How to achieve and sustain high uptake of mpox vaccination in outbreak settings

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Background

This document helps programmes and partners implement data-driven and locally tailored strategies for the high uptake of mpox vaccination in outbreak settings. It provides practical recommendations, proven strategies and key WHO resources to support vaccination efforts and manage potential vaccine-related events. Added information resources can be found at the end of this document.

In considering this guidance, ensure close alignment with the local vaccine delivery strategy.

There are three main sections to this document:

1. *How to increase vaccine uptake*
2. *Preparedness and response to vaccine-related events*
3. *Added references and resources*

Information in this document refers to two mpox vaccines that are most widely available:

- **MVA-BN** (also known as trade names of Jynneos®, Imvamune® or Imvanex®).
- **LC16m8®** (also known as LC16 or LC16 KMB)

1. How to increase vaccine uptake

A range of factors influence whether a person is vaccinated or not. The framework of behavioural and social drivers (BeSD) of vaccination (Figure 1) illustrates the four domains that can be measured to determine reasons for low uptake. The framework includes influences that are measurable, potentially changeable and specific to vaccination.

Understanding these drivers of mpox vaccination can be done through rapid short form surveys or qualitative in-depth interviews with priority populations. The resulting data is an essential starting point to inform the design, implementation and evaluation of targeted interventions to drive uptake.

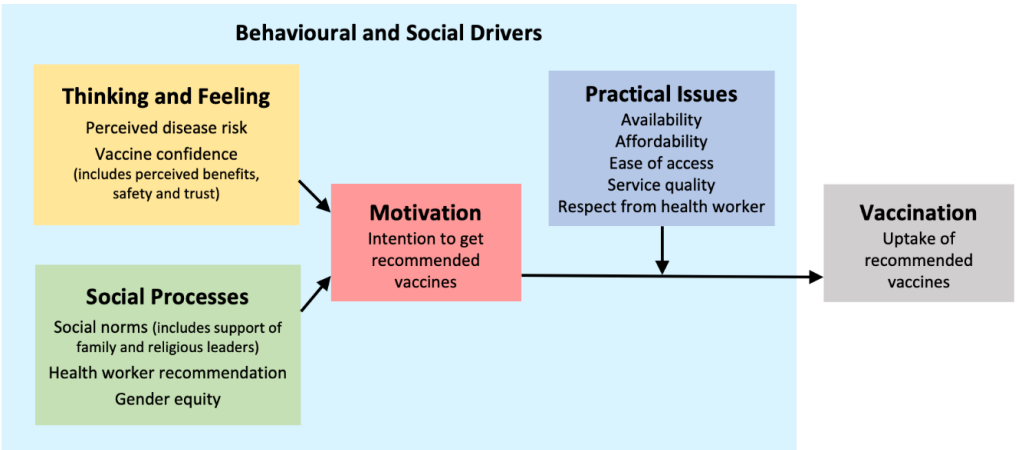

Figure 1: Behavioural and social drivers of vaccination framework[1]

[1] World Health Organization. (2022). Behavioural and social drivers of vaccination: tools and practical guidance for achieving high uptake. World Health Organization. https://iris.who.int/handle/10665/354459.

Interventions should always be locally adapted based on the epidemiological setting, the availability and delivery of mpox vaccines, local data and stakeholder engagement.

To achieve high uptake, evidence and experience from immunization programmes, new vaccine introductions and outbreak response efforts highlight a range of key interventions:

- Deliver vaccines at times and places that offer ease of access, with tailored and culturally sensitive delivery strategies for priority populations
- Engage with community representatives as partners in designing local plans
- Promote the vital role of health workers and community health workers, and build their capacity, especially in relation to careful pre/post vaccination counselling
- Communicate early, using trusted voices and local language(s)
- Be ready with strategies and messaging to respond to any potential vaccine-related events

Health workers and local community leaders should be equipped with the content and capacity to address questions and gaps in information, reassure caregivers and other community members, and build trust in the vaccine. Communications from trusted sources can serve to maintain or increase public trust and confidence in a vaccine or immunization programme.

Above all, to achieve high confidence and uptake of vaccination, programmes must be committed to working across multiple areas – from the delivery of quality services, to the engagement of communities – and responding to the barriers or drivers that people experience in a community. Taking collaborative action requires strong policies, well-functioning systems and locally tailored interventions, especially for prioritized populations. Interventions are best informed by local data, co-designed with community representatives and frontline health workers, and anchored in a behavioural and social sciences approach.

Supporting mpox vaccination

The design and implementation of locally tailored interventions in support of mpox vaccination should be well-coordinated with the overall vaccine delivery strategy and informed by local data on behavioural drivers of vaccination; interventions should also be informed by findings from social listening and online/offline media monitoring. Plans must be in place to handle vaccine-related events swiftly to maintain confidence and uptake.

Give special consideration to unique elements of mpox vaccination, e.g., context-specific and culturally sensitive vaccine delivery strategies and the process of vaccine administration.

Data-driven interventions should be prioritized to:

- Respond to the specific needs of persons at high risk of exposure to mpox in an outbreak, as well as contacts of persons with mpox;
- Maintain public trust at high levels in the overall response and vaccine roll-out process;
- Support coordination with key stakeholders for consistent communication about mpox vaccination within and across sectors, and between national and sub-national levels;
- Facilitate strong community engagement through two-way communication;
- Support the health workforce to be vaccinated themselves where relevant, advising patients and advocating for vaccination widely;
- Deliver vaccination in a way that is timely, convenient, equitable and meets community needs;
- Provide a positive experience of vaccination, with negligible waiting times, a respectful interaction and vaccine administration that minimizes pain and discomfort;
- Understand community voices by gathering and using data from digital, media, and direct feedback channels, to inform the design of locally relevant interventions; and
- Be ready to respond to misinformation through effective communication of accurate information to meet the needs of local communities.

Do mpox vaccines cause side effects?

Available evidence shows mpox vaccines are safe and well tolerated in most people. As with any vaccine, some people may experience mild to moderate side effects after being vaccinated against mpox. This is a normal sign that the body is developing immunity.

Common side effects can include pain, redness, swelling and itching at the injection site, muscle pain, headache, and fever. Most side effects go away within a few days on their own. You can manage any side effects with rest, staying hydrated and taking medication to manage pain and fever, if needed.

In addition to the side effects above, the LC16m8 vaccine causes a "take" at the injection site. This is a local skin reaction which occurs within two weeks of vaccination, leaving a small scar at the vaccination site. This is a sign of successful administration of the vaccine, and not a symptom of the disease.

2. Preparing and responding to vaccine-related events

Real or perceived vaccine-related events can pose risks for confidence and uptake of a vaccine or immunization programme if not identified and addressed in a timely and appropriate manner. Vaccine-related events can include adverse events following immunization (AEFIs), a temporary suspension or recall of a vaccine, negative messaging in the media, and escalating rumours and misinformation that can raise concerns.

Vaccine safety perceptions are shaped by multiple factors, including individual attitudes and beliefs, social networks, cultural and religious influences, health service organization and capacity, political messaging and vaccine safety communications. Ensuring public confidence and uptake of the mpox vaccine requires effective planning and resources, and preparations should be in place as early as possible, prior to deployment of the vaccines.

Planning for vaccine-related events

The goal of vaccine safety communication should be to empower people to make evidence-informed choices about vaccination, to encourage trust in health authorities and those delivering vaccines, and to facilitate access to timely, accurate and credible information about vaccination safety.

Developing and implementing a risk communication plan can improve the mitigation response to any vaccine-related events that may arise, and sustain confidence and uptake of mpox vaccination. Any communication approach must facilitate access to timely, accurate and credible information about vaccination safety via trusted channels, and provide people with a means of asking questions and having their concerns addressed.

Key recommendations for vaccine safety communications:

- **Plan and prepare** to communicate about mpox vaccination prior to vaccine deployment;
- **Set up lines of communication via trusted channels**, health workers, community and cultural leaders, journalists and other influential people;
- **Anticipate and identify potential vaccine-related events** that could threaten confidence in mpox vaccine safety, and determine the scope and scale of each to guide planning;
- **Listen proactively to the public and other key audiences** (e.g., health workers, community leaders) using multiple data sources, to inform tailored and targeted communications;
- **Pre-test messages with representatives of target audiences** in time- and resource-poor settings to assess their impact, and adjust as needed;

- **Communicate in ways that build understanding and trust**, i.e., with openness and transparency, clarity, accepting and acknowledging uncertainty, being responsive and timely;
- **Work closely with the media**, briefing journalists regularly and supporting their information needs; Establish relationships with journalists. Engage them regularly as their go-to source;
- **Build a social media presence** for direct public communication in real time. Ensure routine listening is carried out and use these insights to inform communications.

Components of a risk communication plan

A communication plan that includes a strong emphasis on vaccine safety does not eliminate risk, but will help ensure that preparations are in place for effective and timely communication with the public, programme stakeholders, and the media in the face of vaccine-related events such as AEFIs. The plan will be an essential reference to inform both readiness and response to vaccine-related events, and will contribute to guiding future system strengthening and relationship building efforts.

The plan may include the following activities:

- **Nomination of a core team and related responsibilities**, especially involving subject matter experts, spokespeople and media liaisons. Agree on coordination processes. From the outset, ensure that the communications team is linked to the vaccine safety team
- **Orientation of health workers to manage AEFI reporting**, including steps to rapidly detect and report on the event, and provide clear communication and reassurances to the family and community that are based on the event and eventual causality assessment
- **Use of a decision tool to assess the type and scale of the possible event** and its impact (low, medium, high) to inform the appropriate communication response. Ensure that this also serves to identify any other added risks or threats to confidence in vaccine safety
- **Identify strategic partnerships and key audiences online and offline**, including social media influencers, community representatives, health experts, educators, health workers and others who are trusted and can help share accurate information
- **Determine key communication messages and channels**, such as websites, social media platforms, media releases, public forums, schools and other institutions, through which to reach target audiences with information about vaccine safety and related topics. Set up communication pathways with the public, health workers and community leaders
- **Determine training needs, especially for journalists and spokespersons**, who can often become the focus of attention and concerns, especially in the case of confirmed AEFIs
- **Develop activities to monitor and evaluate communications**, to identify and document challenges, lessons learned and corrective actions to inform future updates to the risk communications plan itself and related programme implementation activities

The plan should not be overly long, but will need to be regularly revised, especially after any vaccine-related event or AEFI, to integrate lessons learned and keep contact lists up to date.

Adverse events following immunization (AEFIs) with mpox vaccines

AEFI are any health problems that happen after someone gets a vaccine and can range from mild, like a sore arm or fever, to more severe issues. Not all AEFI are caused by the vaccine itself—sometimes they happen by coincidence or due to other factors. Severe AEFI may become the subject of attention in the media or community and will require a well-calibrated response.

In addition to the necessary advance planning, the success of any response to an AEFI will be determined by the strength of collaboration between the communications team and vaccine safety surveillance team. All preparation to communicate about an AEFI should be described in a risk communications plan and take place as early as possible, ideally in advance of a vaccine deployment.

Following a reported AEFI, any actions taken should be tailored to the level of risk and concern that is reported in affected communities. The following steps may be taken:

1. Confirm the reported event

- Confirm the details of the reported AEFI with the health authorities. Immunization programme colleagues will investigate and analyze the event. A causality assessment will be carried out for serious events to determine if the event is vaccine-related or not;
- Support the affected individual/family to help ensure they receive adequate support to facilitate their recovery;
- Intensify listening activities to understand if or how the information environment may evolve, e.g., escalating public attention on the event.

2. Share information at an appropriate level

- Following coordination with the AEFI investigation and immunization colleagues, and based on the level of public visibility on the AEFI, a public statement should be issued rapidly by authorities in a timely and transparent manner, e.g., a short holding statement to confirm that an investigation is underway, to express sympathy for the affected individual(s), and note that further information will be shared in the coming hours or days.
- Commit to sharing verified updates as more information becomes available. Also share updates as appropriate with other stakeholders, e.g., health workers, community leaders, and any strategic partners. Once the event is confirmed, re-engage the media at a level corresponding to attention on the AEFI and severity of the event.

3. Continue listening and address any concerns

- Depending on the severity of the event and level of attention in the community or health workforce, address any concerns that may exist through tailored engagement activities;
- Draw on insights from listening activities or rapid qualitative interviews to better understand concerns and inform the scale of the response. If needed, strengthen feedback mechanisms to leverage trusted voices, combat misinformation, and guide future planning.

4. Capture lessons, follow up and provide feedback

- Keep key stakeholders informed about the outcomes and any related measures taken as the investigation advances and reaches key milestone;
- If the scale of attention warrants, keep the public informed. Use this as an opportunity to demonstrate a well-managed response and to strengthen relationships with stakeholders;
- Use listening mechanisms at key milestones to assess the effectiveness of the response and update the risk communications plan as needed. Ongoing monitoring may be necessary for some months, to ensure that the response from the programme has been effective and to continue to anticipate and address any potential impact on confidence and uptake.

This proactive approach will help manage public concerns, prevent misinformation, and sustain high coverage of mpox vaccination.

3. Added references and resources

The following resources should be consulted alongside other WHO resources:

- Frequently asked questions about mpox vaccines
- Frequently asked questions about vaccines and immunization: what is vaccination?
- Mpox factsheet provides key facts about transmission, symptoms and mpox management
- How do vaccines work explainer provides simple and accessible information for the public about how vaccines work
- How to talk about vaccines explainer provides simple information about how practitioners and the public can talk about vaccines with members of the public
- Risk communication and community engagement readiness and response toolkit for mpox, contains tools and templates, including tools relevant to vaccination
- Community conversation kit how to speak with people about how to protect themselves from an infectious disease
- Public health taxonomy for social listening on mpox conversations can be used to inform online and offline social listening to produce infodemic insights and recommendations
- Smallpox and mpox (orthopoxviruses) vaccine position paper (technical information about the vaccines)
- MVA-BN mpox vaccine: interim guidance (operational guidance on MVA-BN for implementers)
- Mpox vaccination toolkit

Other vaccination resources which can be adapted for mpox:

- Generating acceptance and demand for COVID-19 vaccines
- 10 steps to community readiness package outlines what countries should do to prepare communities for vaccines
- Generating acceptance and demand for COVID-19 vaccines including the planning tool 'RCCE for COVID-19 vaccination implementation tool, several RCCE tools, including one for 'Communicating about AEFI' (p. 16)
- How to talk about vaccines explainer WHO webpage providing simple information about how practitioners and the public can talk about vaccines with members of the public