

Americas

Regional response to the Global Monkeypox (MPX) outbreak

Donor Alert #1

24 June 2022



Photo Credit: PAHO/WHO

Health Situation



3500+ Reported cases across 5 WHO Regions



427 Confirmed cases in the Americas in 7 countries

Funding Needs



\$1,284,000 US\$ Requested for initial MXP outbreak control and prevention

Highlights

- Since 13 May 2022 and as of 23 June 2022, more than 3,500 cases of monkeypox have been reported to WHO from 50 countries globally.
- As of 23 June 2022 (16:00 EST), there is a total of 427 confirmed cases in the Americas in seven countries. 159 new cases were confirmed over the last 7 days.
- This is the first recorded occurrence of simultaneous monkeypox outbreaks in non-endemic countries, suggesting undetected transmission for an unknown period, possibly followed by recent amplifying events.
- Currently, WHO assesses the public health risk at the global level as moderate. Several uncertainties exist for the future evolution of this outbreak.

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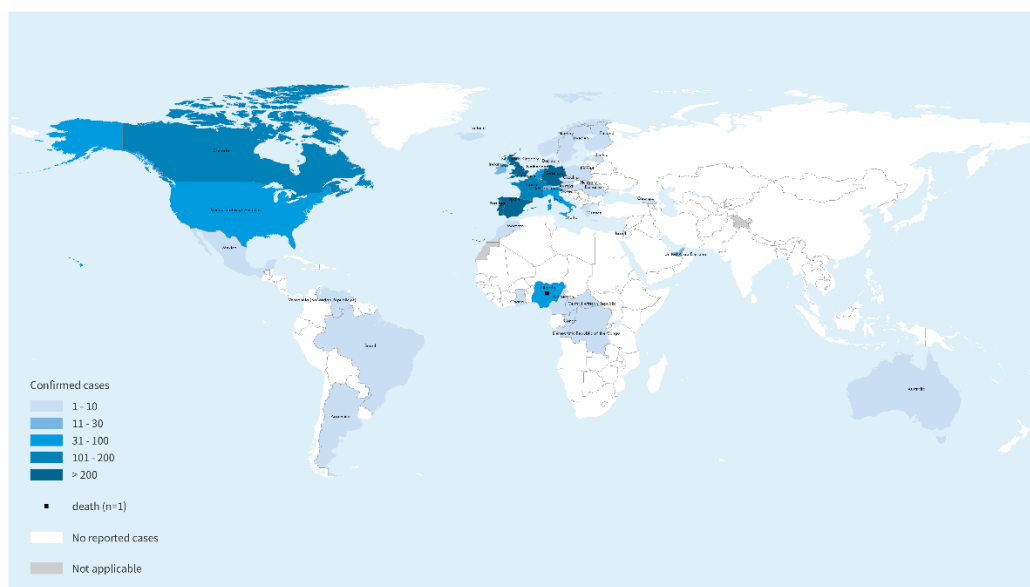
For more information on Monkeypox and PAHO's response to the outbreak, please visit:
<https://www.paho.org/monkeypox>

Situation Update

- Monkeypox virus is an orthopoxvirus that causes a disease with symptoms similar, but less severe, to smallpox.
- It is a disease that is transmitted from animals to humans. Human-to-human transmission was thought to be limited until the current multi-country outbreak. Monkeypox virus can be transmitted through contact with bodily fluids, lesions on the skin or on internal mucosal surfaces, such as in the mouth or throat, respiratory droplets and contaminated objects.
- This is the first recorded occurrence of simultaneous monkeypox outbreaks in newly affected countries, suggesting that there may have been undetected transmission for an unknown period, possibly followed by recent amplifying events.
- Most reported cases so far have been presented through sexual health or other health services in primary or secondary health care facilities and have involved mainly, but not exclusively, men who have sex with men (MSM).
- With the progressive introduction of specific PCR detection capacity at country level, it is expected that additional imported MPX cases and instances of local transmission will be detected and notified during the next weeks.

Background

Since 13 May 2022 and as of 23 June 2022 (16:00 EST), 3,508 cases of monkeypox have been reported to WHO from 50 countries globally, mainly in areas where monkeypox is not usual or has not been previously reported. As of 23 June 2022 (16:00 EST), there were a total of 427 confirmed cases reported in the Americas in seven countries (Argentina, Brazil, Canada, Chile, Mexico, the United States of America and the Bolivarian Republic of Venezuela). In addition, 11 probable cases and 49 suspected cases have been reported in eight countries and territories (Argentina, Bahamas, Brazil, Canada, Cayman Islands, Haiti, Mexico and the United States of America). Most cases in the Americas have been identified through health care facilities and sexual healthcare services and have been affecting primarily, but not exclusively, men who have sex with men (MSM) community. No deaths linked to the outbreak have been reported so far in this Region.



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: 17 June 2022



Figure 1. Geographic distribution of cases of monkeypox reported to or identified by WHO from official public sources, between 1 January and 15 June 2022, 5 PM CEST, (n=2103).

Apart from cases sporadically reported in travellers from endemic countries, monkeypox cases in non-endemic areas that are not linked to travel from endemic countries are not typical. At present transmission in newly affected countries, including those in the Americas, is primarily linked to recent sexual contacts, even though Monkeypox is not a sexually transmitted disease.

Given the multiple non-endemic countries across several WHO regions reporting cases of monkeypox, transmission has likely gone undetected for an unknown period. Continued human-to-human transmission is likely underway and other countries are expected to identify cases as the virus spreads further. Currently, the public health risk at the global level is assessed as moderate considering this is the first time that monkeypox cases and clusters are reported concurrently in many countries in widely different WHO geographical areas and without known epidemiological links to countries where monkeypox has been reported previously.

Additionally, there is currently limited epidemiological and laboratory information, and the actual number of cases is likely an underestimate. This may in part be due to the lack of early clinical recognition capability in the Region, limited surveillance, and a lack of rapid diagnostics. Based on the transmission pattern observed in Europe (i.e., an unprecedented number of countries detecting cases in people who share common exposures), it appears that transmission may have been ongoing for some time. It is anticipated that more cases are already occurring in Latin America and the Caribbean and will be confirmed soon.

Monkeypox virus is an orthopoxvirus that causes a disease with symptoms similar, but less severe, to smallpox. While smallpox was eradicated in 1980, monkeypox continues to occur in countries of central and west Africa. Two distinct clades are identified: the west African (WA) clade and the Congo Basin (CB) clade, also known as the central African clade. The WA clade has been associated in the past with a lower overall mortality rate of <3%, whereas the CB clade appears to cause severe disease more frequently with a case fatality rate (CFR) of 1-10%. Both estimates are based on infections among generally younger populations in the setting of previously affected countries in Africa.

Monkeypox is a zoonosis: a disease that is transmitted from animals to humans. Cases are often found close to tropical rainforests where there are animals that carry the virus. Evidence of monkeypox virus infection has been found in animals including squirrels, Gambian poached rats, dormice, different species of monkeys and others.

Until the current multi-country outbreak, human-to-human transmission was thought to be limited, with the longest documented chain of transmission having been 6 generations, meaning that the last person to be infected in this chain was 6 links away from the original sick person. It can be transmitted through contact with bodily fluids, lesions on the skin or on internal mucosal surfaces, such as in the mouth or throat, respiratory droplets and contaminated objects.

Detection of viral DNA by polymerase chain reaction (PCR) is the preferred laboratory test for monkeypox. The best diagnostic specimens are directly from the rash – skin, fluid or crusts, or biopsy where feasible. Antigen and antibody detection methods may not be useful as they do not distinguish between orthopoxviruses.

Current epidemiological situation

From 13 May to 23 June 2022 at 16:00 (CET), the World Health Organization (WHO) was notified of 3,508 confirmed cases of monkeypox in 50 countries globally. One death has been reported in Nigeria. The geographical distribution of the confirmed cases by WHO Region is as follows: 85% in the European Region, 12% in the Region of the Americas, 2% in the African Region, <1% in the Eastern Mediterranean Region, and <1% in the Western Pacific Region. The case count is fluctuating as more information becomes available and data are verified under the International Health Regulations (IHR 2005).

In the Region of the Americas, as of 23 June 2022 (16:00 EST), a total of 427 confirmed cases of monkeypox have been reported from 7 countries: Argentina (4 cases), Brazil (11 cases), Canada (224 cases), Chile (3 cases), Mexico (11 cases), the United States of America (173 cases), and the Bolivarian Republic of Venezuela (1 case). Furthermore, a total of 11 probable cases and 49 suspected cases have been reported in eight countries of the Region (Argentina, Bahamas, Brazil, Canada, Cayman Islands, Haiti, Mexico and the United States of America).¹ 96% of cases are reported in men aged 25 to 54 years old, of which most self-identify as men who have sex with other men. 30% of cases in the Americas did not report a recent history of travel.

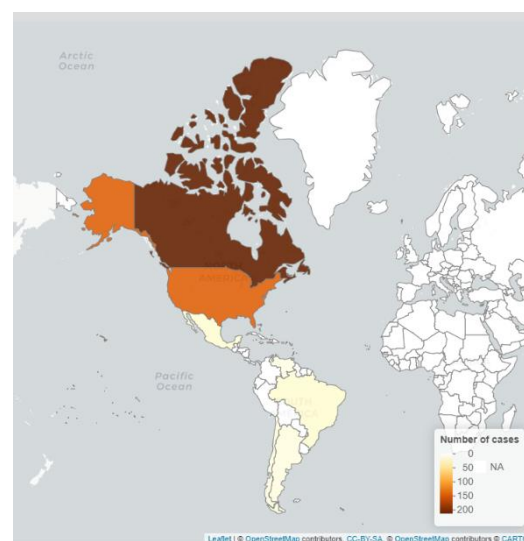


Figure 2. Geographical distribution of confirmed monkeypox cases by country/territory in the Region of the Americas (as of 22 June 2022).
Source: PAHO Monkeypox dashboard <https://shiny.pahobra.org/monkeypox/>

¹ As this information evolves quickly, for most up-to-date information, please refer to the PAHO Monkeypox dashboard <https://shiny.pahobra.org/monkeypox/>

In all samples in which clade detection was performed, the West African clade was identified. Most confirmed cases with a history of travel reported travel to countries in Europe or North America, rather than West or Central Africa. Confirmation of monkeypox in persons who have not traveled to a previously affected area is unusual and the occurrence of a case in a newly affected country is considered an outbreak. This is the first recorded occurrence of simultaneous monkeypox outbreaks in newly affected countries, suggesting that there may have been undetected transmission for an unknown period, possibly followed by recent amplifying events.

In addition to cases reported in newly affected countries, WHO continues to receive updates on monkeypox outbreaks in previously affected countries in the Region of Africa through established surveillance mechanisms (Integrated Disease Surveillance and Response). From January through 8 June 2022, a total of 1,536 suspected cases, including 72 deaths, were reported in eight previously affected countries. During the same period, 59 confirmed cases were reported in six of the above previously affected countries.

The multi-country monkeypox outbreak is ongoing and more cases are expected to be identified as surveillance and laboratory capacity is implemented in newly affected countries.

Public health concerns

Currently, the public health risk at the global level is assessed as moderate considering this is the first time that monkeypox cases and clusters are reported concurrently in many countries in widely disparate WHO geographical areas and without known epidemiological links to countries where monkeypox has been reported for many years. Cases have mainly, but not exclusively, been identified amongst men self-identified as part of extended sexual networks. The sudden appearance and wide geographic scale indicate that widespread human-to-human transmission is underway, for the time being still primarily in one demographic and social group, and the virus may have been present and undetected for several weeks or longer. Additionally, there is currently limited epidemiological and laboratory information, and the actual number of cases is likely an underestimate. This may in part be due to the lack of early clinical recognition of an infection previously known to occur mostly in West and Central Africa, limited surveillance and a lack of rapid diagnostics.

At present transmission in newly affected countries is primarily linked to recent sexual contacts. There is a high likelihood that further cases will be found without identified chains of transmission, including potentially in other population groups. Given the number of countries across several WHO regions reporting cases of monkeypox, it is highly likely that other countries will identify cases and there will be further spread of the virus. Human-to-human transmission occurs through close or direct physical contact with infectious lesions or mucocutaneous sores (through face-to-face, skin-to-skin, mouth-to-mouth, mouth-to-skin transmission) including during sexual activity, respiratory droplets (and possibly short-range aerosols), or contact with contaminated materials (e.g., linens, bedding and clothing).

Although the current risk to human health and to the general public remains low, the public health risk would be greater if this virus exploits the opportunity to establish itself as a widespread human pathogen. There is also a risk to health workers if they are not wearing appropriate personal protective equipment (PPE) to prevent contracting an infection. Although not reported in this current outbreak, the risk of health care-associated infections has been documented in the past. There is the potential for increased health impact with wider dissemination in vulnerable groups, as the risk of severe disease and mortality is recognized to be higher among children and immunocompromised individuals, including persons with poorly controlled HIV. Infection with monkeypox in pregnancy is poorly understood, although limited data suggests that infection may lead to adverse outcomes for the fetus or newborn infant.

Vaccination against smallpox was shown in the past to be cross-protective against monkeypox. However, any immunity from smallpox vaccination will only be present in persons over the age of 42 to 50 years or older, depending on the country, since smallpox vaccination programmes ended worldwide in 1980 after the eradication of smallpox. The original (first generation) smallpox vaccines from the eradication programme are no

longer available to the general public. In addition, protection for those who were vaccinated may have waned over time.

Vaccines licensed for monkeypox, where available, are being deployed in a limited number of countries to manage close contacts. While smallpox vaccines have been shown to be protective against monkeypox, only one vaccine exists that is specifically approved for prevention of monkeypox. This vaccine is based on a strain of vaccinia virus (known generically as modified vaccinia Ankara Bavarian Nordic strain, or MVA-BN). This vaccine has been approved for prevention of monkeypox in Canada and the United States of America. In the European Union, this vaccine has been approved for prevention of smallpox under exceptional circumstances. An antiviral to treat orthopoxviruses, tecovirimat, has been approved by the European Medicines Agency, the United States Food and Drug Administration and Health Canada. WHO has convened experts to review the latest data on smallpox and monkeypox vaccines, and to provide guidance on how and in what circumstances they should be used.

Public health response

In response to these events, WHO declared an emergency for the global monkeypox outbreak on 19 May 2022. Initially ungraded, the outbreak was officially assigned grade 2 on Friday 3 June 2022. Given the occurrence of cases in countries across the globe, on 20 May 2022, PAHO shared an Epidemiological Alert on Monkeypox with all IHR National Focal Points to raise regional awareness on the situation and interim guidance on surveillance, case management, as well as treatment and vaccines. After this notification, on 24 May 2022, PAHO activated its standard emergency procedures (SEPs) and established an incident management team with the active participation of personnel from over 15 entities of PAHO/HQ to ensure a timely response to the outbreak and lead preparedness efforts in Member States. Based on the epidemiological situation and evidence from Europe, the response is currently focused on four main pillars: communication and engagement of at-risk communities; timely detection and treatment of patients and protection of health workers; laboratory confirmation, surveillance, and containment of transmission chains; and securing access to critical health supplies

WHO and PAHO continue to collect and share information on the evolution of the outbreak. Clinical and public health incident response has been activated to coordinate comprehensive case finding, contact tracing, laboratory investigation, clinical management, isolation, and implementation of infection prevention and control measures. Genomic sequencing of viral DNA, where available, is being undertaken. Several European countries (Belgium, Finland, France, Germany, Israel, Italy, the Netherlands, Portugal, Slovenia, Spain, Switzerland, the United Kingdom of Great Britain and Northern Ireland) and the United States of America have published full-length or partial genome sequences of the monkeypox virus found in the current outbreak. While investigations are ongoing, preliminary data from polymerase chain reaction (PCR) assays indicate that the monkeypox virus genes detected belong to the West African clade. Two types of vaccines (ACAM-2000 and MVA-BN) are being deployed by some Member States to serve as prophylaxis for close contacts. Others may hold supplies of other types of vaccines (e.g., LC16).

Technical guidance and public health recommendations have been developed to support Member States with raising awareness, surveillance, laboratory diagnostics and testing, case investigation and contact-tracing, clinical management and infection prevention control, vaccines and immunization, and risk communication and community engagement.

To rapidly scale-up capacity within the region to detect cases and treat patients, PAHO has carried out a series of capacity building activities (webinars, workshops, etc.) with experts of the Region. In June 2022, three subregional workshops were held in Brazil, Jamaica and Mexico to build capacities in the Caribbean, Central and South American subregions on the molecular detection of MPX. Shipments of reagents to national public health laboratories in the Region are also ongoing to support laboratory detection capacity of monkeypox throughout the Region. With regards to clinical management and IPC, PAHO is working with clinicians and other experts from Canada, Spain, and the United Kingdom to learn and disseminate the clinical features, diagnostic challenges, and current clinical management practices of suspect and confirmed infections by monkeypox virus. Two webinars (one in Brazil and one regional) were also hosted to increase

awareness in healthcare professionals on the presentation, risk factors, clinical features, and differential diagnosis of monkeypox

Epidemiological investigations are ongoing. Most reported cases so far have been presented through sexual health or other health services in primary or secondary health care facilities and have involved mainly, but not exclusively, men who have sex with men (MSM). PAHO is coordinating with UNAIDS, civil society organizations and communities of men who have sex with men to listen to their questions and provide information on what monkeypox is and how to avoid it. Recognizing the current demographics of the outbreak affecting primarily MSM community members, and in the context of pride month celebrations, public health advice for gay, bisexual, and other men who have sex with men about the recent monkeypox outbreak were developed and shared with organizers and attendees of festivals and other mass gathering events.

Urgent health needs

The priority for the initial 3-month response plan is to contribute towards stemming of further transmission of the monkeypox virus and to mitigate the impact of the outbreak in the Region of the Americas. Funds are required to support Latin American and Caribbean countries in preparing and responding to outbreaks through the development and reinforcement of appropriate communication and engagement strategies, strengthening of detection and treatment capabilities, protecting health workers, containing the spread of the outbreak, and ensuring access to necessary supplies and equipment to guarantee a timely and adequate response.

With the progressive introduction of specific PCR detection capacity at country level, it is expected that additional imported monkeypox cases and instances of local transmission will be detected and notified during the next weeks. Currently, response should center on communication with and engagement of at-risk communities, the timely detection and treatment of patients, and protection of health workers. Transmission chains should also be contained in close cooperation with affected communities. At this stage, resources are primarily needed to scale up communication and technical guidance materials, procurement of diagnostic kits and other laboratory materials, and capacity building activities (e.g., workshops, virtual briefings, among others).

Urgent actions are needed to ensure that evidence-based information is communicated appropriately and reaching key communities, thus guaranteeing a broader community-led engagement that is empowered to prevent infection and combat misinformation. Among other lines of action, PAHO will assist Ministries of Health in the Americas by providing evidence-based technical materials on the prevention and control of monkeypox, as well as to develop and disseminate material to combat stigma while ensuring that these are culturally adapted to the context of each targeted community. These materials will be distributed in all four official languages and will help prevent infodemic and discrimination and support national and local crisis communication strategies.

Secure access to supplies and the timely procurement and delivery of materials to support Member States in the detection, treatment, and protection of health workers represents an essential part of the response to the monkeypox outbreak. PAHO will procure laboratory materials, including extraction DNA kits, primers and probes, enzymes, and other essential materials to ensure Member States have the supplies necessary to detect MPX using molecular laboratory techniques. Some countries with challenges in its laboratory network will receive support from PAHO to coordinate the establishment of mechanisms to ensure that samples can be tested at reference laboratories in other countries in the Americas.

Additionally, to reinforce country capacities to respond to the spread of this virus, PAHO will develop a capacity strengthening plan to support clinical management, strengthening health services, as well as prevention and control, vaccination in Member States. For this purpose, PAHO has already developed and distributed guidelines for national laboratories to detect MPX virus (including biosecurity protocols on sample collection, management, and shipment of samples, among other guidance). Furthermore, PAHO has developed multicounty training courses for MPX detection that will build from two workshops (one held in Brazil and a second ongoing in Jamaica for the Caribbean). Plans are underway to replicate these workshops in Mexico later this month and further workshops on other key aspects of the response to MPX will be held during this three-month period.

Identified priority actions

The proposed response will be implemented by PAHO, its Member States and strategic partners throughout the Region, using a whole-of-society approach and prioritizing the following priority areas of interventions:

1. Communication and engagement

Ensure evidence-based information is communicated appropriately and that communities are engaged to prevent infection, combat misinformation

- Engage and empower communities in prevention and control of MPX
- Counter infodemic and misinformation
- Guide risk and crisis communication efforts at national and subnational levels, included for mass gatherings
- Develop, adapt and disseminate materials on prevention and control and to combat stigma, using clear and culturally appropriate language, as well as their dissemination in PAHO's 4 official languages (English, French, Portuguese, and Spanish)

2. Detection & Contention

Ensure that Member States have installed capacities to timely detect and contain the spread of MPX

- Prepare and expand laboratory confirmation capacity
- Activate and scale up surveillance and early detection networks
- Support case finding and investigation
- Foster contact tracing and monitoring / vaccination

3. Treatment and protection of health workers

Ensure that Member States receive evidence-based guidance, tools and equipment to adequately manage cases of MPX and protect healthcare workers from MPX infection

- Expand knowledge and capacities of health services for the clinical detection and management of MPX
- Support infection prevention and control measures and vaccination activities as required
- Facilitate research on critical knowledge gaps

4. Coordination and logistics

Provide leadership, coordination, and logistical support for the emergency response phase of the MPX epidemics in the Region

- Ensure sectorial and interinstitutional coordination of the response
- Scale-up operational and logistical support for emergency response operations throughout the Region

Financial needs

An estimated **US\$1,284,000** is needed for the initial 3-month response plan to stem further transmission of MPX and mitigate the impact of the outbreak in the Americas.

Objective	Total (US\$)
1. COMMUNICATE AND ENGAGE: <i>Ensure evidence-based information is communicated appropriately and that communities are engaged to prevent infection, combat misinformation</i>	\$350,000
2. DETECT & CONTAIN: <i>Ensure that Member States have installed capacities to timely detect and contain the spread of the MPX</i>	\$449,000
3. TREAT & PROTECT HEALTH WORKERS: <i>Ensure that Member States receive evidence-based guidance and appropriate tools to adequately manage cases of MPX</i>	\$250,000
4. COORDINATION AND LOGISTICS: <i>Provide leadership, coordination, and logistical support for the emergency response phase of the MPX epidemics in the Region</i>	\$150,000
Indirect costs (7%)	\$84,000
Total	\$1,284,000