



Interim guidance on community-based surveillance (CBS) for mpox

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Written and compiled by the Red Cross and Red Crescent Technical Working Group on CBS

The 2022 and 2024 epidemics are the first time that many mpox cases and sustained transmission have been reported concurrently in previously nonendemic and endemic countries on the continent in disparate geographical areas. Africa CDC has declared mpox a Public Health Event of Continental Concern (PHECC) and WHO has declared it to be a Public Health Emergency of International Concern (PHEIC).

This document has been developed to assist National Societies and others in deciding if and how they may wish to include community-based surveillance in their preparedness and response plan for mpox. This tool is designed with the focus on mpox and makes references to other global community-based surveillance tools such as the [Community-based surveillance Assessment tool](#), [Community-based surveillance Protocol template](#), [global list of suggested health risks/events](#) (updated suggestions for mpox shared below), and other tools available on the [IFRC CBS website](#).

Additionally, this guidance should be used together with updated guidance on community-led actions and suggestions including that available on the Epidemic Control Toolkit (ECV) for [Managers](#) and [volunteers](#), [IFRC Mpox response](#) updates, and [WHO Mpox outbreak toolbox](#), along with regional and national relevant guidance.

Given the complexity of mpox, national priorities and National Society capacities, CBS may or may not be the best option to include in the response plan. This document provides guidance on the decision process for including CBS in a country's mpox response and specific considerations to include within CBS initiatives.

Community-based Surveillance: Who, What and Why

Community-based surveillance (CBS) is the “the systematic detection and reporting of events of public health significance within a community by community members”.¹ The concept is that early warning can lead to early action, which can save lives. The Red Cross Red Crescent Movement is strategically placed to work in CBS given its extensive volunteer network and auxiliary role to the government in many contexts.

Community-based surveillance compared to other forms of public health surveillance:

There are many ways to include various forms of surveillance, early detection and early action within National Society activities, of which CBS is only one of them.

Process	Purpose	Who	How
CBS	Immediate reporting of observed health risks that meet the mpox community case definition	Trained CBS volunteers within the NS, CHWs	Volunteers report health risks matching mpox during their regular activities, or through active surveillance activities.
Contact Tracing	The identification and follow-up of persons who may have come into close contact with an infected person with mpox	Officials, VHWs or CHWs (NS volunteers when requested) typically with special request, support and training from National or local government	Close contacts to be isolated and monitored for 21 days following potential exposure. This entails: <ol style="list-style-type: none"> 1. Finding people who meet the definition of a close contact, and 2. Following-up on whether contacts develop symptoms (daily by phone if possible)
Active Case Finding	Systematic searching and screening for mpox cases or suspected cases within targeted groups or locations believed to be at risk	Epidemiologists, CHWs or others based on the Health System Capacity. This may also include NS volunteers depending on their auxiliary role and MOH/ National CDC requests.	Requires rapid diagnostic testing capabilities and human resources, may include checkpoints, door-to-door, or searching within hospitals wards for people who may have been misdiagnosed.
Point of Entry Screening	Screenings that are put in place at points of entry to assess whether symptoms are present in travellers	Government officials (HWs, army, police, etc.), based on mandate can also be RCRC NS	Based on National government requirements. Typically screening for symptoms aligned with WHO or National case definition

Other related public health actions:

Risk communication & community engagement	Information sharing and awareness raising for communities on signs/symptoms, what to do	Trained RC volunteers and/or CHWs	Volunteers engage with community members, including key stakeholders on important information including key signs and symptoms, of disease, awareness of risk and what to do if signs and symptoms arise in themselves or a community member. Community members are actively engaged in the process, providing feedback and input into best practices.
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Why consider using CBS in the context of mpox?

When considering using Community-based surveillance within your National Society for the reporting of mpox health risks, several factors must first be considered including:

- **Major public health concern:** mpox, especially clade Ib has spread with increasing patterns of transmission impacting several countries where it is not endemic.
- **Effective interventions exist if caught early:** Interrupting transmission to others through early detection can deter the spread of the disease further throughout the community. Additionally, those with severe symptoms should receive treatment as soon as possible to reduce morbidity. Vaccination has been shown to be effective among contacts when administered within the first two weeks of contact.
- **Feasible for community volunteers:** The community case definition includes clearly distinguishable signs and symptoms that can be recognized by volunteers.

Suggested Community case definitions for mpox should be adapted for your local context (including clade type) in discussions, agreement and alignment with Ministry of Health and/or other national authorities.

In contexts where available MOH case definitions are too complex at the community level, the below offers suggestions on how to adapt those definitions based on the signs and symptoms. Additional considerations should be made as to whether mpox is endemic, and which clade is circulating, or believed to be circulating within the population at that time. Circulating clades of mpox (*Orthopoxvirus monkeypox*) include clade I (including clade Ib) originating in Central Africa, and clade II (linked with the 2022 global outbreaks) originating in Western Africa. Current evidence supports higher morbidity and mortality with clade I, including clade Ib, with lymphatic symptoms to be more common in clade Ia. The 2022 global outbreak was affiliated with clade II, with current evidence to be more moderate.

The CBS Technical Working Group has suggested a global community definition based on the current WHO guidance and most recent information regarding the most common early symptoms of mpox – with a focus on signs and symptoms corresponding to clade Ib. Corresponding actions are also suggested, pulled from other mpox Guidance for Volunteers including the [Epidemic Control Toolkit](#). If implementing CBS for the first time as part of mpox preparedness and response, it is highly recommended to limit the health risks volunteers will report on to the related 1-2 health risks.

Code/ Number (if using Nyss & SMS)	Name & Community case definition	Related diseases	Threshold	Suggested Key actions
4	Fever and rash <ul style="list-style-type: none"> - May be accompanied by, or start with runny nose, tiredness, headache, back ache, muscle pain, general feeling unwell - May also include swelling under the arms or groin area (lymph nodes) - Rash may be characterized by raised red lesions, or small blisters and may (or may not be) concentrated on one part of the body 	Mpox Measles Chicken Pox	1	Refer to health facility/ support home isolation. Promote handwashing with soap, avoid physical contact with those ill. Support social mobilization and health promotion activities. More details on Epidemic Toolkit .
34	Cluster of unusual illness or deaths among animals <i>Cluster of animals (3+) with illness or sudden deaths that is unusual and unknown cause. All within one small village area in the past 2 week period.</i>	Any	n/a	Promote protective gear for farmers, isolate sick animals. Advise against eating meat, eggs, milk products from animals which died with illness.
14	Cluster of unusual illnesses or deaths among people <i>Cluster of people (3+) suddenly sick or died with the same signs of illness. In the same village area, in the past 2 weeks.</i>	Any Mpox	n/a	Your supervisor will call you for follow up. Please encourage social distance, hand-washing, refer sick people to health facility.

While mpox is a zoonotic disease in endemic countries, it can be challenging for volunteers to identify signs and symptoms among animal populations to include within the community case definition as the animals who act as reservoirs for the disease often do not show signs and symptoms. Additionally, in countries where the outbreaks have been identified as clade II and Ib, human to human transmission remains the most common transmission pathway. Therefore, we do not have a separate suggested community case definition to be used for animal health at this time other than cluster of unusual animal illnesses or deaths which can be used to account for many high-risk pathogens.

Example of the types of information collected in CBS and how it is structured

CBS Paper form or Excel sheet							
Volunteer ID	Village/ District	Date (DD/MM/YY)	Signal/ Alert for authorities	Age (1 for <5, 2 for 5 and older)	Sex	Action taken	Date of action taken
Example: 001	Example; Village A, X District	28/08/24	4	1	F	Health promotion & referral	28/04/24

Special considerations by context:

To better determine the scope and need for using CBS in your context please ensure you discuss with your MoH and national focal points for surveillance and risk communication and community engagement.

Key messages and Community actions:

Regardless of the status of alerts with health authorities, CBS volunteers should be trained on proper public health measures related to mpox and will continue to work with community members advising on signs, symptoms and ways to reduce transmission in their respective communities. They should further be trained in and provide first response measures and personal protection if they identify someone sick with the signs and symptoms.

Key messaging includes:

- Avoiding contact with a person suspected of having an mpox infection, especially direct contact with rash or scabs
- Practice safe sex in communities with active transmission, including using male and female condoms
- When caring for or visiting sick people, volunteers should avoid direct contact and practice handwashing with soap. When available, use gloves and face mask for personal protection.
- Avoid contact with objects recently contaminated with secretions/ bodily fluids
- If you experience signs and symptoms of mpox, such as fever, rash and/or swelling/ painful lymph nodes (in the groin area or under armpits) go to the health facility immediately. If this is not possible, please let me (*volunteers, the hotline etc. as appropriate in the context*) know.
- If you have been in close contact with someone who was diagnosed with mpox or showed the signs and symptoms, please contact the health care worker. (*report as per context*)
- Social mobilization for pre- or post-exposure vaccination when available/ as required
- In outbreaks where cases are affiliated with spillover from animals, also include messaging on avoiding contact with the blood, stool, vomit, spit or sores of infected animals, including caution when preparing wild animals for meals.

For more information visit Epidemic Control Toolkit for [Volunteers](#) and [Managers](#).

Priority groups

Considerations for mpox in children

- Particularly in areas with ongoing outbreak consider including additional training and sensitization on ensuring signs and symptoms in children are particularly reported or captured.
- Higher mortality rates have been reported among younger children, making the more sensitive community case definition especially important. Additionally, other related diseases to the signs and symptoms (such as measles) can have also severe consequence for younger children and should prompt quick referral and community actions to improve outcomes and reduce transmission.

Potentially marginalized groups

- Mpox is a disease that is spread through close contact including intimate and sexual contact. Thus, at risk groups also include sex workers, people with multiple or new sex partners, men who have sex with men and close or intimate partners and family members of people within these groups.
- People with weakened immune systems (such as those living with HIV/ AIDS) and pregnant women are more likely to experience severe disease if infected.

Access & availability of Vaccination for different groups

- When and where vaccines are available, they are only suggested as a preparedness measure for those at increased risk for developing mpox disease, and those who are contacts of a confirmed case within the last 28 days.
- At the moment, vaccines are only approved for people 18 and older. There are ongoing efforts by many countries to seek emergency approval for vaccination use in children 12 years of age and up, but this is not available at this time.

Considerations on Cross-border

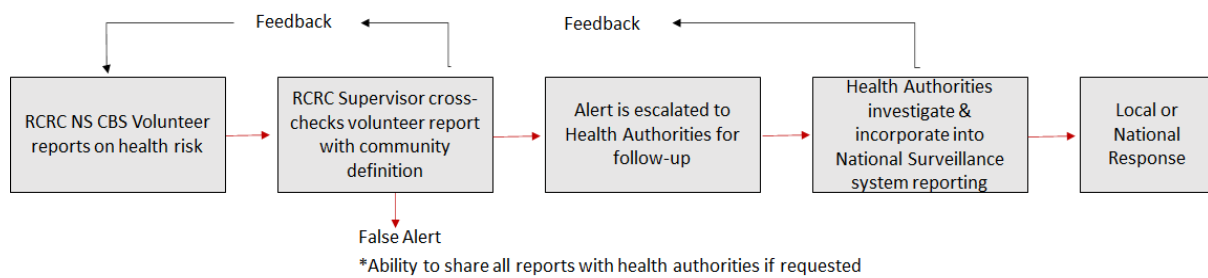
Several outbreaks have been reported at border crossings. Some countries may wish to implement heightened surveillance at border areas including CBS. National Societies should be prepared for potential requests to heighten surveillance in border regions. In these contexts, it may also be beneficial to include CBS information during cross-border collaborative meetings between countries. Ensure information shared is tidy – and if required aligns or can be adjusted to meet the requirements of both countries.

Integrating CBS into national surveillance systems

CBS is designed to be implemented to enhance local and national surveillance systems by closing the gap between facility and community reporting. CBS should never be conducted as a parallel system, rather it must be incorporated into existing surveillance and referral mechanisms, whatever they may be (MoH National Surveillance, EWARN, IDSR, etc.). It is extremely important to liaise with the MoH, PHI, and other surveillance focal points throughout the process of establishing or expanding a CBS system and to ensure that if alerts are generated the health authorities have the capacity to respond.

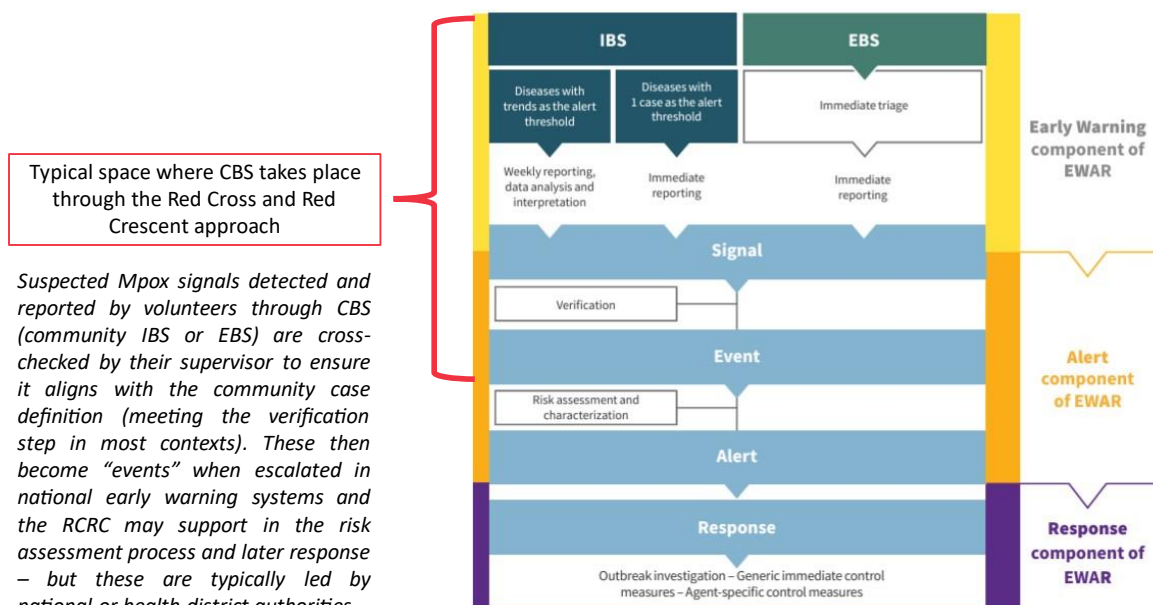
Additionally, it is suggested that reports are cross-checked by supervisors before immediately reaching health authorities as an event or alert. This allows for the supervisor to cross-check that the CBS volunteer report matches the community definition and reduce the “noise” or false reports/ requests to authorities to follow-up. While overall volunteer reports can be shared with authorities if requested, having supervisors first cross-check reports increases the reliability of CBS alerts coming from the National Society while allowing health authorities to focus their resources on the true alerts they need to respond to.

See the suggested information flow structure below:



Alerts emerging from RCRC CBS systems should be viewed as “health risks” that match the community case definition for which volunteers have been trained to look for but have not been confirmed by a clinician. Thus, these alerts do not constitute a “case” at this time until examined by a medical professional and/or confirmed through laboratory testing. Therefore, CBS alerts should be considered separately from cases reported through the traditional surveillance system until verified by a medical professional or designated otherwise by the authorities as a “suspected case.”

Ensure the reporting structure your National Society has selected (including links to the National surveillance system(s)) is clearly described in the protocol/SOPs/ shared guidance. A template with suggestions on [what to include in a protocol is available here](#). These should remain “living documents” to allow for adjustments as time goes by, and may be short documents describing simply flow structure, roles and responsibilities, or longer documentation describing in more detail the context and various partner structures. **For mpox and other outbreak responses, it is important to understand how national surveillance systems feed into incidence management structures such as the Emergency Operations Centre (EOC).** CBS data related to mpox should be used to support response mechanisms and designed to make this information flow as simple as possible. An example on where CBS through the Red Cross and Red Crescent approach fits within general Early Warning Alert and Response System (EWAR) structure is below:



Public

Above figure: locating how CBS information fits within national early warning systems. Image credit: [WHO EWAR in emergencies operational guide 2023](#).

Often when supporting national surveillance systems with CBS, volunteers may also be requested to support in follow-up or contact tracing. Please ensure contact tracing is done aligned with national policies and guidelines, protecting the safety, security and personal identifying information of contacts as well as RC volunteers.

General set-up and logistics requirements

Category	Suggested Considerations	Yes/ Feasible	No/ Not currently feasible
CBS Planning/ Processes	<ol style="list-style-type: none"> 1. CBS Assessment has been conducted or rapid one is planned 2. CBS Protocol planned with partners/ MoH, relevant stakeholders 3. CEA/ RCCE strategy considered in planning process 4. ECV/ health promotion activities planned alongside CBS 		
Referral Partnerships	Capacity and interest by MoH and/ or other actors to respond to alerts detected through CBS in the targeted communities		
Suggested Human Resources	<p>1 Country HQ CBS Officer</p> <p>1 District (or equivalent) Officer per area (can support shared responsibilities)</p> <p>1 Volunteer supervisor per roughly 35 volunteers</p> <p>1 Volunteer per roughly 30-50 households¹</p>		
Logistics Considerations	<p>Transport/ Community Access</p> <ul style="list-style-type: none"> • Supervision visits to the communities considered (i.e. are motorbikes or bicycles needed, etc.) <p>Security situation in locations of interest</p>		

¹ For implementation, the number of CBS volunteers required within a community is heavily dependent on the context (rural, urban, security situation, etc.) and what is feasible for volunteers, the National Society, and community preferences. What is most important to consider is that the community has been engaged from the beginning on CBS and know who their local RC CBS volunteer is and how to contact them, and that volunteers can feasibly report on the area they cover.

- Volunteers able to move within communities and conduct activities
- Supervision visits possible
- CBS is accepted by the community

Paper-based CBS system:

- Printed forms for volunteers
- Reporting books for supervisors

SMS-based CBS system:

- 1 phone/ tablet for each supervisor
- Provide airtime/ data for each volunteer supervisor
- Provide airtime for volunteer data collectors if active surveillance is required
- Ensure mobile service is available in locations CBS is targeted, and volunteers have access to simple phones.

Nyss CBS platform (see [more about Nyss here](#))

- Technical support for initial set-up (remote or in-person)
- Manager has access to internet with computer or smartphone
- Volunteer requirements same as listed under SMS system

Digital App-based Technologies

- Smartphones and network available for supervisors based on CBS plan
- Access to the digital system including reporting performance from volunteers granted to the RC Society.

Hygiene

- All volunteers conducting CBS should have access to handwashing with soap.
- When available, gloves and masks should be made accessible to volunteers in situations where touching community members with suspected Mpox may be required.

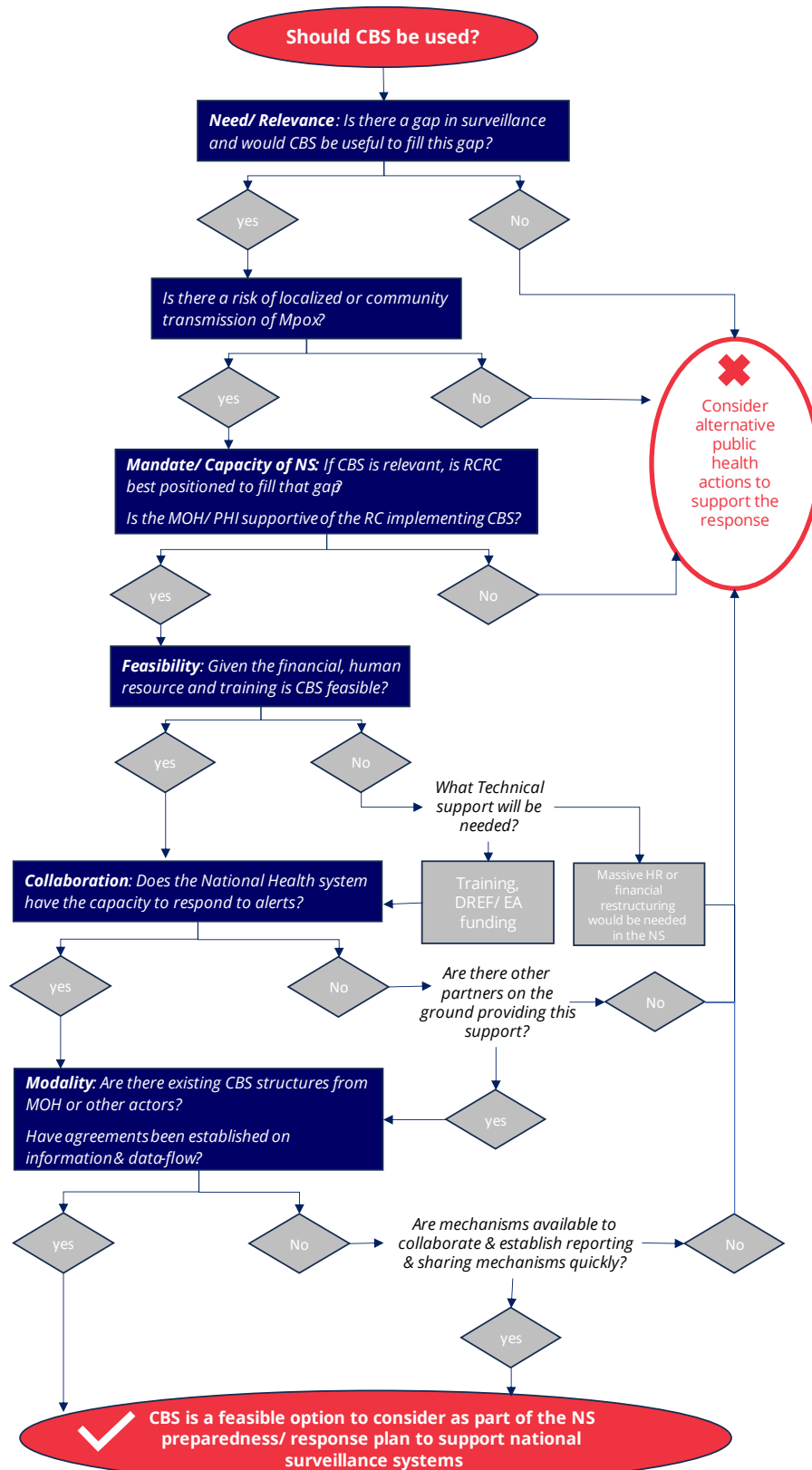
Recommended Trainings	<p>1 Training of Trainers on CBS (if CBS is new)</p> <ul style="list-style-type: none"> • Recommended not to exceed 25 participants <p>Volunteer training per location</p> <ul style="list-style-type: none"> • Location supervisor to lead • Recommended not to exceed 25- 30 <p>2-3 days for Volunteer training on CBS</p> <p>Refresher trainings as needed</p>		
Monitoring, Evaluation & Feedback Mechanism	<ul style="list-style-type: none"> • Core indicators considered and can be captured given expected resources • Feedback mechanism planned 		

Volunteer safety

All volunteers, in contexts at every level of transmission (whether there are only imported cases, locally transmitted cases or community transmission) should have access to hand washing facilities and/or hand sanitizer after every household visit. Volunteers should avoid entering homes when possible and touching suspected sick people, or materials/ objects recently touched and potentially contaminated with infected secretions/ body fluids. When available, gloves (only if touching is required) and masks should be made available to volunteers.

Considerations on whether CBS is the best-fit tool:

A decision tree from the [CBS Assessment tool](#) (displayed as a table) is shared below to support National Societies in deciding whether CBS is a good option as part of their preparedness and response for mpox.



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Additional Resources:

Red Cross and Red Crescent Resources

- [Epidemic Control Toolkit](#)
- [Community-based surveillance knowledge hub](#)
- [IFRC Emergencies page: Africa- Mpox epidemic response](#)

External resources and references:

- [WHO Mpox Toolbox](#)
- [WHO Updated Q&A](#)
- [WHO Surveillance, case investigation and contact tracing for mpox \(monkeypox\): Interim guidance, 20 March 2024](#)
- [World Health Organization Symptomatology](#)
- [Africa CDC Mpox Factsheet](#)
- [European Centre for Disease Prevention and Control - Mpox](#)

ⁱ A definition for community-based surveillance and a way forward: results of the WHO global technical meeting, France, 26 to 28 June 2018. Technical Contributors to the June 2018 WHO meeting, Eurosurveillance, 24, 1800681 (2019), <https://doi.org/10.2807/1560-7917.ES.2019.24.2.1800681>.