# Multi-country outbreak of mpox

External Situation Report 35, published 12 August 2024
Data as received by WHO from national authorities as of 30 June 2024

REPORTING PERIOD: 1 January 2022 – 30 June 2024			
Laboratory-confirmed cases	Deaths	Countries/areas/territories	
99 176	208	116	

Mpox long-term risk assessment (as of August 2024)<sup>1</sup>

- Eastern Democratic Republic of the Congo and neighbouring countries, affecting mostly adults and spreading predominantly through sexual contact (linked to clade lb): HIGH.
- Areas of the Democratic Republic of the Congo where mpox is endemic, affecting mostly children and spreading through multiple modes of transmission (linked to clade Ia): **HIGH**.
- Nigeria and countries of West, Central and East Africa where mpox is endemic, affecting children and adults and spreading through multiple modes of transmission (linked to clades I and II): MODERATE.
- All countries in Africa and around the world, where outbreaks affect mainly men who have sex with men and spread predominantly through sexual contact (linked to clade IIb): MODERATE

# **Report Highlights**

- In June 2024 (latest complete monthly disease surveillance data available), a total of 934 new laboratory-confirmed cases of mpox and four deaths were reported to WHO from 26 countries, illustrating continuing transmission of mpox across the world. The most affected WHO regions, ordered by number of laboratory-confirmed cases, were the African Region (567 cases), the Region of the Americas (175 cases), the European Region (100 cases), the Western Pacific Region (81 cases) and the South-East Asia Region (11 cases). The Eastern Mediterranean region did not report cases in June 2024.
- As reporting from countries to WHO has been declining, the current reported global data most likely underestimate the actual number of mpox cases.
- Within the African Region, the Democratic Republic of the Congo reported most (96%) of the confirmed mpox cases in the reporting month. With limited access to testing in rural areas, 24% of clinically compatible (reported as suspected) cases in the country have been tested in 2024, with a positivity of around 65% at the national level. The confirmed case counts are, therefore, underestimates of the true burden.
- This issue also features an update on the geographic expansion of mpox in the WHO African Region from July August 2024, not yet captured in global surveillance data by 30 June 2024. Four new countries in Eastern Africa (Burundi, Kenya, Rwanda, and Uganda) reported their first mpox cases. All cases are linked to the expanding outbreak in East and Central Africa and all cases sequenced to date from these countries are clade I. Separately, Côte d'Ivoire is experiencing an outbreak of mpox linked to clade II MPXV and South Africa has reported two more confirmed cases.

<sup>&</sup>lt;sup>1</sup> These risks represent population average risk; individual risk varies with behaviour, geographic location, immune status, and other factors.

## **Epidemiological Update**

## Data source: 2022-24 Mpox (Monkeypox) Outbreak: Global Trends

From 1 January 2022 through 30 June 2024, a cumulative total of 99 176 laboratory-confirmed cases of mpox, including 208 deaths, were reported to WHO from 116² countries/territories/areas (hereafter 'countries') in all six WHO Regions (Table 1). A total of 934 new cases were reported in June 2024, comparable to the number of new cases reported for May 2024, including some cases retrospectively reported for previous months. For the second month in a row, most cases in June 2024 were reported from the African Region (61%), followed by the Region of the Americas (19%), and the European Region (11%). The African Region reported a rise in case counts in June 2024 compared to May 2024 (n = 567 vs 465), despite some delays in reporting typical of all regions. No case was reported by the Eastern Mediterranean Region.

Reporting to WHO has been declining, therefore, the recent trends in reported cases should be interpreted with caution. WHO continues to encourage all countries to ensure that mpox is a notifiable disease and to report mpox cases, including reporting when no cases have been detected (known as 'zero-reporting'). This report does not highlight non-reporting countries. Therefore, it should be noted that an absence of reported cases from a country may be due to the country not reporting, rather than having no cases.

In June 2024, 16 of 26 (62%) reporting countries showed an increase in cases compared to May 2024. The Democratic Republic of the Congo reported the highest relative increase in the African Region (n = 543 vs 459), Spain (n = 54 vs 38) reported the highest increase in the European Region, Colombia (n = 11 vs zero) reported the highest increase in the Region of the Americas, Australia (n = 64 vs 33) reported the highest increase in the Western Pacific Region, and no country reported an increase in the South-East Asia Region.

From 1 January 2022 to 30 June 2024, the ten countries that reported the highest cumulative number of confirmed cases globally are the United States of America ( $n = 33\ 191$ ), Brazil ( $n = 11\ 212$ ), Spain ( $n = 8\ 084$ ), France ( $n = 4\ 272$ ), Colombia ( $n = 4\ 249$ ), Mexico ( $n = 4\ 124$ ), the United Kingdom ( $n = 3\ 952$ ), Peru ( $n = 3\ 875$ ), Germany ( $n = 3\ 857$ ), and the Democratic Republic of the Congo ( $n = 4\ 124$ ). This marks the first time the Democratic Republic of the Congo has featured among the top ten countries that have reported the highest cumulative number of confirmed cases globally. Together, these ten countries account for 81% of the cases reported globally.

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

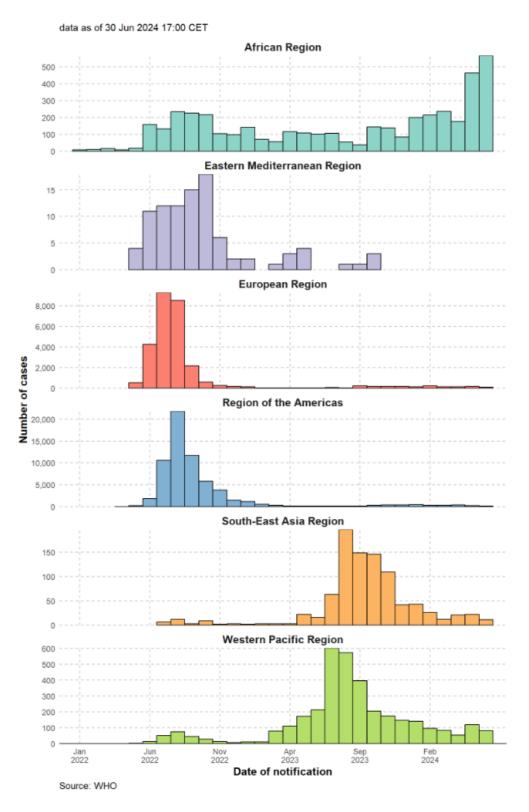
WIIO Donion	Total confirmed	Total deaths among confirmed	New cases reported in	New cases reported in	Monthly change
WHO Region	cases	cases	May	June	in cases (%)
Region of the Americas	62 904	141	215	175	-19.0
European Region	27 529	10	141	100	-29.0
African Region	4 232	35	465	567	22.0
Western Pacific Region	3 491	10	120	81	-32.0
South-East Asia Region	925	11	22	11	-50.0
Eastern Mediterranean Region	95	1	0	0	-
Total	99 176	208	963	934	-3.0

NB: The number of reports for previous months include retroactively assigned case reports received since the report for May

<sup>&</sup>lt;sup>2</sup> The number of reporting countries and territories has changed from 117 to 116 because cases from Puerto Rico are now reported as part of the cases from the United States of America.

The epidemic curves shown in Figure 1 suggest that the outbreak continues at a low level of transmission in the Region of the Americas, the European Region, the South-East Asian Region, and the Western Pacific. The African Region, on the other hand, shows sharply rising levels of laboratory-confirmed cases reported.

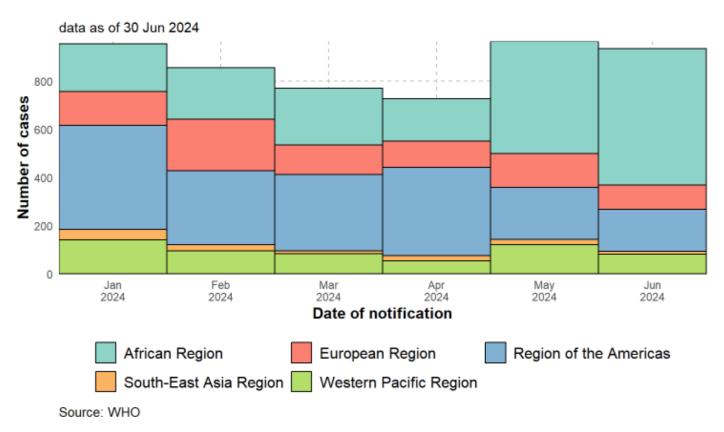
Figure 1. Epidemic curves of monthly aggregated laboratory-confirmed cases of mpox reported to WHO, by WHO Region, from 1 January 2022 to 30 June 2024



\*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 confirmed mpox cases reported globally in the last six months (1 January 2024 – 30 June 2024) fluctuated between 700 and 1000 cases (averaging 866 cases per month), with most cases reported by the African Region, followed by the Region of the Americas, and the European Region. As previously mentioned, trends in cases reported are to be interpreted with caution given the usual lag in reporting for some areas, and the decline in global data reporting. Additionally, delayed retrospective reporting, observed in recent months for some countries, could change the overall global trend. It is notable that this is the second month in a row that the African region is confirming more mpox cases than any other over the period of the last six months, which can be attributed to both the expanding outbreak and rising case count in the region and the concurrent national response with expansion of access to laboratory confirmation of cases, particularly in the Democratic Republic of the Congo.

Figure 2. Epidemic curve of monthly aggregated number of confirmed mpox cases reported by WHO region, for the last six months, 1 January 2024 – 30 June 2024.



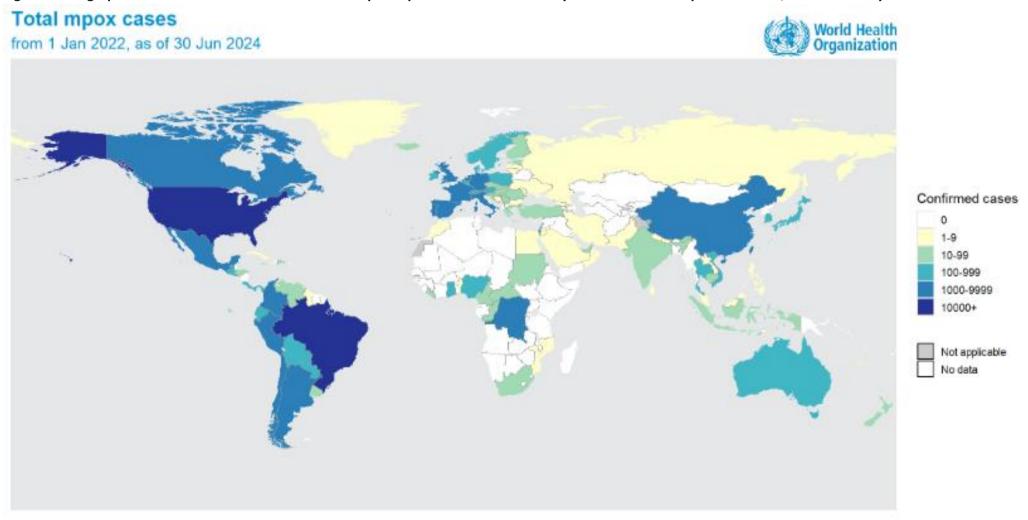
## Other key epidemiological findings:

The information presented below is a summary of the main epidemiological characteristics of mpox cases based on a detailed case-based data shared by Member States through the global mpox disease surveillance system from 01 January 2022 – 30 June 2024:

Globally, 96.4% (87 189 of 90 410 cases) of confirmed 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 remain stable over time, especially outside the African Region, as males from 18 – 44 years of age continue to be disproportionately affected by this outbreak and account for 79.4% of reported cases. No case-based data has been shared on the recent significant increase in cases in the Democratic Republic of the Congo yet, and the above summary does not reflect these new cases.

- Among cases with age data available, 1.3% (1 161 of 92 844 cases) are aged 0 17 years, including 334 (0.4%) aged 0 4 years. The majority of confirmed mpox cases aged 0 − 17 years were reported from the Region of the Americas (709 of 1 161 cases; 61%). The overall proportion of cases under 18 years of age in the Region of the Americas is 1.1%, similar to the proportion observed globally. In clade IIb affected countries, children have been least affected. Conversely, in historically affected countries such as the Democratic Republic of the Congo, children under 15 years of age represent most reported mpox cases. Due to improving but still limited access to testing, these are classified in-country as suspected cases (i.e. clinically compatible cases which, following investigation, meet the national case definition for mpox) and are not included in global mpox surveillance data or in this section of the report.
- Among modes of transmission, sexual contact is the most commonly reported (19 102 of 22 801 cases, 83.8%), followed by person-to-person non-sexual contact. This pattern has persisted over the last six months, with 95.6% (483 of 505 cases) of new cases reporting sexual contact. Detailed information on transmission is not available for most cases in the African Region; available information suggests modes of transmission in this region are more diverse including human-to-human transmission due to different types of physical or close direct or indirect contact and, in some settings, also zoonotic exposure.
- Among cases where at least one symptom is reported (n = 36 506), the most common symptom is any rash (88.5% of cases), followed by fever (57.9%), and systemic rash or genital rash (54.8% and 49.5% respectively). The symptomatology of cases has been very consistent over time in the global outbreak. Although information on clinical presentation from countries in East, 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. While mucosal (including genital) lesions have always been a feature of mpox, among cases exposed through sexual contact in the Democratic Republic of the Congo, some individuals present only with genital lesions, rather than the more typical extensive rash associated with clade I MPXV.
- Around half (18 628 of 35 861 cases, 51.9%) of cases with available information on their HIV status are reported to be in persons living with HIV. This proportion approximates that reported in the last six months (237 of 543 cases; 43.6%) and is related to the common risk factor of sexual exposure between the two conditions. 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 June 2024



# Geographic expansion of mpox in the African Region

In recent weeks, there has been an unprecedented increase in the number of countries in the WHO African Region reporting mpox cases and outbreaks. Burundi, Kenya, Rwanda, and Uganda have each reported their first mpox cases. The presence of clade Ib monkeypox virus (MPXV) has been confirmed in each country. For several cases, travel to eastern parts of the Democratic Republic of the Congo, or one or more of the four newly affected countries, was also reported. Other countries in the African region are also reporting re-emerging outbreaks. This includes Côte d'Ivoire, that had reported no cases since the start of the multi-country outbreak in 2022, where clade II MPXV has again been detected. A detailed description of the cases in these countries is provided below.

#### **East Africa**

#### Burundi

On 25 July 2024, the Ministry of Health of Burundi declared an outbreak of mpox following the confirmation of three cases by the National Reference Laboratory of the National Institute of Public Health. These cases were identified on 22 July 2024, one each from Kamenge University Hospital and Kamenge Military Hospital, and the third case from Isare Health District. They presented with symptoms including fever, joint pain, and a widespread rash. Samples collected during a multidisciplinary investigation tested positive for MPXV on 25 July 2024. These are the first confirmed mpox cases ever identified in Burundi.

Since then, the Ministry of Health has received several alerts of possible mpox cases and investigated suspected cases, of which 61 cases distributed across several districts had been confirmed by 9 August 2024. Genomic sequencing analysis has identified clade lb. No deaths had been documented at the time of reporting.

## Kenya

On 29 July 2024, the Ministry of Health confirmed a case of mpox in Taita Taveta County (on Kenya-Tanzania border). The patient is a 42-year-old Kenyan male, a long-distance truck driver who travelled from Kampala, Uganda to Mombasa, Kenya on 12 July 2024. At the time of identification, the patient was travelling to Rwanda through Tanzania via the Taveta One Stop Border Point. This is the first mpox case ever identified in Kenya, and genomic sequencing analysis has identified clade Ib. No deaths had been reported as of 8 August 2024.

## **Rwanda**

On 24 July 2024, Rwanda notified WHO of two laboratory-confirmed mpox cases in the country, and on 27 July, the Ministry of Health declared an outbreak of mpox. The cases included a 33-year-old woman trader (case 1) who frequently travels to the Democratic Republic of the Congo, and a 34-year-old man (case 2) with recent travel to the Democratic Republic of the Congo. Case 1 was identified at a point of entry (PoE) and case 2 was identified at a health facility. Both cases were reported to be in stable condition and under continuous medical follow-up. These are the first ever confirmed mpox cases identified in Rwanda.

As of 7 August 2024, four confirmed mpox cases and zero deaths had cumulatively been reported by the country. Genomic sequencing analysis has identified clade Ib.

## Uganda

In June and early July 2024, Kasese District enhanced surveillance for mpox disease along the border with the neighbouring Democratic Republic of the Congo. This was done in light of reported increasing cases in the Democratic Republic of the Congo. Following the orientation of screeners at the Bwera Point of Entry and Bwera Hospital, suspected cases were identified, from whom samples were collected for laboratory testing, two of

which tested positive for clade I MPXV. Of the confirmed cases, one is a 37-year-old woman married to a national of the Democratic Republic of Congo and the second is a 22-year-old woman from the Democratic Republic of the Congo. These are the first ever confirmed mpox cases identified in Uganda.

Investigations revealed that transmission occurred outside Uganda and no secondary transmission had been linked to the two cases as of 2 August 2024. By the same date, nine contacts were under follow up. No deaths have been reported as of 8 August 2024.

#### **Central Africa**

## **Central African Republic (CAR)**

On 17 July 2024, the Ministry of Health and Population was alerted by the Pasteur Institute of Bangui about confirmed mpox cases detected in the health district of Bangui 2, in Health Region No. 7, in the country's capital. This brought the cumulative number of mpox cases detected in the country in 2024 to 28 cases. Following this, the Central African Republic (CAR) declared an mpox outbreak on 26 July 2024.

#### **West Africa**

## Côte d'Ivoire

In July 2024, Côte d'Ivoire confirmed two non-fatal cases of mpox. The first case is a 46-year-old patient who consulted a doctor on 1 July 2024 with a fever, headache and skin rash, in Tabou district, San Pedro region, on the border with Liberia. Mpox was confirmed by the Institut Pasteur de Côte d'Ivoire (IPCI) laboratory on 3 July 2024 and again by quality control on 14 July 2024 by the Institute Pasteur in Dakar. The second case is a 20-year-old patient, in the Koumassi health district in Abidjan, who presented with skin rash and oral mucosal lesions on 14 July 2024. No epidemiological link between these first two cases has been identified.

As of 2 August 2024, six mpox cases had been confirmed in three health districts: Tabou, Koumassi, Yopougon-Ouest-Songon. Genomic sequencing analysis has identified clade II MPXV.

The country has previously reported mpox, but no cases had been notified since the start of the multi-country outbreak in 2022.

#### **Southern Africa**

## **South Africa**

South Africa recently reported two additional confirmed cases of mpox, one in Gauteng province and another in KwaZulu-Natal province, bringing the total number of cases reported since 8 May 2024 to 24 cases (12 cases in Gauteng, 11 cases in KwaZulu-Natal, and one case in the Western Cape). The recent cases were reported 26 days since the last cases reported in South Africa. One of these recently detected cases reported a history of international travel to Peru in South America. It is uncertain if exposure occurred in Peru or South Africa.

Of the 22 cases recorded between 8 May and 6 July, 19 cases have fully recovered, and three cases had died.

In addition to these confirmed outbreaks, suspected cases are being investigated in several other countries.

## **WHO Response**

These events represent a rapid escalation in the geographic areas affected by mpox due to clades I, Ib and IIb in the region within the last few weeks. Considering these recent developments and the risk this expansion of mpox represents for the continent and more broadly the world:

- WHO has regraded the global mpox multi-country event to an acute grade 3 emergency in accordance with the WHO Emergency Response Framework and issued an information posting to WHO Member States;
- The WHO Director-General's Standing Recommendations for mpox issued on 21 Aug 2023 are being extended for another year;
- The WHO Director-General has triggered the process towards Emergency Use Listing for mpox vaccines;
- Funds are being released from the WHO Contingency Fund for Emergencies (CFE) to scale up the response in the African Region;
- The Director-General is convening an Emergency Committee under the International Health Regulations (IHR)
   (2005) to advise on whether the evolving mpox situation constitutes a Public Health Emergency of
   International Concern (PHEIC).

In a press briefing on 7 August 2024, the Director-General of the WHO addressed the mpox situation and outlined key, high-level actions taken by WHO. The press briefing statement can be found here and the recording here.

At the national level, WHO Member States and partners are reminded to strengthen surveillance and response and to ensure early outbreak detection and control, regardless of origin. In light of the continuing public health threat from mpox in all countries and notably in the African region, WHO is calling on national and local health authorities, health workers, civil society and partners to continue to collaborate with national and global partners to develop strategies to increase access to diagnostics, improve clinical care and access to vaccines, ensure stigma-free risk communication and community engagement, and bolster global preparedness and response efforts to effectively contain mpox both locally and globally.

As outlined in the WHO Strategic Framework for enhancing prevention and control of mpox, it is essential to continue to adapt these classic public health interventions to the local context, for groups at risk and in line with local modes of transmission. Continuing partnership with the national HIV/AIDS control programmes, humanitarian actors and immunization teams will greatly strengthen capacity to integrate response with ongoing interventions to reach those most at risk and to prepare for mpox vaccine introduction for outbreak prevention and response.

#### **Key resources**

- 1. Strategic framework for enhancing prevention and control of mpox (2024-2027). May 2024. https://www.who.int/publications/i/item/9789240092907
- 2. 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. <a href="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)</a>
- 3. WHO monkeypox outbreak toolbox, July 2024. <a href="https://www.who.int/docs/default-source/documents/emergencies/outbreak-toolkit/monkeypox-toolbox-20112019.pdf">https://www.who.int/docs/default-source/documents/emergencies/outbreak-toolkit/monkeypox-toolbox-20112019.pdf</a>

## **Technical guidance and other resources**

#### Strategic Planning and Global Support

- \*NEW\* Strategic framework for enhancing prevention and control of mpox- 2024-2027. May 2024. https://www.who.int/publications/i/item/9789240092907
- Responding to the global mpox outbreak: ethics issues and considerations: a policy brief, 19 July 2023. https://www.who.int/publications/i/item/WHO-Mpox-Outbreak response-Ethics-2023.1
- World Health Organization. (2023). Epidemiology of human monkeypox (mpox) worldwide, 2018–2021. Weekly Epidemiological Record, 98 (03), 29 36. World Health Organization. https://apps.who.int/iris/handle/10665/365630
- Lewis RF, Kuppalli K, Hoxha A, Doherty MC. Emergency committee recommendations on mpox what's next? Bull World Health Organ. 2023 May 1;101(5):300-300A. doi: 10.2471/BLT.23.290134. PMID: 37131950; PMCID: PMC10140684.
- WHO factsheet on monkeypox, 18 April 2022. <a href="https://www.who.int/news-room/fact-sheets/detail/monkeypox">https://www.who.int/news-room/fact-sheets/detail/monkeypox</a>
- New nomenclature for mpox (monkeypox) and monkeypox virus clades The Lancet Infectious Diseases. Accessed September 19, 2023. https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(23)00055-5/fulltext
- WHO recommends new name for monkeypox disease-28 November 2022 <a href="https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease">https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease</a>
- Monkeypox Strategic Preparedness, Readiness and Response Plan (SPRP) Operational planning guidelines 2 November 2022
   <a href="https://www.who.int/publications/m/item/monkeypox-strategic-preparedness--readiness--and-response--operational-planning-guidelines">https://www.who.int/publications/m/item/monkeypox-strategic-preparedness--readiness--and-response--operational-planning-guidelines</a>
- WHO Emergency Appeal: Monkeypox July 2022 June 2023, 13 October 2022 <a href="https://www.who.int/publications/m/item/who-emergency-appeal--monkeypox---july-2022---june-2023">https://www.who.int/publications/m/item/who-emergency-appeal--monkeypox---july-2022---june-2023</a>
- Monkeypox Strategic Preparedness, Readiness, and Response Plan (SPRP)- 5 October 2022, https://www.who.int/publications/m/item/monkeypox-strategic-preparedness--readiness--and-response-plan-(sprp)
- Invited comment. Why the monkeypox outbreak constitutes a public health emergency of international concern. Ghebreyesus TA. BMJ 2022;378:o1978. 09 August 2022. https://www.bmj.com/content/378/bmj.o1978

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

- 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. <a href="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)</a>
- 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. <a href="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)</a>
- WHO Fourth meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox, 15 February 2023. <a href="https://www.who.int/news/item/15-02-2023-fourth-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-on-the-multi-country-outbreak-of-monkeypox-(mpox)">https://www.who.int/news/item/15-02-2023-fourth-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-on-the-multi-country-outbreak-of-monkeypox-(mpox)</a>
- WHO Third meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox, 1 November 2022. <a href="https://www.who.int/news/item/01-11-2022-third-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox">https://www.who.int/news/item/01-11-2022-third-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox</a>
- WHO Second meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox, 23 July 2022. <a href="https://www.who.int/news/item/23-07-2022-second-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox">https://www.who.int/news/item/23-07-2022-second-meeting-of-the-international-health-regulations-(2005)-(ihr)-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox</a>
- WHO Director-General's statement at the press conference following IHR Emergency Committee regarding the multi-country outbreak of monkeypox, 23 July 2022. <a href="https://www.who.int/director-general/speeches/detail/who-director-general-s-statement-on-the-press-conference-following-IHR-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox-23-july-2022">https://www.who.int/director-general/speeches/detail/who-director-general-s-statement-on-the-press-conference-following-IHR-emergency-committee-regarding-the-multi-country-outbreak-of-monkeypox-23-july-2022</a>

## WHO Interim technical guidance

- Meeting of the Strategic Advisory Group of Experts on Immunization (SAGE), 11 13 March 2024: conclusions and recommendations. WHO Weekly Epidemiological Record, 31 May 2024
- Advisory Group of Experts on Immunization (SAGE) March 2024. <u>Highlights from the Meeting of the Strategic Advisory Group of Experts (SAGE) on Immunization</u>, 11-13 March 2024 (who.int)
- WHO Vaccines and immunization for monkeypox: Interim guidance, 16 November 2022. https://apps.who.int/iris/bitstream/handle/10665/364527/WHO-MPX-Immunization-2022.3-eng.pdf
- Clinical management and infection prevention and control for monkeypox: Interim rapid response guidance, 10 June 2022. <a href="https://www.who.int/publications/i/item/WHO-MPX-Clinical-and-IPC-2022.1">https://www.who.int/publications/i/item/WHO-MPX-Clinical-and-IPC-2022.1</a>
- Emergency use of unproven clinical interventions outside clinical trials: ethical considerations: <a href="https://www.who.int/publications-detail-redirect/9789240041745">https://www.who.int/publications-detail-redirect/9789240041745</a>
- WHO Technical brief (interim) and priority actions: enhancing readiness for monkeypox in WHO South-East Asia Region, 7 July 2022. <a href="https://cdn.who.int/media/docs/default-source/searo/whe/monkeypox/searo-mpx-tbrief22.pdf">https://cdn.who.int/media/docs/default-source/searo/whe/monkeypox/searo-mpx-tbrief22.pdf</a>

#### Surveillance

Surveillance, case investigation and contact tracing for mpox (monkeypox): Interim guidance, 20 March 2024. <u>Surveillance, case investigation and contact tracing for Monkeypox: Interim guidance (who.int)</u>

- 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

- Clinical characterization of mpox including monitoring the use of therapeutic interventions: statistical analysis plan, 13 October 2023: https://www.who.int/publications/i/item/WHO-MPX-Clinical-Analytic plan-2023.1
- Monkeypox Case and contact investigation form (CIF) and minimum dataset Case reporting form (CRF). 19 August 2022. https://www.who.int/publications/m/item/monkeypox-minimum-dataset-case-reporting-form-(crf)
- The WHO Global Clinical Platform for monkeypox, 14 June 2022. https://www.who.int/tools/global-clinical-platform/monkeypox
- WHO Go.Data: Managing complex data in outbreaks. <a href="https://www.who.int/tools/godata">https://www.who.int/tools/godata</a>

#### Risk communication and community engagement and Public Health Advice

- Risk communication and community engagement readiness and response toolkit: mpox, 23 April 2024. Risk communication and community engagement readiness and response toolkit: mpox (who.int)
- 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
- Interim advice on Risk Communication and Community Engagement during the monkeypox outbreak in Europe, 2022. Joint report by WHO Regional office for Europe/ECDC, 2 June 2022. <a href="https://www.euro.who.int/">https://www.euro.who.int/</a> data/assets/pdf file/0009/539046/ECDC-WHO-interim-advice-RCCE-Monkeypox-2-06-2022-eng.pdfhttps://www.who.int/publications/m/item/public-health-advice-on-mpox-(monkeypox)-and-sex-on-premises-venues-and-events
- Public health advice on mpox and congregate settings: settings in which people live, stay or work in proximity, 20 March 2023: <a href="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">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</a>
- Public health advice for gay, bisexual and other men who have sex with men and mpox. Version 3. 9 March 2023: https://www.who.int/publications/m/item/monkeypox-public-health-advice-for-men-who-have-sex-with-men
- Public health advice on mpox and sex-on-premises venues and events 01 March 2023:
- Public health advice for sex workers on monkeypox. 30 September 2022. <a href="https://www.who.int/publications/m/item/public-health-advice-for-sex-workers-on-monkeypox">https://www.who.int/publications/m/item/public-health-advice-for-sex-workers-on-monkeypox</a>
- Risk communication and community engagement public health advice on understanding, preventing and addressing stigma and discrimination to monkeypox. 1 September 2022. <a href="https://www.who.int/publications/m/item/communications-and-community-engagement-interim-guidance-on-using-inclusive-language-in-understanding--preventing-and-addressing-stigma-and-discrimination-related-to-monkeypox">https://www.who.int/publications/m/item/communications-and-community-engagement-interim-guidance-on-using-inclusive-language-in-understanding--preventing-and-addressing-stigma-and-discrimination-related-to-monkeypox</a>
- 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
- Mpox Q&A on mpox testing for health workers and individuals. 2 March 2023: <a href="https://www.who.int/news-room/questions-and-answers/item/testing-for-mpox-health-workers">https://www.who.int/news-room/questions-and-answers/item/testing-for-mpox-individuals-and-communities</a>
- Monkeypox Q&A, 31 August 2022. <a href="https://www.who.int/news-room/questions-and-answers/item/monkeypox">https://www.who.int/news-room/questions-and-answers/item/monkeypox</a>
- Infographic on getting tested for mpox 27 February 2023: <a href="https://www.who.int/multi-media/details/getting-tested-for-mpox--what-you-need-to-know">https://www.who.int/multi-media/details/getting-tested-for-mpox--what-you-need-to-know</a>
- Mpox infographics: English: <a href="https://www.who.int/multi-media/details/mpox-what-we-know">https://cdn.who.int/media/docs/default-source/documents/emergencies/outbreak-toolkit/mpox-infographic-fr-v03.pdf?sfvrsn=a4dac1d\_1</a>

#### **EPI - WIN Webinars and Updates**

- The recordings of the previous <u>EPI-WIN Webinars</u> related to current monkeypox outbreak:
  - WHO EPI-WIN webinar: Global mpox strategy for elimination and control: open consultation (28 June)"
     <a href="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">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</a>
  - WHO EPI-WIN webinar: Changing perspectives of the mpox outbreak (22 February 2023): <a href="https://www.who.int/news-room/events/detail/2023/02/22/default-calendar/who-epi-win-webinar-changing-perspectives-of-the-mpox-outbreak">https://www.who.int/news-room/events/detail/2023/02/22/default-calendar/who-epi-win-webinar-changing-perspectives-of-the-mpox-outbreak</a>
  - EPI-WIN webinar: How is Monkeypox spreading? What we know so far (27 July 2022): <a href="https://www.who.int/news-room/events/detail/2022/07/27/default-calendar/WHO-EPI-WIN-webinar-how-is-monkeypox-spreading">https://www.who.int/news-room/events/detail/2022/07/27/default-calendar/WHO-EPI-WIN-webinar-how-is-monkeypox-spreading</a>
  - o EPI-WIN webinar: Monkeypox outbreak and mass gatherings (24 June 2022): <a href="https://www.who.int/news-room/events/detail/2022/06/24/default-calendar/WHO-EPI-WIN-webinar-monkeypox-and-mass-gathering">https://www.who.int/news-room/events/detail/2022/06/24/default-calendar/WHO-EPI-WIN-webinar-monkeypox-and-mass-gathering</a>
- WHO monkeypox technical briefing for the transport and tourism sector, 5 October 2022: <a href="https://www.who.int/news-room/events/detail/2022/10/05/default-calendar/technical-briefing-on-monkeypox-for-transport-and-tourism-sector">https://www.who.int/news-room/events/detail/2022/10/05/default-calendar/technical-briefing-on-monkeypox-for-transport-and-tourism-sector</a>
- 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. <a href="https://www.who.int/docs/default-source/coronaviruse/risk-comms-updates/update">https://www.who.int/docs/default-source/coronaviruse/risk-comms-updates/update</a> 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**

- Diagnostic testing for the monkeypox virus (MPXV): interim guidance, 10 May2024. <a href="https://www.who.int/publications/i/item/WHO-MPX-Laboratory-2024.1">https://www.who.int/publications/i/item/WHO-MPX-Laboratory-2024.1</a>
- Monkeypox: experts give virus variants new names, 12 August 2022. <a href="https://www.who.int/news/item/12-08-2022-monkeypox-experts-give-virus-variants-new-names">https://www.who.int/news/item/12-08-2022-monkeypox-experts-give-virus-variants-new-names</a>
- Dianostic 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. <a href="https://nextstrain.org/monkeypox?c=country">https://nextstrain.org/monkeypox?c=country</a>

#### Clinical management and Infection, prevention and Control

- Clinical characterization of mpox including monitoring the use of therapeutic interventions: statistical analysis plan, 13 October 2023.
   Clinical characterization of mpox including monitoring the use of therapeutic interventions: statistical analysis plan, 13 October 2023 (who.int)
- 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 Spillback 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**

- \*NEW\* Mpox Democratic Republic of the Congo: https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON522
- Monkeypox outbreak 2022: <a href="https://www.who.int/emergencies/situations/monkeypox-oubreak-2022">https://www.who.int/emergencies/situations/monkeypox-oubreak-2022</a>
- Multi-country outbreak of mpox, External situation report #34- 28 June 2024: <a href="https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox-external-situation-report-34--28-june-2024">https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox-external-situation-report-34--28-june-2024</a>
- Multi-country outbreak of mpox, External situation report #33- 31 May 2024: <a href="https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox-external-situation-report-33--31-may-2024">https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox-external-situation-report-33--31-may-2024</a>
- Multi-country outbreak of mpox, External situation report #32- 30 April 2024: <a href="https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-32--30-april-2024">https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-32--30-april-2024</a>
- Multi-country outbreak of mpox, External situation report #31- 22 December 2023:
  - https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-31---22-december-2023
- Multi-country outbreak of mpox, External situation report #30- 25 November 2023:
  - $\underline{\text{https://www.who.int/publications/m/item/multi-country-outbreak-of-mpox--external-situation-report-30---25-november-2023}$
- Multi-country outbreak of mpox, External situation report #29- 20 October 2023: <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of mpox, External situation report #28- 19 September 2023:
   <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of mpox, External situation report #27- 14 August 2023: <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of mpox, External situation report #26- 14 July 2023: <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of mpox, External situation report #25- 24 June 2023: <a href="https://www.who.int/publications/m/item/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</a>
- 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.uba.int/publications/gr/fibers/grulbi-grundry-cubb-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grulbi-grundry-grundry-grulbi-grundry-grundr
  - 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:
   The state of the state
  - 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: <a href="https://www.who.int/publications/m/item/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</a>
- 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:
   <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of mpox, External situation report #13- 5 January 2023:
   <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of mpox, External situation report #12- 14 December 2022: <a href="https://www.who.int/publications/m/item/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</a>
   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.
- 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:
- Multi-country outbreak of monkeypox, External situation report #6- 13 October 2022.
   <a href="https://www.who.int/publications/m/item/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</a>
   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-september2022
- Multi-country outbreak of monkeypox, External situation report #5- 7 September 2022:
   <a href="https://www.who.int/publications/m/item/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</a>
- Multi-country outbreak of monkeypox, External situation report #4- 24 August 2022:
- <a href="https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--4---24-august-2022">https://www.who.int/publications/m/item/multi-country-outbreak-of-monkeypox--external-situation-report--4---24-august-2022</a>
- Multi-country outbreak of monkeypox, External situation report #3 10 August 2022:
   <a href="https://www.who.int/publications/m/item/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</a>
   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
- WHO Multi-country outbreak of monkeypox, External situation report #1 6 July 2022:
   <a href="https://www.who.int/publications/m/item/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</a>
- 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: <a href="https://www.who.int/emergencies/emergency-events/item/monkeypox">https://www.who.int/emergencies/emergency-events/item/monkeypox</a>

#### **Training and Education**

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

## **Other Resources**

- WHO Advisory Committee on Variola Virus Research (ACVVR), Report of the twenty-fifth meeting, Geneva, Switzerland, 25-26
   October 2023. World Health Organization. WHO advisory committee on variola virus research: report of the twenty-fifth meeting, Geneva, Switzerland, 25-26 October 2023
- WHO AFRO Weekly Bulletin on Outbreaks and Other Emergencies, all previous items: <a href="https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-updates">https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-updates</a>
- WHO 5 moments for hand hygiene. https://www.who.int/campaigns/world-hand-hygiene-day
- WHO One Health. <a href="https://www.who.int/health-topics/one-health">https://www.who.int/health-topics/one-health</a>
- 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.
   <a href="https://www.who.int/europe/tools-and-toolkits/monkeypox-resource-toolkit-for-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/</a>
- WHO. Monkeypox & mass gatherings. Recommendations for mass gatherings during a monkeypox outbreak. <a href="https://cdn.who.int/media/docs/default-source/epi-win/update78">https://cdn.who.int/media/docs/default-source/epi-win/update78</a> 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 <a href="https://www.who.int/europe/publications/m/item/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</a>
- Weekly epidemiological record (WER) no.11, 16 March 2018, Emergence of monkeypox in West Africa and Central Africa 1970-2017.
   <a href="http://apps.who.int/iris/bitstream/handle/10665/260497/WER9311.pdf;jsessionid=7AB72F28D04CFE6CE24996192FC478FF?sequence=1">http://apps.who.int/iris/bitstream/handle/10665/260497/WER9311.pdf;jsessionid=7AB72F28D04CFE6CE24996192FC478FF?sequence=1</a> 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. <a href="https://www.paho.org/en/documents/monkeypox-region-americas-risk-assessment">https://www.paho.org/en/documents/monkeypox-region-americas-risk-assessment</a>
- 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 2022-24 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.

<sup>[i]</sup> '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 June 2024, 17:00 CEST

\*Countries with no reported cases in the last month

WHO Region	Country	Total Confirmed Cases	Total Deaths <sup>,</sup>
	Benin*	3	0
	Cameroon*	50	5
	Central African Republic	68	1
	Congo*	45	2
African Degion	Democratic Republic of the Congo	2 999	10
African Region	Ghana*	127	4
	Liberia*	23	0
	Mozambique*	1	1
	Nigeria	895	9
	South Africa	21	3
	Bahrain*	2	0
	Egypt*	3	0
	Iran (Islamic Republic of) *	1	0
	Jordan*	1	0
	Lebanon*	27	0
Eastern Mediterranean	Morocco*	3	0
Region	Oman*	3	0
	Pakistan*	7	0
	Qatar*	5	0
	Saudi Arabia*	8	0
	Sudan*	19	1
	United Arab Emirates*	16	0
	Andorra*	4	0
	Austria*	348	1
	Belgium	810	2
	Bosnia and Herzegovina*	9	0
	Bulgaria*	7	0
European Region	Croatia*	34	0
	Cyprus*	5	0
	Czechia*	82	1
	Denmark*	198	0
	Estonia*	11	0
	Finland*	43	0
	France	4 272	0
	Georgia*	2	0
	Germany	3 857	0
	Gibraltar*	6	0

	Greece*	99	0
	Greenland*	2	0
	Hungary	85	0
	Iceland*	17	0
	Ireland	249	0
	Israel	314	0
	Italy	1 049	0
	Latvia*	6	0
	Lithuania*	5	0
	Luxembourg*	61	0
	Malta*	35	0
	Monaco*	3	0
	Montenegro*	2	0
	Netherlands	1 304	0
	Norway*	106	0
	Poland*	223	0
	Portugal*	1 193	3
	Republic of Moldova*	2	0
	Romania*	47	0
	Russian Federation*	4	0
	San Marino*	1	0
	Serbia*	40	0
	Slovakia*	16	0
	Slovenia*	47	0
	Spain	8 084	3
	Sweden	299	0
	Switzerland*	579	0
	The United Kingdom*	3 952	0
	Türkiye*	12	0
	Ukraine*	5	0
	Argentina*	1149	2
	Aruba*	3	0
	Bahamas*	3	0
	Barbados*	1	0
	Bermuda*	1	0
	Bolivia (Plurinational State of)*	265	0
	Brazil*	11 212	16
Region of the Americas	Canada	1 553	0
	Chile*	1 449	3
	Colombia	4 249	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	4 124	34
	Panama*	239	1
	Paraguay*	126	0
	Peru	3 875	20
	Saint Martin*	1	0
	Trinidad and Tobago*	3	0
	United States of America	33 191	60
	Uruguay*	19	0
	Venezuela (Bolivarian Republic of) *	12	0
	India*	27	1
	Indonesia	88	0
South-East Asia Region	Nepal*	1	0
	Sri Lanka*	4	0
	Thailand	805	10
	Australia	278	0
	Cambodia*	13	0
	China	2 460	1
	Guam*	1	0
	Japan*	247	1
	Lao People's Democratic Republic*	1	0
Western Pacific Region	Malaysia*	9	0
	New Caledonia*	1	0
	New Zealand*	51	0
	Philippines*	9	0
	Republic of Korea	159	0
	Singapore	60	0
	Viet Nam	202	8
Cumulative	116 Countries/territories/areas	99 176	208

<sup>\*</sup>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.