Multi-country outbreak of mpox

External Situation Report 13, published 5 January 2023
Data as received by WHO national authorities by 17:00 CEST, 2 January 2023

Risk assessment	Laboratory confirmed cases	Deaths	Countries/ areas/ territories
Global risk – Moderate WHO Regional risk • Region of the Americas – High • African Region, Eastern Mediterranean Region, European Region, Southeast Asia Region – Moderate • Western Pacific Region – Low	83 943	75	110

Highlights

- Since the last situation report published on 14 December 2022, 1319 new cases (1.6% increase in total cases) and 10 new deaths have been reported.
- WHO updated the interim guidance on Surveillance, case investigation and contact tracing for mpox (monkeypox) on 22 December 2022. The document consistently replaces the name of the disease monkeypox with mpox, following the most recent WHO recommendations in this regard. It also includes a more detailed description of the investigation of possible animal exposure, as well as the potential use of wastewater surveillance for the detection of mpox transmission in communities. While WHO continues to review evidence regarding possible transmission prior to the onset of symptoms, the advice on known contacts of probable and confirmed cases has been updated. It is advised that known contacts avoid sexual contact with others during the 21-day monitoring period, regardless of their symptoms.
- WHO also updated the mpox Case investigation form (CIF) and Case reporting form (CRF) to align with the above surveillance guidance.
- WHO developed an Interim Guidance for Infection Prevention and Control for the management of mpox in people in situations of vulnerability such as prisons and other custodial facilities based on requests from Member States.

Epidemiological Update

Data source: WHO Multi-country mpox outbreak- Global trends

From 1 January 2022 through 1 January 2023, a cumulative total of 83 943 laboratory-confirmed cases of mpox and 75 deaths have been reported to WHO from 110 countries/territories/areas (hereafter 'countries'[i]) in all six WHO Regions (Table 1). Since the last situation report published on 14 December 2022, 1319 new cases (1.6% increase in total cases) and ten new deaths have been reported.

From 26 December 2022 through 01 January, eight countries reported an increase in the weekly number of cases, with the highest increase reported in Mexico. As of 2 January, 79 of the 110 affected countries have not reported new cases for over 21 days, the maximum incubation period of the disease – five more countries since the last report.

The number of weekly new cases reported globally has decreased by 44.6% in week 52 (26 December 2022 through 01 January 2023) (n = 373 cases) compared to week 51 (19 December through 25 December 2022) (n = 673 cases), with the largest proportional decrease observed in the African region (-99%) and the European Region (-94%).

The high number of cases reported by the African Region in week 51 of 2022 (Figure 1) is not a sudden increase of mpox cases but represents a surveillance artifact due to the delay in the reporting of a backlog of cases occurring in the previous weeks.

From 15 December 2022 through 1 January 2023, a total of 10 deaths were reported from Peru (eight deaths), Chile (one death), and Cameroon (one death).

As of 1 January 2023, the 10 countries that have reported the highest cumulative number of cases globally are the United States of America (n = 29 603), Brazil (n = 10 498), Spain (n = 7496), France (n = 4114), Colombia (n = 4021), the United Kingdom (n = 3730), Germany (n = 3676), Peru (n = 3643), Mexico (n = 3637), and Canada (n = 1460). Together, these countries account for 86% of the cases reported globally.

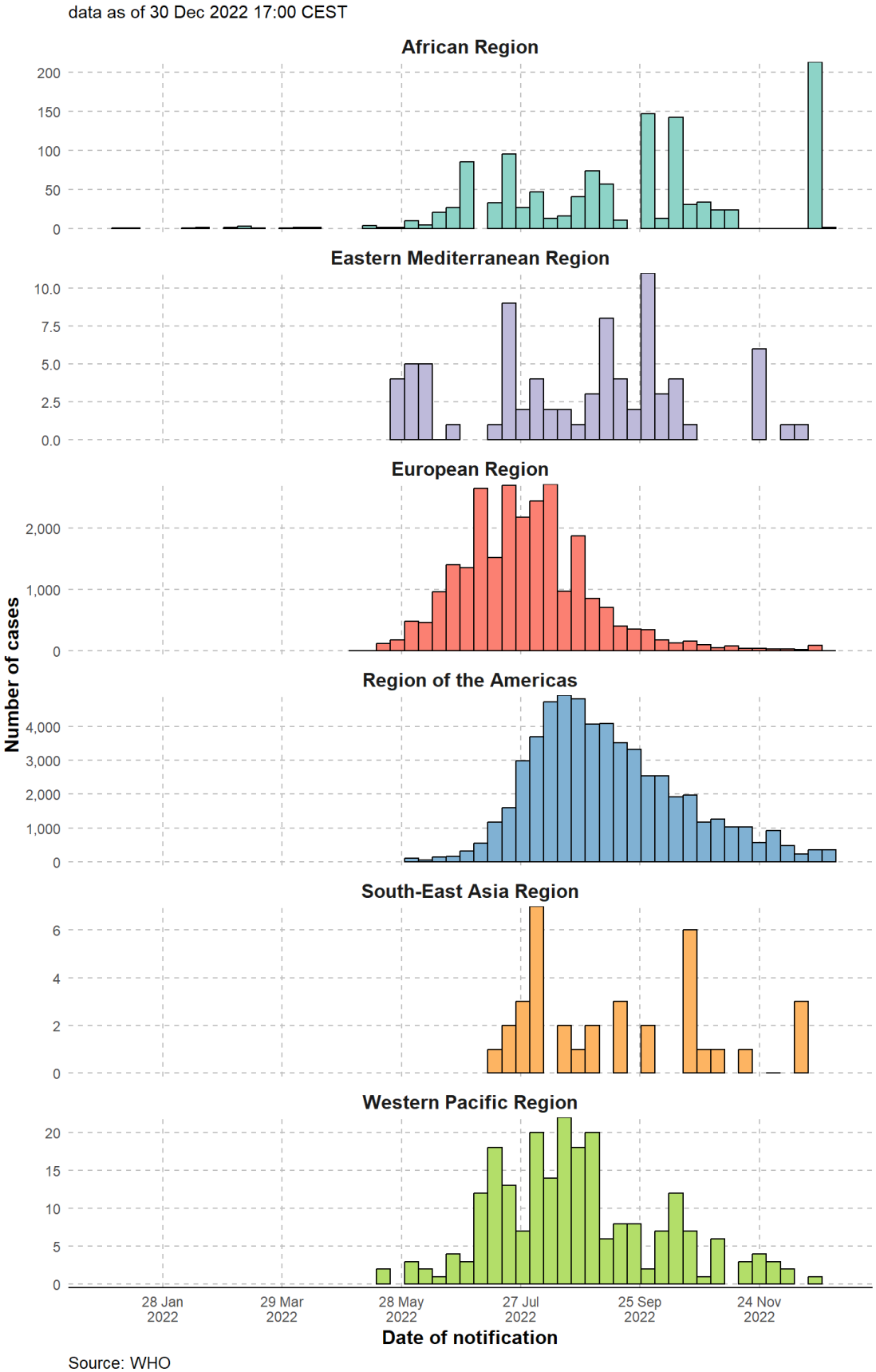
Table 1. Number of cumulative confirmed mpox cases and deaths reported to WHO, by WHO Region, from 1 January 2022 to 1 January 2023 17:00 CEST

WHO Region	Total Confirmed Cases	Total Deaths	Cases in past week[1]	7-day change in cases (%)
Region of the Americas	56 694	53	365	0%
European Region	25 705	5	6	- 94%
African Region	1200	15	2	- 99%
Western Pacific Region	229	0	0	-
Eastern Mediterranean Region	80	1	0	-
South-East Asia Region	35	1	0	-
Total	83 943	75	373	-45%

(-) Zero cases were reported in at least one week in the past two weeks

[1] Using the most recently completed international standard week (Monday - Sunday)

Figure 1. Epidemiological curves of weekly aggregated confirmed cases of mpox by WHO Region, from 1 January 2022 to 1 January 2023, 17:00 CEST*

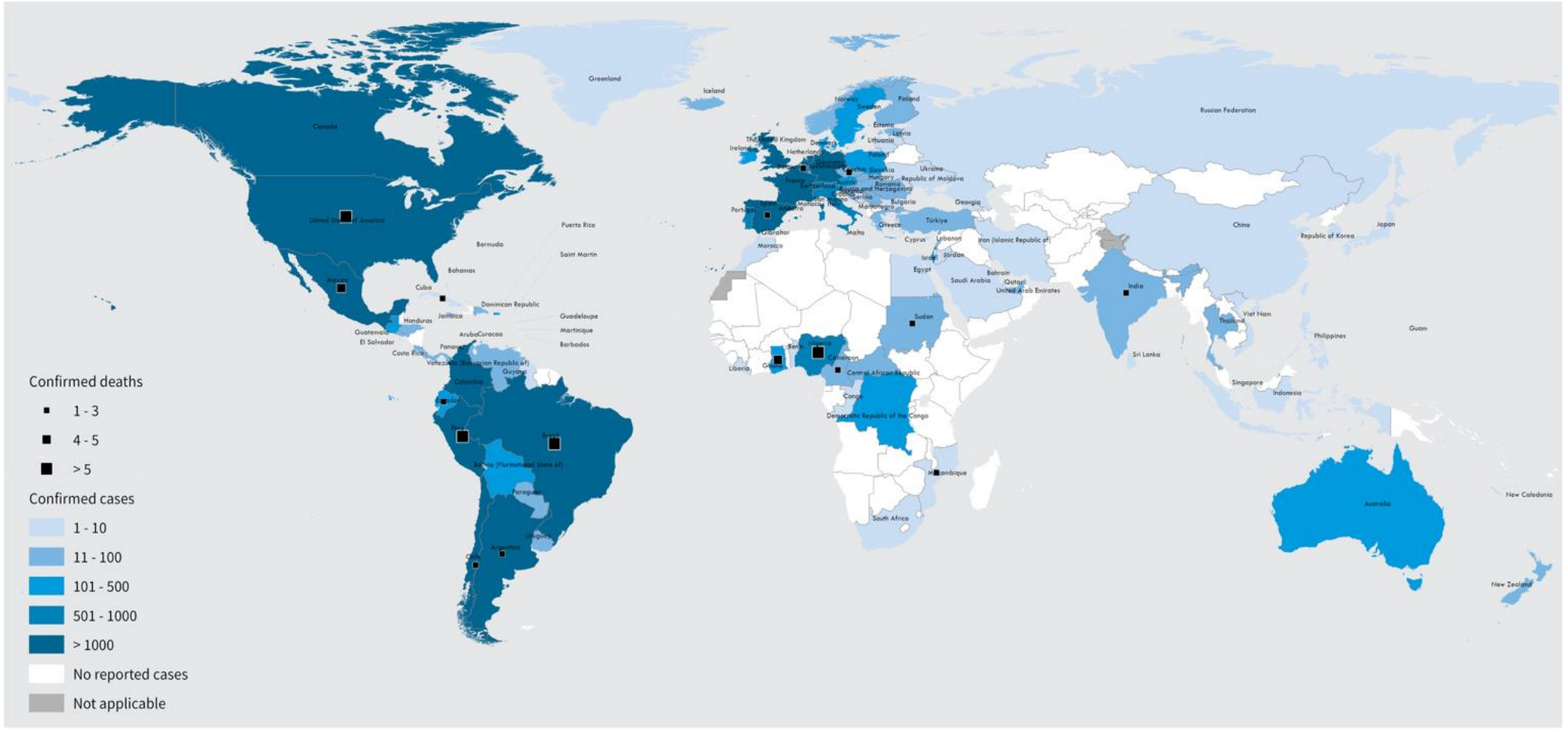


**This figure shows aggregated weekly data, for completed epidemiological weeks ending on Sundays. Data on the current week will be presented in the next situation report.*

Other key epidemiological findings:

- The outbreak continues to affect primarily young men, with 96.6% (71 946/74 479) of cases with available data being men, with a median age of 34 years (interquartile range: 29-41 years); 1% (n=780) of cases with age data available are aged 0-17 years, and 210 (0.3%) are aged 0-4 years. This proportion differs between regions, with the largest proportion of cases aged 0-17 years being reported from the Region of the Americas (627/780; 80%).
- Among cases with sexual orientation reported, 84.4% (25 946/30 733) identified as gay, bisexual and other men who have sex with men. Of all reported modes of transmission, transmission through skin and mucosal contact during sexual activities was most reported, in 14 629 of 21 164 (69.1%) of all reported transmission events. Detailed information on the route of transmission is not available for most cases from Africa and the above transmission information might not fully describe the epidemiological spread of the virus there. Countries from this region have both person-to-person transmission as well as infection from presumed contact with infected animals.
- The most reported exposure setting was a party setting with sexual contact, comprising 3367 of 5034 (66.9%) reported exposure settings.
- Among the cases (n=37 606) who reported at least one symptom, the most common symptom is any rash and is reported in 79.1% of cases followed by fever (57%) and systemic and genital rash (49.7% and 44.6% respectively)

Figure 2. Geographic distribution of confirmed cases of mpox reported to or identified by WHO from official public sources from 1 January 2022 to 1 January 2023 17:00 CEST



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme
Map Date: 3 January 2023

World Health Organization

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Response Pillar Update: Risk Communication and Community Engagement

Risk Communication and Community Engagement

In line with the updated WHO strategy for RCCE in the mpox response a series of public health advice documents are being finalised for release in January:

1. Public health advice for congregate settings aiming to support individuals and organisations that live, stay, work in or visit varied congregate settings
2. Public health advice for sex-on-premises venues and events to help control the spread of mpox, while enabling venues to stay open and events to continue to take place.
3. Updated (Version 3) public health advice for mpox and gay, bisexual and other men who have sex with men (GBMSM)

Other outbreak preparedness and response documents under review and development include:

- An updated WHO Q&A on mpox testing with accompanying infographics for individuals and health workers in line with the latest evidence.
- Readiness toolkit that bring together existing tools and community insights to help with preparedness activities for future mpox outbreaks

These documents and guidance will be available on the WHO website when published.

Socio-behavioural research work is also being expanded to inform behavioural drivers of transmission, including the understanding of how stigma and discrimination have affected the outbreak response in different settings. This will enable the continued development and updating of tools informed by the latest scientific evidence.

Special Focus: Congregate Settings

The 2022 multi-country mpox outbreak is driven by human-to-human transmission (majorly through sexual contact). Non-sexual human-to-human contact and contact with contaminated materials are other reported modes of transmission. Mpox cases have been reported in congregate settings including prisons, school settings, and refugee camps but the knowledge of the transmission within the setting remains limited. Though the number of cases reported in these settings has been low, the risk of introduction and transmission within these settings remains and requires regular assessment, preparedness, and response.

With ongoing community transmission of mpox in many countries, there is a risk of virus introduction and spread in congregate settings. Congregate settings here is defined as a living or housing facilities where people who are not related reside in close proximity and share at least one common space, such as sleeping room, kitchen, bathroom, or living room. These will include correctional and detention facilities, schools, student hostels, dormitories at institutions of higher education, hotels, group homes, camps (such as Internally Displaced People (IDP) or refugee camps). Healthcare facilities and mass gatherings such as raves, and sex premises are excluded from this group.

1. **Mpox in prison / correction facilities**: Mpox outbreak in correctional facilities was reported twice in Nigeria, November 2017 and March 2022[1, 2] affecting inmates who have been incarcerated in the facilities for months and years. While the primary source of infection into the facilities could not be ascertained, human-to-human transmission within these facilities was confirmed and the risks of indirect transmission through fomite were reported. In July 2022, a person with mpox was detained in Cook County Jail (CCJ) in Chicago Illinois and isolated after 7 days of symptom onset[3]. Other residents with moderate risk of exposure were offered post-exposure prophylaxis (PEP). While the virus DNA was detected in an environmental sample, no secondary case was detected in the facility.

2. **Mpox in school**: Exposure of school children through close contact with infected teachers was reported in schools in England[4]. Exposed students were followed up and offered PEP. No secondary case was recorded in the affected schools. The risk of mpox spread in schools is considered low but the standard guidelines on the prevention of infectious diseases should be followed.

3. **Mpox in camps**: In September 2022, a mpox outbreak including one death was reported in a refugee camp in Sudan[5].

The epidemiology of the outbreak is yet to be fully understood including the mode of transmission within the camp (zoonotic or human-to-human).

Cases or contacts may be identified in the congregate settings following their occurrence within the facilities or via contact tracing. Residents, staff members, or volunteers of a congregate living setting may be infected, with the risk of spreading within the setting. While the risk of mpox in the general population remains low, the risk of mpox virus transmission in congregate settings if introduced may be increased due to the following factors:

- Higher incidents of direct skin-to-skin or prolonged face-to-face contact
- Shared items that may harbor the virus, (fomites -clothing or beddings)
- Overcrowding and sharing of personal spaces
- Contaminated surfaces
- Sexual contacts among residents
- Vectors and pest infestation such as rodent
- Compromised immune status
- Lack of medical isolation facilities or spaces

Pragmatic steps will be required to prevent virus introduction and spread in congregate settings. This will include:

- Risk assessment to ascertain the likelihood of mpox virus introduction into a congregate setting especially during an outbreak. Screening residents for infectious diseases where applicable may prevent outbreaks within a closed setting.
- Provision of information to staff and residents about mpox prevention, including the potential for spread through close, sustained physical contact, including sexual activity.
- Isolation of cases (staff or residents). Facility to medically isolate suspected or confirmed cases of infectious diseases where possible in-facility or move to off-site facilities as much as possible. Staff should isolate away from congregate settings if infected with mpox or other infectious diseases.
- Provision of appropriate personal protective equipment (PPE) for staff entering isolation areas
- Environmental decontamination would prevent further transmission through contaminated surfaces while waste from mpox cases within the facilities should be managed according to WHO recommendations (Clinical management and infection prevention and control for monkeypox: Interim rapid response guidance)
- Congregate facilities should implement recommended infection control practices including access to handwashing — soap and water or hand sanitizer
- Exposed and /or high-risk residents may benefit from recommended postexposure vaccination or pre-exposure vaccination (see WHO Vaccines and Immunization for monkeypox: Interim Guidance)

References:

1. Yinka-Ogunleye, A. et al. (2019) 'Outbreak of human monkeypox in Nigeria in 2017–18: a clinical and epidemiological report', The Lancet Infectious Diseases, 19(8), pp. 872–879. Available at: https://doi.org/10.1016/S1473-3099(19)30294-4.

2. Pembi, E. et al. (2022) Monkeypox outbreak in a correctional center in North Eastern Nigeria, Journal of Infection. doi: 10.1016/j.jinf.2022.09.010.

3. Hagan, L. M. et al. (2022) 'Monkeypox Case Investigation — Cook County Jail, Chicago, Illinois, July–August 2022', MMWR. Morbidity and Mortality Weekly Report, 71(40), pp. 1271–1277. doi: 10.15585/mmwr.mm7140e2.

4. Ladhani, S. N. et al. (2022) 'Very low risk of monkeypox among staff and students after exposure to a confirmed case in educational settings, England, May to July 2022', Eurosurveillance. European Centre for Disease Prevention and Control (ECDC), 27(40), pp. 1–5. doi: 10.2807/1560-7917.ES.2022.27.40.2200734.

5. Sudan confirms three new monkeypox cases in Ethiopian refugee camp - Sudan Tribune (no date). Available at: https://sudantribune.com/article264566/ (Accessed: 4 January 2023).

Regional Updates

Mpox situation update: Region of the Americas

As of 29 December 2022, a total of 56 694 confirmed cases of mpox, including 53 deaths have been reported from 31 countries and territories in the region of Americas. The Region continues to account for the highest cumulative proportion of mpox cases reported globally and the highest proportion of weekly new cases. Six countries in the region (United States of America, Brazil, Canada Colombia, Mexico, and Peru) are among the top ten countries globally, reporting a combined total 52 862 confirmed cases and accounting for 63% of the global number of cases and 93% of cases in the Region. Up to 90% of 13 304 cases in the Americas with available information on the mode of transmission are locally transmitted cases.

WHO has received detailed case data from Member States for 99% (n=56 164) of the total reported cases. Of the 49 698 cases with information on gender, 95.5% (n=47 505) were male; 55 877 cases had information on age, which ranged from 0 to 95 years old (median 33 years, mean 34.7 years). Of 19 856 cases with known data on sexual orientation, 13 769 (70.3%) identified as gay, bisexual and other men who have sex with men. Among 41 135 cases with hospitalization information, 2965 (7.2%) were hospitalized (including for isolation purposes).

Additionally, there is a likelihood of increased transmission in other population groups. The most at-risk populations have predominantly remained men with an average age of 35 years; however, cases among women, including pregnant women, as well as in children cannot be overlooked. Approximately 4.4% of reported cases with information on gender are women (2191/49 698), including 54 pregnant women. A total of 162 female cases, including 13 pregnant women, required hospitalization (including for isolation purposes). A total of 675 cases, including 23 cases among infants (<1 year old) have been reported among persons <18 years old, from ten countries (Argentina, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, Guatemala, Mexico, Peru).

Cases among indigenous and incarcerated persons are of concern due to their situation of vulnerability. The outbreak response should continue to have a key focus on communication with and engagement of at-risk communities, leveraging mass gatherings for communication and preventive measures, the timely detection and treatment of patients, and the protection of health workers.

WHO response to mpox in the Americas

WHO is providing technical cooperation and multisectoral coordination to create efficient response plans to control and stop transmission of mpox in the region as below:

- **Laboratory:** WHO has updated and disseminated Laboratory Guidelines for the Detection and Diagnosis of Monkeypox Virus Infection and has provided molecular diagnostics training to 37 countries and territories. WHO is supporting the procurement and distribution of laboratory supplies and reagents for molecular diagnostics to enable testing expansion as needed. The laboratory information systems are being adapted to include diagnostics of the mpox virus with support from WHO in countries who have requested it.
- **Surveillance:** A dashboard has been developed to facilitate data visualization, analysis and follow up of mpox cases. Electronic data collection and reporting tools are being developed. WHO has been supporting implementation and updating of the Go Data tool for case notification, investigation, and contact tracing.
- To facilitate the implementation of WHO guidelines on monkeypox, which are adaptable to each country's context, WHO is supporting the development of a summary of Integrated Monkeypox Surveillance Guidance for Eastern Caribbean Countries. WHO is implementing the WHO global clinical platform for

mpox, which is a secure, limited-access, password-protected platform intended to describe and assess the clinical characteristics of mpox.

- **Coordination:** In Mexico, WHO has held meetings with the Undersecretary for Health Prevention and Promotion, and the Directorate for Epidemiological Surveillance of Communicable Diseases of the General Directorate of Epidemiology. Both WHO and national health authorities will work towards strengthening mpox surveillance and disseminating messages on prevention and risk communication strategies in the country.
- **Research, Evidence and ethics:** WHO has published and disseminated a) Recommendations for ethical monkeypox (mpox) surveillance; b) Catalyzing Ethical Research in Emergencies. Ethics Guidance, Lessons Learned from the COVID-19 Pandemic, and Pending Agenda and c) living evidence synthesis for therapeutic options for mpox. WHO is supporting the development of a vaccine effectiveness trial in Colombia and the regional standardization of data collection of clinical features of mpox among outpatient and hospitalized cases for the WHO Global clinical data platform**.** WHO has also provided training to research ethics committees.
- **Therapeutics:** WHO is providing support to Member States on how to implement WHO's monitored emergency use of unregistered and experimental interventions (MEURI) protocol for mpox in the Americas. An ad hoc meeting of its Ethics Review Committee was held to review the mpox MEURI protocol to enable the emergency use of potential treatments to manage mpox cases under specific ethical conditions.
- **Vaccination:** As of 29 December 2022, WHO Region of the Americas' Revolving Fund delivered 65 800 doses to the following countries: Bahamas, Brazil, Chile, Ecuador, El Salvador, Honduras, Jamaica, Panama, Peru, and Trinidad and Tobago.
- **Infection Prevention and Control:** WHO developed Interim Guidance for Infection Prevention and Control for the management of mpox in people in situations of vulnerability such as prisons and other custodial facilities based on requests from Member States.

Technical guidance and other resources

Strategic Planning and Global Support

- WHO recommends new name for monkeypox disease-28 November 2022 https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease
- 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
- 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)

International Health Regulations Emergency committee and Temporary Recommendations of the Director-General

- WHO Third meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox, 1 November 2022. 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
- WHO Second meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the multi-country outbreak of monkeypox, 23 July 2022. 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
- WHO Director-General's statement at 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

WHO Interim Guidance and Public Health Advice

- 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 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
- WHO Surveillance, case investigation and contact tracing for Monkeypox: Interim guidance, 25 August 2022. https://www.who.int/publications/i/item/WHO-MPX-Surveillance-2022.3
- 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
- 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
- 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
- Emergency use of unproven clinical interventions outside clinical trials: ethical considerations: https://www.who.int/publications-detail-redirect/9789240041745
- 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

Data management

- 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. https://www.who.int/tools/godata

Risk communication and community engagement

- Public health advice for sex workers on monkeypox 30 September 2022. https://www.who.int/publications/m/item/public-health-advice-for-sex-workers-on-monkeypox
- Risk communication and community engagement public health advice on understanding, preventing and addressing stigma and discrimination related to monkey pox 1 September 2022. 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
- Monkeypox Q&A, 31 August 2022. https://www.who.int/news-room/questions-and-answers/item/monkeypox
- Monkeypox: public health advice for gay, bisexual and other men who have sex with men, 18 July 2022. https://www.who.int/publications/m/item/monkeypox-public-health-advice-for-men-who-have-sex-with-men
- 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. https://www.euro.who.int/__data/assets/pdf_file/0009/539046/ECDC-WHO-interim-advice-RCCE-Monkeypox-2-06-2022-eng.pdf
- 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
- Risk communication and community engagement. Public health advice on the recent outbreak of monkeypox in the WHO European Region, 24 May 2022. https://www.euro.who.int/__data/assets/pdf_file/0004/538537/public-health-advice-monkeypox-eng.pdf

EPI - WIN Webinars and Updates

The recordings of the previous EPI-WIN Webinars related to current monkeypox outbreak:

- 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 (Sept. 22, 2022)
- How is monkeypox spreading? What do we know so far (July 27, 2022)
- Monkeypox outbreak and mass gatherings (June 24, 2022)

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
- WHO Laboratory testing for the monkeypox virus: Interim guidance, 23 May 2022. https://apps.who.int/iris/handle/10665/354488
- 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

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

- Monkeypox outbreak 2022: https://www.who.int/emergencies/situations/monkeypox-oubreak-2022
- 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: https://www.who.int/emergencies/emergency-events/item/2022-e000121

- 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/emergencies/outbreak-toolkit/disease-outbreak-toolboxes/monkeypox-outbreak-toolbox
- WHO factsheet on monkeypox, 19 May 2022. http://www.who.int/news-room/fact-sheets/detail/monkeypox
- Health topics – Monkeypox: https://www.who.int/health-topics/monkeypox
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  English: https://openwho.org/courses/monkeypox-intermediate;
  Français: https://openwho.org/courses/variole-du-singe-intermediaire

Other Resources

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- 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
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- Joint WHO Regional Office for Europe - European Centre for Disease Prevention and Control, Monkeypox surveillance bulletin Situation reports (who.int)
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- 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
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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.

[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 to 1 January 2023, 17:00 CEST.

*Countries with no reported cases for more than 21 days

WHO Region	Country	Total Confirmed Cases	Total Deaths
African Region	Benin*	3	0
	Cameroon	18	3
	Central African Republic	13	0
	Congo*	5	0
	Democratic Republic of the Congo	277	0
	Ghana	116	4
	Liberia	6	0
	Mozambique*	1	1
	Nigeria	756	7
	South Africa*	5	0
Eastern Mediterranean Region	Bahrain*	1	0
	Egypt*	3	0
	Iran (Islamic Republic of) *	1	0
	Jordan*	1	0
	Lebanon*	24	0
	Morocco*	3	0
	Qatar*	5	0
	Saudi Arabia*	8	0
	Sudan*	18	1
	United Arab Emirates*	16	0
European Region	Andorra*	4	0
	Austria*	327	0
	Belgium*	790	1
	Bosnia and Herzegovina*	9	0
	Bulgaria*	6	0
	Croatia*	29	0
	Cyprus*	5	0
	Czechia*	71	1
	Denmark	192	0
	Estonia*	11	0
	Finland*	42	0
	France	4114	0
	Georgia*	2	0
	Germany	3676	0
	Gibraltar*	6	0
	Greece*	85	0
	Greenland*	2	0
	Hungary*	80	0
	Iceland*	16	0
	Ireland	225	0
	Israel*	262	0
	Italy	938	0
	Latvia*	6	0

	Lithuania*	5	0
	Luxembourg*	57	0
	Malta*	33	0
	Monaco*	3	0
	Montenegro*	2	0
	Netherlands	1256	0
	Norway*	93	0
	Poland*	214	0
	Portugal*	948	0
	Republic of Moldova*	2	0
	Romania*	46	0
	Russian Federation*	2	0
	San Marino*	1	0
	Serbia*	40	0
	Slovakia*	14	0
	Slovenia*	47	0
	Spain	7496	3
	Sweden	250	0
	Switzerland*	551	0
	The United Kingdom*	3730	0
	Türkiye*	12	0
	Ukraine	5	0
Region of the Americas	Argentina	1018	1
	Aruba*	3	0
	Bahamas*	2	0
	Barbados*	1	0
	Bermuda*	1	0
	Bolivia (Plurinational State of)	261	0
	Brazil	10 498	14
	Canada	1460	0
	Chile	1377	3
	Colombia	4021	0
	Costa Rica*	37	0
	Cuba*	8	1
	Curaçao*	3	0
	Dominican Republic*	52	0
	Ecuador*	346	2
	El Salvador	69	0
	Guadeloupe*	1	0
	Guatemala	259	0
	Guyana*	2	0
	Honduras*	11	0
	Jamaica*	18	0
	Martinique*	1	0
	Mexico	3637	4
	Panama	78	0
	Paraguay	44	0
	Peru	3643	8
	Puerto Rico	208	0
	Saint Martin*	1	0
	United States of America	29 603	20

	Uruguay	19	0
	Venezuela (Bolivarian Republic of)	12	0
South-East Asia Region	India*	20	1
	Indonesia*	1	0
	Sri Lanka*	2	0
	Thailand*	12	0
Western Pacific Region	Australia*	144	0
	China*	6	0
	Guam*	1	0
	Japan	8	0
	New Caledonia*	1	0
	New Zealand*	40	0
	Philippines*	4	0
	Republic of Korea*	4	0
	Singapore*	19	0
	Viet Nam*	2	0
Cumulative	**110 Countries/territories/areas**	**83 943**	**75**