trend has remained relatively stable, with a slight drop in October 2024 for the Americas. The Western Pacific Region observed a decreasing trend in the first half of 2024, but from May to October 2024, the number of mpox cases has been increasing.

In the last 12 months an average of 1807 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 October 2024 was reported by Australia. The country is currently experiencing a growing outbreak of clade IIb MPXV, affecting mainly men who have sex with men infected through sexual contact.

Figure 2. Epidemic curves of monthly aggregated number of confirmed mpox cases reported to WHO, by WHO region, 1 November 2023 – 31 October 2024.

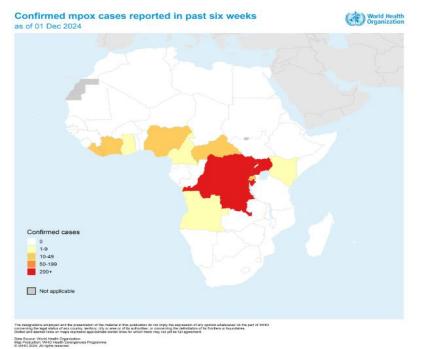


*Please note the different Y axis of the regional epidemic curves, in order to allow a better overview of the trend in each region.

Confirmed cases reported in Africa

In Africa, as of 1 December, 13 171 confirmed cases, including 57 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)³, followed by Burundi (2334 confirmed cases, including one death) and Uganda (785 confirmed cases, including four deaths). Thirteen 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). Seven countries, Gabon, Guinea, Morocco, the Republic of Congo, 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 <u>Strategic framework for enhancing prevention and control of mpox</u> 2024-2027, if surveillance is deemed to be adequate. One country, Angola, reported its first two mpox cases ever recorded; clade information is not yet available.

Figure 3. Geographic distribution of reported confirmed mpox cases in Africa, by country, in the last six weeks (21 October 2024 – 1 December 2024).

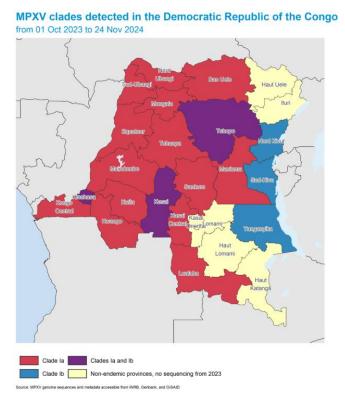


10

Focus on the Democratic Republic of the Congo (clade la & lb 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 and Tanganyika 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 access to the national lab, therefore, the virus clade distribution could be broader and more nuanced than is presented in Figure 4.

Figure 4. Geographic distribution of clade I MPXV in the Democratic Republic of the Congo, by province, from 1 October 2023 to 24 November ⁶ 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, declining trends are being reported in South Kivu, which continues to account for most suspected cases in the country, with more than 600 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 also 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

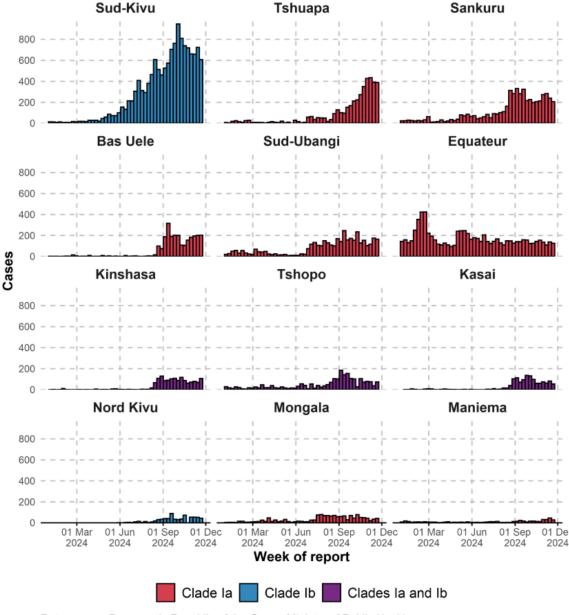
⁶ This is the most recent complete epidemiological week for which subnational data are available.

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

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 – 24 November⁷ 2024.

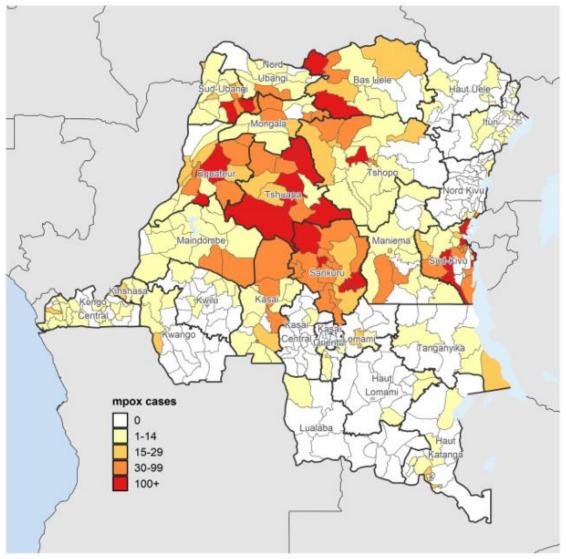


Data source: Democratic Republic of the Congo Ministry of Public Health Data shown for all cases, via syndromic surveillance system.

⁷ 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, 14 October – 24 November⁸ 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, as clusters expand in the community and the virus enters more 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).

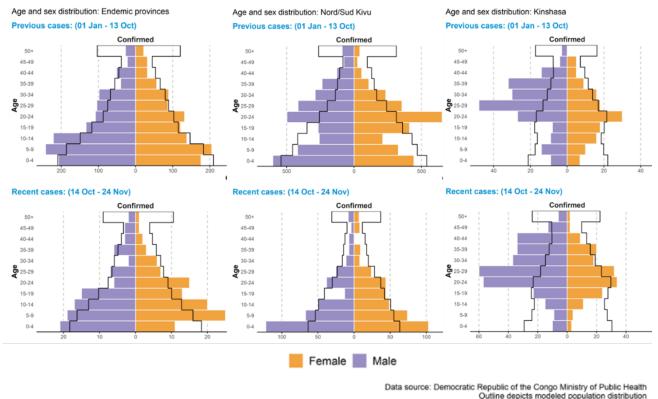
The age and sex distribution of confirmed mpox cases in mpox-endemic provinces (reporting mpox cases for five consecutive years) in the Democratic Republic of the Congo, where outbreaks are predominantly driven by clade Ia MPXV, has more closely approximated the age-sex distribution of the general population 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 incidence of confirmed mpox cases in the older age groups appears to have increased in recent weeks (right, Figure 7), compared to earlier in the year. While

⁸ This is the most recent complete epidemiological week for which subnational data are available.

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.

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 – 24 November⁹ 2024.

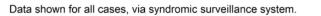


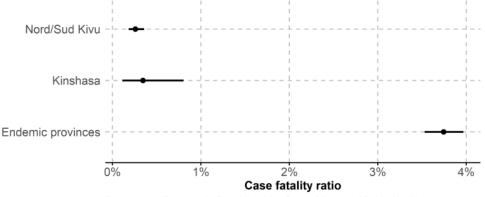
Endemic provinces: Equateur, Sankuru, Tshuapa, Tshopo, Nord Ubangi, Bas Uele, Sud-Ubangi, Mongala, Kwilu, Maindombe, Manieum

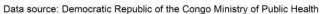
Data on the CFR of all suspected cases reported in the country in 2024 suggest a difference in the CFR estimates for endemic provinces (~4%) affected mainly by clade Ia MPXV, Kinshasa (~0.5%) where both subclades are circulating, and North and South Kivu (<0.5%) where clade Ib MPXV is circulating (Figure 8). 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.

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

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 – 24 November¹⁰ 2024.







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 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 1 December 2024.

| Country | Number reported confirmed cases | Number of deaths among reported confirmed cases | Geographic distribution |
|-----------------------------|---------------------------------|---|---|
| Burundi | 2334 | 1 | Most health districts; Largely concentrated in and around the capital |
| Uganda | 785 | 4 | Multiple districts; Largely concentrated in and around the capital |
| Rwanda | 52 | 0 | Multiple districts, including capital |
| Kenya | 23 | 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 | One province |
| 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 |

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

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

Burundi

From the start of the mpox outbreak in July 2024 to 1 December 2024, Burundi has reported 2334 confirmed mpox cases, including one death (CFR - 0.04%). The number has been increasing over time, with indications of a plateau in recent weeks.

Cases have been reported in at least 45 of the 49 districts (92%), but the epidemic remains largely concentrated in and around Bujumbura. Almost all suspected mpox cases are tested, and test positivity is approximately 49%. All sequenced samples have been identified as clade Ib MPXV, related to the strains circulating in South Kivu, 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. 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.

Uganda

From the start of the outbreak in July to 1 December 2024, the country has reported 785 confirmed mpox cases, including four deaths (CFR - 0.5%) across 52 affected districts.

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. The majority of cases reported are among adults, and there is evidence of sexual contact transmission, identified in at least three hotspot districts, including the capital Kampala, particularly involving sex workers and their networks.

Detection of first mpox cases in Angola

On 16 November 2024, the Ministry of Health of Angola notified WHO of the first mpox case in the country. The case is a female adult from Luanda province who had no history of travel outside the province during the preceding three weeks. The onset of symptoms was on 3 November 2024, and included fever, headache, general malaise, multiple papules and vesicles on the face, body, hands, feet and soles of the feet. The case was confirmed through PCR testing on 15 November 2024. The individual did not report contact with a known case, but reported contact with a family member, a truck driver who travels to the Democratic Republic of the Congo, five days prior to symptoms onset. This family member was not presenting with any symptoms at the time of reporting.

Forward contact tracing identified 12 contacts who were under monitoring at the time of reporting.

On 20 November 2024 a second case, a child of the first case, who was also under monitoring, was confirmed to have mpox. Both patients were under isolation and offered clinical care for mpox.

Clade information for both cases is currently not available.

First case of mpox due to clade Ib MPXV in the United States of America

On 18 November 2024, the United States of America notified WHO of the first case of mpox due to clade Ib MPXV in the country. The case is a male adult in the state of California who reported recent history of travel to locations in East Africa. Symptom onset was during travel back to the United States of America, and signs and symptoms included fever, lymphadenopathy, and pustules on multiple parts of the body. A sample was taken and tested positive for mpox on 14 November 2024, and subsequent genomic sequencing analysis revealed clade Ib MPXV.

The source of exposure for this case is not yet known. All healthcare and travel contacts have been monitored for 21 days, and no additional cases have been identified.

First case of mpox due to clade Ib MPXV in Canada

On 22 November 2024, Canada notified WHO of its first case of mpox due to clade Ib MPXV in the country.

The case is an adult in the province of Manitoba who reported history of recent travel to a country in East Africa, which has reported cases of mpox due to clade Ib MPXV. Symptom onset began prior to travel to Canada, and

signs and symptoms included fever, malaise and a rash. Upon arrival in Canada, the individual sought medical attention and based on the individual's symptoms and travel history, mpox was suspected. Upon testing, clade Ib MPXV infection was confirmed.

Second clade Ib MPXV importation detected in the United Kingdom of Great Britain and Northern Ireland

On 28 November 2024, the United Kingdom notified WHO of a fifth case of mpox due to clade Ib MPXV. This is considered an imported case and does not have any link with the previous cases of mpox due to clade Ib MPXV identified in the United Kingdom and notified to WHO in late October and early November 2024.

The case, detected in Leeds, is a male adult who reported recent travel to Uganda. Symptom onset began prior to return travel to the United Kingdom and the case was symptomatic at the time of travel. The case was isolated in a hospital at the time of notification.

Global operational updates

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

Aligned with the HEPR framework, the WHO <u>Global Strategic Preparedness and Response Plan</u> (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 1 December 2024.

1. Emergency coordination

 On 22 November 22, 2024, the Emergency Committee under the International Health Regulations 2005 (IHR, 2005) was unanimous in expressing the view that the ongoing upsurge of mpox still meets the criteria of a PHEIC and that the WHO Director-General be advised accordingly. The WHO Director-General concurred with the advice of the Committee that the event continues to constitute a PHEIC and issued revised temporary recommendations to this effect. The full report of the proceedings and the revised Temporary Recommendations can be found <u>here</u>.

2. Collaborative surveillance

- Epidemiological data on mpox in Africa are updated weekly and can be accessed on the WHO surveillance report <u>here</u>. The monthly global surveillance update can be found <u>here</u>.
- The updated interim guidance on <u>Surveillance, case investigation and contact tracing for mpox</u> was published on 6 December 2024.
- The interim guidance on <u>Considerations for wastewater and environmental surveillance for monkeypox</u> virus was published on 25 November 2024.
- The interim guidance in <u>Diagnostic testing for monkeypox virus (MPXV)</u> was published on 9 November 2024.

3. Community protection

- Community protection coordination continues across technical areas including risk communication, community engagement, infodemic management, points of entry and border health, community infection prevention and control (IPC) and water, sanitation and hygiene (WASH), and multisectoral action to mitigate social and economic impacts of mpox response.
- Training of 50 community health workers and volunteers in an integrated package for community protection took place in Pakadjuma, Kinshasa from 25 26 November 2024.
- A high-level meeting was co-convened between WHO, Africa CDC, and European and Developing Countries Clinical Trials Partnership (EDCTP3) Global Health to bring together research, response, operational partners and civil society organizations to advance social and behavioural research integration in mpox response from 27 - 28 November 2024 in Kinshasa.
- New technical products published include:
 - Public health advice on understanding, preventing and addressing stigma and discrimination related to mpox..
 - Risk Communication and Community Engagement (RCCE) Toolkit for mpox in French: <u>Boîte à outils</u> pour la communication sur les risques et la mobilisation communautaire : capacité de réaction et riposte
 - Public Health Advice for sex workers on mpox in French: Conseils de santé publique relatifs à la variole du singe à l'intention des travailleurs du sexe

- Public Health Advice on mpox for people living in camps, refugee populations, Internally Displaced Persons (IDPs) and migrants in French: Conseils de santé publique relatifs à la variole simienne (mpox) à l'intention des personnes vivant dans des camps, des réfugiés, des personnes déplacées à l'intérieur de leur propre pays et des migrants.
- Both <u>Public health advice for border health and points of entry during the 2024 mpox outbreak</u> and Public health advice for gatherings in the context of the 2024 mpox outbreak are available in French, Spanish, and Russian.

4. Safe and scalable care

- Various Information, Education and Communication (IEC) materials have been published:
 - o <u>Mpox screening tool for health workers</u>
 - o <u>Mpox lesions differential diagnosis</u>
 - o <u>Mpox triage and clinical assessment for suspected and confirmed cases</u>
- The Mpox Guideline Development Group was convened on 27 November 2024 to review the latest available evidence in order to update IPC recommendations for mpox.
- WHO continues to support assessments of health facility IPC and WASH capacity for mpox in the Democratic Republic of the Congo, with over 1000 facilities undergoing a baseline assessment to identify gaps and support needed.

5. Access to and delivery of countermeasures

Vaccines

- During the first round of vaccine allocation, nine countries were allocated vaccines, several of which have already accepted their allocation.
- A total of 100 000 vaccine doses allocated to the Democratic Republic of the Congo were delivered in Kinshasa on 14 November 2024.
- Following the <u>vaccination workshop</u> in Brazzaville early November 2024 co-convened by WHO and Africa CDC, countries are submitting updated vaccination plans aligned with the proposed vaccination strategy and updated demand estimates for vaccines will follow.
- A total of 1 678 000 additional vaccine doses are available for shipment as of 1 December 2024.
- The Technical Review Committee has convened to review the first round of vaccine allocation and plan for the next allocation.
- Nigeria started its targeted vaccination activities on 18 November and the Democratic Republic of the Congo started vaccination with the second dose.
- <u>WHO added the vaccine LC16m8 to Emergency Use Listing</u> on 19 November 2024 for use in individuals over one year of age in outbreak settings with a documented high-risk of exposure to mpox. A single dose vaccine is administered via a multiple puncture technique using a bifurcated needle.
- The Global Advisory Committee on Vaccine Safety reviewed the updated safety data on the vaccine <u>LC16m8</u> on 20 September 2024 and recommended that healthcare workers are provided with training on the <u>use of bifurcated needles</u> to prevent injuries and to minimize adverse effects from operational errors.
- The WHO master vaccine safety monitoring protocol has been shared with mpox-affected African countries for their adaption. The Democratic Republic of the Congo, Nigeria and Rwanda will conduct safety monitoring and share the data with WHO Global database for signal detection. The Pharmacovigilance Centre in Kinshasa is currently recruiting 3000 vaccinated individuals for the safety monitoring study of the MVA-BN vaccine with support from WHO.
- WHO is reviewing the information/data on the ACAM2000 vaccine to determine the most appropriate assessment pathway (Prequalification or Emergency Use Listing).

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 and the assessment of three other products is ongoing. Please find the list of mpox diagnostics approved for Emergency Use Listing <u>here</u>.

• Antigen-detection Rapid Diagnostic Tests (RDTs) are currently not eligible for WHO EUL assessment as they are not recommended by WHO for use in clinical decision-making.

Mpox resources

Strategic planning and global support

- WHO mpox global strategic preparedness and response plan. Updated 6 September 2024. Available at: <u>https://www.who.int/publications/m/item/mpox-global-strategic-preparedness-and-response-plan</u>
- Mpox continental preparedness and response plan for Africa. 5 September 2024. Available at: <u>https://africacdc.org/download/mpox-continental-preparedness-and-response-plan-for-africa/</u>
- WHO appeal: mpox public health emergency 2024, 27 August 2024. Available at: <u>https://www.who.int/publications/m/item/who-appeal--mpox-public-health-emergency-2024</u>
- 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. <u>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</u>
- First meeting of the International Health Regulations (2005) Emergency Committee regarding the upsurge of mpox 2024, 19 August 2024. <u>https://www.who.int/news/item/19-08-2024-first-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-upsurge-of-mpox-2024</u>
- 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. <u>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)
 </u>

Regional information products

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

Surveillance

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

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. <u>https://www.who.int/news/item/30-10-2024-who-lists-additional-mpox-diagnostic-tests-for-emergency-use</u>
- WHO issues Emergency Use Authorization for the Cobas MPXV Qualitative assay, 15 October 2024. <u>https://extranet.who.int/prequal/news/second-mpox-ivd-listed-under-who-emergency-use-listing-procedure</u>
- Mpox disease Emergency Use Listing (EUL) for IVDs Product: cobas MPXV Qualitative assay for use on the cobas 6800/8800 Systems: <u>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</u>
- WHO issues the Emergency Use Authorization for the Alinity m MPXV, 03 Oct 2024. <u>https://www.who.int/news/item/03-10-2024-who-approves-first-mpox-diagnostic-test-for-emergency-use-boosting-global-access</u>
- Mpox disease Emergency Use Listing Procedure (EUL) for IVDs Product: Alinity m MPXV AMP Kit and Alinity m MPXV CTRL Kit Public Report: <u>https://extranet.who.int/prequal/sites/default/files/document_files/alinity-m-mpxv-amp-kit-and-alinity-m-mpxv-ctrl-kit-public-report.pdf</u>
- 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. <u>https://www.who.int/publications/i/item/WHO-MPX-Laboratory-2024.1</u>
- Genomic epidemiology of mpox viruses across clades. <u>https://nextstrain.org/mpox/all-clades</u>
- WHO Biohub System. <u>https://www.who.int/initiatives/who-biohub</u>
- Mpox Q&A on mpox testing for health workers, 11 December 2023. <u>https://www.who.int/news-room/questions-and-answers/item/testing-for-mpox--health-workers</u>

Clinical management and infection, prevention and control

- Mpox screening tool for health workers. 27 November 2024. <u>https://www.who.int/multi-media/details/mpox-screening-tool-for-health-workers-poster</u>
- Mpox lesions differential diagnosis, 27 November 2024. <u>https://www.who.int/multi-media/details/mpox-lesions-differential-diagnosis-poster</u>
- Mpox triage and clinical assessment for suspected and confirmed cases, 27 November 2024. <u>https://www.who.int/multi-media/details/mpox-triage-and-clinical-assessment-for-suspected-and-confirmed-cases-poster</u>
- 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. <u>https://www.who.int/publications/i/item/infection-prevention-and-control-and-water--sanitation-andhygiene-measures-for-home-care-and-isolation-for-mpox-in-resource-limited-settings</u>
- 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
 - Posters on screening <u>?sfvrsn=3893b9b2_3&download=true</u>
- Posters for health and care workers.
 - <u>Steps to put on PPE for mpox</u> (16 August 2024)
 - <u>Steps to remove PPE for mpox (</u>16 August 2024)
- Clinical characterization of mpox including monitoring the use of therapeutic interventions: statistical analysis plan, 13 October 2023. <u>https://www.who.int/publications/i/item/WHO-MPX-Clinical-Analytic plan-</u> 2023.1
- The WHO Global Clinical Platform for mpox. <u>https://www.who.int/tools/global-clinical-platform/monkeypox</u>
- Atlas of mpox lesions: a tool for clinical researchers, 28 April 2023. <u>https://apps.who.int/iris/bitstream/handle/10665/366569/WHO-MPX-Clinical-Lesions-2023.1-eng.pdf</u>
- Clinical management and infection prevention and control for monkeypox: Interim rapid response guidance, 10 June 2022. <u>https://www.who.int/publications/i/item/WHO-MPX-Clinical-and-IPC-2022.1</u>

- Emergency use of unproven clinical interventions outside clinical trials: ethical considerations, 12 April 2022. <u>https://www.who.int/publications/i/item/9789240041745</u>
- WHO 5 moments for hand hygiene. <u>https://www.who.int/campaigns/world-hand-hygiene-day</u>

Vaccination

- WHO recommends LC16m8 for Emergency Use Listing for people older than 1 year at high risk, 19 November 2024. <u>https://www.who.int/news/item/19-11-2024-who-adds-lc16m8-mpox-vaccine-to-emergency-use-listing</u>
- WHO Emergency Use Listing of LC16m8. <u>https://extranet.who.int/prequal/vaccines/lc16-kmb</u>
- Package insert of LC16m8 following WHO Emergency Use Listing. https://extranet.who.int/prequal/sites/default/files/document_files/package-insert_lc16-kmb_20241121_0.pdf
- Report of the WHO Prequalification Vaccine Technical Advisory Group on LC16m8.
 <u>https://extranet.who.int/prequal/sites/default/files/document_files/mpox-lc16m8_tag-report-19-11-2024-final.pdf</u>
- WHO grants prequalification of age-extension for MVA-BN mpox vaccine to adolescents aged 12 to 17 years, 18 October 2024. <u>https://extranet.who.int/prequal/news/who-grants-approval-use-bavarian-nordics-mpox-vaccine-adolescents</u>
- WHO AFRO Mpox Vaccination Preparation Roadmap. 27 September 2024. https://www.afro.who.int/publications/mpox-vaccination-preparation-roadmap-27-september-2024#:~:text=The%20Mpox%20Vaccination%20Preparation%20Roadmap,efficiently%20once%20they%20are%20accessed.
- WHO prequalifies MVA-BN mpox vaccine. 13 September 2024. <u>https://www.who.int/news/item/13-09-2024-who-prequalifies-the-first-vaccine-against-mpox</u>
- Package insert of MVA-BN (Imvanex) following WHO prequalification. <u>https://extranet.who.int/prequal/vaccines/p/imvanexr</u>
- Smallpox and mpox vaccine patient information leaflet: <u>fvp-p-479 mpox 1dose_bn_pi-2024_1.pdf</u> (who.int)
- Smallpox and mpox (orthopoxviruses): WHO position paper. 23 August 2024. https://www.who.int/publications/i/item/who-wer-9934-429-456
- Meeting of the Strategic Advisory Group of Experts on Immunization (SAGE), 11 13 March 2024: conclusions and recommendations. <u>https://iris.who.int/handle/10665/376934</u>
- WHO Vaccines and immunization for monkeypox: Interim guidance, 16 November 2022. <u>https://apps.who.int/iris/bitstream/handle/10665/364527/WHO-MPX-Immunization-2022.3-eng.pdf</u>

Risk communication and community engagement and public health advice

- Gatherings in the context of the 2024 mpox outbreak: public health guidance, 22 November 2024. <u>https://www.who.int/publications/i/item/B09143</u>
- Public health advice on understanding, preventing and addressing stigma and discrimination related to mpox, 18 November 2024. <u>https://www.who.int/publications/m/item/public-health-advice-on-</u> understanding-preventing-and-addressing-stigma-and-discrimination-related-to-mpox
- Considerations for border health and points of entry for mpox: interim guidance, 23 October 2024. https://www.who.int/publications/i/item/B09144
- Public health advice for mpox prevention and control in school settings (WHO African regional office). October 2024, Interim Public Health Advice for Mpox-Related Prevention and Control Measures in School Settings <u>https://www.afro.who.int/publications/interim-public-health-advice-mpox-related-prevention-andcontrol-measures-school</u>
- Public health advice on mpox for people living in camps, refugee populations, internally displaced people and migrants, 14 October 2024. <u>https://www.who.int/publications/m/item/public-health-advice-on-mpox-for-people-living-in-camps--refugee-populations--internally-displaced-people-and-migrants</u>

- Public health advice for sex workers on mpox, 18 September 2024.
 <u>https://www.who.int/publications/m/item/public-health-advice-for-sex-workers-on-monkeypox</u>
- Mpox Factsheet, 26 August 2024. <u>https://www.who.int/news-room/fact-sheets/detail/mpox</u>
- Mpox Q&A, 17 August 2024. <u>https://www.who.int/news-room/questions-and-answers/item/mpox</u>
- Risk communication and community engagement readiness and response toolkit: mpox, 23 April 2024.
 <u>https://www.who.int/publications/i/item/9789240091559</u>
- Mpox Q&A on mpox testing for individuals and communities, 11 December 2023. <u>https://www.who.int/news-room/questions-and-answers/item/testing-for-mpox--individuals-and-communities</u>
- Infographic on getting tested for mpox, 27 February 2023. <u>https://www.who.int/multi-media/details/getting-tested-for-mpox--what-you-need-to-know</u>
- Gatherings in the context of the 2024 mpox outbreak: Public health guidance, 15 October 2024. https://iris.who.int/handle/10665/379242
- Public health advice on mpox and congregate settings: settings in which people live, stay or work in proximity, 20 March 2023. <u>https://www.who.int/publications/m/item/public-health-advice-on-mpox-and-congregate-settings--settings-in-which-people-live--stay-or-work-in-proximity</u>
- Public health advice for gay, bisexual and other men who have sex with men and mpox. Version 3. 9 March 2023. <u>https://www.who.int/publications/m/item/monkeypox-public-health-advice-for-men-who-have-sex-with-men</u>
- Public health advice on mpox and sex-on-premises venues and events, 01 March 2023.
 <u>https://www.who.int/publications/m/item/public-health-advice-on-mpox-%28monkeypox%29-and-sex-on-premises-venues-and-events</u>
- Public health advice on understanding, preventing and addressing stigma and discrimination to monkeypox, 1 September 2022. <u>https://www.who.int/publications/m/item/communications-and-</u> <u>community-engagement-interim-guidance-on-using-inclusive-language-in-understanding--preventing-and-</u> <u>addressing-stigma-and-discrimination-related-to-monkeypox</u>
- Public health advice for gatherings during the current monkeypox outbreak, 28 June 2022. https://www.who.int/publications/i/item/WHO-MPX-Gatherings-2022.1
- Risk communication and community engagement (RCCE) for monkeypox outbreaks: Interim guidance, 24 June 2022. <u>https://www.who.int/publications/i/item/WHO-MPX-RCCE-2022.1</u>

One Health and animal health

- World Organization for animal health (WOAH) statement on novel mpox, 23 August 2024. <u>https://www.woah.org/en/woah-statement-on-novel-mpox/</u>
- WOAH Risk guidance on reducing spillback of monkeypox virus from humans to wildlife. Pet Animals and other Animals, September 2022. <u>https://www.woah.org/app/uploads/2022/12/woah-mpox-guidelines-en.pdf</u>
- WOAH Website and FAQs on mpox, 12 August 2022. <u>https://www.woah.org/en/disease/mpox/</u>

Training and education

- Health topics mpox: <u>https://www.who.int/health-topics/monkeypox</u>
- Mpox Fact Sheet, 26 August 2024. <u>https://www.who.int/news-room/fact-sheets/detail/mpox</u>
- Mpox Q&A, 17 August 2024. <u>https://www.who.int/news-room/questions-and-answers/item/mpox</u>
- Mpox "What we know": infographics: English: <u>https://www.who.int/multi-media/details/mpox-what-we-know</u> French: <u>https://cdn.who.int/media/docs/default-source/documents/emergencies/outbreak-toolkit/mpox-infographic-fr-v03.pdf?sfvrsn=a4dac1d_1</u>
- OpenWHO. Online training module. Monkeypox: Introduction. <u>https://www.who.int/health-topics/monkeypox#tab=tab_1</u>
 - o English: <u>https://openwho.org/courses/monkeypox-introduction</u>
 - o Français: <u>https://openwho.org/courses/variole-du-singe-introduction</u>
- OpenWHO. Extended training. Monkeypox epidemiology, preparedness and response. 2021.

- English: https://openwho.org/courses/monkeypox-intermediate
- o Français: https://openwho.org/courses/variole-du-singe-intermediaire
- OpenWHO. Mpox and the 2022-2023 global outbreak
 - o English: https://openwho.org/courses/mpox-global-outbreak-2023
- OpenWHO.
- VigiMobile training video: <u>https://www.youtube.com/watch?v=UBfnBKRkAu0</u>
- Adverse Event Following Immunization (AEFI) causality assessment methodology: <u>https://www.who.int/publications/i/item/9789241516990</u>
- Adverse Event Following Immunization (AEFI) causality assessment software: <u>https://gvsi-aefi-tools.org/</u>
- eLearning courses on vaccine safety monitoring <u>https://who.csod.com/selfreg/register.aspx?c=aefi%20causality%20assessment</u>
 - Vaccines safety basics
 - \circ $\;$ Adverse Event Following Immunization (AEFI) data management $\;$
 - AEFI investigation
 - o AEFI causality assessment

Other resources

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

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.