

Epidemiological Update Mpox in the Americas Region

10 September 2024

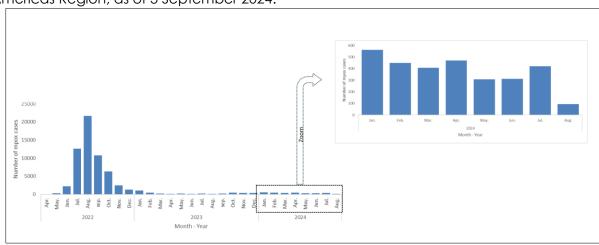
Situation summary

Given the recent Public Health Emergency of International Concern (PHEIC) declared by the Director General of the WHO regarding the increase in cases of mpox (clade lb) in the African Region, below is a summary of the mpox situation in the Americas Region based on cases reported to the Pan American Health Organization / World Health Organization (PAHO / WHO) and published on the official websites of the Ministries and Health Agencies of the Americas (1).

Between May 2022 and 3 September 2024, 64,669 confirmed cases of mpox, including 146 deaths, were reported in 32 countries and territories in the Americas Region. In total, 57,571 cases and 115 deaths were reported in 2022, 4,077 cases and 28 deaths in 2023, and 3,021 cases and three deaths so far in 2024 (2).

The highest proportion of cases was recorded during 2022 (90%), with the highest number of cases reported in the month of August 2022. Subsequently, a progressive decrease in cases was observed, which continued during 2023 and 2024 (**Figure 1**) (2). Genomic surveillance identified clade IIb in all cases analyzed, which remains the only clade detected to date in the Region (3).

Figure 1. Confirmed cases of mpox by month and year of symptom onset/notification. Americas Region, as of 3 September 2024.



Source: Adapted from Pan American Health Organization. Dashboard of mpox cases - Region of the Americas. Washington, D.C.: PAHO; 2024 [cited 3 September 2024]. Available from: https://shiny.paho-phe.org/mpox/ and mpox Dataset Americas Region 2022-2024 (Information submitted by International Health Regulations National Focal Points (IHR NFPs) or extracted from publicly available official sources). Washington, D.C.: PAHO; 2024. [cited 3 September 2024]. Unpublished (2, 4).

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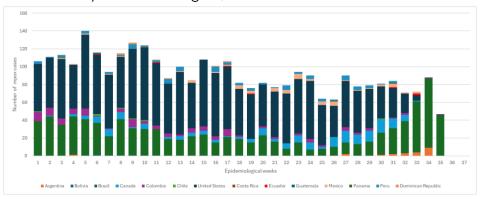
Regarding the distribution of cases by country and territory, the largest proportion of confirmed Mpox cases between May 2022 and September 2024 corresponds to the United States of America (n= 33,633 cases, including 60 deaths), followed by Brazil¹ (n= 12,455 cases, including 16 deaths), Colombia² (n= 4,266 cases), Mexico (n= 4,136 cases, including 34 deaths), and Peru (n= 3,942 cases, including 23 deaths) (4).

Of 59,933 cases with available information, 96% are males (57,453 cases) and 39% of the cases are in the 30-39 age group (23,650 cases), with a median age of 33 years, ranging from 0 to 95 years. In addition, there are 739 confirmed cases in children under 18 years of age in 16 countries of the Region (1.1% of cases). Of 16,011 cases with available information on sexual practices, 70% were identified as men who have sex with men (MSM). Of 17,976 cases with available information on Human Immunodeficiency Virus (HIV) status, 58% corresponded to persons living with HIV. It should be noted that information on HIV status is not available for the majority of cases (4).

Of the 46,507 cases with available information, 3,968 cases were hospitalized, 23% of them for clinical management (n=917 cases). In 60% of the cases the cause for hospitalization was unknown (n=2,398 cases) (2, 4).

During 2023, a total of 21 countries and territories in the Region reported confirmed cases of mpox: Argentina (n= 124 cases), the Bahamas (n= 2 cases), Bolivia (Plurinational State of) (n= 4 cases), Brazil (n= (n= 853 cases, including 2 deaths), Canada (n= 69 cases), Chile (n= 53 cases, including 1 death), Colombia (n= 89 cases), Costa Rica (n= 122 cases, including 1 death), the Dominican Republic (n= 10 cases), Ecuador (n= 132 cases, including 1 death), El Salvador (n= 35 cases), Guatemala (n= 103 cases, including 1 death), Jamaica (n= 3 cases), Honduras (n= 30 cases), Martinique (n= 6 cases), Mexico (n= 339 cases, including 13 deaths), Panama (n= 148 cases including 1 death), Paraguay (n= 73 cases), Peru (n= 164 cases, including 1 death), Trinidad and Tobago (n= 4 cases), and the United States (n= 1.728 cases, including 7 deaths) (4).

Figure 2. Confirmed cases of mpox by epidemiological week (EW) of symptom onset /notification and country. Americas Region, between EW 1 and EW 35 of 2024.



Source: Adapted from Pan American Health Organization. mpox data set Americas Region 2022-2024 (Information submitted by International Health Regulations National Focal Points (IHR NFPs) or extracted from publicly available official sources). Including only countries for which information is available by epidemiological week of onset of symptom or notification. Washington, D.C.: PAHO; 2024. [cited 3 September 2024]. Unpublished (4).

¹ Mpox data for Brazil includes information as of EW 35 of 2024.

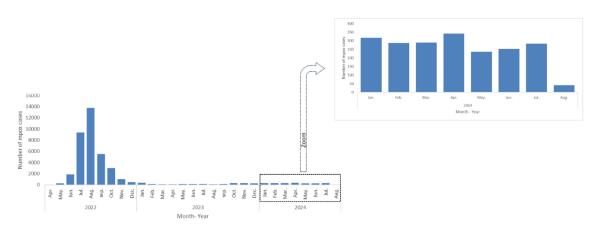
² Mpox data for Colombia includes information as of EW 35 of 2024.

In 2024, a total of 14 countries have confirmed cases of mpox: Argentina (n= 22 cases), Bolivia (n= 1 case), Brazil (n= 946 cases), Canada (n= 178 cases), Chile (n= 7 cases), Colombia (n= 118 cases), Costa Rica (n= 1 case), the Dominican Republic (n= 8 cases), Ecuador (n= 7 cases), Guatemala (n= 1 case), Mexico (n= 55 cases), Panama (n= 4 cases), Peru (n= 80 cases, including 2 deaths), and the United States (n= 1,816 cases, including 1 death) (**Figure 2**) (4).

Summary of the current situation by subregion and select countries

In the **North America** subregion,³ between 2022 and 3 September 2024, 39,418 confirmed cases of mpox were reported, including 94 deaths. The highest proportion of cases was reported in the **United States** with 85% of cases. During 2024, as of 3 September 2024, all three countries comprising this subregion have reported cases (n= 2,049 cases) (**Figure 3**) (4).

Figure 3. Confirmed cases of mpox by month and year of symptom onset/notification. North America Subregion, as of 3 September 2024.



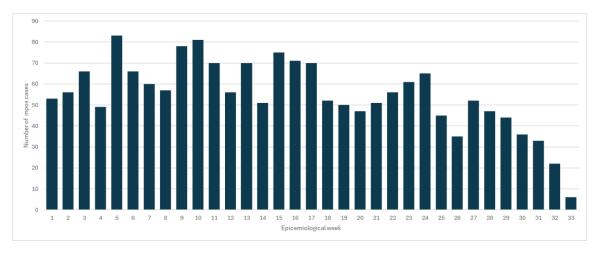
Source: Adapted from Pan American Health Organization. Dashboard of mpox cases - Region of the Americas. Washington, D.C.: PAHO; 2024 [cited 3 September 2024]. Available from: https://shiny.paho-phe.org/mpox/ and Mpox Dataset Americas Region 2022-2024 (Information submitted by the International Health Regulations National Focal Points (IHR NFPs) or extracted from publicly available official sources). Washington, D.C.: PAHO; 2024. [cited 3 September 2024]. Unpublished (2, 4).

In the **United States**, between EW 1 and EW 34 of 2024, 1,816 confirmed cases of mpox were reported, with a weekly average of 54 cases. Males accounted for 96% of cases (n= 1,638 cases) and 41% of cases were in the 30–39-year age group (n= 710 cases), with 7 cases reported in children under 18 years of age. Of the 1,416 cases with available information, 11% were hospitalized (5).

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³ Canada, Mexico, and the United States.

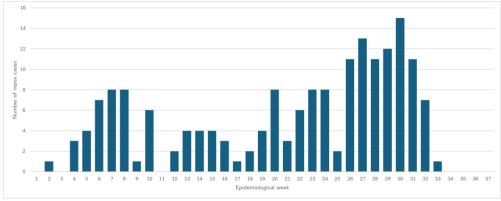
Figure 4. Confirmed cases of mpox by epidemiologic week (EW) of symptom onset/notification. United States, between EW 1 and EW 34 of 2024.



Source: Adapted from information sent by the United States of America International Health Regulations National Focal Point (IHR NFP). Communication received 6 September 2024 via e-mail. Washington, D.C.; 2024. Unpublished.

In **Canada** between EW 1 and EW 34 of 2024, 178 confirmed cases of mpox have been reported, with a weekly average of 5 cases (**Figure 5**). Males accounted for 97% of cases (n= 172 cases) and 37% of cases were in the 30–39-year age group (n= 66 cases), with no cases reported in children under 18 years of age. Of 178 cases with available information, 3% of the cases were hospitalized (6).

Figure 5. Confirmed mpox cases by epidemiological week of symptom onset/notification. Canada, between EW 1 and EW 34 of 2024.



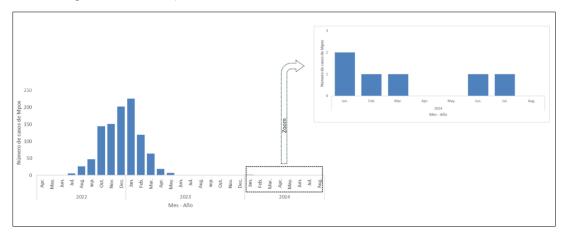
Source: Adapted from information sent by the Canada International Health Regulations National Focal Point (IHR NFP). Communication received 6 September 2024 by e-mail. Ottawa; 2024. Unpublished.

In the **Central America**⁴ subregion, between 2022 and 3 September 2024, 1,020 cases of mpox were notified, including three deaths. The highest proportion of cases was reported in **Guatemala**, with 40% of the cases. Among the countries that make up this subregion, **Costa Rica, Guatemala** and **Panama** notified cases in 2024 (**Figure 6**) (2, 4).

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⁴ Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.

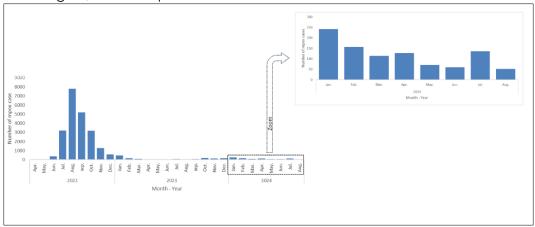
Figure 6. Confirmed cases of mpox by month and year of symptom onset/notification. Central America Subregion, as of 3 September 2024.



Source: Adapted from Pan American Health Organization. Dashboard of mpox cases - Americas Region. Washington, D.C.: PAHO; 2024 [cited 3 September 2024]. Available from: https://shiny.paho-phe.org/mpox/ and mpox Dataset Americas Region 2022-2024 (Information submitted by International Health Regulations National Focal Points (IHR NFPs) or extracted from publicly available official sources). Washington, D.C.: PAHO; 2024. [cited 3 September 2024]. Unpublished (2, 4).

In the **South America** subregion,⁵ ten countries have reported cases; between 2022 and 3 September 2024, 24,064 cases of mpox were reported, including 47 deaths. The highest proportion of cases was reported in **Brazil** with 51% of cases, followed by **Colombia** with 18% and **Peru** with 16%. Seven countries in this subregion have reported cases in 2024: **Argentina**, **Bolivia**, **Brazil**, **Chile**, **Colombia**, **Ecuador**, and **Peru** (**Figure 7**) (4).

Figure 7. Confirmed cases of mpox by month and year of symptom onset/notification. South America subregion, as of 3 September 2024.



Source: Adapted from Pan American Health Organization. Dashboard of mpox cases - Americas Region. Washington, D.C.: PAHO; 2024 [cited 3 September 2024]. Available from: https://shiny.paho-phe.org/mpox/ and mpox Dataset Americas Region 2022-2024 (Information submitted by International Health Regulations National Focal Points (IHR NFPs) or extracted from publicly available official sources). Washington, D.C.: PAHO; 2024. [cited 3 September 2024]. Unpublished (2, 4).

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⁵ Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela (Bolivarian Republic of).

In **Brazil** between EW 1 and EW 35 of 2024, 945 confirmed cases of mpox have been reported, with a weekly average of 27 cases (**Figure 8**), with an upward trend as of EW 30 of 2024. Males accounted for 94.8% of cases (n= 897 cases) and 46.3% were in the 30-39 years age group (n= 415 cases). Twelve cases were reported in children under 18 years of age. Of 723 cases with available information, 9.3% of the cases were hospitalized (7).

90 80 70 10 10

Figure 8. Confirmed cases of mpox according to epidemiological week (EW) of notification. Brazil, between EW 1 and EW 35 of 2024.

Source: Adapted from information sent by the Brazil International Health Regulations National Focal Point (IHR NFP). Communication received on 5 September 2024 by e-mail. Brasilia; 2024. Unpublished.

Epidemiological week

In **Colombia** between EW 1 and EW 35 of 2024, 118 confirmed cases of mpox have been reported, with a weekly average of 3 cases (**Figure 9**). Among the cases, 99% were males (n= 117 cases) and 43% of the cases were in the 30-39 age group (n= 79 cases). There have been no cases in children under 18 years of age (8).

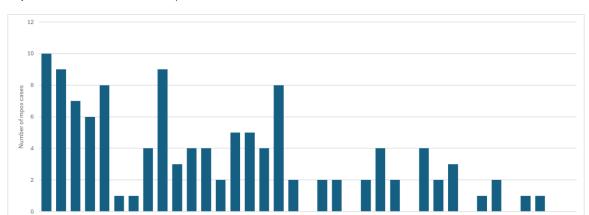
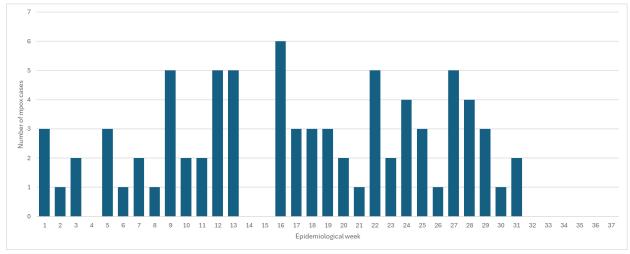


Figure 9. Confirmed cases of mpox according to epidemiological week (EW) of symptom onset/notification Colombia, between EW 1 and EW 35 of 2024.

Source: Adapted from information sent by Colombia International Health Regulations National Focal Point (IHR NFP). Communication received on 5 September 2024 by e-mail. Bogotá; 2024. Unpublished.

In **Peru** between EW 1 and EW 34 of 2024, 80 confirmed cases of mpox have been reported, including two deaths, with a weekly average of 2 cases (**Figure 10**). Among the cases, 99% of are males (n= 76 cases) and 45% of the cases are in the 30-39 years age group (n= 39 cases). One case was recorded in a child under 18 years of age (9).

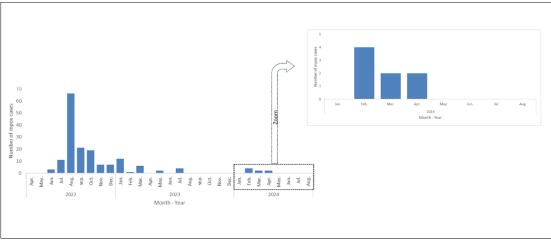
Figure 10. Confirmed cases of mpox according to epidemiological week (EW) of symptom onset/notification. Peru, between EW 1 and EW 34 of 2024.



Source: Adapted from information sent by the Peru International Health Regulations National Focal Point (IHR NFP. Communication received on 5 September 2024 by e-mail. Lima; 2024. Unpublished.

In the **Caribbean and Atlantic Ocean Islands** subregion,⁶ thirteen countries and territories have notified cases. Between 2022 and 3 September 2024, 167 cases of mpox were notified, including two deaths. The highest proportion of cases was recorded in the Dominican Republic with 66% of cases, followed by Jamaica with 13%, and Cuba with 5%. The Dominican Republic is the only country in this subregion that reported cases during 2024 (**Figure 11**) (2, 4).

Figure 11. Confirmed cases of mpox by month and year of symptom onset/notification. Subregion of the Caribbean and Atlantic Ocean Islands, as of 3 September 2024.



Source: Adapted from Pan American Health Organization. Dashboard of mpox cases - Americas Region. Washington, D.C.: PAHO; 2024 [cited 3 September 2024]. Available from: https://shinv.paho-phe.org/mpox/ and mpox Dataset Americas Region 2022-2024 (Information submitted by International Health Regulations National Focal Points (IHR NFPs) or extracted from publicly available official sources). Washington, D.C.: PAHO; 2024. [cited 3 September 2024]. Unpublished (2,4).

Guidance to Member States

Following the declaration of Public Health Emergency of International Concern (PHEIC) on 14 August 2024, the WHO has issued temporary recommendations and maintained, for an additional 12 months, the current standing recommendations on mpox (all clades) (1, 10).

Although no cases of mpox belonging to the new variant of the lb clade have been detected in the Americas Region, the risk of introduction cannot be ruled out, and health authorities are encouraged to continue their surveillance efforts to characterize the situation and respond rapidly in the event of an introduction of this or any other variant of the mpox virus (MPXV).

Member States are reminded of the main recommendations for surveillance, clinical management, prophylaxis, and risk communication (11).

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⁶ Anguilla, Antigua and Barbuda, Aruba, Bahamas (the), Barbados, Bermuda, Bonaire, British Virgin Islands, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic (the), Falkland Islands (the), French Guiana, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Martinique, Montserrat, Puerto Rico, Saba, Saint Barthelemy, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Pierre and Miquelon, Saint Vincent and the Grenadines, Saint Eustatius, Sint Maarten, Suriname, Trinadad and Tobago, Turks and Caicos, and the U.S. Virgin Islands.

Surveillance

The main objective of mpox surveillance and case investigation are the rapid detection of cases and clusters in order to provide appropriate clinical care; to carry out isolation of cases to prevent onward transmission; identification, management, and follow-up of contacts to recognize early signs or symptoms of infection; identification of groups at greater risk of infection and severe disease; protection of front-line health care workers; and adoption of effective control and prevention measures (12).

It is crucial to maintain epidemiological surveillance based on laboratory testing and timely reporting of probable and confirmed cases. This includes the follow-up of clinical pictures compatible with mpox through existing surveillance programs and the implementation of clear case definitions for suspected, probable, confirmed, and reinfected cases according to the current guidance (12, 13).

Integrating mpox surveillance, detection, prevention, care, and research into HIV and other sexually transmitted infections (STI) prevention and control programs and services will facilitate early detection of outbreaks, reduce barriers to health services, and improve the response to HIV-MPXV coinfection (14).

The need for laboratory confirmation is reiterated and the implementation of genomic surveillance is key to determining the circulating clades and their evolution, and at the same time contribute to knowledge by sharing genetic sequence data for relevant public health actions.

Diagnosis and laboratory.

Detection of viral DNA by polymerase chain reaction (PCR) is the laboratory test of choice for mpox. The best diagnostic samples are taken directly from the rash (skin, fluid, or crusts) collected by vigorous swabs (3). In the absence of skin lesions and in the presence of mucosal lesions, oropharyngeal, anal, or rectal swabs can be performed (3). However, while a positive oropharyngeal, anal, or rectal swab result is indicative of mpox, a negative result is not sufficient to exclude MPXV infection. Blood testing is not recommended. Antibody detection methods can be used for retrospective case classification, but not for diagnosis. It should be restricted to reference laboratories and may not be useful, as it often does not distinguish between different orthopoxviruses (3).

Clade I, which is currently increasing transmission in Africa, has been reported to have a deletion in the genome and additional mutations that have not been reported in clade II, leading to its classification as clade Ib (15). Although molecular detection using the recommended generic PCR protocol (only to detect OPXV orthopoxvirus) still works well, clade I-specific PCR does not detect the virus (15). Therefore, after initial detection with the (generic) detection protocol, if the clade identification PCR is negative for both clade I and clade II, the samples should be sequenced (15).

Laboratory guidelines for the detection and diagnosis of mpox virus infection are available from: https://www.paho.org/en/documents/laboratory-guidelines-detection-and-diagnosis-monkeypox-virus-infection-27-august-2024.

Vaccination

PAHO reminds Member States that mass vaccination against mpox in the population is neither required nor recommended; every effort should be made to control the person-to-person spread of mpox through early detection and diagnosis of cases, isolation, and contact tracing (16).

In May 2022, the PAHO technical advisory group on Vaccine Preventable Diseases recommended that vaccination should only be offered to high-risk close contacts of a confirmed case of mpox (16). In this case, the vaccine should ideally be administered within four days of exposure.

All decisions on immunization with mpox vaccines should be based on a case-by-case assessment of risks and benefits through shared clinical decision-making. Implementation of vaccination should be accompanied by robust pharmacovigilance, and vaccine efficacy studies under clinical trial protocols are recommended (16).

Following the declaration of the Public Health Emergency of International Concern (PHEIC) on 14 August 2024, WHO published the "Mpox global strategic preparedness and response plan" (17), which states that in response to the mpox outbreak, it is critical to improve control strategies through strategic vaccination. The implementation of targeted vaccination strategies can help reduce the spread of the virus by focusing on those at highest risk of infection, thereby reducing overall transmission. This vaccination strategy prioritizes individuals at substantially higher risk of exposure, including close contacts (such as sexual partners and household members) of confirmed cases. Identification of populations at risk of exposure should be based on epidemiologic data (17).

In outbreak response management, vaccination should be considered as an additional measure to complement primary public health interventions. At the individual level, vaccination should not replace other protective measures.

Clinical management

Identifying cases of mpox can be challenging given the similarity to other infections and conditions (18, 19). It is important to distinguish mpox from chickenpox, measles, bacterial skin infections, scabies, herpes, syphilis, other sexually transmitted infections, and drug-associated allergies. A person with mpox may also simultaneously have another sexually transmitted infection, particularly syphilis, or have an undiagnosed HIV infection. Alternatively, a child or adult with suspected mpox may also have chickenpox. For these reasons, testing is key to getting people into appropriate care as soon as possible and to prevent further spread (19).

Treatment is based on lesion care, pain control, and prevention of complications. The use of specific antiviral drugs, such as tecovirimat, has been proposed, particularly for severe cases or people at higher risk of complications, but there is still no evidence of its effectiveness (20). WHO recommends the use of tecovirimat in randomized clinical trials (RCTs) to contribute to the production of evidence, and if this is not possible, to use it in the framework of monitored emergency use of unregistered and experimental interventions (MEURI) (20).

People with HIV without antiretroviral therapy, particularly when they have advanced disease (CD4 cell count below 200/mm³) have a disproportionate burden of disease and increased mortality. Chronic necrotizing lesions, proctitis and severe perianal pain, ocular lesions, and

other infrequent manifestations have been described in these patients (21). Therefore, it is recommended that an HIV serology test be offered to all suspected cases of mpox, and if positive, antiretroviral treatment be initiated as soon as possible.

During the care of suspected, probable and/or confirmed cases of mpox, early identification is required through screening protocols adapted to local settings. These cases should be isolated immediately and require prompt implementation of appropriate infection prevention and control (IPC) measures, testing to confirm the diagnosis, symptomatic management of patients with mild or uncomplicated mpox, and follow-up and treatment of severe complications and conditions (19, 20).

Patients with mpox with mild to moderate clinical presentation who are able to receive home care require careful assessment of the ability to safely isolate themselves and maintain the required infection prevention and control (IPC) precautions in their home to prevent transmission to other household and community members. Precautions (isolation and ICP measures) should be maintained until a new layer of skin has formed under the scabs (19, 20).

Risk communication

Promote the dissemination of public health messages aimed at <u>health personnel</u>, the general population, and in particular the population at higher risk (men who have sex with men, including those with HIV, as well as people with extensive sexual networks), and those in antiretroviral treatment or pre-exposure prophylaxis (PrEP) programs in order to inform and educate the target population on prevention measures and improve early recognition, reporting and prompt initiation of treatment of these cases. Continue efforts to raise awareness among authorities and health personnel about the ongoing outbreak in the Democratic Republic of the Congo and the possibility of travel-associated cases of mpox (22).

Disseminate simple information, education, and communication (IEC) materials on transmission, symptoms, prevention, and treatment through various media (including social networks, dating apps, or closed-circuit television in health care facilities with services for populations with higher prevalence of HIV and other STIs).

Among the key messages, the WHO suggests the constant use of condoms during sexual activity (oral/anal/receptive and penetrative vaginal) during the 12 weeks following recovery from a confirmed case, to reduce the potential transmission of mpox by this route, considering that this risk is still unknown (23).

Avoid the spread of rumors and false, inaccurate or incorrect information about mpox. It is important that public health authorities systematically listen to and analyze information shared through social media to identify key questions and information gaps and develop communication strategies based on this. The public should be encouraged to obtain information only from official sources (23).

Continue risk communication and community engagement activities and work with civil society organizations to engage with key affected populations such as gay, bisexual and other MSM, including those living with HIV (23).

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