

Multi-country outbreak of mpox

External Situation Report 31, published 22 December 2023

Data as received by WHO from national authorities by 30 November 2023

Mpox long-term risk assessment ¹	Laboratory confirmed cases	Deaths	Countries/areas/territories
<ul style="list-style-type: none">• The risk for the general population in countries with historical mpox transmission and their neighbouring countries is assessed as moderate.• The risk for gay men, bisexual men, other men who have sex with men, trans and gender diverse people, and sex workers, is assessed as moderate.• The risk for the general population in countries not affected prior to the current outbreak is assessed as low.	92 783	171	116

Highlights

- A total of 906 new laboratory-confirmed cases of mpox were reported globally in November 2023 from 26 countries. The most affected regions, ordered by number of laboratory-confirmed cases, were the WHO Region of the Americas, the European Region, the Western Pacific Region, the South-East Asia Region and the African Region.
- Based on the data reported through global surveillance, the mpox outbreak continues in most WHO regions, at a low level of transmission in the Western Pacific and South-East Asia, while more extensive transmission is observed in the European Region and in the Region of the Americas.
- The African region shows a relatively low case count of laboratory-confirmed cases. The section of the report focusing on the Democratic Republic of the Congo illustrates the high level of transmission occurring in the country as reflected by the high number of suspected (clinically compatible) cases reported.
- This issue provides a special focus on a report received of a case of mpox on a thematic cruise, highlighting the continued risk that gatherings and events which include sexual contact might represent in amplifying the ongoing global outbreak.
- This report also includes a summary of a WHO mission to the Democratic Republic of the Congo conducted in collaboration with national counterparts and partners to assess the mpox situation in the country.

¹ These risks represent population average risks; individual risks will vary depending on individual behaviours, specific geographic location, immune status, and other factors.

Epidemiological Update

Data source: [WHO Multi-country mpox outbreak - Global trends](#)

From 1 January 2022 through 30 November 2023, a cumulative total of 92 783 laboratory-confirmed cases of mpox, including 171 deaths, have been reported to WHO from 116 countries/territories/areas (hereafter 'countries') in all six WHO Regions (Table 1). A total of 906 new cases were reported in November, which represents a 26% increase compared to the number of new cases reported during the previous month. Most cases in November 2023 were reported from the Region of the Americas (34%) and from the European Region (29%).

In November, 26 countries reported cases, with 18 reporting an increase compared to October. The United States of America (n = 299 vs 135) reported the highest increase in the Region of the Americas, Portugal (n = 128 vs 43) the highest increase in the European Region and Singapore (n = 13 vs five) the highest in the Western Pacific Region. China reported a 37% decline in the number of new cases last month (n = 89 vs 141) but continues to influence the high case counts in the Western Pacific Region (Table 1). A slight decline in reported cases has been observed in the African Region, which might be due in part to irregular reporting to WHO from countries in the region and the fact that most suspected (clinically compatible) cases are not laboratory-confirmed (see section on the Democratic Republic of the Congo below).

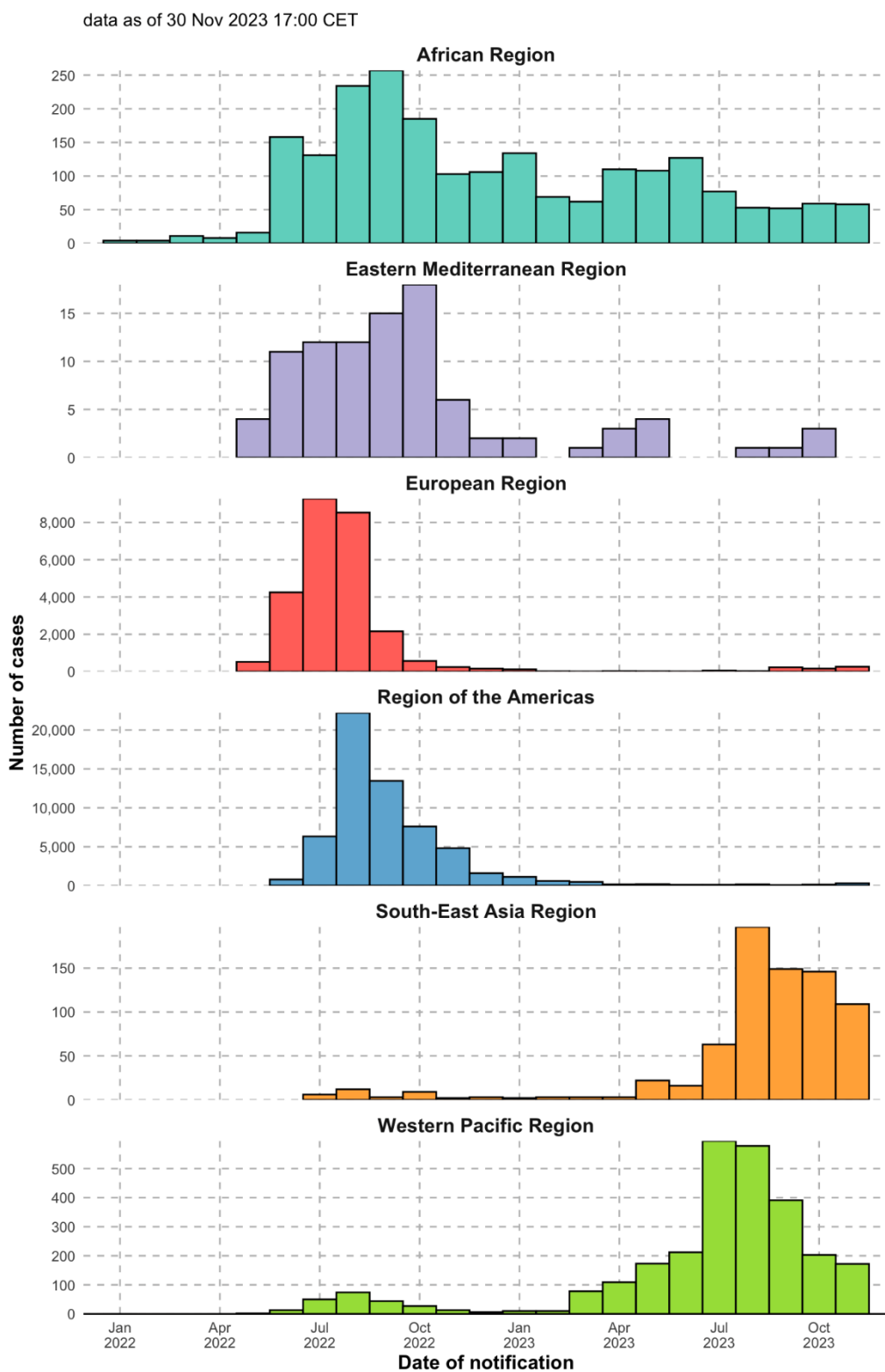
As of 30 November 2023, the ten countries that have reported the highest cumulative number of cases globally are the United States of America (n = 31 070), Brazil (n = 10 967), Spain (n = 7684), France (n = 4164), Colombia (n = 4090), Mexico (n = 4071), the United Kingdom (n = 3867), Peru (n = 3812), Germany (n = 3779), and China (n = 2024). Together, these countries account for 81.4% of the cases reported globally.

Table 1. Number of cumulative confirmed mpox cases and deaths reported to WHO, by WHO Region, from 1 January 2022 through 30 November 2023

WHO Region	Total confirmed cases	Total deaths	Cases in last month	Monthly change in cases (%)
Region of the Americas	60 400	136	308	+110
European Region	26 654	7	259	+58
Western Pacific Region	2 760	3	172	-15
African Region	2 126	22	58	-1.7
South-East Asia Region	748	2	109	-25.0
Eastern Mediterranean Region	95	1	0	-
Total	92 783	171	906	+25.7

The epidemic curves shown in Figure 1 suggest that the outbreak continues in the European Region, Region of the Americas, African Region, and the Western Pacific; with a similar pattern and slightly lower rate in South-East Asia. The Eastern Mediterranean Region continues to report sporadic mpox cases which do not allow to determine if sustained human-to-human transmission is taking place in the region.

Figure 1. Epidemic curves of monthly aggregated confirmed cases of mpox by WHO Region, from 1 January 2022 to 30 November 2023

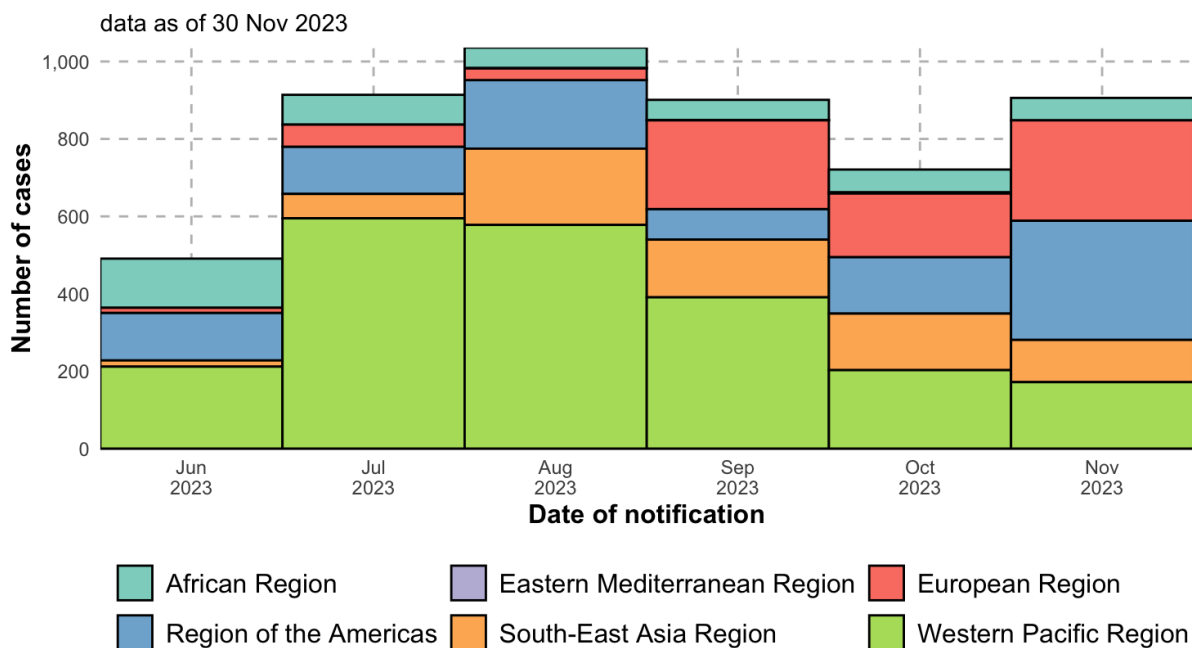


Source: WHO

*Figure 1 shows aggregated monthly data, ending on the last day of the month. **Note the different scales of the y-axes.**

Figure 2 shows that the number of monthly laboratory-confirmed mpox cases reported globally in the last six months (1 May 2023 – 30 Nov 2023) has fluctuated between 500 and 1000 cases, with most cases being reported by the Western Pacific Region, followed by the Americas, Europe, and South-East Asia. The constantly changing geographical distribution of the cases does not allow for an accurate prediction of the regional trends, but the continued high number of cases globally highlights the fact that this outbreak is not over, and the virus continues to find pockets of susceptible individuals.

Figure 2. Epidemic curve of monthly aggregated number of confirmed mpox cases reported by WHO region, for the last six months, 1 May – 30 November 2023.



Source: WHO

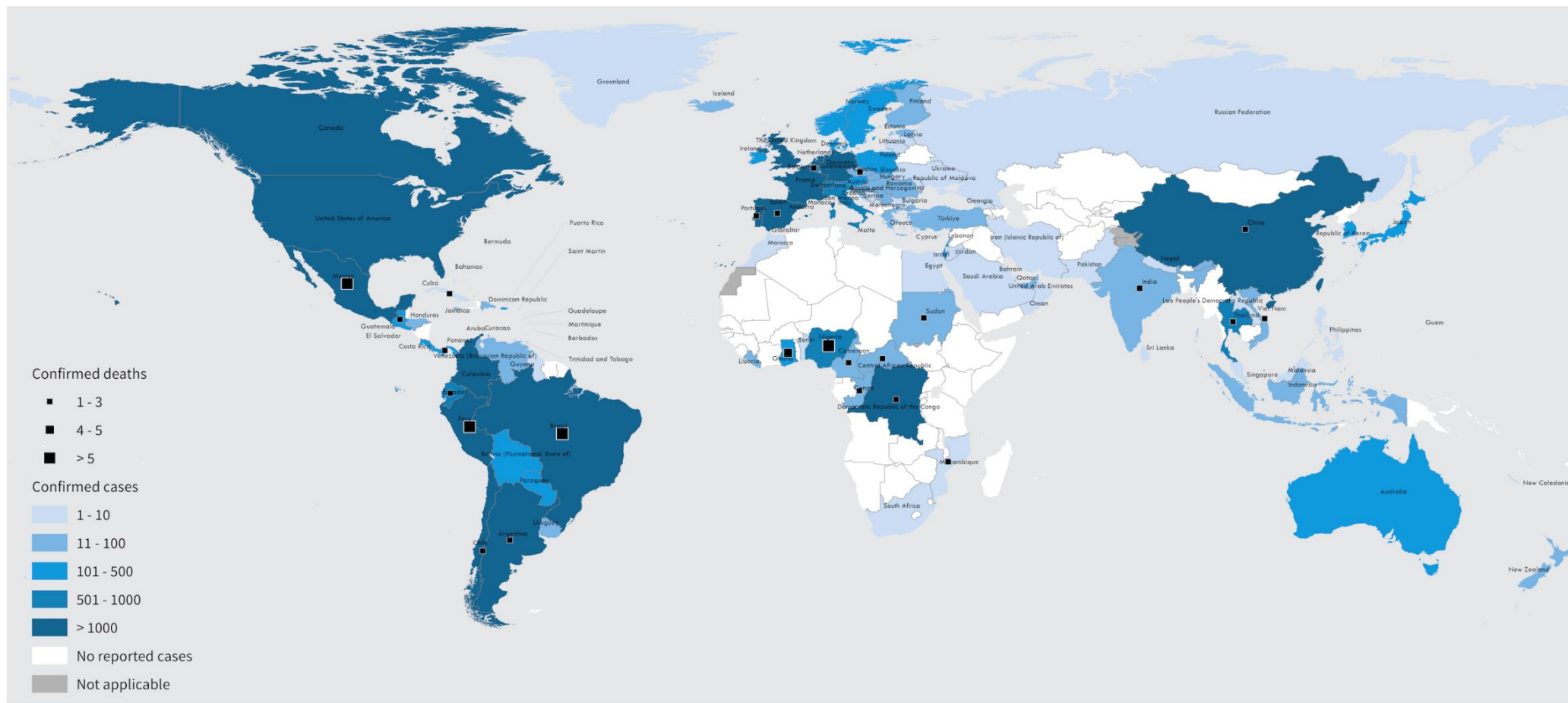
Other key epidemiological findings:

- As of 30 November 2023, 96.4% (82 528 / 85 649) of cases with available data are male, with a median age of 34 years (interquartile range: 29 - 41 years). The age and sex distribution of cases remains stable over time and the majority of cases in the last months continue to be among young men (18-49 years old).
- Of cases with age data available, 1.3% (1149 / 88 781) are aged 0-17 years, including 333 (0.4%) aged 0-4 years. The majority of confirmed mpox cases aged 0-17 years were reported from the Region of the Americas (702 / 1149; 61%). The overall proportion of cases under 18 years of age in the Region of the Americas is 1.2%, similar to the proportion observed globally. In newly affected countries, children have been the least affected population by the outbreak; while in historically affected countries such as the Democratic Republic of the Congo, children under 15 years of age represent the majority of reported mpox cases. Due to limited testing capacity in the Democratic Republic of the Congo, these cases are classified as suspected cases and are not part of the data summarized in this section of the report.
- in the global of all reported modes of transmission outbreak, sexual encounter is the most common, comprising 17 907 of 21 561 (83.1%) of all reported transmission events, followed by person-to-person non-sexual contact; this pattern has persisted over the last six months, with 97.1% (1355 of 1396) of new cases reporting sexual contact. From October 2023, exposure setting data are no longer collected globally. Detailed information on the routes of transmission is not available for most cases from the African Region, thus the available information on transmission might not fully describe the spread of the virus in this region.
- Among cases where at least one symptom is reported (n = 36 723), the most common symptom is any rash, reported in 89.9% of cases, followed by fever (58.4%), and systemic rash or genital rash (54.3% and

50.2% respectively). The symptomatology of cases has been very consistent over time in this outbreak. Although information on clinical presentation from countries in West and Central Africa is missing in the global surveillance data, other sources of information support rash being the main mpox symptom among cases there as well.

- Around half (18 108 / 34 746; 52.1%) of cases with available information in this outbreak are reported to be in persons living with HIV. This proportion is consistent for cases reported in the last six months (1287 / 2447; 52.6%). Information on HIV status is not available for most cases in the African Region, and the above description might not be fully representative of cases with different demographics in this region.

Figure 3. Geographic distribution of confirmed cases of mpox reported to or identified by WHO from official public sources, from 1 January 2022 to 30 November 2023



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Data Source: World Health Organization
 Map Production: WHO Health Emergencies Programme
 Map Date: 20 December 2023

Special focus: Mpox on a cruise ship with a South-East Asian itinerary

In early December, WHO was notified about [a passenger from a cruise liner in South-East Asia who, upon returning to Germany, was diagnosed with mpox](#). The Norwegian Jewel cruise ship departed from Singapore on 11 November and arrived in Laem Chabang, Thailand, on 20 November 2023, with intermediate stops in Phuket Thailand, Langkawi and Port Klang, Malaysia, and Phu My, Viet Nam. The ship carried approximately 2300 passengers and crew from around the world. The above-mentioned passenger developed mild symptoms during the first days of the cruise, including fever, painful swollen lymph nodes in the groin, and a pustule on the hip. He consulted his physician in Germany after the end of the cruise and was later confirmed to have mpox; the genome sequence of the monkeypox virus confirmed the illness was due to a clade IIb variant circulating in the region where the cruise took place. He reported having received one dose of MVA-BN vaccine in August 2023, and has since made a complete recovery.

The passenger reported having multiple sexual encounters during the cruise, and anecdotally reported that other individuals onboard presented symptoms compatible with mpox. The incubation period for mpox for most cases ranges from two to 21 days; additional passengers may have developed symptoms after the cruise. WHO has not received any further communication about cases from this cruise. The health impact of mpox depends on individuals' prior mpox immunity (from vaccination or previous mpox infection) and their underlying health status. Individuals who are immunosuppressed are at higher risk for severe mpox disease.

Through direct communication to national International Health Regulation focal points, WHO advised national health authorities to continue to monitor the occurrence of mpox in their jurisdictions, and local health authorities to follow appropriate health measures including contact tracing for people who may have self-identified as cruise passengers. WHO also shared information about the outbreak through the global community reference group for mpox to enhance general awareness for persons who may be at risk or who may have participated in the cruise.

Cruise operators are obligated to report to the health authority of the next port of call any cases of infectious diseases occurring during international journeys as set out in Article 37 of the International Health Regulation (2005). After review of the cruise health documentation by Vietnamese authorities during its subsequent trip, it was communicated that cruise operators were not aware of mpox cases during the cruise.

All themed cruise passengers and participants in events and gatherings where activities involving close physical contact, including sexual contact, may lead to a risk of contracting mpox, and should be provided with information and advice about how to protect themselves and their contacts, as well as be advised to seek medical care if necessary. The WHO public health advice for gatherings during the current mpox outbreak can be accessed [here](#).

In general, it is important to maintain awareness of mpox among communities at risk for infection, health care professionals and sexual health service providers in order to strengthen case detection, contact tracing, and management of cases; offer testing and treatment as needed; promote vaccination; and mitigate stigma and discrimination associated with mpox that may cause additional harm to individuals experiencing symptoms, and deter them from seeking appropriate care.

Special focus: Mpox mission in the Democratic Republic of the Congo

Mpox was first identified in humans in the Democratic Republic of the Congo in 1970. Since then, the country has continued to report rising numbers of cases over time. Although the animal reservoir of mpox has not been identified, the disease in the country is considered to be transmitted both through contact with infected animals and through human-to-human transmission. To date only clade I monkeypox virus (MPXV) has been confirmed in the Democratic Republic of the Congo; testing for clade IIb has not taken place systematically. In eleven of the 26 provinces of the country, mpox is considered to be endemic; in recent years the total number of mpox cases reported has been rising and the number of provinces reporting mpox has been expanding, to 22 provinces as of November 2023.

From 1 January 2022 through the end of November 2023, the country reported 19 034 suspected (clinically compatible) mpox cases and 820 deaths among suspected cases (Case fatality ratio [CFR] = 4.3%). In 2023 to the end of November, 13 357 suspected cases with 607 deaths among these have been reported (CFR = 4.5%). Around 70% of suspected mpox cases and deaths in the country are among children under 15 years of age. Due to limited testing capacities, only approximately 10% of suspected cases in 2023 have been tested by PCR; the test positivity rate at the national level is around 65%. The remaining 90% remain classified as suspected cases based on signs and symptoms compatible with mpox¹.

In April 2023, the country documented the first ever transmission of clade I MPXV through sexual contact, with transmission being confirmed between male partners, and simultaneously through heterosexual transmission in outbreaks occurring in different geographic areas².

Due to a lack of timely access to diagnostics, difficulties with linking cases to any exposure to infectious animals, and incomplete epidemiological and contact tracing investigations over the years, the dynamics of MPXV clade I transmission in the Democratic Republic of the Congo are not well understood.

In collaboration with the national ministry of health, WHO undertook an assessment mission in the Democratic Republic of the Congo from 22 November to 12 December 2023, involving the three levels of the Organization and national authorities which included the Institut National de Santé Publique, the national mpox and haemorrhagic fevers control programme, the National HIV/AIDS control programme, the Institut National de Recherche Biomédicale (INRB), health officials at all levels of the health system, and other partners. The overall objective of the mission was to assess the epidemiological situation with respect to mpox in the country and identify actions needed to strengthen its capacity to detect, prevent and respond to the growing number of mpox cases and new modes of transmission being reported.

The mission included a review of mpox technical documents, technical meetings with national and local public health authorities working on mpox in the country, meetings with local partners and affected communities, and field visit to four target provinces: Kinshasa province, the capital city, which has recently reported its first confirmed mpox cases; Equateur province, an area considered endemic for mpox and reporting the highest number of cases yearly; Kwango province, reporting the first transmission through sexual contact of clade I MPXV; and South Kivu province, an area previously not affected by mpox which has recently reported new outbreaks of mpox involving human-to-human transmission through sexual contact.

The main strengths identified include an experienced mpox disease control programme; established Integrated Disease Surveillance and Response (IDSR) which includes mpox; a detailed and specific classic case definition for mpox, which is well known and applied by communities and health workers in endemic areas; good laboratory knowledge of the pathogen at central level; and resilience of the health workforce.

The main gaps identified during the mission include limited coordination between partners working on mpox in the country; limited resources, leading to limited in-depth investigation of chains of transmission despite good general surveillance of suspected cases and deaths; very limited specimen collection and confirmatory testing capacity; challenges for infection prevention and control in various environments; no awareness to date among

health workers of sexual modes of transmission of mpox or how patients may present during outbreaks due to sexual transmission, leading to missed cases; and mixed risk communication and community engagement capacities from province to province, based largely on prior experience of the disease. There are also gaps in access to medical countermeasures. Ministry of Health has expressed support for and interest in mpox vaccines, which are recommended for primary pre-exposure and post-exposure preventive use for individuals at high risk and close contacts of exposed individuals respectively³. Regulatory and liability requirements for delivering mpox vaccine in DRC are being reviewed and addressed.

The main recommendations of the mission include: to strengthen coordination at all levels, between national players, including collaboration between the different programmes concerned, and with and between technical and development partners; to reinforce mpox surveillance in all provinces; to increase and decentralize diagnostic capacity in provincial laboratories; to raise awareness and train health professionals and the public on mpox; to promote infection prevention and control measures to contain mpox transmission, both in the community and in health facilities; and to strengthen risk communication and community engagement.

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Technical guidance and other resources

Strategic Planning and Global Support

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- Monkeypox Strategic Preparedness, Readiness and Response Plan (SPRP) Operational planning guidelines – 2 November 2022 <https://www.who.int/publications/m/item/monkeypox-strategic-preparedness--readiness--and-response--operational-planning-guidelines>
- WHO Emergency Appeal: Monkeypox - July 2022 – June 2023, 13 October 2022 <https://www.who.int/publications/m/item/who-emergency-appeal--monkeypox---july-2022---june-2023>
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- Report of the Review Committee regarding standing recommendations for mpox, 16 August 2023. Available at: <https://www.who.int/publications/m/item/report-of-the-review-committee-regarding-standing-recommendations-for-mpox>
- WHO Fifth meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of mpox (monkeypox), 10 May 2023. [https://www.who.int/news/item/11-05-2023-fifth-meeting-of-the-international-health-regulations-\(2005\)-\(ihr\)-emergency-committee-on-the-multi-country-outbreak-of-monkeypox-\(mpox\)](https://www.who.int/news/item/11-05-2023-fifth-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-on-the-multi-country-outbreak-of-monkeypox-(mpox))
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WHO Interim technical guidance

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- WHO Technical brief (interim) and priority actions: enhancing readiness for monkeypox in WHO South-East Asia Region, 7 July 2022. <https://cdn.who.int/media/docs/default-source/searo/whe/monkeypox/searo-mpx-tbrief22.pdf>

Surveillance

- Surveillance, case investigation and contact tracing for mpox (monkeypox): interim guidance, 22 December 2022. <https://www.who.int/publications/i/item/WHO-MPX-Surveillance-2022.4>
- WHO Global clinical data platform for monkeypox case report form (CRF), 21 July 2022, https://www.who.int/publications/i/item/WHO-MPX-Clinical_CRF-2022.3
- Technical Guidelines for Integrated Disease Surveillance and Response in the African Region: Third edition: <https://www.afro.who.int/publications/technical-guidelines-integrated-disease-surveillance-and-response-african-region-third>

Data management

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Risk communication and community engagement and Public Health Advice

- Risk communication and community engagement (RCCE) for monkeypox outbreaks: Interim guidance, 24 June 2022. <https://www.who.int/publications/i/item/WHO-MPX-RCCE-2022.1>
- Interim advice for public health authorities on summer events during the monkeypox outbreak in Europe, 2022. 14 June 2022. <https://www.who.int/europe/publications/m/item/interim-advice-for-public-health-authorities--on-summer-events-during-the-monkeypox--outbreak-in-europe--2022>
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- Mpox infographics: <https://who.canto.global/v/UNNOPG0353/folder/K677K?viewIndex=0>

EPI - WIN Webinars and Updates

- The recordings of the previous [EPI-WIN Webinars](#) related to current monkeypox outbreak:
 - WHO EPI-WIN webinar: Global mpox strategy for elimination and control: open consultation (28 June)” <https://www.who.int/news-room/events/detail/2023/06/28/default-calendar/who-epi-win-webinar-global-mpox-strategy-for-elimination-and-control-open-consultation>
 - WHO EPI-WIN webinar: Changing perspectives of the mpox outbreak (22 February 2023): <https://www.who.int/news-room/events/detail/2023/02/22/default-calendar/who-epi-win-webinar-changing-perspectives-of-the-mpox-outbreak>
 - EPI-WIN webinar: How is Monkeypox spreading? What we know so far (27 July 2022): <https://www.who.int/news-room/events/detail/2022/07/27/default-calendar/WHO-EPI-WIN-webinar-how-is-monkeypox-spreading>
 - EPI-WIN webinar: Monkeypox outbreak and mass gatherings (24 June 2022) : <https://www.who.int/news-room/events/detail/2022/06/24/default-calendar/WHO-EPI-WIN-webinar-monkeypox-and-mass-gathering>
- WHO monkeypox technical briefing for the transport and tourism sector, 5 October 2022: <https://www.who.int/news-room/events/detail/2022/10/05/default-calendar/technical-briefing-on-monkeypox-for-transport-and-tourism-sector>
- [Managing stigma and discrimination in health-care settings in public health emergencies such as monkeypox](#) (22 Sept 2022)
- [How is monkeypox spreading? What do we know so far](#) (27 July 2022)
- [Monkeypox outbreak and mass gatherings](#) (24 June 2022)
- WHO Monkeypox outbreak: update and advice for health workers, 26 May 2022. https://www.who.int/docs/default-source/coronaviruse/risk-comms-updates/update_monkeypox-.pdf?sfvrsn=99baeb03_1

EPI-WIN updates

- [Update 79: Monkeypox outbreak update: Situation - transmission - countermeasures](#)
- [Update 78: Monkeypox and mass gatherings](#)
- [Update 77: Monkeypox outbreak, update and advice for health workers](#)

Laboratory and diagnostics

- Monkeypox: experts give virus variants new names, 12 August 2022. <https://www.who.int/news/item/12-08-2022-monkeypox--experts-give-virus-variants-new-names>
- Diagnostic testing for the monkeypox virus (MPXV): interim guidance, 9 November 2023. <https://www.who.int/publications/i/item/who-mpx-laboratory-2023-1>
- WHO Guidance on regulations for the transport of infectious substances 2021-2023, 25 February 2021. <https://www.who.int/publications/i/item/9789240019720>

- Genomic epidemiology of monkeypox virus. <https://nextstrain.org/monkeypox?c=country>

Clinical management and Infection, prevention and Control

- Clinical management and infection prevention and control for monkeypox: Interim rapid response guidance, 10 June 2022. <https://www.who.int/publications/i/item/WHO-MPX-Clinical-and-IPC-2022.1>
- [Atlas of mpox lesions: a tool for clinical researchers.](#)
- [mhGAP intervention guide - version 2.0. Geneva: World Health Organization; 2019.](#)
- [mhGAP training manuals for the mhGAP intervention guide for mental, neurological, and substance use disorders in non-specialized health settings. Geneva: World Health Organization; 2017. <https://apps.who.int/iris/handle/10665/250239>](#)

One Health and animal health

- [WOAH Risk Guidance on Reducing Spillover of Mpox \(Monkeypox\) virus from Humans to Wildlife, Pet Animals and other Animals](#)
- [WOAH Website and FAQs on Monkeypox in animals](#)

Disease Outbreak News and situation reports

- Monkeypox outbreak 2022: <https://www.who.int/emergencies/situations/monkeypox-outrage-2022>
- Multi-country outbreak of mpox, External situation report #30- 25 November 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-30---25-november-2023>
- Multi-country outbreak of mpox, External situation report #29- 20 October 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-29---20-october-2023>
- Multi-country outbreak of mpox, External situation report #28- 19 September 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-28---19-september-2023>
- Multi-country outbreak of mpox, External situation report #27- 14 August 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-27---14-august-2023>
- Multi-country outbreak of mpox, External situation report #26- 14 July 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--26---14-july-2023>
- Multi-country outbreak of mpox, External situation report #25- 24 June 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--25---24-june-2023>
- Multi-country outbreak of mpox, External situation report #24- 10 June 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--24---10-june-2023>
- Multi-country outbreak of mpox, External situation report #23- 26 May 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--23---26-may-2023>
- Multi-country outbreak of mpox, External situation report #22- 11 May 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--22---11-may-2023>
- Multi-country outbreak of mpox, External situation report #21- 27 April 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-21---27-april-2023>
- Multi-country outbreak of mpox, External situation report #20- 13 April 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--20---13-april-2023>
- Multi-country outbreak of mpox, External situation report #19- 30 March 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--19---30-march-2023>
- Multi-country outbreak of mpox, External situation report #18- 16 March 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--18---16-march-2023>
- Multi-country outbreak of mpox, External situation report #17- 2 March 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report---17---2-march-2023>
- Multi-country outbreak of mpox, External situation report #16- 16 February 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--16---16-february-2023>
- Multi-country outbreak of mpox, External situation report #15- 2 February 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-15--2-february-2023>
- Multi-country outbreak of mpox, External situation report #14- 19 January 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-14--19-january-2023>
- Multi-country outbreak of mpox, External situation report #13- 5 January 2023: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--13---5-january-2023>
- Multi-country outbreak of mpox, External situation report #12- 14 December 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-12--14-december-2022>
- Multi-country outbreak of mpox, External situation report #11- 1 December 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report--11---1-december-2022>
- Multi-country outbreak of monkeypox, External situation report #10- 16 November 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--10---16-november-2022>
- Multi-country outbreak of monkeypox, External situation report #9- 2 November 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--9---2-november-2022>
- Multi-country outbreak of monkeypox, External situation report #8- 19 October 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--8---19-october-2022>
- Multi-country outbreak of monkeypox, External situation report #7- 5 October 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--7---5-october-2022>

- Multi-country outbreak of monkeypox, External situation report #6- 21 September 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--6---21-september-2022>
- Multi-country outbreak of monkeypox, External situation report #5- 7 September 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--5---7-september-2022>
- Multi-country outbreak of monkeypox, External situation report #4- 24 August :
- <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--4---24-august-2022>
- Multi-country outbreak of monkeypox, External situation report #3 - 10 August 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--3---10-august-2022>
- WHO Multi-country outbreak of monkeypox, External situation report #2 – 25 July 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--2---25-july-2022>
- WHO Multi-country outbreak of monkeypox, External situation report #1 - 6 July 2022: <https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--1---6-july-2022>
- [WHO disease outbreak news: Monkeypox, all items related to multi-country outbreak](#)
- WHO disease outbreak news: Monkeypox, all previous items including endemic countries and traveler-associated outbreaks <https://www.who.int/emergencies/emergency-events/item/monkeypox>

Training and Education

- WHO monkeypox outbreak toolbox, June 2022. <https://www.who.int/docs/default-source/documents/emergencies/outbreak-toolkit/monkeypox-toolbox-20112019.pdf>
- Health topics – Monkeypox: <https://www.who.int/health-topics/monkeypox>
- Open WHO. Online training module. Monkeypox: Introduction. 2020
 - English: <https://openwho.org/courses/monkeypox-introduction>
 - Français: <https://openwho.org/courses/variole-du-singe-introduction>
- Open WHO. Extended training. Monkeypox epidemiology, preparedness and response. 2021.
 - English: <https://openwho.org/courses/monkeypox-intermediate>;
 - Français: <https://openwho.org/courses/variole-du-singe-intermediaire>

Other Resources

- WHO AFRO Weekly Bulletin on Outbreaks and Other Emergencies, all previous items: <https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-updates>
- WHO 5 moments for hand hygiene. <https://www.who.int/campaigns/world-hand-hygiene-day>
- WHO One Health. <https://www.who.int/health-topics/one-health>
- World Organisation for Animal Health, founded as OIE: Monkeypox. <https://www.woah.org/en/disease/monkeypox/>
- Joint WHO Regional Office for Europe - European Centre for Disease Prevention and Control, Monkeypox surveillance bulletin [Situation reports \(who.int\)](#)
- Joint WHO Regional Office for Europe - European Centre for Disease Prevention and Control, Monkeypox Resource toolkit to support national authorities and event organizers in their planning and coordination of mass and large gathering events. <https://www.who.int/europe/tools-and-toolkits/monkeypox-resource-toolkit-for-planning-and-coordination-of-mass-and-large-gathering-events/>
- WHO. Monkeypox & mass gatherings. Recommendations for mass gatherings during a monkeypox outbreak. https://cdn.who.int/media/docs/default-source/epi-win/update78_monkeypox-mass-gatherings.pdf?sfvrsn=dfc9ee5a_1&download=true
- WHO European Region Interim advice for public health authorities on summer events during the monkeypox outbreak in Europe, 2022 <https://www.who.int/europe/publications/m/item/interim-advice-for-public-health-authorities--on-summer-events-during-the-monkeypox--outbreak-in-europe--2022>
- Weekly epidemiological record (WER) no.11, 16 March 2018, Emergence of monkeypox in West Africa and Central Africa 1970-2017. <http://apps.who.int/iris/bitstream/handle/10665/260497/WER9311.pdf;jsessionid=7AB72F28D04CFE6CE24996192FC478FF?sequence=1>. Jezek Z., Fenner F.: Human Monkeypox. Monogr Virol. Basel, Karger, 1988, vol 17, pp 1-5. doi: 10.1159/isbn.978-3-318-04039-5
- Monkeypox in the Region of the Americas - Risk assessment. <https://www.paho.org/en/documents/monkeypox-region-americas-risk-assessment>
- mhGAP humanitarian intervention guide (mhGAP-HIG): clinical management of mental, neurological, and substance use conditions in humanitarian emergencies. Geneva: World Health Organization; 2015. <https://www.who.int/publications/i/item/9789241548922>
- WHO. Weekly Bulletin on Outbreaks and Other Emergencies [Internet]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/370961/OEW27-0309072023.pdf>

Annex 1: Data, table and figure notes

Caution must be taken when interpreting all data presented. Differences are to be expected between information products published by WHO, national public health authorities, and other sources using different inclusion criteria and different data cut-off times. While steps are taken to ensure accuracy and reliability, all data are subject to continuous verification and change.

Case detection, definitions, testing strategies, reporting practice, and lag times differ between countries/territories/areas. These factors, amongst others, influence the counts presented, with variable underestimation of true case and death counts, and variable delays to reflecting these data at the global level. Moreover, at the present stage of the 2022-23 global mpox outbreak, frequency of reporting of cases to WHO has decreased substantially, therefore presented data might not be fully representative of the overall epidemiological situation in several countries.

^[i]'Countries' may refer to countries, territories, areas or other jurisdictions of similar status. The designations employed, and the presentation of these materials do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Annex 2: Confirmed cases of mpox by WHO region and country from 1 January 2022 through 30 November 2023, 17:00 CEST.

*Countries with no reported cases in the last month

WHO Region	Country	Total Confirmed Cases	Total Deaths [#]
African Region	Benin*	3	0
	Cameroon*	45	3
	Central African Republic*	30	1
	Congo	26	2
	Democratic Republic of the Congo	1 033	2
	Ghana*	127	4
	Liberia*	13	0
	Mozambique*	1	1
	Nigeria*	843	9
	South Africa*	5	0
Eastern Mediterranean Region	Bahrain*	2	0
	Egypt*	3	0
	Iran (Islamic Republic of) *	1	0
	Jordan*	1	0
	Lebanon*	27	0
	Morocco*	3	0
	Oman	3	0
	Pakistan*	7	0
	Qatar*	5	0
	Saudi Arabia*	8	0
	Sudan*	19	1
	United Arab Emirates*	16	0
European Region	Andorra*	4	0
	Austria	333	0
	Belgium	797	2
	Bosnia and Herzegovina*	9	0

	Bulgaria*	6	0
	Croatia*	33	0
	Cyprus*	5	0
	Czechia*	71	1
	Denmark	198	0
	Estonia*	11	0
	Finland*	43	0
	France	4 164	0
	Georgia*	2	0
	Germany	3 779	0
	Gibraltar*	6	0
	Greece*	89	0
	Greenland*	2	0
	Hungary*	81	0
	Iceland*	17	0
	Ireland	244	0
	Israel*	262	0
	Italy	972	0
	Latvia*	6	0
	Lithuania*	5	0
	Luxembourg	60	0
	Malta*	35	0
	Monaco*	3	0
	Montenegro*	2	0
	Netherlands	1 285	0
	Norway*	104	0
	Poland*	217	0
	Portugal	1 262	1
	Republic of Moldova*	2	0
	Romania*	47	0
	Russian Federation*	2	0
	San Marino*	1	0
	Serbia*	40	0
	Slovakia*	14	0
	Slovenia*	47	0
	Spain	7 684	3
	Sweden*	264	0
	Switzerland*	562	0
	The United Kingdom	3 867	0
	Türkiye*	12	0
	Ukraine*	5	0
Region of the Americas	Argentina	1 136	2
	Aruba*	3	0
	Bahamas*	3	0
	Barbados*	1	0
	Bermuda*	1	0
	Bolivia (Plurinational State of)*	265	0
	Brazil*	10 967	16
	Canada*	1 496	0
	Chile	1 447	3

	Colombia*	4 090	0
	Costa Rica*	225	0
	Cuba*	8	1
	Curaçao *	3	0
	Dominican Republic*	52	0
	Ecuador*	557	3
	El Salvador*	104	0
	Guadeloupe*	1	0
	Guatemala*	405	1
	Guyana*	2	0
	Honduras*	44	0
	Jamaica*	21	0
	Martinique*	7	0
	Mexico	4 071	34
	Panama*	237	1
	Paraguay*	126	0
	Peru*	3 812	20
	Puerto Rico*	211	0
	Saint Martin*	1	0
	Trinidad and Tobago*	3	0
	United States of America	31 070	55
Uruguay*	19	0	
Venezuela (Bolivarian Republic of) *	12	0	
South-East Asia Region	India*	27	1
	Indonesia	60	0
	Nepal*	1	0
	Sri Lanka*	4	0
	Thailand	656	1
Western Pacific Region	Australia*	156	0
	China	2 024	1
	Guam*	1	0
	Japan	225	0
	Lao People's Democratic Republic*	1	0
	Malaysia	9	0
	New Caledonia*	1	0
	New Zealand*	42	0
	Philippines*	5	0
	Republic of Korea	155	0
	Singapore	49	0
	Viet Nam	92	2
Cumulative	116 Countries/territories/areas	92 783	171

#Only deaths among confirmed cases are reported here; the reported number of deaths due to mpox among suspected cases is available at regional or national level.