

Mpox strategic preparedness and response plan

Monitoring and evaluation framework



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Mpox strategic preparedness, readiness and response plan: Monitoring and evaluation framework

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Skin lesions that are characteristic of mpox are seen on a young patient at Kavumu hospital in South Kivu province, Democratic Republic of the Congo, on 30 August 2024. © WHO / Guerchom Ndebo



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Acronyms

CO	country office
EPI-WIN	WHO Information Network for Epidemics
HQ	headquarters
IDP	internally displaced person
IHR	International Health Regulations
IMST	Incident Management Support Team
IPC	infection prevention and control
M&E	monitoring and evaluation
PHEIC	public health emergency of international concern
PoE	point of entry
RCCE	risk communication and community engagement
RO	regional office
SOP	standard operating procedure
SPRP	strategic preparedness and response plan
WASH	water, sanitation and hygiene
WHO	World Health Organization

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Introduction

On 14 August 2024, the WHO Director-General determined the upsurge of mpox to constitute a [public health emergency of international concern](#) (PHEIC) under the provisions of the International Health Regulations (2005) (IHR). On 19 August 2024, in accordance with IHR provisions, the WHO Director-General issued [temporary recommendations](#). The [Mpox global strategic preparedness and response plan](#) (SPRP), has the overarching goal to stop the mpox outbreak with three strategic objectives:

- 1 Rapidly detect and control outbreak;
- 2 Promote research and equitable access to medical countermeasures;
- 3 Minimize transmission between humans and animals.

This Mpox SPRP monitoring and evaluation (M&E) framework, also referred to as the Framework, are critical components of the SPRP, ensuring that response efforts are effective, timely, and adaptable to changing circumstances. The Framework is designed to track the progress of response activities, providing continuous feedback to inform decision-making at all levels. This document suggests reporting indicators for monitoring of the global response to the mpox PHEIC as articulated in the [Mpox SPRP](#) and [Operational planning guidelines](#) for countries. The purpose of this is to:

- Understand global and country-level actions towards meeting the SPRP strategic objectives;
- Document WHO support to Member States, in the form of quantifiable indicators and milestones.

Target audience

This document is for global and national health authorities and outbreak response teams. It will be particularly useful for M&E focal points at national, regional, and global levels (including at WHO offices) responsible for managing, tracking, and reporting on the epidemiological situation and response. This Framework serves to inform Member States and donors about how progress is being assessed over time. In addition to a [dashboard](#), WHO will publish progress on country-level indicators and WHO milestones in public reports.

Scope

The scope of this Framework corresponds with the time frame of the mpox SPRP (September 2024 to February 2025). This Framework is a collaborative initiative driven by WHO's global and regional Incident Management Support Teams (IMSTs) and interfaces with other existing regional reporting frameworks. The country-level indicators identified for reporting in this Framework are aligned with those in the Mpox continental preparedness and response plan for Africa. It also interfaces with [temporary recommendations](#), issued by the WHO Director-General in relation to the PHEIC, and following the advice offered by the [IHR Emergency Committee regarding the upsurge of mpox 2024](#). Finally, the Framework is a complement to other existing financial monitoring, stakeholder coordination, and feedback mechanisms.

Fig. 1. Strategic objectives of the Mpox SPRP





Methodology

This Framework uses a combination of country-level indicators and WHO milestones to provide an overview of response actions and progress towards the three strategic objectives.

Data collection

There are a few primary sources of information for this Framework, drawing upon data from the country, regional and global levels as needed. A consolidated, modular approach to data collection will be introduced to allow for flexibility in the timing and level of detail gathered, whilst addressing the need for information across different topical areas.

Data management and validation

Data will be validated by the data source focal points and then logically checked by WHO. All data are subject to continuous verification by WHO (with the exception of data provided by third-party sites, which are not validated by WHO) and may change based on retrospective updates or reviews. The identified data sources will be integrated into the modern data architecture, which will contribute to streamlining the data cycle process, ensuring quality, completeness and timeliness of the data.

Country-level indicators analysis and reporting

The country-level indicators set out in this Framework for country and global monitoring align with the strategic objectives of the SPRP and were selected based on their usefulness to provide a periodic situational snapshot about country, regional or global conditions and inform operational response actions.

Twelve core country-level indicators were identified, building on evidence informed by country experience and lessons learned from response, in order to avoid undue reporting burden. The core indicators will be reported on by WHO under the Mpox SPRP and will focus on countries with active Clade 1b outbreaks, while considering others based on the evolving situation.

A reference library of indicators and compendium are annexed. The compendium is a consolidation of the methodological notes of the indicators to serve countries.

The monitoring of core country-level indicators relies on regular reporting of data and information. Completeness and geographic coverage may vary if there are delays in data collection or sharing. To help mitigate this, a number of indicators were selected based on data availability through existing global platforms and reporting tools so that data collection can be consistent and timely.

WHO milestones

To achieve the strategic objectives, the Mpox SPRP highlights five core components (5Cs) of preparedness and response that provide a framework for aligning international and national efforts, namely Strengthened surveillance and detection, Enhanced community protection, Safe and scalable clinical care, Access to medical countermeasures, and Emergency coordination. Moreover, WHO support related to the global outbreak of mpox reinforces these core components and can be reflected in key milestones.

Milestones are activities or products that mark measurable contributions to the 5Cs, and ultimately progress towards achieving the strategic objectives. WHO headquarters (HQ) and regional offices (RO) implementing units will report on milestones, with data collected on a quarterly basis facilitated through the WHO HQ IMST.

Limitations

There are some limitations to monitoring the technical implementation of mpox SPRP. One limitation resides in the global coverage of the Framework, which makes it more challenging to collate and validate data that are collected at the country level. In order to mitigate this challenge, the data collection process is decentralized and some roles are delegated to the regional level, including the regional WHO IMST and an internal WHO M&E network. The internal WHO M&E network will continue to play a role in collecting, validating and reporting on the SPRP progress.



Global monitoring (core country-level indicators)

The following is an overview of twelve core country-level indicators that will be used for the global monitoring of the implementation of the Global Mpox SPRP, according to the strategic objectives. These core indicators are aligned with those identified for monitoring of the Mpox Continental Preparedness and Response Plan for Africa to create efficiencies in reporting. Considering the following temporary recommendations, issued by the WHO Director-General on 19 August 2024 in relation to the mpox upsurge PHEIC, the indicators that will be used for the monitoring of the implementation of the temporary recommendations are flagged with an asterisk, with the related temporary recommendation(s) presented in a footnote.

A reference library and compendium of indicators is provided in the annex for countries to consider as they establish monitoring and evaluation of the implementation of national response plans including for the implementation of the full list of temporary recommendations.

Report quarterly to WHO on the status of, and challenges related to the implementation of these temporary recommendations, using a standardized tool and channels that will be made available WHO.

C1 | Strengthened surveillance and detection

Indicator	Reporting frequency
Core Indicator 1.1: Percentage of new alerts investigated in a week (new suspect, probable, confirmed or discarded cases reported) out of total alerts for the same week ^{1,2}	Monthly
Core Indicator 1.2: Percentage of new (confirmed and probable) cases who are known contacts ^{3,6}	Monthly
Core Indicator 1.3: Proportion of affected international borders in the country with functional cross border coordination mechanisms in place ⁴	Quarterly
Core Indicator 1.4: Number of laboratories with functional capacity to conduct mpox testing ⁵	Quarterly

C2 | Enhanced community protection

Indicator	Reporting frequency
Core Indicator 2.1: Percentage of individuals in high-risk areas who report practicing recommended measures to protect themselves from mpox ^{7,8,9}	Monthly
Core Indicator 2.2: Community groups representing high-risk populations have received training, financial resources, and/or supplies to facilitate community outreach and engagement ^{8,9}	Monthly

- 1 Temporary recommendation: Enhance surveillance, by increasing the sensitivity of the approaches adopted and ensuring comprehensive geographical coverage
- 2 Temporary recommendation: Scale up efforts to thoroughly investigate cases and outbreaks of mpox disease to elucidate the modes of transmission, and prevent its onward transmission to household members and communities
- 3 Temporary recommendation: Identify, monitor and support the contacts of people with mpox to prevent onward transmission
- 4 Temporary recommendation: Establish or strengthen cross-border collaboration arrangements for surveillance and management of suspect cases of mpox, the provision of information to travellers and conveyance operators, without resorting to general travel and trade restrictions unnecessarily impacting local, regional or national economies
- 5 Temporary recommendation: Expand access to accurate, affordable and available diagnostics to differentiate monkeypox virus clades, including through strengthening arrangements for the transport of samples, the decentralization of diagnostics, and arrangements to conduct genomic sequencing
- 6 Temporary recommendation: Report to WHO suspect, probable and confirmed cases of mpox in a timely manner and on a weekly basis
- 7 Temporary recommendation: Promote and implement infection prevention and control measures and basic water and sanitation services in healthcare facilities, household settings, congregate settings (e.g. prisons, internally displaced persons and refugee camps, schools, etc.), and cross border transit areas. New November 2024 Safe and Scalable Clinical Care: Enhance infection prevention and control (IPC) measures and availability of water sanitation, hygiene (WASH) and waste management services and infrastructure in healthcare facilities and treatment centers to ensure quality healthcare service delivery and protection of health and care workers and patients.
- 8 Temporary recommendation: Strengthen risk communication and community engagement systems with affected communities and local workforces for outbreak prevention, response and vaccination strategies, including through training, mapping high risk and vulnerable populations, social listening and community feedback, managing misinformation. This entails, inter alia, communicating effectively the uncertainties regarding the natural history of mpox, updated information about mpox including information from ongoing clinical trials, about the efficacy of vaccines against mpox, and the uncertainties regarding duration of protection following vaccination
- 9 Temporary recommendation: Address stigma and discrimination of any kind via meaningful community engagement, particularly in health services and during risk communication activities

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C3 | Safe and scalable clinical care

Indicator	Reporting frequency
Core Indicator 3.1: Percentage of healthcare facilities in mpox affected areas with staff trained on mpox case management ^{10,11,12}	Mid-term mpox review
Core Indicator 3.2: Percentage of priority healthcare facilities that demonstrated improvement by at least one level in the IPC and WASH healthcare facility rapid assessment tool from the baseline, measured on a quarterly basis ¹⁰	Quarterly

C4 | Access to medical countermeasures

Indicator	Reporting frequency
Core Indicator 4.1: Percentage of at-risk, target populations (e.g. healthcare workers, close contacts of people with mpox) vaccinated against mpox ^{15,16}	Quarterly
Core Indicator 4.2: Mpox related pre-defined lists of essential commodities (medical countermeasures) and technical standards have been established ^{15,16}	Quarterly

C5 | Emergency coordination

Indicator	Reporting frequency
Core Indicator 5.1: Percentage of funds secured against required national budget for mpox prevention and response activities since the determination of the PHEIC on 19 August 2024 ²⁰	Quarterly
Core Indicator 5.2: Functional coordination structures established at national and mpox affected subnational levels ^{17,18,19}	Quarterly

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- 10** Temporary recommendation: Strengthen health and care workers' capacity, knowledge and skills in the clinical and infection and prevention and control pathways from diagnosis to discharge of patients with suspected and confirmed mpox, and provide them with personal protective equipment
 - 11** Temporary recommendation: Provide clinical, nutritional and psychosocial support for patients with mpox, including, as warranted and possible, isolation in care centres and guidance for home-based care
 - 12** Temporary recommendation: Develop and implement a plan to expand access to optimised supportive clinical care for all patients with mpox, including children, patients living with HIV and pregnant women. This includes offering HIV tests to adult patients who do not know their HIV status and to children as appropriate, with linkages to HIV treatment and care services when indicated; the prompt identification and effective management of endemic co-infections, such as malaria, varicella zoster and measles viruses, and other sexually transmitted infections (STIs) among cases linked to sexual contact
 - 13** Temporary recommendation: Integrate mpox prevention and response measures in existing programmes aimed at prevention, control and treatment of other endemic diseases – especially HIV, as well as STIs, malaria, tuberculosis, and COVID-19, as well as non-communicable diseases – striving, to the extent possible, not to negatively impact their delivery
 - 14** Temporary recommendation: Invest in addressing knowledge gaps and in generating evidence, during and after outbreaks, regarding the dynamics of transmission of mpox, risk factors, the social and behavioural drivers of transmission, the natural history of disease, through trials for novel therapeutics and vaccines against mpox, the effectiveness of public health interventions, with a One Health approach. New November 2024 Addressing Research Gaps: Invest in field studies to better understand animal hosts and zoonotic spillover in the areas where MPXV is circulating. New November 2024: Strengthen and expand use of genomic sequencing to characterize the epidemiology and chains of transmission of MPXV to better inform control measures.
 - 15** Temporary recommendation: Initiate plans to advance mpox vaccination activities in the context of outbreak response in areas with incident cases (i.e. with disease onset in the previous 2–4 weeks), targeting people at high risk of infection (e.g. contacts of cases, including sexual contacts, children, and health and healthcare workers). This entails the agile adaptation of immunization strategies and plans to concerned areas; the availability of vaccines and supplies; the proactive community engagement, to generate and sustain demand for and trust in vaccination; and the collection of data during vaccination according to implementable research protocols. New November 2024 Vaccination: Prepare for the integrated targeted use of vaccine for “Phase 1-Stop the outbreak” (as defined in the WHO “Mpox global strategic preparedness and response plan” (2024) through identification of hotspots to interrupt sustained community transmission.
 - 16** Temporary recommendation: Prepare for the introduction of mpox vaccine for emergency response through convening of national immunization technical advisory groups, briefing of national regulatory authorities, preparing national policy mechanisms to apply for vaccines through available mechanisms
 - 17** Temporary recommendation: Establish or enhance national and local emergency response coordination arrangements. New November 2024 Emergency Coordination: Secure political commitment for intensified hotspot-focused prevention and response efforts. New November 2024: Establish a mechanism to constantly monitor the effectiveness of prevention and response measures implemented in the hotspots, so that such measures can be adjusted as needed.
 - 18** Temporary recommendation: Establish or enhance the coordination of all partners and stakeholders engaged in or supporting response activities through cooperation, including by introducing accountability mechanisms
 - 19** Temporary recommendation: Engage partner organizations for collaboration and support, including humanitarian actors in contexts with insecurity or areas with internal or refugee population displacements and hosting communities' insecure areas
 - 20** Temporary recommendation: Galvanize and scale up national funding and explore external opportunities for targeted funding of prevention, readiness and response activities

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WHO milestones

C1 | Strengthened surveillance and detection

Monitor and share information to improve the collective understanding of how this outbreak is evolving, identify specific risks and inform response measures

Pillar	Milestone	Reporting source
Surveillance, epidemiological investigation, and contact tracing	Milestone 1.1: WHO biweekly epidemiologic updates and further improvements to data visualization dashboards publicly available	WHO HQ
	Milestone 1.2: Technical assistance and strategic support for surveillance including epidemiologic investigation and contact-tracing (e.g. technical support, webinars, missions/visits), provided to countries	WHO HQ and RO
Laboratories and diagnostics	Milestone 1.3: Training and capacity-building for specimen collection, handling and laboratory testing (e.g. technical support, webinars, missions/visits), provided to countries	WHO HQ and RO
	Milestone 1.4: Completion of a global external quality assessment programme for national reference laboratories	WHO HQ/Publications

C2 | Community protection

Delivery of preventive measures and empowerment of communities

Pillar	Milestone	Reporting source
Risk communication and community engagement (RCCE) and infodemic management	Milestone 2.1: Scientific updates to inform stakeholders and the general public, including through webinars and the WHO Information Network for Epidemics (EPI-WIN), developed and disseminated	WHO HQ/EPI-WIN and HQ/Publications
	Milestone 2.2: Risk perception and knowledge, attitude and practices surveys conducted among key affected populations	WHO HQ and RO
Points of entry (PoE), international travel and transport, mass gatherings and population movements	Milestone 2.3: Information, education and communication materials on public health advice for gatherings and international travel including PoEs, developed and disseminated	WHO HQ and RO
Vaccination	Milestone 2.4: Guidance on mpox vaccine implementation, including on vaccination monitoring systems, developed and disseminated to regions and countries	WHO HQ and RO

C3 | Safe and scalable clinical care

Provide safe and quality clinical care for individuals and prevent infections in healthcare

Pillar	Milestone	Reporting source
Case management and clinical operations	Milestone 3.1: Clinical management training and capacity building for healthcare workers (e.g. technical support, webinars, missions/visits) provided to countries	WHO HQ and RO/Clinical Network
Infection prevention and control (IPC)	Milestone 3.2: Priority guidance for mpox IPC and WASH (water, sanitation and hygiene) developed and disseminated	WHO HQ and RO



C4 | Access to medical countermeasures

Improve access to effective medical health products for mpox and drive the cross-cutting research agenda

Pillar	Milestone	Reporting source
Research and innovation	Milestone 4.1: Number of joint/assisted reviews for mpox-related clinical trial applications and experimental product safety monitoring	WHO HQ
	Milestone 4.2: Research agenda and collaborative networks for mpox developed	WHO HQ/R&D Blueprint
Operational support and logistics	Milestone 4.3: Defined Core Product (DCP) developed and disseminated for mpox	WHO HQ
	Milestone 4.4: Number of mpox-related products (supply volume) that have been requested and delivered through WHO coordinated procurement and supply mechanisms	WHO HQ/OSL



C5 | Emergency coordination

Strengthen emergency operations and foster coordination between Member States and key stakeholders for responsive public health action and adaptive key health services

Pillar	Milestone	Reporting source
Leadership, coordination, planning, financing and monitoring	Milestone 5.1: Multi-sectoral, multi-partner coordination mechanisms convened at the global level, including IHR Emergency Committee	WHO HQ
	Milestone 5.2: Review of the mpox outbreak response to identify good practices, challenges and gaps	WHO HQ and RO



Expected information products

Below is a summary of the expected information products, that might not be limited to this list.

Product	Frequency	Audience	Level of use
WHO monitoring dashboard	Global: monthly Africa: weekly	<ul style="list-style-type: none"> • WHO CO/RO/HQ • Ministry of Public Health (MOPH) • Partners • Donors 	<ul style="list-style-type: none"> • Strategic • Advocacy
Monthly/quarterly operational update	Monthly/quarterly	<ul style="list-style-type: none"> • WHO CO/RO/HQ • MOPH • Partners • Donors 	<ul style="list-style-type: none"> • Operational
Emergency Committee report on the implementation of temporary recommendations	Quarterly	<ul style="list-style-type: none"> • WHO CO/RO/HQ • Countries with TR – WHO Regional Office for Africa 	<ul style="list-style-type: none"> • Strategic • Advocacy
Donor reports	Ad hoc	<ul style="list-style-type: none"> • WHO CO/RO/HQ donors 	<ul style="list-style-type: none"> • Strategic • Advocacy
Situation report	Global: weekly/bi-weekly Africa: weekly	<ul style="list-style-type: none"> • WHO CO/RO/HQ 	<ul style="list-style-type: none"> • Operational • Strategic • Advocacy



Annex 1. Indicator library and compendium

The reference library of country-level and regional-level indicators is provided for countries to consider as they establish monitoring and evaluation for the implementation of national response plans including for the implementation of the full list of temporary recommendations. The compendium is a consolidation of the methodological notes of the indicators to serve countries and regions.

Within this reference library and compendium of indicators, twelve core country-level indicators were identified, building on evidence informed by country experience and lessons learned from response, that will be reported on by WHO under the Mpox SPRP to monitor the response without creating undue reporting burden.

Indicator library (country and regional-level indicators)

C1 | Strengthened surveillance and detection

Indicator	Reporting frequency
Core Indicator 1.1: Percentage of new alerts investigated in a week (new suspect, probable, confirmed or discarded cases reported) out of total alerts for the same week ^{1,2}	Monthly
Core Indicator 1.2: Percentage of new (confirmed and probable) cases who are known contacts ^{3,6}	Monthly
Core Indicator 1.3: Proportion of affected international borders in the country with functional cross border coordination mechanisms in place ⁴	Quarterly
Core Indicator 1.4: Number of laboratories with functional capacity to conduct mpox testing ⁵	Quarterly
Indicator 1.5: Percentage of contacts with documented completion of monitoring period of 21 days ^{3,6}	Monthly
Indicator 1.6: Positivity rate among tested suspected cases ⁵	Monthly
Indicator 1.7: Percentage of confirmed cases sequenced ⁵	Monthly
Indicator 1.8: Percentage of Member States publicly sharing monkeypox virus sequences ⁵	Quarterly
Indicator 1.9: Percentage of Member States incorporating the animal health sector into their outbreak response activities, including regular data sharing ⁶	Quarterly
Indicator 1.10: Percentage of Member States with ongoing mpox indicator-based surveillance systems in place and reporting cases and deaths weekly ¹	Quarterly

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- 1 Temporary recommendation: Enhance surveillance, by increasing the sensitivity of the approaches adopted and ensuring comprehensive geographical coverage
 - 2 Temporary recommendation: Scale up efforts to thoroughly investigate cases and outbreaks of mpox disease to elucidate the modes of transmission, and prevent its onward transmission to household members and communities
 - 3 Temporary recommendation: Identify, monitor and support the contacts of people with mpox to prevent onward transmission
 - 4 Temporary recommendation: Establish or strengthen cross-border collaboration arrangements for surveillance and management of suspect cases of mpox, the provision of information to travellers and conveyance operators, without resorting to general travel and trade restrictions unnecessarily impacting local, regional or national economies
 - 5 Temporary recommendation: Expand access to accurate, affordable and available diagnostics to differentiate monkeypox virus clades, including through strengthening arrangements for the transport of samples, the decentralization of diagnostics, and arrangements to conduct genomic sequencing
 - 6 Temporary recommendation: Report to WHO suspect, probable and confirmed cases of mpox in a timely manner and on a weekly basis

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C2 | Community protection

Indicator	Reporting frequency
Core Indicator 2.1: Percentage of individuals in high-risk areas who report practicing recommended measures to protect themselves from mpox	Monthly
Core Indicator 2.2: Community groups representing high-risk populations have received training, financial resources, and/or supplies to facilitate community outreach and engagement ^{8,9}	Monthly
Indicator 2.3: Percentage of Member States implementing community infection prevention and control (IPC) and water, sanitation and hygiene (WASH) interventions in high-risk communities (e.g. internally displaced person [IDP] and refugee camps, congregate settings, schools) as part of the mpox response ⁷	Quarterly
Indicator 2.4: Percentage of targeted subnational coordination structures where community groups are engaged in response activities ^{8,9}	Monthly
Indicator 2.5: Percentage of points of entry (PoEs) that have established PoE health emergency contingency plans	Quarterly



C3 | Safe and scalable clinical care

Indicator	Reporting frequency
Core Indicator 3.1: Percentage of healthcare facilities in mpox affected areas with staff trained on mpox case management ¹⁰	Quarterly
Core Indicator 3.2: Percentage of priority healthcare facilities that demonstrated improvement by at least one level in the IPC and WASH healthcare facility rapid assessment tool from the baseline, measured on a quarterly basis	Quarterly
Indicator 3.3: Percentage of healthcare facilities with standard operating procedures (SOP)s, guidelines and established clinical care pathways for mpox ^{11,12}	Quarterly
Indicator 3.4: Number of health and care workers infected ⁷	Quarterly
Indicator 3.5: Percentage of births in mpox affected areas that occur in healthcare facilities (proxy indicator for assessing the continuity of essential health services in mpox affected areas) ¹³	Quarterly
Indicator 3.6: Percentage of mpox-related infrastructure meeting the technical requirements	Semi-annually
Indicator 3.7: Percentage of Member States that have disseminated the IPC and WASH mpox package based on WHO guidelines to priority healthcare facilities in the mpox affected areas ⁷	Quarterly
Indicator 3.8: Percentage of Member States with an established/activated coordination mechanism (e.g. task force) that provides oversight of IPC/WASH and case management strategic, technical and operational actions and activities for mpox	Quarterly

⁷ Temporary recommendation: Promote and implement infection prevention and control measures and basic water and sanitation services in healthcare facilities, household settings, congregate settings (e.g. prisons, internally displaced persons and refugee camps, schools, etc.), and cross border transit areas

⁸ Temporary recommendation: Strengthen risk communication and community engagement systems with affected communities and local workforces for outbreak prevention, response and vaccination strategies, including through training, mapping high risk and vulnerable populations, social listening and community feedback, managing misinformation. This entails, inter alia, communicating effectively the uncertainties regarding the natural history of mpox, updated information about mpox including information from ongoing clinical trials, about the efficacy of vaccines against mpox, and the uncertainties regarding duration of protection following vaccination

⁹ Temporary recommendation: Address stigma and discrimination of any kind via meaningful community engagement, particularly in health services and during risk communication activities

¹⁰ Temporary recommendation: Strengthen health and care workers' capacity, knowledge and skills in the clinical and infection and prevention and control pathways from diagnosis to discharge of patients with suspected and confirmed mpox, and provide them with personal protective equipment

¹¹ Temporary recommendation: Provide clinical, nutritional and psychosocial support for patients with mpox, including, as warranted and possible, isolation in care centres and guidance for home-based care

¹² Temporary recommendation: Develop and implement a plan to expand access to optimised supportive clinical care for all patients with mpox, including children, patients living with HIV and pregnant women. This includes offering HIV tests to adult patients who do not know their HIV status and to children as appropriate, with linkages to HIV treatment and care services when indicated; the prompt identification and effective management of endemic co-infections, such as malaria, varicella zoster and measles viruses, and other sexually transmitted infections (STIs) among cases linked to sexual contact

¹³ Temporary recommendation: Integrate mpox prevention and response measures in existing programmes aimed at prevention, control and treatment of other endemic diseases – especially HIV, as well as STIs, malaria, tuberculosis, and COVID-19, as well as non-communicable diseases – striving, to the extent possible, not to negatively impact their delivery

¹⁴ Temporary recommendation: Invest in addressing knowledge gaps and in generating evidence, during and after outbreaks, regarding the dynamics of transmission of mpox, risk factors, the social and behavioural drivers of transmission, the natural history of disease, through trials for novel therapeutics and vaccines against mpox, the effectiveness of public health interventions, with a One Health approach



C4 | Access to medical countermeasures

Indicator	Reporting frequency
Core Indicator 4.1: Percentage of at-risk, target populations (e.g. healthcare workers, close contacts of people with mpox) vaccinated against mpox ^{15,16}	Quarterly
Core Indicator 4.2: Mpox related pre-defined lists of essential commodities (medical countermeasures) and technical standards have been established ^{15,16}	Quarterly
Indicator 4.3: Percentage of Member States implementing a vaccination strategy to interrupt human to human virus transmission	Quarterly
Indicator 4.4: Percentage of Member States with active outbreaks that have access to mpox vaccines, diagnostics and therapeutics ¹⁶	Quarterly
Indicator 4.5: Percentage of the requested mpox-related supplies that have been received in country ^{15,16}	Quarterly
Indicator 4.6: Percentage of knowledge gaps identified in the global R&D roadmap addressed through ongoing or completed research	Quarterly



C5 | Emergency coordination

Indicator	Reporting frequency
Core Indicator 5.1: Percentage of funds secured against required national budget for mpox prevention, readiness and response activities since the determination of the PHEIC on 19 August 2024 ²⁰	Quarterly
Core Indicator 5.2: Functional coordination structures established at national and mpox affected subnational levels ^{17,18,19}	Quarterly

¹⁵ Temporary recommendation: Initiate plans to advance mpox vaccination activities in the context of outbreak response in areas with incident cases (i.e. with disease onset in the previous 2–4 weeks), targeting people at high risk of infection (e.g. contacts of cases, including sexual contacts, children, and health and healthcare workers). This entails the agile adaptation of immunization strategies and plans to concerned areas; the availability of vaccines and supplies; the proactive community engagement, to generate and sustain demand for and trust in vaccination; and the collection of data during vaccination according to implementable research protocols

¹⁶ Temporary recommendation: Prepare for the introduction of mpox vaccine for emergency response through convening of national immunization technical advisory groups, briefing of national regulatory authorities, preparing national policy mechanisms to apply for vaccines through available mechanisms

¹⁷ Temporary recommendation: Establish or enhance national and local emergency response coordination arrangements

¹⁸ Temporary recommendation: Establish or enhance the coordination of all partners and stakeholders engaged in or supporting response activities through cooperation, including by introducing accountability mechanisms

¹⁹ Temporary recommendation: Engage partner organizations for collaboration and support, including humanitarian actors in contexts with insecurity or areas with internal or refugee population displacements and hosting communities insecure areas

²⁰ Temporary recommendation: Galvanize and scale up national funding and explore external opportunities for targeted funding of prevention, readiness and response activities

December 2024

Mpox strategic preparedness and response plan **Monitoring and evaluation framework**



Indicator compendium

C1 | Strengthened surveillance and detection

Core Indicator 1.1: Percentage of new alerts investigated in a week (new suspect, probable, confirmed or discarded cases reported) out of total alerts for the same week

Rationale for use	To ensure investigation of alerts in order to elucidate modes of transmission and prevent its onward transmission
Description	Alert investigated is defined as alerts categorized as suspect, probable, confirmed or discarded cases reported in a reporting period (e.g. week). Percentage of alerts in a reporting period which are categorized as suspect, probable, confirmed or discarded in the same a reporting period (e.g. week). Indicator type: output indicator
Measurement	
Numerator	Number of mpox alerts investigated (defined as alerts categorized as new suspect, probable, confirmed or discarded cases) in a week
Denominator	Total number of mpox alerts reported in the same week
Disaggregation	None
Scope	Affected Member States
Target	80% realistically (ideally 100%)
Data collection and reporting	
Data source	Regional offices consolidate reporting from Member States. The data on categories (new suspect, probable, confirmed or discarded cases) is reported the line list, SitRep and/or weekly epidemic intelligence report. The status of whether or not an investigation took place often is not available.
Reporting start date	November 2024
Report frequency	Monthly

Core Indicator 1.2: Percentage of new (confirmed and probable) cases who are known contacts

Rationale for use	The indicator measures the effectiveness of contact tracing efforts within a disease outbreak management framework. It assesses the surveillance system's capability to identify and monitor individuals who have been in contact with infected persons, reflecting the control program's thoroughness and reach. This contact tracing indicator allows for assessment of contract tracing efforts which in turn support early case detection, isolation and control of mpox spread.
Description	This indicator quantifies the proportion of newly identified disease cases (both confirmed and probable) that were already under surveillance as known contacts of previously identified cases. A high percentage indicates robust contact tracing and surveillance, essential for containing the spread of infectious diseases and informing targeted interventions.
Measurement	
Numerator	Number of new (confirmed and probable) cases who are known contacts
Denominator	Total number of new (confirmed and probable) cases
Disaggregation	None
Scope	Affected Member States
Target	≥90% realistically (ideally 100%)
Data collection and reporting	
Data source	Regional offices consolidate reporting from Member States using contact tracing line list and reported (case) line list
Reporting start date	November 2024
Report frequency	Monthly



Core Indicator 1.3: Proportion of affected international borders in the country with functional cross border coordination mechanisms in place

Rationale for use	To monitor the cross border spread of the virus which can lead to multiple outbreaks in different locations over a short time of period. Evaluates the framework and processes implemented by the country to engage in systematic observation, collection, and analysis of health data across borders. This includes the assessment of legal agreements, cooperative frameworks, and information-sharing systems with adjacent countries.
Description	Has the country established effective mpox cross-border collaboration arrangements for mpox surveillance, management of suspect cases, and contact tracing? This indicator measures the existence and operational effectiveness of formal agreements or mechanisms that a country has established for cross-border health surveillance, facilitating data sharing and coordination among neighboring countries to monitor and respond to mpox. Even though a border forms part of national soil, it is a passage of international entry or exit. Indicator type: outcome indicator.
Measurement	
Numerator	Number of international borders in the country for which the country has an mpox cross-border collaboration arrangement for mpox surveillance with the neighbour country
Denominator	Total number of international borders in the country
Disaggregation	None
Scope	Affected Member States
Target	100%
Data collection and reporting	
Data source	Member State survey and Regional Offices
Reporting start date	November 2024
Report frequency	Quarterly

Core Indicator 1.4: Number of laboratories with functional capacity to conduct mpox testing

Rationale for use	To be able to monitor countries with testing capacity and tailor support
Description	Number of laboratories with mpox testing capacity by country. Indicator type: outcome indicator.
Measurement	
Numerator	Number of laboratories with mpox testing capacity in the country
Denominator	N/A
Disaggregation	None
Scope	Affected Member States
Target	2
Data collection and reporting	
Data source	Data reported to WHO and EQA performance
Reporting start date	November 2024
Report frequency	Quarterly



Indicator 1.5: Percentage of contacts with documented completion of monitoring period of 21 days

Rationale for use	The contact tracing rate indicator allows for early case detection, isolation and controlling mpox spread
Description	Number of contacts traced and monitored for 21 days out of total number of contacts identified. Indicator type: output indicator.
Measurement	
Numerator	Number of contacts of a case that are traced and monitored for 21 days
Denominator	Total number of contacts identified
Disaggregation	None
Scope	Affected Member States
Target	≥90% realistically (ideally 100%)
Data collection and reporting	
Data source	Regional offices consolidate reporting from Member States using contact tracing line list
Reporting start date	November 2024
Report frequency	Monthly

Indicator 1.6: Positivity rate among tested suspected cases

Rationale for use	Indicates mpox transmission intensity and testing adequacy, guiding resource allocation and containment strategies
Description	Percentage of positive mpox samples among total tested. Indicator type: outcome indicator.
Measurement	
Numerator	Number of positive mpox samples
Denominator	Total number of samples tested
Disaggregation	Member States with active outbreaks, Member States with endemic disease, Member States with imported cases, Member States with no cases
Scope	Affected Member States
Target	80%
Data collection and reporting	
Data source	Regional offices consolidate reporting from Member States
Reporting start date	November 2024
Report frequency	Monthly



Indicator 1.7: Percentage of confirmed cases sequenced

Rationale for use	To be able to monitor countries with sequencing capacity and tailor support
Description	Genetic sequence data is the genetic composition of mpox and its variants that has been determined by sequencing. It includes both whole genomes and partial sequences. The indicator is measuring the percentage of positive cases being sequenced.
Measurement	
Numerator	Number of cases whose sample is sequenced
Denominator	Number of positive cases
Disaggregation	
Scope	Affected Member States
Target	5–10%
Data collection and reporting	
Data source	Reporting from Ministry of Health: IMST's Surveillance and Laboratory Pillars or SITREP
Reporting start date	November 2024
Report frequency	Monthly

Indicator 1.8: Percentage of Members States publicly sharing monkeypox virus sequences

Rationale for use	Monitoring of virus clade and subclade distribution, especially the expansion of clade Ib MPXV
Description	Percentage of Member States that share sequencing information in opensource platforms
Measurement	
Numerator	Number of Member States sharing data on monkeypox virus sequences
Denominator	Number of Member States reporting mpox cases
Disaggregation	WHO region
Scope	Affected Member States
Target	70%
Data collection and reporting	
Data source	Public genetic sequence databases
Reporting start date	November 2024
Report frequency	Monthly



Indicator 1.9: Percentage of Member States incorporating the animal health sector into their outbreak response activities

Rationale for use	Monitor multisectoral, coordinated response to mpox
Description	The percentage of countries that have involved the animal health sector into their response activities. This includes data sharing between sectors, joint communication or coordinated investigation of and response to mpox outbreaks. In endemic countries to capture and understand drivers of spillover events; in non-endemic countries to prevent spillback into animals.
Measurement	
Numerator	Number of Member States that have involved the animal health sector into their outbreak response activities
Denominator	Number of Member States reporting mpox cases
Disaggregation	Countries with known zoonotic transmission; Countries without zoonotic transmission
Scope	Affected Member States
Target	100%
Data collection and reporting	
Data source	Ministry of Health and partners reporting on implementation (through a survey or after-action review)
Reporting start date	November 2024
Report frequency	Quarterly

Indicator 1.10: Percentage of Member States with ongoing indicator-based surveillance systems in place reporting cases and deaths

Rationale for use	To reliably monitor outbreaks and viral spread
Description	Number of countries that have mpox surveillance out of total countries. Outcome Indicator
Measurement	
Numerator	Number of countries that have an indicator-based mpox surveillance system
Denominator	Number of Member States reporting mpox cases
Disaggregation	None
Scope	Affected Member States
Target	100%
Data collection and reporting	
Data source	WHO HQ Surveillance Pillar will consolidate the data reporting from Member States
Reporting start date	November 2024
Report frequency	Quarterly



C2 | Enhanced community protection

Core Indicator 2.1: Percentage of individuals in high-risk areas who report practicing recommended measures to protect themselves from mpox

Rationale for use	Practicing recommended measures is a key component for enhancing outbreak control. This calls up on individuals to take their own responsibility as key actors for their safety. RCCE and infodemic management interventions must empower individuals with relevant, clear and contextualized messaging on recommended measures and enable people to reduce their risk of mpox by knowing the signs and symptoms, how the virus spreads, what to do if they get ill, and what the risk is in their area.
Description	A series of recommended measures including regular correct hand washing, avoiding unprotected direct physical contact with people or bodies with mpox symptoms, or potentially contaminated items, and safe management of dead animals is taken into account in the mpox question bank that WHO and partners have put together to foster standardized behavioral data collection methods. Behavioral qualitative and quantitative studies to understand drivers/enablers and barriers should be regularly conducted to provide the RCCE and infodemic management interventions with relevant information on the levels of uptake of the recommended measures in the communities. Outcome indicator.

Measurement

Numerator	Studies sampling methods to be adjusted to at-risk groups/populations practicing recommended measures
Denominator	Studies sampling methods to be adjusted to total number of at-risk groups/populations
Disaggregation	By high-risk area (as per country classification)
Scope	Affected Member States
Target	90%

Data collection and reporting

Data source	Countries BI studies, Social Behaviour Dashboard on Public Health Emergency and others
Reporting start date	November 2024
Report frequency	Monthly

Core Indicator 2.2: Community groups representing high-risk populations have received training, financial resources, and/or supplies to facilitate community outreach and engagement

Rationale for use	Communities are placed at the forefront of emergency preparedness and response and, during active outbreaks, the high-risk populations receive formal support (training, financial and/or supplies) to facilitate community outreach and engagement (e.g. healthcare workers incentives, training, supplies).
Description	To assess the impact of community supports provided to high-risk populations on the performance of community outreach and engagement during active outbreaks, and to analyse the difference in impact of supports provided. To assess best practice outreach patterns. Active outbreak is defined as a country reporting active transmission in the last 6 weeks.

Measurement

Numerator	Binary Y/N
Denominator	N/A
Disaggregation	Type of support provided (training, financial resources, and /or supplies), type of needs of the communities addressed
Scope	Affected Member States
Target	80%

Data collection and reporting

Data source	Country reports weekly/monthly
Reporting start date	November 2024
Report frequency	Monthly



Indicator 2.3: Percentage of Member States implementing community IPC and WASH interventions in high-risk communities (e.g. IDP and refugee camps, congregate settings, schools) as part of the mpox response

Rationale for use	This indicator aims to monitor the implementation of basic WASH services and IPC measures in high-risk communities for mitigating transmission of mpox
Description	<p>Definition: Member States should have a national costed plan for IPC/WASH interventions in high-risk communities as part of the national mpox response plan.</p> <p>Measurement: Percentage is calculated by the number of member states that have a national costed plan for IPC/WASH interventions in high-risk communities over the number of affected countries.</p> <p>Achievement criteria: A costed plan for IPC and WASH measures in high-risk communities as defined by the country is included in the national mpox response plan</p>
Measurement	
Numerator	Number of affected Member States that have developed costed plans for WASH and IPC measures in high-risk communities
Denominator	Number of affected Member States (low resource settings)
Disaggregation	Disaggregation by national level
Scope	High risk communities defined in the national plan (IDP camps, congregate settings etc.) in all affected Member States
Target	100% countries (low resource settings)
Data collection and reporting	
Data source	Ministry of Health and partners reporting on implementation (through a survey or after-action review)
Reporting start date	Reporting will start after the development of national costed plan
Report frequency	Quarterly reports

Indicator 2.4: Percentage of targeted subnational coordination structures where community groups are engaged in response activities

Rationale for use	This indicator aims to demonstrate the inclusion of community members living in high-risk areas to engage in the design of interventions culturally appropriate and relevant to the community. Political, economic, sociological, technological, environmental, and legal factors significantly influence emergency interventions and cycles. Community surveys, qualitative interviews, and focus group discussions, including behavioral science research can support settling and strengthening the community-centered approaches, establish relationships built on trust, ownership over interventions and accountability between stakeholders, social cohesion for successful RCCE practice.
Description	<p>Definition: Active community members participation in emergency related-decision-making process is a series of RCCE-IM interventions with community structures/leaders including through CSOs, FBOs, academics institutions, influencers, etc. As per the SPRP, high-risk areas are where populations at higher risk of exposure, severe mpox illness, and complications, such as people living with HIV particularly those with sub-optimal HIV treatment, pregnant and breastfeeding women, children, and those in marginalized communities, in resource allocation and interventions.</p>
Measurement	
Numerator	Number of targeted subnational coordination structures where community groups are engaged in community protection
Denominator	Total number of targeted subnational coordination structures (as per countries mappings)
Disaggregation	By high-risk area (as per country classification)
Scope	National level – high risk areas in all affected Member States
Target	90%
Data collection and reporting	
Data source	Social Behaviour Dashboard on Public Health Emergency and others and sitrep; IFRC, SSHAP (UNICEF, LSTM, UKA)
Reporting start date	November 2024
Report frequency	Monthly



Indicator 2.5: Percentage of points of entry (PoEs) that have established PoE health emergency contingency plans

Rationale for use	This indicator derives from the IHR requirements on border health and PoE. The PoE health emergency contingency plan is one of key elements amongst PoE indicators in the IHR M&E framework. Mpox should be factored into PoE contingency plan that is interoperable with plans of local and communities nearby the POEs.
Description	Definition: Cross-border movement is a contributing factor for international spread of diseases. To prevent, early detect, report and respond to potential risk of international spread, an agreed, updated public health emergency contingency plan, integrated with other public health response plans (national/intermediate/local levels) and other emergency operational plans at point of entry and border communities, is essential for risk management at and across borders. Mpox should be factored into PoE contingency plan that is interoperable with plans of local and communities nearby the PoEs.
Measurement	
Numerator	Number of PoEs with established health emergency contingency plans
Denominator	Total number of designated PoEs
Disaggregation	N/A
Scope	Local and national level in all affected Member States
Target	100%
Data collection and reporting	
Data source	The IHR M&E framework indicator C11
Reporting start date	N/A
Report frequency	Quarterly



C3 | Safe and scalable clinical care

Core Indicator 3.1: Percentage of healthcare facilities in affected mpox affected areas with staff trained on mpox case management

Rationale for use	This indicator aims to measure in – country training efforts, to improve early detection, rapid referral for severe cases and improved optimal supportive care
Description	Definition: The number of health facilities in affected mpox affected areas in countries affected by mpox, undertaking training initiatives for medical doctors, nurses, healthcare workers and community health workers. Indicator type: output indicator.
Measurement	
Numerator	Number of healthcare facilities in mpox affected areas reporting training in health facilities and/or in the community on early detection, testing and providing quality supportive care for mpox patients
Denominator	Total number of healthcare facilities in mpox affected areas
Disaggregation	The data can be disaggregated by profession, level of healthcare facility and country
Scope	Training should be prioritised in hot spot areas and areas of preparedness across affected Member States
Target	80% of healthcare facilities in mpox affected areas have access to tools, SOPs, mpox treatment protocols and training opportunities to improve early detection and quality of supportive care in the community and in PHC, hospitals
Data collection and reporting	
Data source	Implementing partners reporting to Global Health Cluster
Reporting start date	November 2024
Report frequency	Quarterly



Core Indicator 3.2: Percentage of priority healthcare facilities that demonstrated improvement by at least one level in the IPC and WASH healthcare facility rapid assessment tool from the baseline, measured on a quarterly basis

Rationale for use	This indicator aims to measure healthcare facilities' adherence to IPC and WASH practices in the identification, prevention and control of mpox. It also allows for the monitoring of healthcare facility growth over time as the rapid assessment tool is conducted multiple times within the same facilities.
Description	<p>Definition: The rapid assessment tool for IPC and WASH identifies the strengths and gaps in IPC and WASH practices for mpox. It consists of 16 components.</p> <p>Method of measurement: The percentage is calculated by dividing the number of priority of healthcare facilities that have achieved at least one level improvement from the baseline assessment over the total number of priority healthcare facilities in the affected areas, then multiplying by 100.</p> <p>The WHO Rapid assessment tool has three levels identified based upon the score:</p> <ul style="list-style-type: none"> • Level 1: 0–49% (Red) • Level 2: 50–79% (Yellow) • Level 3: 80–100% (Green) <p>Achievement criteria: IPC and WASH practices and availability of IPC and WASH supplies in targeted, prioritized healthcare facilities (e.g. availability of PPE, trainings)</p>
Measurement	
Numerator	Number of priority healthcare facilities that have achieved at least one level improvement from the baseline assessment
Denominator	Total number of priority healthcare facilities in mpox affected areas
Disaggregation	Member States, sub-geographic area, level of healthcare facilities
Scope	All priority healthcare facilities in mpox affected areas in all affected Member States
Target	100% of priority healthcare facilities in mpox affected areas achieve at one level improvement on the rapid assessment tool
Data collection and reporting	
Data source	National level ministry of health compilation of data, compiled by regional offices
Reporting start date	To start once RAT resources available and shared with countries (to include updated RAT and user guide)
Report frequency	Quarterly



Indicator 3.3: Percentage of healthcare facilities with SOPs, guidelines and established clinical care pathways for mpox

Rationale for use	Providing high quality clinical and IPC care for all mpox patients whilst ensuring the continuity of essential care services is crucial for mitigating the outbreaks impact and will improve patient outcomes, from detection through to discharge/recovery. This indicator monitors that whether healthcare facilities have in place clinical pathways to support care of patients with mpox, as evidenced by an explicit assessment and referral system which allows for appropriate care of patients with severe and non-severe disease, including related SOPs and guidelines.
Description	<p>Definition: A clinical care pathway has information and guidance on assessment and referral pathways, including follow-up and discharge criteria which allows for care of patients with the full spectrum of disease (e.g. at home and admitted to hospital)</p> <p>***The number of healthcare facilities with the above resources available for all relevant healthcare workers and leadership at the facility</p> <p>Achievement criteria: Healthcare facilities in affected Member States are considered compliant if they possess (physically or electronically) 80% of recommended documents (SOPs, guidance and established clinical care pathways).</p> <p>*** Mpox clinical guidelines 2022</p>
Measurement	
Numerator	Number of health care facilities which have in place an explicit clinical pathway
Denominator	Total number of healthcare facilities
Disaggregation	Disaggregated by national, and subnational levels and by Ministry of Health healthcare facilities and mobile clinics in IDP areas
Scope	All healthcare facilities in all affected Member States
Target	80% of healthcare facilities have in place an explicit clinical pathway
Data collection and reporting	
Data source	Ministry of Health and implementing partner reporting, observations and supervision visits at healthcare facilities
Reporting start date	To start once resources available and shared with countries***
Report frequency	Quarterly



Indicator 3.4: Number of health and care workers infected

Rationale for use	This indicator aims to monitor the number of health and care workers infected across all health-care settings in affected Member States.
Description	<p>Definition: Health and care workers who are a confirmed mpox case. A confirmed case is defined as a person with laboratory confirmed mpox virus infection by detection of unique sequences of viral DNA by real-time polymerase chain reaction 3 and/or sequencing. Health and care workers are all people from the community to hospitals who are primarily engaged in actions with the primary intent of enhancing health. Indicator type: outcome indicator.</p> <p>This group includes health-service providers, such as doctors, nursing and midwifery professionals, public health professionals, technicians (laboratory, health, medical and non-medical), personal care workers, healers and practitioners of traditional medicine. It also includes health management and support workers, such as cleaners, drivers, hospital administrators, district health managers, social workers, and other occupational groups in health-related activities. This group also includes those who work in acute-care facilities and long-term care, public health, community-based care and other occupations in the health and social care sectors.</p> <p>Health and care workers may provide direct personal care services in the home, in health-care and residential settings, while assisting with routine tasks of daily life and while performing a variety of other tasks of a simple and routine nature. Outcome Indicator.</p> <p>Method of measurement: Laboratory confirmed result of a person identified as a health and care worker on the mpox case reporting form.</p>

Measurement

Numerator	Total number of health and care workers confirmed to have mpox
Denominator	N/A (measurement is a total count)
Disaggregation	Member states, level of healthcare facility, position
Scope	All health and care workers in all affected Member States
Target	0 health and care workers infected

Data collection and reporting

Data source	Case reporting forms for mpox
Reporting start date	November 2024
Report frequency	Monthly (reassessment of frequency should be completed as the outbreak changes)



Indicator 3.5: Percentage of births in mpox affected areas that occur in healthcare facilities (proxy indicator for assessing the continuity of essential health services in mpox affected areas)

Rationale for use	Immediately responsive measure of a routine and key healthcare intervention (facility-based births, also known as facility-based delivery of babies). The percentage of facility-based births reflects whether essential maternal and newborn health services remain operational and accessible during an mpox outbreak. Collected within the usual healthcare system.
Description	Routine health measures. Births reported by community health workers (home births) and health facilities (in-facility births). There may be other indicators that can measure the impact of mpox on essential health services, e.g., immunizations. A position paper building on the COVID 19 experience is under development to guide Member States.
Measurement	
Numerator	Number of births in healthcare facilities, including primary care facilities, in mpox affected areas
Denominator	Total number of births in mpox affected areas
Disaggregation	National, subnational level and zonal level with comparison to percentage of births in non-mpox affected areas that occur in healthcare facilities
Scope	Affected Member States
Target	90% of births in mpox affected areas occur in healthcare facilities
Data collection and reporting	
Data source	DHIS2 (Routine Health Information); and the DHIS2 android app which is an offline tool that helps Community Health workers track health services and offers real time monitoring.
Reporting start date	November 2024
Report frequency	Quarterly

Indicator 3.6: Percentage of mpox-related infrastructure meeting the technical requirements

Rationale for use	To ensure that all mpox-related infrastructure adheres to established technical standards, focusing on the safety, effectiveness, and resilience in managing mpox cases. Additionally, to ensure that infrastructures support a seamless mpox care pathway, promoting humanized care that respects the dignity, privacy, and psychological well-being of patients.
Description	Definition: The proportion of mpox-related infrastructure (e.g. treatment centres, treatment ward, screening and triage facilities) that meets the minimum technical requirements. Method of measurement: The percentage is calculated by dividing the number of mpox-related infrastructures that meet the technical requirements by the total number of infrastructures assessed, then multiplying by 100. Achievement criteria: Infrastructures are considered compliant if they meet or exceed 90% of the technical requirements listed in the assessment tool (available in the upcoming publication)
Measurement	
Numerator	Number of mpox-related infrastructures meeting the technical requirements.
Denominator	Total number of mpox-related infrastructures assessed.
Disaggregation	Disaggregated by infrastructure type (e.g. treatment centres, treatment ward, screening and triage facilities), geographic region, facility size
Scope	All mpox-related infrastructures within the designated assessment area in all affected Member States
Target	95% of mpox-related infrastructure meeting the technical requirements by the end of the reporting period.
Data collection and reporting	
Data source	On-site infrastructure assessment reports
Reporting start date	November 2024
Report frequency	Semi-annually



Indicator 3.7: Percentage of Member States that have disseminated the IPC and WASH mpox package based on WHO guidelines to priority healthcare facilities in mpox affected areas

Rationale for use	This indicator aims to measure countries that have disseminated IPC and WASH guidelines, SOPs and tools for mpox. It serves as a direct measure of a country's preparedness and response to mpox. It reflects the capacity of health systems to quickly adapt to emerging threats by integrating new guidelines into their operations.
Description	<p>Definition: The IPC and WASH mpox package includes guidelines, rapid assessment tool, training material, supply lists, SOPs, health and care workers risk exposure form and confirmed investigation form. Indicator type: output indicator.</p> <p>Method of measurement: The percentage is calculated by dividing the number of affected Member States that have disseminated the IPC and WASH package to priority healthcare facilities in mpox affected areas over the total number of affected Member States, then multiplying by 100.</p> <p>Achievement criteria: The availability of IPC and WASH package in country and disseminated to healthcare facilities through training, digital platform, hard copies at healthcare facility level.</p>
Measurement	
Numerator	Number of affected Member States that have disseminated the IPC and WASH mpox package to priority health care facilities in mpox affected areas
Denominator	Number of affected Member States countries
Disaggregation	Member States
Scope	Affected Member States
Target	100%
Data collection and reporting	
Data source	Training records at healthcare facility level, survey and interviews of health and care workers
Reporting start date	N/A
Report frequency	Quarterly



Indicator 3.8: Percentage of Member States with an established/activated coordination mechanism (e.g. task force) that provides oversight of IPC/WASH and case management strategical, technical and operational actions and activities for mpox

Rationale for use	The coordination mechanism is essential for the mpox response, including separate pillars for 1)WASH and 2)case management.
Description	A coordination mechanism at national or sub-national level, with dedicated case management, is critical to ensure readiness and response activities for case management are integrated in the response and roles and responsibilities for implementation of activities are identified to avoid duplication of efforts and appropriate attention to all critical response components. The coordination mechanism could be the national case management committee, multi-sectorial task force, case management task force or technical working groups (TWGs) supported (e.g. co-chaired) by WHO and including all relevant stakeholders and implementing partners, such as national/international NGOs, community and health-care facilities' leaders. Method of measurement-Proportion- # of countries with a coordination mechanism in place for case management activities.
Measurement	
Numerator	Number of Member States that have conducted regular coordination meetings for IPC/WASH and Case Management. For example, daily or weekly as defined by country level needs.
Denominator	Number of affected Member States countries
Disaggregation	Member States
Scope	14 affected countries have effective coordination mechanisms in place at the National, province, zonal (or relevant sub-national levels).
Target	80% of affected Member States have a national coordination mechanism for IPC/WASH and Case Management in place
Data collection and reporting	
Data source	Situation reports, meeting minutes from coordination meetings, feedback from communities and leaders, chain of command structure/organogram in place, stakeholder mapping (who, what, where). Partners engaged in the response.
Reporting start date	N/A
Report frequency	Quarterly (reassessment of frequency should be completed as the outbreak changes)



C4 | Access to medical countermeasures

Core Indicator 4.1: Percentage of at-risk, target populations (e.g. healthcare workers, close contacts of people with mpox) vaccinated against mpox (vaccination coverage)

Rationale for use	A key priority of the concerted global response for mpox is to prevent the chain of human-to-human transmission. Targeted and judicious use of vaccines can support this response. Prior evidence suggests a protective effect conferred by mpox/smallpox vaccines. To curb transmission and possibly reduce disease burden, countries should consider implementing strategies for vaccinating high risk groups. This includes specific strategies to reach gay, bisexual and other men who have sex with men and persons who have multiple sex partners, including sex workers.
Description	High-risk groups for post-exposure vaccination: contacts of cases, ideally within four days of first exposure (and up to 14 days in the absence of symptoms). High risk groups for pre-exposure vaccination: health workers at high risk of exposure, laboratory personnel working with orthopoxviruses, clinical laboratory personnel performing diagnostic testing for mpox and outbreak response team members designated by national public health authorities. Second generation vaccines: Second-generation smallpox vaccines use the same vaccinia virus vaccine strains employed for manufacture of first-generation vaccines or clonal virus variants plaque-purified from traditional vaccine stocks and manufactured on defined cell lines. Third generation vaccines: The term third-generation refers to more attenuated smallpox vaccine strains specifically developed as safer vaccines towards (LC16) or after (MVA-BN) the end of the eradication phase by further passage in cell culture or animals.

Measurement

Numerator	The number of individuals in the at-risk target populations who have been vaccinated against mpox
Denominator	The total number of individuals in the at-risk target populations who are recommended to receive the mpox vaccine
Disaggregation	N/A
Scope	Affected Member States
Target	100%

Data collection and reporting

Data source	Pillar lead of access to medical countermeasures
Reporting start date	November 2024
Report frequency	Quarterly

Core Indicator 4.2: Mpox related pre-defined lists of essential commodities (medical countermeasures) and technical standards have been established

Rationale for use	To ensure that Member States have defined their national list of mpox response essential supplies to drive their supply chain
Description	The indicator monitors the number of countries who have published mpox essential items list together with the required technical guidance

Measurement

Numerator	Number of Member States with approved and published mpox essential item list
Denominator	Number of Member States
Disaggregation	N/A
Scope	All Member States
Target	100%

Data collection and reporting

Data source	WHO logistics
Reporting start date	November 2024
Report frequency	Quarterly



Indicator 4.3: Percentage of Member States implementing a vaccination strategy to interrupt human to human virus transmission

Rationale for use	This indicator aims at measuring Member States activities towards initiating plans to advance mpox vaccination activities in the context of outbreak response in areas with incident cases (i.e. with disease onset in the previous 2–4 weeks), targeting people at high risk of infection (e.g., contacts of cases, including sexual contacts, children, and health and health care workers).
Description	This entails the agile adaptation of immunization strategies and plans to areas of concern; the availability of vaccines and supplies; the proactive community engagement, to generate and sustain demand for and trust in vaccination; and the collection of data during vaccination according to implementable research protocols
Measurement	
Numerator	Number of affected Member States which have implemented a vaccination strategy for mpox
Denominator	Number of affected Member States
Disaggregation	N/A
Scope	Affected Member States
Target	100%
Data collection and reporting	
Data source	Pillar lead of access to medical countermeasures
Reporting start date	November 2024
Report frequency	Quarterly

Indicator 4.4: Percentage of Member States with active outbreaks that have access to mpox vaccines, diagnostics and therapeutics

Rationale for use	To assess increased access for Member States to health products that are scarce, specifically to measure accessibility to vaccines, diagnostics and therapeutics during active outbreaks
Description	All Member States with active mpox outbreaks and requesting MCMs should receive vaccines, therapeutics and diagnostics. Access to each product will be measured separately. Active outbreak is defined as a country reporting active transmission in the last 6 weeks.
Measurement	
Numerator	Number of Member States with active outbreaks receiving access to mpox vaccines, diagnostics and/or therapeutics
Denominator	Number of Member States with active outbreaks requesting access to mpox vaccines, diagnostics and/or therapeutics
Disaggregation	Disaggregated by product (Vx, Dx, Tx)
Scope	Affected Member States with active outbreaks and confirmed cases reported in the last 6 weeks
Target	100%
Data collection and reporting	
Data source	Countries requesting mpox MCMs through the IMST or Access and Allocation Mechanism
Reporting start date	November 2024
Report frequency	Quarterly



Indicator 4.5: Percentage of the requested mpox-related supplies that have been received in country (at least 80%)

Rationale for use	To monitor flow of mpox essential supplies and ensure that Member States have received or secured at least 80% of the requested supplies
Description	The indicator compares the quantity of essential supply received with the response needs forecasted

Measurement

Numerator	Quantity of mpox essential supplies received or secured by the country
Denominator	Total quantity of mpox essential supplies requested by the country
Disaggregation	N/A
Scope	Affected Member States
Target	80%

Data collection and reporting

Data source	WHO logistics
Reporting start date	November 2024
Report frequency	Quarterly

Indicator 4.6: Percentage of knowledge gaps identified in the global R&D roadmap addressed through ongoing or completed research

Rationale for use	To ensure that Member States have aligned research priorities with the knowledge gaps identified in the global Research and Development (R&D) roadmap
Description	The indicator monitors the number of global knowledge gaps identified in the global R&D roadmap that are being addressed through ongoing research in Member States

Measurement

Numerator	Knowledge gaps identified in the global R&D roadmap for which Member States have initiated or completed research
Denominator	All knowledge gaps identified in the global R&D roadmap
Disaggregation	N/A
Scope	All Member States
Target	80%

Data collection and reporting

Data source	R&D roadmap HQ and RO coordinators
Reporting start date	November 2024
Report frequency	Quarterly



C5 | Emergency coordination

Core Indicator 5.1: Percentage of funds secured against required national budget for mpox prevention and response activities since the determination of the PHEIC on 19 August 2024

Rationale for use	Galvanize and scale up national funding and explore external opportunities for targeted funding of prevention, readiness and response activities
Description	Reporting of Member States receiving funding for mpox prevention, readiness and response since the PHEIC was declared on 19 August 2024
Measurement	
Numerator	Funds secured for mpox prevention and response activities since the determination of the PHEIC on 19 August 2024
Denominator	Required national budget for mpox prevention and response activities since the determination of the PHEIC on 19 August 2024
Disaggregation	N/A
Scope	Affected Member States
Target	90%
Data collection and reporting	
Data source	Member States
Reporting start date	November 2024
Report frequency	Quarterly

Core Indicator 5.2: Functional coordination structures established at national and affected subnational levels

Rationale for use	Establish or enhance the coordination of all partners and stakeholders engaged in or supporting response activities through cooperation, including by introducing accountability mechanisms
Description	National emergency coordination mechanisms established and functioning including at affected subnational levels
Measurement	
Numerator	Binary Y/N
Denominator	N/A
Disaggregation	N/A
Scope	Affected Member States
Target	100%
Data collection and reporting	
Data source	Coordination pillar
Reporting start date	November 2024
Report frequency	Quarterly

December 2024

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