

Monkeypox in the Region of the Americas

13 September 2022

Date of assessment: 9 September 2022

Overall risk and confidence (based on information available at the time of assessment)

Level of confidence in the available information: **Moderate**

Level of overall risk: **High**

Overall Risk statement

In the Region of the Americas, as of 9 September 2022, a total of 33,162 confirmed cases of monkeypox have been reported in 31 countries and territories of the Region, indicating a rapid geographical spread in the Region. Moreover, currently the Region of the Americas has reported the highest proportion of confirmed cases for the past seven consecutive weeks, surpassing the cumulative number of cases reported in Europe and representing 58% of the cases reported globally.

In the Region of the Americas, among 5,764 cases with data available on gender and age, 98% are male between 18 and 44 years old; and 61 cases were reported among under 18-year-olds in 7 countries of the Region; of those 62% (38 cases) were reported in Brazil, all recovered. Among 3,234 cases with available information on sexual behaviour, 86% (2,798 cases) identified themselves as men who have sex with men (MSM) and of these, 52% (1,441 cases) are HIV-positive. A total of 177 cases were reported among women, of those 5 are pregnant. Among 2,374 cases with available information on the exposure setting, 91% were reported with unknown exposure setting and 4 cases were exposed during their work. Among 3,527 cases with available information on occupation, 7% (259 cases) are healthcare workers, and only one of them has been exposed at work, the rest of the cases are being investigated to determine if the infection was caused by occupational exposure.

Additionally, out of 10,138 cases with available information on hospitalization, 11% were hospitalized, of which 4% were hospitalized for isolation purposes, 0.1% for treatment, and 6% had no information available about the reason for hospitalization; 6 cases were admitted to an intensive care unit (ICU). As of 9 September 2022, a total of 2 confirmed deaths were reported in Brazil (1) and Cuba (1), and 4 additional deaths (in the United States of America (2), Brazil (1) and Peru (1)) are under investigation.

Additionally, 2 cases among indigenous people from the same community have been reported in Brazil, and outbreaks among inmates have been reported in the United States of America (a Harris County jail in Texas) and in Brazil (unverified report, under investigation). Considering the rapidly evolving situation in the Region, additional cases among risk groups might be reported and severe cases/deaths may occur.

The outbreak of monkeypox is ongoing and additional cases are expected to be identified as surveillance and laboratory capacity is implemented in the countries/territories within the Region of the Americas, and as healthcare-seeking behaviour and diagnosis is promoted among the most affected populations. Furthermore, the limited availability of vaccines and potential treatment as part of the main countermeasures for most of the countries/territories within the Region represents a challenge to control the outbreak in many countries/territories. Moreover, some countries and territories in the Region might have delays in assessing risk and implementing public health measures across all levels and sectors.

Based on the currently available resources and considering the complex epidemiological situation and capacities of detection and response in countries/territories within the Region of the Americas, **the overall risk at the Regional level is assessed as High.**

Risk questions

| Risk question | Assessment | | Risk | Rationale |
|----------------------------------|---------------|--------------|------|---|
| | Likelihood | Consequences | | |
| Potential Risk for human health? | Highly likely | Moderate | High | In the Region of the Americas, as of 9 September 2022, a total of 33,162 confirmed cases of monkeypox have been reported in 31 countries and territories of the Region, showing a rapid geographical spread in the Region. In addition to the majority of reported cases among MSM, there are also cases among children and pregnant woman, as well as outbreaks in close setting communities (inmates and indigenous population). As of 9 September 2022, a total of 2 confirmed deaths were reported in Brazil (1) and Cuba (1). Monkeypox is usually self-limiting; however, in some people, an infection can lead to medical complications and even death. Based on what we know from previous monkeypox outbreaks, newborn babies, children and people with underlying immune deficiencies may be at higher risk of more serious symptoms and death from monkeypox. Complications from monkeypox include secondary skin infections, pneumonia, confusion, and eye problems. More recent complications include proctitis (sores and swelling inside the rectum that cause pain) and pain or difficulty when urinating. In the past, between 1% to 10% of people with monkeypox have died. It is important to note that death rates in different settings may differ due to a number of factors, such as access to health care. These figures may be an overestimate because surveillance for monkeypox has generally been limited in the past. |

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|---|---------------|----------|------|--|
| | | | | In the countries/territories within the Region of the Americas is likely to be little immunity to monkeypox since the virus hasn't previously known to circulate, therefore risk groups will be vulnerable due to their own immune response and the limited access to vaccines and treatment. Therefore, potential risk for human health is High . |
| Risk of event spreading? | Highly likely | Moderate | High | Currently, surveillance for monkeypox is still under development in some countries and territories in the Region; in consequence, the extent of transmission outside of the at most risk population, is unclear. However, it is reasonable to assume that there is a wide geographical scope of this event, as 93% of the reported cases have no information regarding epidemiological links and there are countries reporting their first cases with no travel history. Considering that there may be delays assessing risk and follow public health measures, there is a high likelihood of detection of further cases with unidentified chains of community transmission in the Region. Additionally, there have been challenges to identify, isolate, and monitor contacts. Therefore, the likelihood of continuing spreading is High . |
| Risk of insufficient control capacities? | Highly likely | Moderate | High | Currently, the capacities for surveillance, contact tracing, laboratory, prevention, and control for this event are being strengthened in most of the countries and territories within the Region with PAHO technical support. The main countermeasures are contact tracing and contact monitoring, vaccines, and antivirals; the first two are available for countries that have experience and a flexible surveillance system. However, vaccines and antivirals are not yet widely available for most of the countries/territories within the Region. Furthermore, engagement of at-risk communities is in development, but still limited. Therefore, the risk of insufficient control capacities is High . |

Supporting Information

Hazard assessment

Monkeypox is a zoonotic infection caused by the monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae. Monkeypox belongs to the Orthopoxvirus genus that includes variola virus (which causes smallpox), vaccinia virus (used in the vaccine against smallpox), cowpox virus, and others. There are two distinct genetic clades of the monkeypox virus: Clade I (circulating in central African; case-fatality rate [CFR] 10%; former Congo Basin clade) and Clade II, divided in subclades IIa and IIb (former West African clade; CFR < 1%). All samples from the current global outbreak have been identified as subclade IIb. Clade I has historically caused more severe disease and was thought to be more transmissible. The geographic division between the two clades has so far been in Cameroon, the only country where both virus clades have been found.

The monkeypox virus that is currently causing the multi-country outbreak (subclade II) shows a specific mutational pattern in some genomes (from Nigeria) sequenced since 2017 indicative of the activity of a host enzyme (APOBEC3 deaminase). This specific mutational pattern is likely indicative of virus adaptation to a vertebrate host, possibly humans, because the same mutational pattern is observed in other 2022 genomes, which represents human-to-human transmission, and is not observed in monkeypox virus sequences obtained before 2017. This hypothesis, therefore, points to the adaptation of the Clade II of the virus to the human host since 2017.

The reservoir of monkeypox virus remains unknown; however, several animal species are susceptible to the virus, including a range of rodents and non-human primates. Monkeypox was first identified in Denmark in 1958, following an outbreak of a pustular disease in a macaque colony. There were nine different outbreaks in captive primates recorded between 1958 and 1966. The virus was first identified in humans in 1970 in the present-day Democratic Republic of the Congo (DRC) in a 9-month-old boy in a region where smallpox had been eliminated in 1968. Most cases were reported initially from rural rainforest regions of the Congo Basin, particularly in the DRC, where it is considered endemic. Human cases have increasingly been reported from across Central and West Africa in Cameroon, the Central African Republic, the DRC, Gabon, Liberia, Nigeria, the Republic of the Congo, Sierra Leone, and South Sudan. Since 2017, Nigeria has experienced a large outbreak, with over 500 suspected and over 200 confirmed cases and a case fatality ratio of approximately 3% in certain regions; currently, cases continue to be reported from Nigeria. Most exported cases have been from West Africa.

The first human cases of monkeypox outside of Africa were reported in 2003, in an outbreak in the United States through the importation of rodents from Ghana to Texas (USA) and housed near prairie dogs. All human cases of monkeypox occurred after contact with infected prairie dogs. Other imported cases of monkeypox have been confirmed in people from Nigeria in recent years: In September 2018, three cases were diagnosed in the United Kingdom: two had recently traveled to Nigeria and the third was a health worker treating one of the cases without appropriate personal protective equipment (PPE); in the same year another imported case was confirmed in Israel. Two additional imported cases were confirmed in 2019: one in Singapore and one in the United Kingdom. In 2021, three more cases were reported in the UK and one in the US6.

Monkeypox is usually self-limiting and most people recover within several weeks. However, in some cases, it might progress to severe disease. The incubation period of MPX typically ranges from 5 to 21 days. Historically, the initial phase of clinical illness, the prodromal phase, typically lasts 1-5 days during which time patients may experience fever, headache, back pain, muscle aches, and lymphadenopathy – a distinctive feature of monkeypox. This is followed by a second phase which typically occurs after the fever subsides with the appearance of a centrifugal synchronous rash often starting on the face and spreading to the rest of the body which may involve the oral mucous membranes, conjunctiva, cornea, and/or genitalia. This rash progresses from macules, papules, vesicles, and pustules, before crusting over and desquamating over two to three weeks. Patients are considered to be infectious until the lesions crust over, the scabs fall off, and a new layer of skin forms underneath. Children, young adults, and immunocompromised people are at greater risk for more severe disease and data are suggesting that the route of exposure may also impact the severity of the disease. Complications may include secondary bacterial infections related to the skin lesions, abscesses, nausea and vomiting leading to dehydration, bronchopneumonia, sepsis, encephalitis, and corneal infection with subsequent loss of vision.

In the current outbreak, many cases are not presenting with classically described symptoms of monkeypox: patients are presenting with a few lesions localized to the genital, perineal/perianal, or peri-oral area that do not spread further, an asynchronous rash, and the appearance of the development of a prodromal phase (i.e., lymphadenopathy, fever, malaise). The atypical clinical presentation makes it essential for healthcare workers to maintain a high clinical suspicion for monkeypox particularly since this presentation can be mild (i.e., patients may have only one skin lesion) and it may mimic other diseases such as syphilis, molluscum contagiosum, herpes simplex virus, bacterial skin infection, human papillomavirus, gonorrhoea, varicella zoster virus, vasculitis, and many other diseases. Thus, if there is a suspected case of monkeypox, it is important to promptly isolate and test the patient.

The risk of monkeypox virus transmission to a person following contact with a case depends on the nature and proximity of the contact. In the outbreaks detected in Africa, a secondary attack rate of between 3-11% of contacts unvaccinated against smallpox within households has traditionally been reported, a range that is also supported by recent studies. However, other estimates are as high as 50%, while in the 2003 outbreak in the United States, it was 0%. There is uncertainty in the literature about the start time of the transmission period, although it is generally considered that it begins with the appearance of the first symptoms, with the risk of transmission being higher when the characteristic exanthematous lesions appear until the lesions have healed.

Prior to this outbreak, the primary mode of transmission for monkeypox in humans occurred through direct (including consumption) or indirect contact with living or dead mammals, mainly rodents or non-human primates in endemic areas, although for many cases, the exposure has never been identified. In the past, Clade II had been associated with limited human-to-human transmission, although increased transmission has been described in recent years. Clade I is considered more transmissible.

During this multi-country outbreak, human-to-human transmission of monkeypox virus has been described via direct contact with infectious skin or mucocutaneous lesions (this includes face-to-face, skin-to-skin, mouth-to-mouth, or mouth-to-skin contact), respiratory droplets (and possibly short-range aerosols requiring prolonged close contact), or indirect contact from contaminated environments and objects (including surfaces, clothing, linen, utensils, phones), described as fomite transmission. This can lead to subsequent increased risk for health workers, household members, sexual contacts, and other close contacts of active cases. Other routes of transmission such as vertical transmission (parent-to-child), have been documented in the past. The extent to which asymptomatic infection may occur is currently unknown. While it is known that close physical contact can lead to transmission, it is not clear whether there is also sexual transmission via semen/vaginal and other bodily fluids.

Vaccination against smallpox had been shown to be protective against monkeypox, although first-generation vaccines are no longer available to the general public. In 2013, both the European Union (EU) and the Canadian Government authorized a third-generation smallpox vaccine (IMVANEX and IMVAMUNE, respectively). In 2019 this same vaccine was authorized by the U.S. Food and Drug Administration (FDA) for the prevention of smallpox and monkeypox (JYNNEOS). The Canadian Government (2020) and the EU (2022) extended the approval of this vaccine for active immunization against monkeypox. While one vaccine (MVA-BN) and one specific treatment (tecovirimat) were approved for monkeypox, in 2019 and 2022 respectively, these countermeasures are not yet widely available. There is limited evidence on the vaccine preventing or modifying the disease when administered postexposure. However, early postexposure vaccination with the MVA vaccine may prevent monkeypox infection or make symptoms less severe.

The WHO working case definitions were published in interim guidance on surveillance, case investigation, and contact tracing for monkeypox on 20 May 2022 and updated in the guidance published on 25 August 2022, available at: <https://bit.ly/3Rxq5VN>

Exposure assessment

Since 1 January 2022, cases of monkeypox have been reported to WHO from **102 Member States across all 6 WHO regions**. As of 7 September 2022, a total of **54,709 laboratory confirmed cases and 397 probable cases, including 18 deaths**, have been reported to WHO. Since 13 May 2022, a high proportion of these cases have been reported from countries without previously documented monkeypox transmission. This is the first time that cases and sustained chains of transmission have been reported in countries without direct or immediate epidemiological links to areas of West or Central Africa. Information on demographics is available for 28,401 of the confirmed cases, of which 98% (27,875) are male with a median age of 36 years (Interquartile range: 30 to 43 years). Of the 12,878 cases with reported sexual orientation, 95.1% (12,247) identified as men who have sex with other men.

The case count is fluctuating as more information becomes available and data are verified under the International Health Regulations (IHR 2005).

The unexpected appearance of monkeypox in several Regions in the initial absence of epidemiological links to areas that have historically reported monkeypox suggests that there may have been undetected transmission for some time.

This outbreak of monkeypox continues to primarily affect men who have sex with men who have reported recent sex with new or multiple partners. While epidemiological investigations are ongoing, most reported cases in the recent outbreak have presented through sexual health or other health services in primary or secondary health care facilities, with a history of travel primarily to countries in Europe, North America, or other countries where the virus was not historically known to be present, and increasingly, cases are reported with history of recent travel locally or no travel at all.

To date, the clinical presentation of monkeypox cases associated with this outbreak has been variable. Many cases in this outbreak are not presenting with the classically described clinical picture for monkeypox (fever, swollen lymph nodes, followed by a centrifugal evolving rash). Atypical features described include presentation of only a few or even just a single lesion; lesions that begin in the genital or perineal/perianal area and do not spread further; lesions appearing at different (asynchronous) stages of development; and the appearance of lesions before the onset of fever, malaise and other constitutional symptoms. The modes of transmission during sexual contact remain unknown; while it is known that close physical and intimate skin-to-skin or face-to-face contact can lead to transmission (through direct contact with infectious skin or lesions), it is not clear what role sexual bodily fluids, such as semen and vaginal fluids, play in the transmission of monkeypox.

Context assessment

Nine African countries have historically reported autochthonous infections with the virus (Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Liberia, Nigeria, and Sierra Leone), with Benin and South Sudan reporting imported cases. Infections in animals that originated in Ghana have also been reported before the current outbreak of human cases in Ghana.

This is the first time that largely sporadic cases with undetected chains of transmission are reported in other WHO Regions without known epidemiological links to West or Central Africa. These are also the first cases worldwide reported among MSM. Some case-patients attended festivals, parties, and venues where sexual activity took place during the previous 21 days before onset, showing the likely role of such settings in amplification.

The wide geographical scope of many apparent sporadic cases without a history of traveling to endemic areas indicates likely significant undetected human-to-human transmission. The monkeypox virus is considered to have moderate transmissibility among humans and can be transmitted

through droplets and/or contact with infected lesions. In this outbreak, the transmission between sexual partners, due to intimate contact with infectious skin lesions during sex, seems the predominant mode of transmission; with a high likelihood of further spread of the virus through close contact, specifically during sexual activities.

After the eradication of smallpox in 1980 and the cessation of the global vaccination program, there was concern that the monkeypox virus might emerge into the epidemiological niche left by smallpox with the accumulation of susceptibles in populations.

Historically, monkeypox primarily occurred in the rain forests in West Africa and Central Africa. Although antibodies have been detected in a range of small mammal species, the reservoir species of monkeypox remains unknown, and the virus has been isolated only twice from wild animals, once from a rope squirrel (*Funisciurus anerythrus*) in DRC and once from a sooty mangabey (*Cercocebus atys*) in Côte d'Ivoire. Contact with live or dead infected animal(s), including through the hunting and preparation of bushmeat as food, is a presumed driver of monkeypox infection in endemic settings. Closer contact between humans and animals through intensive farming, deforestation, demographic changes, climate change, and resulting animal population changes and movement, as well as the increasing susceptibility in human populations might account for the recent increase in reported cases and expansion of the geographical range. A One Health approach is necessary for disease detection and response in endemic settings, including wildlife surveillance and investigations into the animal reservoir(s).

Monkeypox presents challenges for public health officials and healthcare staff in terms of surveillance and laboratory capacities, and management and treatment of the disease; lack of knowledge and experience about the recognition, diagnosis, and treatment of monkeypox together with the implementation of public health measures that are needed to stop further spread, remain major issues.

Because human monkeypox closely resembles several other febrile rash illnesses, laboratory confirmation of infection is critical. Specimens must be accompanied by detailed clinical information for appropriate interpretation of laboratory results. Nucleic acid amplification testing (NAAT), such as real-time polymerase chain reaction (PCR), is the recommended laboratory technique for diagnostic confirmation, alone or in combination with the sequencing of the virus. When the clinical presentation and epidemiology suggest an infection with monkeypox virus despite negative PCR results (as might happen after resolution of lesions), serological testing may be useful to further assess a previous infection for epidemiological purposes. Advances in the use of DNA sequencing to understand viral strains and populations are a valuable tool for the interpretation of transmission events.

Access to testing is not currently widespread and is often available only at the level of the national public health laboratory, or not at all in some country contexts, requiring specimens to be shipped nationally or internationally. To adhere to international regulations for shipping dangerous goods, clinical specimens must be shipped as Category A UN2814 "infectious substance, affecting humans", which requires trained and certified shippers and may increase the time and cost of referral. There are no commercially available assays for diagnostic testing, but there are protocols that have been established and published for this purpose that can be shared with countries on request.

Vaccination against smallpox is known to be cross-protective against the other orthopox viruses, including monkeypox. Following the eradication of smallpox in 1980 and the cessation of the Smallpox Eradication Program in the early 1980s, the accumulation of susceptibles resulting in a lack of protection among younger age groups may have contributed to the emergence of monkeypox. While a vaccine has been approved for the prevention of monkeypox, and traditional smallpox vaccine has been demonstrated to provide protection, these vaccines are not widely available. Traditional smallpox vaccines are live replicating viral vaccines, thus in non-smallpox endemic situations, they are contraindicated in specific groups such as immunocompromised individuals.

There is likely to be little immunity to infection in those exposed in the current outbreak, as transmission has historically only occurred in West and Central Africa, and populations worldwide under the age of 40 or 50 years no longer benefit from the protection afforded by prior smallpox vaccination programs. Clinical care is primarily supportive. There is currently one antiviral, tecovirimat, which is EMA approved, including for monkeypox. Whenever possible, efforts should be made to collect clinical and outcome data as stated in the WHO rapid interim response guideline on Clinical management and infection prevention and control for monkeypox.

Table 1: Capacities and vulnerabilities related to the monkeypox response in the Region of the Americas. September 2022

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| Surveillance |
| Capacities |
| <ul style="list-style-type: none"> • Most of the countries and territories have developed a surveillance guideline for monkeypox, including adaptation of WHO case reporting form (CRF) to be used locally. • Member States are supported in quality control of the CRF records shared by the IHR National Focal Points (NFPs) • 26 countries are reporting monkeypox cases to PAHO/WHO via IHR NFP or and 30 countries publishing the aggregated information on monkeypox in their official website. • Daily updated Regional epidemiological situation published in four PAHO languages (English, French, Portuguese, and Spanish) available at: https://shiny.pahobra.org/monkeypox/ • PAHO/WHO Monkeypox Dashboard virtual training for the online tool available for Member States, for data visualization, analysis, and follow-up of monkeypox cases through a dashboard. Available in four PAHO languages (English, French, Portuguese, and Spanish) at: https://shiny.pahobra.org/mpxcountry/ • PAHO/WHO Epidemiological Alerts/Updates/Situation Reports on monkeypox are published regularly along with technical recommendations. Available at: https://bit.ly/3qve3Af • Weekly meeting on surveillance of Monkeypox with External/Internal partners, Country Offices and affected communities in countries and at the Regional level with the Ministries of Health to analyze the epidemiological situation and response. |
| Vulnerabilities |
| <ul style="list-style-type: none"> • Since most of the monkeypox cases reported in the Region of the Americas are not being hospitalized, countries and territories might postpone and no prioritize to implement the surveillance for this event. • Lack of completeness of the monkeypox line list, due to different factors could limit the capacity to follow the outbreak and delay the corresponding actions from the stakeholders. |
| Laboratory |
| Capacities |
| <ul style="list-style-type: none"> • Virtual supervision was conducted for the Public Health Laboratory in Jamaica during the implementation and running of the first suspected samples, where the first case was detected. • Follow-up of the implementation and analysis of samples was conducted with the Dominican Republic and Suriname. • Additional PCR reagents and other diagnostic materials were sent to the Malbran Institute in Argentina, the Instituto Conmemorativo Gorgas de Estudios de la Salud (ICGES) in Panama, and to the Public Health Laboratories in Antigua, Saint Kitts and Nevis, and Saint Vincent and the Grenadines. • On 21-22 June 2022, a third training workshop was conducted by the Genomics Unit in the National Institute for Reference in Diagnostic and Epidemiology (InDRE), Mexico City, Mexico, with the participation of delegates from National Public Health Laboratories from 9 countries in Central America and the Spanish-speaking Caribbean (Belize, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, Panama, Cuba, and the Dominican Republic). With this third workshop, most countries in the Region of the Americas will have the detection capacity for monkeypox virus. • Material for the specific detection of monkeypox virus by PCR (PAHO in-house and commercial kits verified by InDRE) was provided at the end of the workshop to each participant to facilitate the in-country implementation. • Virtual support and supervision were conducted during the implementation of the PCR diagnostic protocol in Haiti. • PCR-diagnostic material was sent to the National Public Health Laboratories in Saint Vincent and the Grenadines and Grenada. • Currently, at least 37 countries and territories have installed capacity for molecular diagnostic of monkeypox virus. • Decentralization of diagnostics in the national networks is ongoing in several countries. |
| Vulnerabilities |
| <ul style="list-style-type: none"> • This event is evolving rapidly and most of the countries and territories might need more time to develop laboratory capacities for this event. |
| Clinical management |
| Capacities |
| <ul style="list-style-type: none"> • PAHO has developed a second webinar on “Lessons learned and challenges: diagnosis and clinical management of Monkeypox” which will take place at the end of this week aimed at increasing awareness in healthcare professionals on the presentation, risk factors, clinical features, and differential diagnosis of Monkeypox. Experts will share their first-hand clinical experiences on clinical management of patients affected by monkeypox virus. |
| Vulnerabilities |
| <ul style="list-style-type: none"> • Healthcare workers might not recognize cases since the disease was previously known to occur in most the countries and territories within the Region of the Americas. |
| Operational support and logistics |
| Capacities |
| <ul style="list-style-type: none"> • Strong collaboration within the three levels of WHO (HQ, other Regional Offices, and PAHO/WHO Country Offices) for information sharing. |

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| Preparedness and response |
| Capacities |
| <ul style="list-style-type: none"> The TAG (Technical Advisory Group of Immunization) recommended post-exposure vaccination for close contacts of a confirmed case. Post-exposure vaccination (ideally within four days of exposure) may be considered by some countries for high-risk close contacts, considering their risk of infection and of developing adverse events. PAHO's Revolving Fund for Access to Vaccines has purchased limited number of doses of the Modified Vaccinia Ankara (MVA-BN), marketed as Jynneos, on behalf of the Member States of the Region, in response to the resolution made during the Special Session of the Directing Council conducted on 5 August 2022 (CDSS2.R1). First shipments of this vaccine will be received at the beginning of September 2022. |
| Vulnerabilities |
| <ul style="list-style-type: none"> As COVID-19 continues to threaten all levels, healthcare workers and decision makers might be exhausted. Their response to this event might be delayed and/or limited. There is limited supply of the MVA vaccine. |
| Infection Prevention, and Control |
| Capacities |
| <ul style="list-style-type: none"> Recommendations for the prevention of transmission of monkeypox within the healthcare setting continue to focus on the application of Standard Precautions as well as Contact and Droplet Precautions (gloves, gowns, masks and eye protection, including the use of respirators particularly when aerosol-generating procedures take place). According to the WHO Situation Report published 24 August 2022, only three (3) cases of healthcare-associated infections (HAI) due to monkeypox in the current outbreak have been confirmed worldwide, emphasizing the low level of risk for transmission in healthcare settings when proper precautions are applied. Recommendations to prevent transmission of monkeypox outside the healthcare setting continue to focus on adherence to isolation by persons confirmed or suspected to have monkeypox, and frequent attention to proper hand hygiene by all household members, as well as taking the proper precautions when handling and cleaning linens, household surfaces, during waste disposal and using damp mopping (avoiding dry sweeping) to prevent dispersion of infectious particles |
| Vulnerabilities |
| <ul style="list-style-type: none"> As COVID-19 continues to threaten all levels, there is fatigue among healthcare workers, as demotivation and exhaustion to follow recommended IPC practices. |
| Risk communication and community engagement |
| Capacities |
| <ul style="list-style-type: none"> In coordination with the Regional Coordination Mechanism of Central America (RCM), a webinar was organized for organized civil society and Ministries of Health, on 25 August 2022. This Webinar included an update on the epidemiological situation in the Region of Americas, in addition to addressing the clinical characteristics, transmission, diagnosis, and treatment of Monkeypox. Two country experiences were presented: Spain and Peru. With the support of HIV Platform 2025, the topic of communication with communities was addressed. A total of 276 people attended this webinar during the 3 hours. More than 30 questions from the audience were answered. A guidance document for communication with communities is being finalized. Social media cards on homecare guidance, prevention, and awareness about monkeypox are being adapted to country needs and in additional languages, such as Creole. Information and resources can be found on the PAHO monkeypox page, including: <ul style="list-style-type: none"> Monkeypox Q&A (available in English, Spanish, France, and Portuguese) Monkeypox: Advice for the public (available in English and Spanish) Monkeypox: guidelines and technical resources (available in English and Spanish) Communicating about monkeypox (available in English and Spanish) |
| Vulnerabilities |
| <ul style="list-style-type: none"> Currently the most affected population corresponds to the men who has sex with men community, therefore, general population might think that monkeypox affects only to MSM. Due to the COVID-19 pandemic, population might be exhausted, therefore, the preventive messages addressed to all the population might not be received effectively, with no impact on the behaviours. |
| Mass Gatherings |
| Capacities |
| <p>A webinar was organized for public health authorities and healthcare workers, Academic Institutions, International Agencies & communities of interested in the topic in the Americas, on 5 July 2022: Monkeypox and mass gatherings. This webinar included an update on the epidemiological situation in the Region of Americas, released WHO's public health advice for gatherings during the monkeypox outbreak, and provided an update on the response for affected communities.</p> |
| Travel advice and measures |
| Capacities |
| <p>PAHO/WHO shared with Member States the following recommendations:</p> <p>Persons:</p> <ul style="list-style-type: none"> With signs and symptoms compatible with monkeypox virus infection; or being considered a suspect, probable, or confirmed case of monkeypox by jurisdictional health authorities; or Who has been identified as a contact of a monkeypox case and, therefore, is subject to health monitoring, should avoid undertaking any travel, including international, until they are determined as no longer constituting a public health risk. <p>Exemptions include any individual who need to undertake travel to seek urgent medical care or flee from life-threatening situations, such as conflict or natural disasters; and contacts for whom pre-departure arrangements to ensure the continuity of health monitoring are agreed upon by sub-national health authorities concerned, or, in the case of international travel, by national health authorities. Cross-border workers, who are</p> |

identified as contacts of a monkeypox case, and, hence, under health monitoring, can continue their routine daily activities provided that health monitoring is duly coordinated by the jurisdictional health authorities from both/all sides of the border.

Establish operational channels between health authorities, transportation authorities, and conveyances and points of entry operators to:

- Facilitate international contact tracing in relation to individuals who have developed signs and symptoms compatible with monkeypox virus infection during travel or upon return.
- Provide communication materials at points of entry on signs and symptoms consistent with monkeypox; infection prevention and control; and on how to seek medical care at the place of destination.

WHO advises against any additional general or targeted international travel-related measures other than those specified above

Partner coordination

Capacities

- An Incident Management System (IMS) has been established to support Member States response. It includes personnel from 15 entities of PAHO/HQ. While all anticipated functions necessary for the response are considered, most professionals currently contribute part-time to the response. The IMS team meets twice a week. The Regional IMS also attends the weekly call of the Global IMS.
- Based on the epidemiological situation and evidence from Europe, the response continues to focus 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.
- Webinar to updates personnel of PAHO countries offices were held on 25 May and 7 June 2022. A weekly update is now provided every Friday afternoon in conjunction with the COVID-19 IMS team.
- Response funds have been mobilized from both the regional and global level of the Organization. Need for additional funds is evaluated on an ongoing basis depending on epidemiologic situation evolution.

Reference documents

1. Reports from the IHR National Focal Points of the Region of the Americas to WHO and PAHO/WHO.
2. WHO. Monkeypox global trends report. Available at: <https://bit.ly/3B1Yqh6>
3. PAHO/WHO. Dashboard on Monkeypox, Region of the Americas. Available at: <https://bit.ly/3xgHHx1>
4. WHO. Monkeypox outbreak in several countries: situation updates. Disease Outbreak Site (DON). Available at: <https://bit.ly/3mAkTCs> 3.
5. WHO. Monkeypox resources. Available at: <https://bit.ly/3REWMkf>
6. PAHO/WHO. Monkeypox resources. Available at: <https://bit.ly/3RCMCAF>
7. Pan American Health Organization / World Health Organization. Epidemiological Updates and Alerts, Washington, D.C.: PAHO/WHO; 2022. Available at: <https://bit.ly/3Df7bPf>
8. WHO. Rapid Risk Assessment on Monkeypox, multi-country. July 2022.