

Multi-country outbreak of monkeypox

External Situation Report 1, published 6 July 2022

Data as received by WHO national authorities by 17:00 CEST, 4 July 2022

Risk assessment:	Cases	Death	Countries/areas/territories
Global – Moderate	6027	3	59
WHO European Region – High			
Other WHO Regions – Moderate			

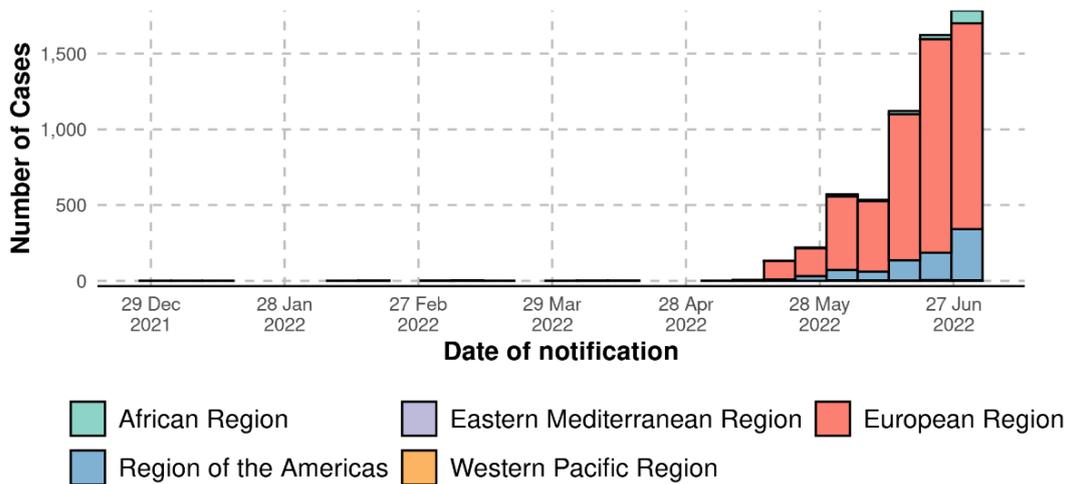
Highlights

- Updates on the multi-country outbreak of monkeypox has transitioned from the Disease Outbreak News to a biweekly situation report. The situation report will provide details such as the latest epidemiology, new guidance documents and updates on WHO advice. For information not included in this report, please see the [Disease Outbreak News published on 27 June 2022](#).
- WHO published a guidance document to provide [public health advice for gatherings during the current monkeypox outbreak](#) on 28 June. The advice was developed for host governments, public health authorities, national or international organizers, and professional staff involved in the planning and delivery of gatherings, including people organizing smaller gatherings or attending gatherings of any type and size.
- The outbreak continues to primarily affect men who have sex with men who have reported recent sex with one or multiple male partners, suggesting no signal of sustained transmission beyond these networks for now.

Epidemiological Update

From 1 January to 4 July 2022, 6027 laboratory confirmed cases of monkeypox and three deaths have been reported to WHO from 59 countries/territories/areas in five WHO Regions (African Region, Region of the Americas, Eastern Mediterranean Region, European Region, Western Pacific Region) (Table 1). Since the previous [Disease Outbreak News was published on 27 June 2022](#), 2614 new cases, (77% increase) and two new deaths have been reported; nine new countries/territories/areas have reported cases. Ten countries have not reported new cases for over 21 days, the maximum duration of the incubation period of the disease. This is the first time that local transmission of monkeypox has been reported in newly-affected countries without epidemiological links to countries that have previously reported monkeypox in West or Central Africa.

Figure 1. Epidemiological curve of weekly aggregated confirmed cases of monkeypox by region, from 1 January 2022 to 4 July 17:00 CEST*



Source: WHO

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

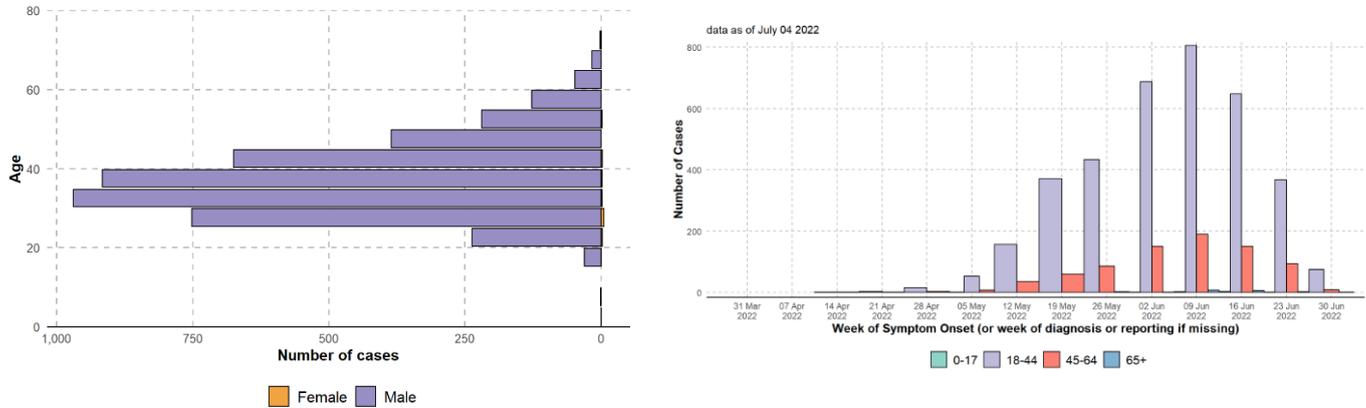
Table 1. Number of cumulative confirmed monkeypox cases and deaths reported to WHO, by WHO Region, from 1 January 2022 to 4 July 17:00 CEST

WHO Region	Confirmed cases	Deaths
African Region	173	3
Region of the Americas	902	0
Eastern Mediterranean Region	15	0
European Region	4920	0
Western Pacific Region	17	0
Cumulative	6027	3

Case demographics

Data on sex are available for 73% (4406/6027) of cases. Of these, 99.5% (4385/4406) are males, and the median age of reported cases is 37 years (Interquartile range: 31-43). Males between 18-44 years of age continue to be disproportionately affected by this outbreak as they account for 79% of cases. 0.1% (6/5584) of cases with age data are aged 0-17 years of age.

Figure 2a). Age-sex distribution of confirmed monkeypox cases from 1 January 2022 to 4 July 17:00 CEST (left); **2b)** Epidemic curve of confirmed monkeypox cases by age group, from 1 January 2022 to 4 July 17:00 CEST (right)



Source: WHO
4,397 cases with age-sex data

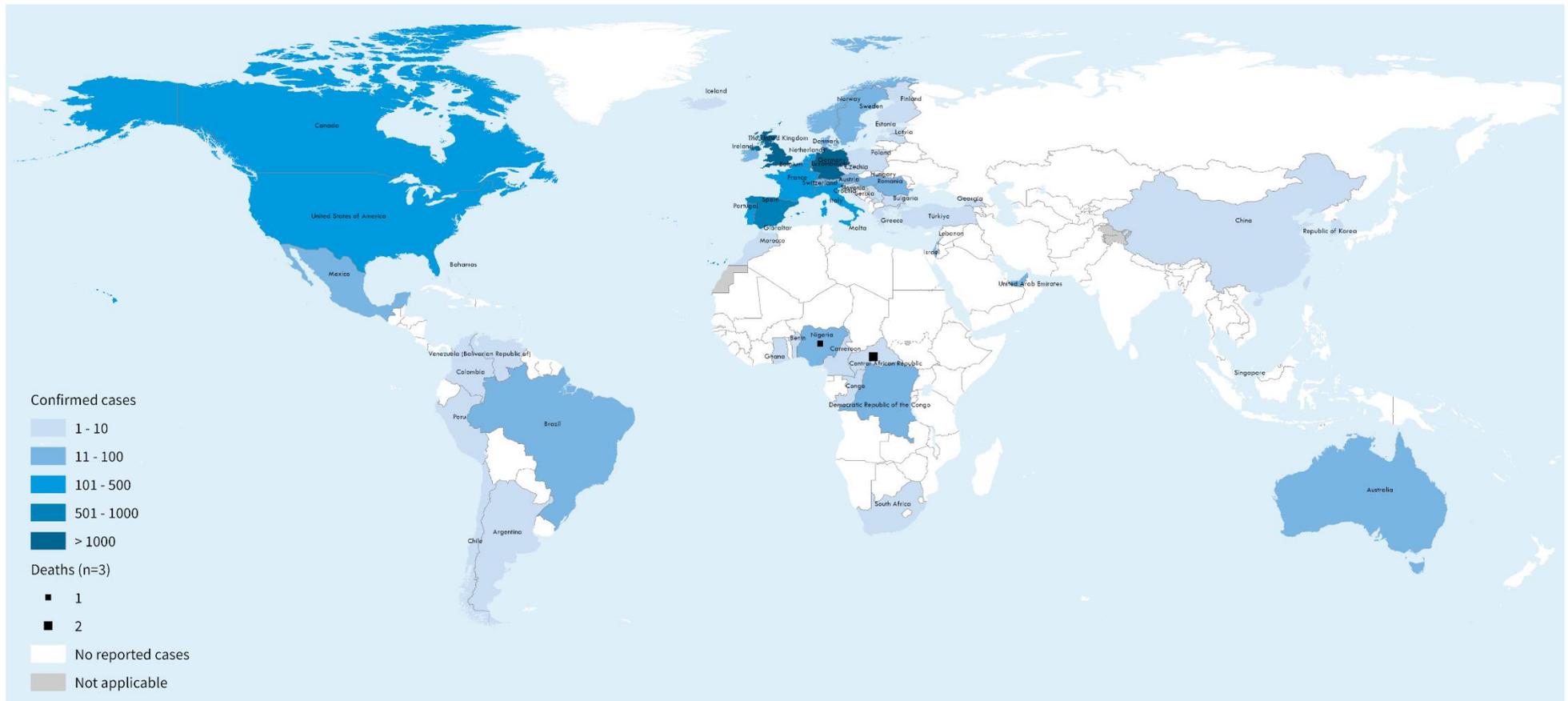
Other key epidemiological findings are as below:

- Among cases with reported sexual orientation, 60% (1214/2025) identified as gay, bisexual and other men who have sex with men; and 41% (335/827) of cases with known HIV status were positive for HIV.
- Health care-associated infections cannot be ruled out and further investigation is ongoing to determine whether infection in health workers was due to occupational exposure. Among reported cases, 25 cases to date are reported to be health workers.

Clinical Presentation

The clinical presentation of monkeypox cases associated with this outbreak has been atypical, as many cases in newly-affected areas are not presenting with the classically described clinical picture for monkeypox (fever, swollen lymph nodes, followed by centrifugal rash). Among the cases who reported at least one symptom, 81% presented with systemic rash (widespread rash on the body), 50% presented with fever and 41% presented with genital rash.

Figure 3. Geographic distribution of confirmed cases of monkeypox reported to or identified by WHO from official public sources from 1 January 2022 to 4 July 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: 6 July 2022

Updates and WHO Advice

WHO continues to closely monitor the situation, and support international coordination and information sharing with Member States and partners. Clinical and public health incident response have been activated by Member States to coordinate comprehensive case finding, contact tracing, laboratory investigation, isolation, clinical management, implementation of infection prevention and control measures, and vaccination activities, as well as support to ongoing epidemiological and countermeasures research. For further information, please see the [Disease Outbreak News published on 27 June 2022](#).

Surveillance and Laboratory

WHO's interim guidance on [surveillance, case investigation and contact tracing for monkeypox](#) outlines the criteria for testing, reporting, case investigation, and contact tracing.

Any individual meeting the clinical definition for a suspected case should be offered testing. Additionally, risk factors for infection, such as being a gay, bisexual and other man who has sex with men, reporting a high number of sexual partners in the prior three weeks, and having attended a gathering where a confirmed case was reported can be suggestive of the need to test for monkeypox virus (MPXV). When suspicion of monkeypox infection is high, the identification of an alternate pathogen which causes rash should not preclude testing for MPXV, as co-infections have been identified. The primary diagnostic test for monkeypox diagnosis is PCR of skin lesion material. In addition, other specimens such as an oral, nasopharyngeal or rectal swab may also be collected, as appropriate.

Genomic sequencing of viral deoxyribonucleic acid (DNA) of the monkeypox virus found in the current outbreak is ongoing, where available; data from polymerase chain reaction (PCR) assays and genome sequencing indicate that the monkeypox virus genomes detected belong to the West African clade.

Although countries are only required to notify WHO of probable and confirmed cases through International Health Regulations (2005) communications, all suspected cases should be reported to national authorities.

WHO has prepared an in-depth [Monkeypox Case investigation form \(CIF\), as well as a minimum dataset Case reporting form \(CRF\)](#) which defines the minimum data that are requested to be reported to WHO. Currently WHO has received the CRF for around 80% of the total confirmed cases reported at a global level. The consistency and completeness for this data varies widely between countries. A protocol to support in-depth case investigation using the CIF will be published soon.

The most often suspected and reported route of transmission, among known contacts, has been through sexual contact. Due to sensitivity in reporting a full list of sexual contacts, identification of all contacts of probable and confirmed cases has therefore proven to be very challenging in this outbreak, and might be one of the reasons why it is hard to break all chains of transmission.

Currently WHO is recommending all known contacts, or persons who think they may have been exposed, to monitor their symptoms for 21 days from the last known or suspected contact with a case, and to seek a test if signs or symptoms of monkeypox manifest. In the absence of symptoms, testing and quarantine are not required, but contacts are encouraged to rigorously practice hand hygiene and respiratory etiquette, avoid contact with children or persons who are immunocompromised or pregnant, and avoid any form of sexual contact for 21 days. Non-essential travel is discouraged.

Infection prevention and control

Implementation of appropriate infection prevention and control (IPC) measures, for example adequate screening space, ventilation, hand hygiene, use of personal protective equipment (PPE), environmental cleaning and disinfection, and training of health workers, is essential to mitigate and control transmission of monkeypox, in health care and community settings.

Health workers should apply standard precautions and perform a risk assessment to evaluate the need to use transmission-based precautions. Standard precautions include hand hygiene, respiratory hygiene and cough etiquette, patient placement, PPE, aseptic technique, safe injections and sharps injury prevention, environmental cleaning and disinfection, proper handling of laundry and linen, decontamination and reprocessing or reusable patient care items and equipment, and waste management, and should be used for all patients at all times.

WHO advises that transmission-based precautions (contact and droplet, as outlined in the guidance below) be implemented for any suspected or confirmed case of monkeypox in health care settings, including the use of respirators by health workers, as described in the [Clinical management and infection prevention and control for monkeypox: Interim rapid response guidance, 10 June 2022](#).

Clinical management, vaccines and therapeutics

Caring for patients with suspected or confirmed monkeypox requires early recognition through screening protocols adapted to local settings, prompt isolation and rapid implementation of appropriate IPC measures as described above, testing to confirm diagnosis, symptomatic management of patients with mild or uncomplicated monkeypox and monitoring for and treatment of complications and life-threatening conditions such as progression of skin lesions, secondary bacterial infection of skin lesions, ocular lesions, and rarely, severe dehydration, severe pneumonia or sepsis. Patients with mild or uncomplicated monkeypox who isolate at home require careful assessment of the ability to safely isolate and maintain required IPC precautions in their home to prevent transmission to other household and community members and have access to care if they progress or worsen. Precautions (isolation and IPC measures) should remain in place until lesions have crusted, scabs have fallen off and a fresh layer of skin has formed underneath.

To enable reliable evaluation of therapeutic interventions, randomized trials using [CORE protocols](#) are the preferred approach. Unless there are compelling reasons not to do so, every effort should be made to implement randomized trial designs. It is feasible to conduct placebo-controlled studies, especially in individuals at low risk for serious disease. Harmonised data collection for safety and clinical outcomes using [WHO's Global Clinical Platform for Monkeypox](#), would represent a desirable minimum dataset in the context of an outbreak, including the current event.

Vaccines

WHO has recently developed [interim guidance on vaccines and immunization for monkeypox](#). WHO has strongly encouraged Member States to consider the context of the current multi-country outbreak of monkeypox and convene their national immunization technical advisory groups (NITAGs) to review the evidence and develop policy recommendations for the use of vaccines as relevant to the national context. All decisions around immunization of individuals with smallpox or monkeypox vaccines (pre-exposure or post-exposure) should be by

shared clinical decision-making between health care provider and prospective vaccinee, based on a joint assessment of risks and benefits, on a case-by-case basis.

Member States using vaccines against monkeypox are encouraged to do so within a framework of collaborative clinical studies using standardized design methods and data collection tools for clinical and outcome data to rapidly increase evidence generation, especially on vaccine efficacy/effectiveness and safety. Where participation in placebo-controlled clinical efficacy trials for monkeypox vaccines and schedules is not considered feasible, the use of a range of other robust [study designs to assess vaccine effectiveness](#) should be rapidly put in place employing standard data collection methods.

Risk Communication and Community Engagement

Member States should focus on efforts to raise awareness, manage risk perception, maintain trust and proactively support people at risk to make informed decisions to protect themselves and others from monkeypox. On June 24, WHO published an [interim guidance on methods and considerations for risk communication and community engagement \(RCCE\) for Monkeypox](#). The guidance includes recommendations on identifying and communicating with affected populations and key audiences and avoiding stigma in communications outreach. It also includes key messages about symptoms of monkeypox, transmission, prevention measures, and communicating about uncertainty. This document also provides RCCE guidance for managers and planners of gatherings and events, where close physical contact may create an environment conducive for the transmission of monkeypox. Additionally, this document includes a compendium of recommendations for RCCE methods and resources to support the monkeypox response.

Gatherings

During gatherings, the likely high density and mobility of attendees represents a conducive environment for close, frequent and possibly prolonged contact between people. Gatherings often include attendees socially interacting with people previously unknown to them. Some of these new interactions may involve sexual activity, which can play a role in the spread of the monkeypox virus.

On 28 June, WHO published guidance to provide [public health advice for gatherings during the current monkeypox outbreak](#). The advice is for host governments, public health authorities, national or international organizers, and professional staff involved in the planning and delivery of gatherings, including people organizing smaller gatherings or attending gatherings of any type and size.

Technical guidance and other resources

WHO Guidance and Public Health Recommendations

- WHO Surveillance, case investigation and contact tracing for Monkeypox: Interim guidance, 24 June 2022. <https://www.who.int/publications/i/item/WHO-MONKEYPOX-surveillance-2022.1>
- WHO Technical brief (interim) and priority actions: enhancing readiness for monkeypox in WHO South-East Asia Region, 28 May 2022. https://cdn.who.int/media/docs/default-source/searo/whe/monkeypox/searo-mp-techbrief_priority-actions_300522.pdf?sfvrsn=ae7be762_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>
- WHO Vaccines and immunization for monkeypox: Interim guidance, 14 June 2022. <https://apps.who.int/iris/bitstream/handle/10665/356120/WHO-MPX-Immunization-2022.1-eng.pdf>
- 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>

Data management

- Case and contact investigation form (CIF), 16 June 2022. [https://www.who.int/publications/m/item/monkeypox-minimum-dataset-case-reporting-form-\(crf\)](https://www.who.int/publications/m/item/monkeypox-minimum-dataset-case-reporting-form-(crf))
- WHO Monkeypox minimum dataset case reporting form (CRF), 14 June 2022. [https://www.who.int/publications/m/item/monkeypox-minimum-dataset-case-reporting-form-\(crf\)](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>
- Global clinical data platform for monkeypox case report form (CRF), 14 June 2022. <https://www.who.int/publications/i/item/WHO-MPX-Clinical-CRF-2022.1>
- WHO Go.Data: Managing complex data in outbreaks. <https://www.who.int/tools/godata>

Risk communication and community engagement

- 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>
- Monkeypox Q&A, 10 June 2022. <https://www.who.int/news-room/questions-and-answers/item/monkeypox>
- 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
- Monkeypox: public health advice for gay, bisexual and other men who have sex with men, 25 May 2022, <https://www.who.int/news/item/25-05-2022-monkeypox--public-health-advice-for-gay--bisexual-and-other-men-who-have-sex-with-men>
- 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
- 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
- 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>

Laboratory and genomic studies

- 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>

Disease Outbreak News

- 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 traveller-associated outbreaks: <https://www.who.int/emergencies/emergency-events/item/monkeypox>

Training and Education

- WHO factsheet on monkeypox, publishing date, 19 May 2022. <http://www.who.int/news-room/factsheets/detail/monkeypox>
- Health topics – Monkeypox: https://www.who.int/health-topics/monkeypox#tab=tab_1
- WHO monkeypox outbreak tool kit. https://www.who.int/docs/default-source/documents/emergencies/outbreak-toolkit/monkeypox-toolbox-20112019.pdf?sfvrsn=c849bd8b_2
- Open WHO. Online training module. Monkeypox: Introduction. 2020 English: <https://openwho.org/courses/monkeypox-introduction> Français: <https://openwho.org/courses/variole-du-singe-introduction>
- Open WHO. Extended training. Monkeypox epidemiology, preparedness and response. 2021. English: <https://openwho.org/courses/monkeypox-intermediate>; Français: <https://openwho.org/courses/variole-du-singe-intermediaire>

Other Resources

- WHO AFRO Weekly Bulletin on Outbreaks and Other Emergencies, all previous items: <https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-updates>
- WHO 5 moments for hand hygiene. <https://www.who.int/campaigns/world-hand-hygiene-day>
- WHO One health. <https://www.who.int/health-topics/one-health>
- World Organisation for Animal Health, founded as OIE: Monkeypox. <https://www.woah.org/en/disease/monkeypox/>
- Joint WHO Regional Office for Europe - European Centre for Disease Prevention and Control, Monkeypox surveillance bulletin, 29 June 2022. <https://www.who.int/europe/publications/m/item/joint-ecdc-who-regional-office-for-europe-monkeypox-surveillance-bulletin--29-june-2022>
- Joint WHO Regional Office for Europe - European Centre for Disease Prevention and Control, Monkeypox Resource toolkit to support national authorities and event organisers in their planning and coordination of mass and large gathering events. <https://www.who.int/europe/tools-and-toolkits/monkeypox-resource-toolkit-for-planning-and-coordination-of-mass-and-large-gathering-events/>
- WHO European Region Interim advice for public health authorities on summer events during the monkeypox outbreak in Europe, 2022 <https://www.who.int/europe/publications/m/item/interim-advice-for-public-health-authorities--on-summer-events-during-the-monkeypox--outbreak-in-europe--2022>
- Weekly epidemiological record (WER) no.11, 16 March 2018, Emergence of monkeypox in West Africa and Central Africa 1970-2017. <http://apps.who.int/iris/bitstream/handle/10665/260497/WER9311.pdf;jsessionid=7AB72F28D04CFE6CE24996192FC478FF?sequence=1>
- Jezek Z., Fenner F.: Human Monkeypox. Monogr Virol. Basel, Karger, 1988, vol 17, pp 1-5. doi: 10.1159/isbn.978-3-318-04039-5

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 global level.

Annex 2: Confirmed cases of monkeypox by WHO region and country from 1 January 2022 to 4 July 2022, 17:00 CEST*

WHO Region	Country/territory/area	Confirmed cases	Deaths
African Region	Benin	3	
	Cameroon	4	
	Central African Republic	3	2
	Congo	2	
	Democratic Republic of the Congo	78	
	Ghana	19	
	Nigeria	62	1
	South Africa	2	
Region of the Americas	Argentina	6	
	Bahamas	1	
	Brazil	78	
	Canada	300	
	Chile	8	
	Colombia	5	
	Mexico	27	
	Peru	15	
	Puerto Rico	1	
	United States of America	460	
Venezuela (Bolivarian Republic of)	1		
Eastern Mediterranean Region	Lebanon	1	
	Morocco	1	
	United Arab Emirates	13	
European Region	Austria	37	
	Belgium	117	
	Bulgaria	3	
	Croatia	1	

	Czechia	8	
	Denmark	20	
	Estonia	1	
	Finland	4	
	France	498	
	Georgia	1	
	Germany	1054	
	Gibraltar	1	
	Greece	6	
	Hungary	19	
	Iceland	4	
	Ireland	39	
	Israel	38	
	Italy	192	
	Latvia	2	
	Luxembourg	5	
	Malta	6	
	Netherlands	257	
	Norway	15	
	Poland	12	
	Portugal	402	
	Romania	11	
	Serbia	1	
	Slovenia	9	
	Spain	802	
	Sweden	28	
	Switzerland	91	
	The United Kingdom	1235	
	Türkiye	1	
Western Pacific Region	Australia	14	
	China	1	
	Republic of Korea	1	
	Singapore	1	
Cumulative	59 countries/territories/areas	6027	3

*For WHO European Region, we present data as of 1 July 2022 14:00 CEST.