

WHO moves mpox response to the next level

Mpox is an infectious disease caused by the monkeypox virus (MPXV). Outbreaks result from person-to-person spread through close contact, which may include sexual contact. In some settings outbreaks follow contact with an infected animal or consumption of contaminated meat. The World Health Organization (WHO) has released a new Strategic Framework for enhancing prevention and control of mpox in order to progress toward the overarching goal of elimination of human-to-human transmission. The Framework outlines an approach to galvanise and harmonise global action. Led by Dr Rosamund Lewis, the WHO technical lead for mpox, it sets out a clear roadmap for stakeholders and communities to work together to stop mpox.

A new Strategic Framework published by the World Health Organization (WHO) is set to drive collaborative global action to combat mpox outbreaks. It provides strategies, proposed actions, and milestones that can be reviewed in the fight against mpox. Drawing from information gathered through the ongoing 2022–2024 global mpox outbreak, the Framework reflects on lessons learned through this period and builds on what is already known. It documents how mpox spreads, the importance of surveillance, the role of vaccination, and the role of communities in breaking chains of transmission.

Recent experience and studies have changed our understanding of mpox transmission. They show that mpox is increasingly passed from person to person, and so effective strategies are urgently required to prevent and control mpox outbreaks and ultimately eliminate person-to-person spread of this terrible disease. This includes recognition of mpox as a sexually transmissible infection, alongside other transmission routes such as by contact with respiratory secretions, contaminated needles, or bedsheets.

WHAT IS MPOX?

Mpox is an infectious disease caused

by the monkeypox virus (MPXV) which belongs to the same family as the virus that causes smallpox. Mpox was first seen in a young child in Africa in 1970 and has occurred in the region for many years. Symptoms of mpox include fever, headache, joint pain, and fatigue as well as a widespread rash that usually starts on the face and moves to other areas of the body. While symptoms often resolve after a few weeks without the need for intensive treatment, the risk of complications is higher in young children, during pregnancy, in older people, or in people with a suppressed immune system, such as those with advanced HIV infection. These groups are disproportionately affected.

Previously, mpox was generally considered to be a zoonotic disease, that is, a disease that is transmitted from an animal to a human. In some instances, mpox outbreaks originate when an individual has contact with an infected animal and becomes ill, which then leads to additional cases among close contacts through other routes of exposure. Further research is needed to confirm which animals and which types of contact lead to new infections. So far, research has shown that incidental hosts of MPXV include small mammals and

some species of monkey. The animal reservoir remains unknown.

New knowledge of transmission pathways involved in mpox outbreaks and a growing need to address emergence of new and more transmissible virus strains are driving the development of updated guidance to ensure global and local action against the disease.

WHO STRATEGIC FRAMEWORK

Dr Rosamund Lewis, the WHO technical lead for mpox, explains that the information and advice within the Framework were designed so that all countries can identify and implement appropriate actions as part of a coordinated global effort to combat mpox. As Lewis highlights, the overarching goal of the WHO Framework is to ‘achieve and sustain elimination of human-to-human transmission of mpox’. Elimination of human-to-human transmission would be defined as the absence of any new, local mpox cases for more than three months, assuming that there are adequate surveillance strategies in place.

This is particularly important as absence of reported cases does not mean that mpox is no longer present if cases are not regularly and systematically being reviewed and reported. Surveillance activities are underpinned by effective contact tracing methods, alongside availability of accredited laboratory or field-based diagnostic approaches and effective data recording.

SETTING GOALS

The Framework has three main objectives; firstly, to prevent and control



The WHO is supporting national efforts to bolster disease surveillance, case investigations, laboratory testing and public awareness on mpox.

mpox outbreaks in every context, secondly to advance research and access to countermeasures, such as vaccines, and finally, to minimise zoonotic transmission of mpox.

The ability to prevent and stop outbreaks requires an understanding of human behaviour and crafting of effective interventions in widely different local contexts around the world. The ability to minimise and prevent zoonotic infections requires experts in health and the environment to work together to fill knowledge gaps about animal species which carry MPXV, how the virus jumps to people, and how it is then further passed on to other children and adults through different forms of physical or close face-to-face contact.

These objectives are underpinned by four guiding principles: community leadership; equity and human rights; collaboration and integration; and commitment to continuous learning. The Framework suggests that mpox programmes and services should be led by the communities that will be using them and that all individuals at risk of mpox should have equal access to stigma-free health services and resources. It also promotes collaboration between health authorities, affected communities,

and other stakeholders to ensure health services are integrated, acceptable, and sustainable. Finally, given the complexity of this emerging disease, a commitment to continuous learning is crucial to ensure mpox control and halt its spread.

Emerging research about mpox includes advances in viral genome sequencing, which can lead to new testing methods

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to improve rapid detection for access to care and allow scientists to monitor the spread and key features of mpox outbreaks. Genomic analysis can be used to track the evolution of infectious disease outbreaks and ultimately predict the origin of the outbreak. This knowledge can be harnessed to inform prevention and care, for example to aid the development of more effective vaccines and treatments.

AN EVOLVING UNDERSTANDING OF A VIRAL THREAT

The Framework draws on lessons learned from previous mpox outbreaks as researchers understand more about the complexities of the epidemiological spread of mpox.

Recent outbreaks have shown that the virus continues to spread through lengthening chains of human-to-human transmission involving close contact with an individual who has mpox, such as skin-to-skin contact, and other forms of intimate contact. For example, sexual transmission is now a primary source of new infections. This pattern, first observed in 2017, drove the global outbreak

which began in 2022 and primarily involved a strain of MPXV known as Clade IIb. In addition, another strain of MPXV (Clade Ib) is now spreading through sexual contact in east central Africa.

In 2022, outbreaks of mpox in countries that had not previously experienced the infectious disease led the Director-General of the WHO to declare the mpox outbreak to be a ‘public health emergency of international concern’ (PHEIC) from July 2022 to May 2023. In April 2024, 27 countries were still reporting cases to the WHO, and by May 2024, this outbreak had resulted in more than 97,000 cases of mpox across 117 countries.

The disease situation in any location can change suddenly over time as outbreaks occur or new patterns emerge. Therefore, it is vital that mpox monitoring or intervention strategies account for this and encourage regular review and



The WHO recommends that by the end of 2024, all countries undertake a risk and needs assessment for mpox and develop an integrated national plan to achieve the three main objectives set out in the Framework.

refinement of action plans as more is learned about the virus.

Early in the ongoing global outbreak, communities and health officials developed public health messages to provide up-to-date information, reduce misinformation, and provide people with the knowledge they need to protect themselves. The WHO provided rapid guidance to health authorities around

the world for laboratory diagnostics, surveillance, investigation and contact-tracing, vaccination and immunisation for mpox, clinical management and infection prevention and control and strategies for risk communication and community engagement. In addition, the WHO supported the development of the best laboratory protocols and made test kits available to all countries, led the development of research protocols to

guide scientists and supported better access to treatment and vaccination. These strategies are further developed and defined within the new Framework.

MEETING MILESTONES

To deliver their objectives, Lewis highlights several milestones identified by the WHO. For example, the Framework recommends that by the end of 2024, all countries must have undertaken a risk assessment and needs assessment for mpox and updated plans to achieve the three main objectives of the Framework. By 2027, all countries should have completed at least one review of their plans for managing current and future mpox outbreaks and achieving elimination of person-to-person spread. Ensuring that mpox is a notifiable disease and national surveillance is in place will be a key requirement.

Lewis emphasises that mpox is one of many infectious diseases that countries are fighting to address; therefore, integrating the approaches and activities proposed in the new Framework within existing healthcare and surveillance strategies will optimise efficient use of resources. For example, mpox control efforts can be incorporated in other epidemiological surveillance programmes, sexual health services (including testing), community engagement and risk communication strategies including for sexual health, and delivery of immunisation programmes.

The WHO will continue to work with stakeholders to make the control and elimination of human-to-human transmission of mpox a reality. However, Lewis points out that success also depends on mutual accountability. The WHO plans to conduct two surveys within the first 24 months of the Strategic Framework, the results of which can be used to monitor progress across countries.

Under the Strategic Framework, the WHO encourages all countries to have control and elimination plans in place by 2025. Global, country, and regional communities must work together to share knowledge, engage with proposed WHO strategies, and commit to continuous review and development of learning points relating to elimination of mpox outbreaks.



Behind the Research

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Research Objectives

The new WHO Strategic Framework aims to enhance prevention and control of mpox and eliminate human-to-human transmission.

Detail

Bio

Dr Rosamund Lewis, a leading public health physician and epidemiologist, serves as the World Health Organization Health Emergencies Programme technical lead for mpox and heads the Smallpox Secretariat in Geneva. With extensive experience in health security, disease surveillance and outbreak response, and immunisation and risk communication, Dr Lewis has contributed globally, nationally and locally to key public health initiatives.

Funding

World Health Organization

Collaborators

Emily Bass, WHO consultant writer

References

Strategic Framework for enhancing prevention and control of mpox. Geneva: World Health Organization; 2024. Licence: CCBY-NC-SA3.0IGO. www.who.int/publications/i/item/9789240092907

Personal Response

What are the first steps that countries must take to meet the objectives of the WHO Strategic Framework for prevention and control of mpox?

“ The past few years have shown us that every country, every geography, and diverse communities can be affected by mpox. We’ve developed a Framework that can support WHO Member States and health actors at all levels in developing a response that is appropriate to their local context and deeply connected to affected communities. The next step is for health authorities and other stakeholders to take action together, to develop, implement, and share progress reports on efforts to control and eventually eliminate human-to-human transmission of mpox. This is an ambitious goal – but it is also an achievable one. ”

