Introduction to Monkeypox Case Investigation and Contact Monitoring

Tools for Local Boards of Health

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Topics Today

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https://monkeypox.healthmap.org

Please Note: This is a rapidly evolving outbreak and much of what is known at this time, including guidance and recommendations, is subject to change.
Monkeypox: The Basics

VISUAL EXAMPLES OF MONKEYPOX RASH

Photo Credit: UK Health Security Agency
About Monkeypox

• **Monkeypox is a rare disease caused by infection with the monkeypox virus.** Monkeypox virus is part of the same family of viruses as variola virus, the virus that causes smallpox.
  - Monkeypox symptoms are similar to smallpox symptoms, but milder, and monkeypox is rarely fatal.
  - Monkeypox is not related to chickenpox.

• Despite being named “monkeypox,” the source of the disease remains unknown. However, African rodents and non-human primates (like monkeys) might harbor the virus and infect people.
  - **1958:** First discovered via two outbreaks of pox-like disease occurring in colonies of monkeys kept for research.
  - **1970:** First human case.

• Prior to the 2022 outbreak, monkeypox had been reported in people in several central and western African countries. Previously, almost all monkeypox cases in people outside of Africa were linked to international travel to countries where the disease commonly occurs or through imported animals.
  - Ex, 2003 US outbreak linked to prairie dogs.
Situational Update

• Increase in cases since routine smallpox vaccination stopped (1970s)

• Since early May 2022, cases of monkeypox have been reported from countries where the disease is not endemic, and continue to be reported in several endemic countries.
  • Most confirmed cases with travel history reported travel to countries in Europe and North America, rather than West or Central Africa where the monkeypox virus is endemic.
  • This is the first time that many monkeypox cases and clusters have been reported concurrently in non-endemic and endemic countries in widely disparate geographical areas.

• 7/23/22 - The World Health Organization declared monkeypox a public health emergency – which enhances coordination and sharing of resources and information among nations.

• There are two types (or clades) of monkeypox virus: West African and Congo Basin. Infections in the current outbreak are from the West African type.

2022 Monkeypox Outbreak Global Map
Data as of 22 Jul 2022 5:00 PM EDT
Global confirmed cases - 16,836

2022 U.S. Map & Case Count
Data as of 25 Jul 2022
US total confirmed - 3,487 cases
Signs and Symptoms

- Symptoms of monkeypox can include:
  - Fever
  - Headache
  - Muscle aches and backache
  - Swollen lymph nodes
  - Chills
  - Exhaustion
  - A rash that can look like pimples or blisters that appears on the face, inside the mouth, and on other parts of the body, like the hands, feet, chest, genitals, or anus.

- The rash goes through different stages before healing completely. The illness typically lasts 2-4 weeks. Sometimes, people get a rash first, followed by other symptoms. Others only experience a rash.
Signs and Symptoms

- **Classically**
  - Starts with viral prodrome – fever/chills, headache, myalgia, sore throat or cough
  - Lymphadenopathy
  - Rash starts within 5 days of symptom onset
    - Rash more often on face and extremities than trunk
    - Lesions may be on palms or soles
    - Lesions often painful
    - Rash evolution: often oral lesions first
      - macules, papules, vesicles, pustules (umbilication), scabs
  - Can resemble more common diseases – syphilis, herpes, chickenpox
Signs and Symptoms

• **Current cases have different presentations**
  • Fewer lesions
  • Unusual distribution – initial lesions often in genital, anal/perianal area
  • Prodrome often but not always lacking
    • Or may occur after onset of rash
  • Generally, very mild illness not requiring hospitalization
    • As of July 18, CDC is continuing to report that there have been no deaths reported from non-endemic countries in the current outbreak
Monkeypox Complications

• Infections with the type of monkeypox virus identified in this outbreak—the West African type—are rarely fatal. Over 99% of people who get this form of the disease are likely to survive.
  • However, people with weakened immune systems, children under 8 years of age, people with a history of eczema, and people who are pregnant or breastfeeding may be more likely to get seriously ill or die.

• Although the West African type is rarely fatal, symptoms can be extremely painful, and people might have permanent scarring resulting from the rash.

• There are also dangers of ocular complications, including scaring or blindness. (Cases should avoid use of contact lenses to prevent inadvertent infection of the eye.)

• (The Congo Basin type of monkeypox virus has a fatality rate around 10%.)
Transmission

- Monkeypox spreads in different ways. The virus can spread from person-to-person through:
  - **direct contact with the infectious rash, scabs, or body fluids**
  - respiratory secretions during prolonged, face-to-face contact, or during intimate physical contact, such as kissing, cuddling, or sex
  - touching items (such as clothing or linens) that previously touched the infectious rash or body fluids
  - pregnant people can spread the virus to their fetus through the placenta

- **No Evidence at this time that people transmit before symptom onset.**

- Good news: Not easily transmitted

  Monkeypox is not a sexually transmitted infection in the typical sense, but it can be transmitted during sexual and intimate contact, as well as with personal contact and shared bedding/clothing.
Higher Risk Exposures

• Even though it is not considered a sexually transmitted infection, monkeypox can spread during intimate physical contact between people. This contact can happen when you have sex, including:
  • Oral, anal, and vaginal sex, or touching the genitals or anus of a person with monkeypox
  • Hugging, massaging, kissing, or talking closely
  • Touching fabrics, shared surfaces, and objects, such as bedding, towels, and sex toys, that were used by a person with monkeypox

• Anyone can get monkeypox if they have close personal contact with someone who has symptoms of monkeypox.

• CDC Fact Sheet: Monkeypox Facts for People Who are Sexually Active
• CDC Fact Sheet: Social Gatherings, Safer Sex, and Monkeypox
Exposure Slides High/Low Risk

• **HIGH RISK (examples):**
  - Intimate skin on skin contact (even without sexual activity)
    - Includes kissing, hugging, prolonged face-to-face contact
  - Sharing bedding, clothes or towels

• **INTERMEDIATE RISK (examples):**
  - Spending hours (3+) in the same room with a case, neither person wearing masks

• **LOW RISK (examples):**
  - Sitting in the same room as a case for less than 3 hours
Pets

- **In the current outbreak and in the 2003 outbreak, there has been no evidence that either dogs or cats are infected or that they serve as fomites.**

- Although the susceptibility of most animal species in the US is unknown, the greatest concern is for rodent species (guinea pigs, mice/rats, hamsters, gerbils and chinchillas)
  - **Dogs and cats** can generally stay in the home with a case;
    - Reduce/eliminate pets’ exposure to lesions and avoid face-to-face contact.
    - Contact your veterinarian if the animal develops any illness.
  - **Rodent pets** in the household should NOT have contact with the case and should be cared for by another household member if possible.
    - If that is not possible, contact DPH and we can consult on a case-by-case basis.
  - **Other animal species (horses, livestock, etc.)** – recommend having someone else care for them.
    - If that is not possible, cover all lesions, wear a mask and avoid face to face contact
  - **Wildlife** - Avoid contact with wildlife.

MDPH can consult further on specific cases. Please alert MDPH regarding animal illnesses.
Testing for Monkeypox

• At this time, only lesions can be tested for monkeypox. So if there isn’t a rash or at least one lesion, the patient cannot be tested.
  • There is no test for an asymptomatic contact.

• Samples:
  • Swab of lesions, or fluid or crusts from lesions are best
  • No test currently available for people without a rash
  • CDC can test for antibodies under rare circumstances
  • Instructions for Specimen collection
    • [https://www.mass.gov/doc/instructions-for-specimen-collection-for-orthopoxvirus-testing/download](https://www.mass.gov/doc/instructions-for-specimen-collection-for-orthopoxvirus-testing/download)
  • Results within 24-48 hours
Testing for Monkeypox

- PCR testing which confirms a non-smallpox orthopoxvirus infection is available at MA State Public Health Laboratory (MA SPHL). (PROBABLE CASE)
  - Testing capacity recently expanded - over 500/week
  - Goal: Specimens of HIGH-SUSPECT cases should still be directed to the MA SPHL.

- MA SPHL may conduct some sequencing – would confirm monkeypox virus infection
  - Not necessary – anything right now presumed to be monkeypox
    - Initial cases in this outbreak were sent to CDC for confirmation following positive PCR at MA SPHL. (CONFIRMED CASE) This is no longer required.

- Multiple commercial laboratories now also offering testing
  - Labcorp, Mayo, Quest, Sonic, Aegis
  - LBOH can expect to see more cases as testing expands.
Vaccination and Treatment
Treatment for Monkeypox?

- **There are no treatments specifically for monkeypox virus infections.**
  - However, because of genetic similarities in the viruses, antiviral drugs used to treat smallpox may be used to treat monkeypox infections.

- Antivirals, such as tecovirimat (TPOXX), may be recommended for people who are more likely to get severely ill, like patients with weakened immune systems.

- “Medical Countermeasures” such as TPOXX can be obtained from the Strategic National Stockpile (SNS) and providers should consult updated [CDC guidance for Healthcare Professionals](http://www.cdc.gov) and MDPH for further information.
Therapeutics

• Tecovirimat (TPOXX)
  • FDA approved for treatment of smallpox only
  • CDC allowing expanded access under an IND with complex monitoring protocol
  • Considered for:
    • Patient with severe disease
    • Patient at risk for severe disease
      • Immune compromise
      • Pediatric populations (under 8 years)
      • Pregnant or breastfeeding women
      • Patients with atopic dermatitis or active skin conditions such as eczema, psoriasis etc.
      • Patients with concurrent disease/comorbidities
  • [https://www.cdc.gov/poxvirus/monkeypox/clinicians/Tecovirimat.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/Tecovirimat.html)
Vaccination

• Because monkeypox and smallpox viruses are genetically similar, vaccines developed to protect against smallpox viruses may be used to prevent monkeypox infections.

• The U.S. government has two stockpiled vaccines—JYNNEOS and ACAM2000—that can prevent monkeypox in people who are exposed to the virus. Vaccines may be recommended for people who have had contact with someone who has monkeypox, or are most at risk of being exposed to the virus.

• Post-exposure prophylaxis is best received within 4 days of exposure, up to 14 days following exposure.

• At this time, individuals recovered from monkeypox would not be recommended or prioritized for vaccine.
JYNNEOS vs. ACAM2000

• **JYNNEOS (also known as Imvamune or Imvanex):** The vaccine most commonly used for preventing monkeypox infection is JYNNEOS which has been licensed by the U.S. Food and Drug Administration (FDA).
  
  • **High risk contacts are offered post-exposure vaccine with JYNNEOS™**
    • Two doses, 28 days apart
    • Ideally start within 4 days after exposure to prevent disease
    • Up to 14 days after to lessen disease severity
  
  • **Vaccine only being used as post-exposure**
    • Insufficient supply for pre-exposure at this time
    • PEP for contacts of known cases
    • PEP++ (enhanced post-exposure) – people with multiple sexual partners in the last 14 days in a jurisdiction with known monkeypox cases
  
  • **VIS:** [https://www.cdc.gov/vaccines/hcp/vis/vis-statements/smallpox-monkeypox.html](https://www.cdc.gov/vaccines/hcp/vis/vis-statements/smallpox-monkeypox.html)

• **ACAM2000:** The CDC has also made available the live replicating smallpox vaccine ACAM2000. There is an ample supply of ACAM2000, however, this vaccine has a number of characteristics that may make it unsuitable for use in the current context, including considerably greater risk to the recipient compared with JYNNEOS. Data on ACAM2000 can be found on the CDC website.
Vaccine Eligibility

• Vaccine supply is still limited nationally. MA will receive an allotment from the federal government (based upon number of cases).

• Vaccination will be available to individuals who live or work in Massachusetts and meet the CDC's current eligibility criteria, prioritizing those who are most at risk of exposure to an individual with monkeypox. This includes:
  • **Known contacts identified by public health via case investigation**, contact tracing, and risk exposure assessments (this may include sexual partners, household contacts, and healthcare workers); as well as
  • **Presumed contacts who meet the following criteria:**
    • Know that a sexual partner in the past 14 days was diagnosed with monkeypox
    • Had multiple sexual partners in the past 14 days in a jurisdiction with known monkeypox

• The Massachusetts Department of Public Health will expand eligibility if and when more doses are received from the CDC.

• *High Risk Contacts identified and referred through public health case investigation are not subject to the residency requirements in obtaining vaccine.*

https://www.mass.gov/info-details/monkeypox-vaccination
Where to Go for Vaccine

- JYNNEOS vaccine is available to individuals who live or work in Massachusetts and meet the CDC’s eligibility criteria.

- Administration of JYNNEOS will be by appointment only at one of the designated health care locations listed online. Healthcare providers are responsible for performing risk and exposure assessment prior to referring a patient for vaccination. Once a provider confirms vaccine eligibility, patients can make their own appointment, noting their provider determined the patient eligible for JYNNEOS.

- Vaccine appointments are available from:
  - https://www.mass.gov/info-details/monkeypox-vaccination

- If someone cannot attend one of these designated providers, their medical provider must coordinate with MDPH for vaccine eligibility and distribution.
Cases and Contacts:
Isolation & Monitoring
# Cases (Isolation) & Contacts (Quarantine)

## Cases

- **Infectious Period:** From the time symptoms start (any symptom) until the rash has fully healed and a fresh layer of skin has formed. (The illness typically lasts 2-4 weeks.)
  - People who do not have monkeypox symptoms cannot spread the virus to others
- **Isolation Period:** People with monkeypox should isolate from symptom onset until rash has fully resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.

## Contacts

- **Incubation Period:** Up to 21 Days (typically 1-2 wks)
- **Quarantine:** No traditional quarantine. May continue routine activities if asymptomatic.
  - **Monitoring Period:** Contacts of animals or people confirmed to have monkeypox should be monitored for symptoms for 21 days after their last exposure.
- **Vaccination:** Post-exposure prophylaxis with vaccine a possibility depending on risk level & speed of notification. (<14 days post exposure)
Monitoring Cases & Contacts

**CASES**

- **Isolation Period:** People with monkeypox should isolate from symptom onset until rash has fully resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.

- **Isolation Monitoring Period:** Local Health can determine the frequency of check-ins with a case during their isolation period. LBOH should officially release the case from isolation when applicable.
  - **Letters:** Unlike COVID-19 cases, confirmed monkeypox cases may need a letter showing that they have been released from isolation. DPH encourages LBOH to assist with this.

**CONTACTS**

- **Contact Monitoring Period:** Contacts should be instructed to monitor their temperature twice daily for the 21 days following exposure.
  - Exposure = Day 0.
  - **No traditional quarantine.** May continue routine activities if asymptomatic.

- **LBOH Monitoring Cadence Recommendation:**
  - **High Risk Contacts:** One Time Per Week
  - **Medium & Low Risk Contacts:** Passive Monitoring (notified of exposure and monitoring period recommendations, but additional LBOH follow-up is not required).
How can monkeypox be prevented?

• All people should **take the following steps to prevent getting monkeypox:**
  • Avoid close, skin-to-skin contact with people who have a rash that looks like monkeypox.
    • Do not touch the rash or scabs of person with monkeypox.
    • Do not kiss, hug, cuddle or have sex with someone with monkeypox.
    • Do not share eating utensils or cups with a person with monkeypox.
    • Do not handle or touch the bedding, towels, or clothing of a person with monkeypox.
  • Wash your hands often with soap and water or use an alcohol-based hand sanitizer.

• **If you are sick with monkeypox:**
  • Isolate at home
  • If you have an active rash or other symptoms, stay in a separate room or area away from people or pets you live with, when possible.

• CDC recommends **vaccination** for people who have been exposed to monkeypox and people who are at higher risk of being exposed to monkeypox.
Isolation for Cases

• **Current Recommendations**
  • Stay home except to receive medical care
  • Cover all your lesions and wear a mask
  • Try to avoid public transportation
  • Do not share clothing, bedding, towels, utensils, etc.
  • Avoid rash touching upholstered surfaces on furniture
  • Do your own laundry (normal washing practices are sufficient)
  • Avoid close contact with any pets (to the extent possible)

• [CDC Isolation and Infection Control: Home](#)

It is important that cases keep lesions covered. *Avoid contact lens use to prevent ocular exposure and infection.*
Cases Seeking Medical Care

- **CASES** should isolate until released from isolation (all lesions must have scabbed over, the scabs fallen off and only new, healthy skin remains). Routine activities outside of the home (work, shopping, going to public locations/restaurants) are not permitted during isolation. [CDC Guidance on how to effectively isolate at home.](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/isolation.html)

- If case *must* travel locally during isolation for essential needs or medical care that cannot be rescheduled, please use the following in preferential order (**all lesions must be covered with clothing/bandages/mask and symptomatic person must be masked**):
  - Walk or personal vehicle
  - Personal vehicle driven by known and informed associate – driver should also mask
  - Not recommended:
    - Public transport like bus/subway
    - Rideshares

- **Symptomatic Individuals Seeking Testing (not yet confirmed cases)** should isolate and avoid direct contact with anyone pending test results. Travel to a medical provider for testing should follow the same above guidance as for cases.
CDC Isolation Guidance

- **Whether in the home around others or seeking medical care:**
  
  - **Cover All Lesions/Rash.** Cover all skin rashes to the extent possible by wearing long sleeves or long pants. Gloves can be considered for covering rash on the hands when not in isolation such as when receiving medical care.

  - **Be Sure to Mask.** People with monkeypox should use well-fitting source control (e.g., medical mask), if close contact with others cannot be avoided, such as when receiving medical care.

- [https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html)
Release from Isolation for Cases

- **Criteria:** People with monkeypox should isolate until rash has fully resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.*

- At this time, LBOHs should release cases from isolation via one of the following procedures:
  - Public Health/clinical staff consult with the case and confirm when all lesions have resolved and patient is recovered.
  - Patient conducts an in-person or telehealth visit with their provider to confirm all lesions have resolved and patient is recovered. Local health should be informed of this outcome.

- A visual confirmation of resolved lesions may be applicable, but is not required. Local jurisdictions may establish their criteria.

*Note, lesions on mucosal tissue should resolve and a layer of “healthy tissue” should be present.*
Cases and Contacts:
Local Health Follow-Up
Follow-up for CASES

- All confirmed (and probable) cases of monkeypox should be interviewed to collect/confirm:
  1. **Data Collection:**
     - **Demographic Information** (Age, Race, Hispanic/non, gender, sex at birth, etc.)
     - **Risk History** (Retrospective – can we determine their source of exposure?)
       - Travel, sexual history, known contact to confirmed case, specific events attended, etc.
     - **Clinical Information** (Onset Date, Symptoms, Coinfections, Hospitalization, etc.)
     - **Vaccination History** (Received monkeypox vaccine? Dates?)
  2. **Contact Elicitation**
     - Identification of Exposed Contacts to provide notification & monitoring, and referrals to care and/vaccination as appropriate. Prevent further spread.
  3. **Ensure Proper Isolation** (duration, best practices to prevent continued transmission, etc.)
  4. **Answer Questions & Confirm Contact Information for Isolation Monitoring & Support**
Follow-up for CASES: Data Collection

• CDC has established a list of variables to collect when interviewing cases, and MAVEN has very recently had these new questions (variables) added to Monkeypox Disease Events.

• All data collected should be entered into the associated MAVEN variables to the best of your ability. Changes and updates to the question packages are anticipated.

• Current Tools to Assist in Interview Collection:
  
  • **CDC Case Report Form (CRF) Short Form (Fillable PDF):** Utilize this form to see the specific questions from CDC.
  
  • **Draft Interview Tool (Word doc):** This document helps provide a conversational guide for your interview with a case.
Follow-up for CASES: Data Collection

- Additional Updates and Tools in the Works:
  - Case Investigation Wizard
  - Contact Monitoring Wizard
  - Updated Interview Tools and Contact Identification Forms as questions and guidances are updated.

- Additional Tools will be shared and posted in the Monkeypox Folder on MAVEN Help.
MAVEN Question Packages for Monkeypox

1. **Administrative** (Track your case investigation status from acknowledgment to completion and sign off)
   - Gender lives in Participants Tab.

2. **Demographic Information** (Age, Race, Hispanic/non, sex at birth, etc.)
   - Gender lives in Participants Tab.

3. **Clinical Information** (Onset Date, Symptoms, Coinfections, Hospitalization, etc.)

4. **Vaccination History** (Received monkeypox vaccine? Dates?)

5. **Risk History** (Retrospective – can we determine their source of exposure? As well as special settings of note (work or care settings))
   - Travel, sexual history, known contact to confirmed case, specific events attended, school or group care setting, etc.

6. **Contact Monitoring** (For contacts to track their exposure dates and monitoring period)

A Wizard will pull selected questions from each Question Package and put them on one screen (like a data entry page), but all data still lives in the individual question packages.

1. Case Data Collection
Entering Data in MAVEN: Admin QP

- **Admin Question Package Steps** track your case through the investigation process.
  - **Step 1:** You have seen this event (acknowledgment will move it out of the notification workflow)
  - **Step 2:** You have started to work on this event.
  - **Step 3:** (Investigator name & contact info)
  - **Step 4:** CRF complete = Yes when you have completed all the work, data is entered, active monitoring is complete, and you are done.
    - Answer YES for contact events or revoked events as well (you are indicating you completed all forms and data entry needed)
  - **Step 5:** LBOH final review field. (ex., can be a supervisor review and/or final data check.)

1. Case Data Collection

![Local Health and Investigation Steps (1-5)](image)
**Entering Data in MAVEN: Demographic QP**

- **Demographic Question Package** tracks a person’s demographic identity, which may be different than reported behaviors in the Risk Question Package.
  - This includes race and Hispanic or Latinx background, primary language, living with a disability, housing status, etc., as well as sex assigned at birth, sexual orientation, and transgender experience.
  - Lots of tools to assist with understanding these questions and improving our demographic data.

  - [MAVEN Tipsheet: Definitions for Gender and Sexual Orientation](#)
  - [PDF Slides from 12/14/21 Presentation on Sexual Orientation and Gender Identity (SOGI) data](#)
  - [12/14/21 Recorded webinar](#)
Entering Data in MAVEN: Clinical QP

• Clinical Information is collected in this question package. A few key items to note:

• **Rashes and/or Singular Lesions:** At this time, the question only says rash, but lesions should also be indicated in this question. Even a singular lesion should be indicated in this variable. It is key for determining the infectious period.

• **HIV status should NOT be noted in MAVEN Monkeypox events.**
  • There is a question on immunocompromising conditions, but HIV should not be indicated specifically.

• **Outcome is the variable to capture deaths.** Unless the patient dies, the outcome selected should be “recovered.”
It is important to confirm if a case or contact DID or DID NOT receive vaccine. A few key items to note:

- JYNNEOS manufacturer = Bavarian Nordic A/S

Most vaccine administration at this point would be post-exposure (not routine).
The Risk/Exposure QP focuses mostly on the incubation period and potential risk activities or settings of note. This question package is being refined to better capture important activities. A few key items to note:

- **If you can’t find a good spot for something significant, it could go here:** attend large public or private events (and text field for name).

- **Travel History:** Include IN STATE travel of note, even though the question currently says “Out of state.”
The Risk QP focuses mostly on the incubation period and potential risk activities or settings of note. This question package is being refined to better capture important activities. A few key items to note:

- **Case’s Sexual History**: This section is meant to collect numbers and genders of sexual partners. This includes sexual or intimate contact that does not require penetrative sex, but could include close skin to skin contact, exchanging bodily fluids, shared sex toys, etc.

- There may be close intimate contact that is not sexual in nature and does not fit in this risk section at this time. Indicate such risk/contact in the case notes. We hope to update this question package to better track additional non-sexual contact shortly.
Follow-up for CASES: Contact Elicitation

- **Identifying contacts** who may have been exposed will help ensure they are notified about their exposure and receive appropriate monitoring and guidance throughout their incubation period.

  - Public health officials may be able to prioritize a contact for post-exposure vaccination (which is in limited supply).
  
  - Notifying contacts helps prevent continued transmission by ensuring proper assessment and testing of potential symptoms as they arise.
  
  - Exposed contacts may be unaware of their own risk and potentially expose others if they do not know about their own exposure.
Follow-up for CASES: Contact Elicitation

- Many cases may identify anonymous exposures for which they cannot initially establish contact information. Some tips for obtaining contact information include:

  - *Were any apps used? Was a chat discussion chain established?*

  - *Is there a profile or screen name on a particular site that can be obtained?*
    - MDPH may have partner notification profiles that we can utilize if we have a screen name and exposure date.

  - *Do any of your friends have contact information?*

  - *Could you find them on Facebook?*

  - *If they owed you $100, what would you do to find them?*
Follow-up for CASES: Isolation Guidance

• CDC has great resources for How to Effectively Isolate at Home and Practice Good Infection Control. https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html

• People with monkeypox should isolate until rash has fully resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.

• People with monkeypox should follow these recommendations until cleared by state or local public health officials:
  • Do not leave the home except as required for emergencies or follow-up medical care.
  • Friends, family or others without an essential need to be in the home should not visit.
  • Avoid close contact with others.
  • Avoid close contact with pets in the home and other animals.
  • Do not engage in sexual activity that involves direct physical contact.
  • Do not share potentially contaminated items, such as bed linens, clothing, towels, wash cloths, drinking glasses or eating utensils.
  • Routinely clean and disinfect commonly touched surfaces and items, such as counters or light switches, using an EPA-registered disinfectant (such as List Q) in accordance with the manufacturer’s instructions.
  • Wear well-fitting source control (e.g., medical mask) when in close contact with others at home.
  • Avoid use of contact lenses to prevent inadvertent infection of the eye.
  • Avoid shaving rash-covered areas of the body as this can lead to spread of the virus.

3. Ensure Proper Isolation
Follow-up for CASES: Isolation Guidance

- CDC has great resources for **How to Effectively Isolate at Home and Practice Good Infection Control.** [https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html)

- **Bathroom usage:**
  - If possible, use a separate bathroom if there are others who live in the same household.
  - If there is not a separate bathroom in the home, the patient should clean and disinfect surfaces such as counters, toilet seats, faucets, using an EPA-registered disinfectant (such as List Q) after using a shared space. This may include during activities like showering, using the toilet, or changing bandages that cover the rash. Consider disposable glove use while cleaning if rash is present on the hands.

- **Limit exposure to others:**
  - Avoid contact with unaffected individuals until the rash has resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.
  - Isolate in a room or area separate from other household members and pets when possible.
  - Limit use of spaces, items, and food that are shared with other household members.
  - Do not share dishes and other eating utensils. It is not necessary for the infected person to use separate utensils if properly washed. Wash soiled dishes and eating utensils in a dishwasher or by hand with warm water and soap.

- **Limit contamination within household:**
  - Try to avoid contaminating upholstered furniture and other porous materials that cannot be laundered by placing coversheets, waterproof mattress covers, blankets, or tarps over these surfaces.
  - Additional precautions such as steam cleaning can be considered if there is concern about contamination.

3. Ensure Proper Isolation
Interview Wrap Up & Tips

• Focus first on their questions and ensure they are supported and know you are a resource for them.

• Be honest. We don’t know everything about this virus and this outbreak. We are asking detailed and intimate questions to help us understand the details about how it is spread. The information they are able to provide will help inform future guidance and prevention messages.

• Remember, the best interviews are a conversation

• Ensure you have the correct contact information, and the case knows how to access needed medical care (calling ahead).

• Even after all the new variables for monkeypox are added to MAVEN, it will never be a great interview tool. It is more a guide for data collection and entry.

• How things are written in MAVEN or on the CRF is not how things are best asked. Find a style and a conversation pattern that works for you.

4. Answer Questions & Confirm Contact Info
Follow-up for CASES - Summary

• All confirmed (and probable) cases of monkeypox should be interviewed to collect/confirm:

  1. **Data Collection:**
     • **Demographic Information** (Age, Race, Hispanic/non, gender, sex at birth, etc.)
     • **Clinical Information** (Onset Date, Symptoms, Coinfections, Hospitalization, etc.)
     • **Vaccination History** (Received monkeypox vaccine? Dates?)
     • **Risk History** (Retrospective – can we determine their source of exposure?)
       • Travel, sexual history, known contact to confirmed case, specific events attended, etc

  2. **Contact Elicitation**
     • Identification of Exposed Contacts to provide notification & monitoring, and referrals to care and/vaccination as appropriate. Prevent further spread.

  3. **Ensure Proper Isolation** (duration, best practices to prevent continued transmission, etc.)

  4. **Answer Questions & Confirm Contact Information for Isolation Monitoring & Support**
Follow-up for CONTACTS

- All identified Contacts should have MAVEN Contact Events Created (linked to the Index Case) so you can track your notification and monitoring. Most information can be added to the Contact Monitoring Question Package. Don’t forget to add vaccine if applicable.

- Create a Contact Event in MAVEN:
  - You will need a town, name, and contact information (like a phone number or screen name). You can default to the town of exposure until after you have spoken with the contact and obtained further demographic information.
  - How to Create a Contact Event in MAVEN Tip Sheet

- Notify the Contact About Their Exposure

- Refer to Medical Provider for Vaccination or Treatment as Applicable.

- Establish a Monitoring Plan & Ensure They Know Best Practices for Prevention.

- Answer Questions & Confirm Contact Information for Monitoring Period
Follow-up for CONTACTS

- **Notify the Contact About Their Exposure**
  - Explain they may have been exposed and you are notifying them to ensure they receive correct information and support for the 21 days after their exposure where they are at risk for potentially developing monkeypox themselves.
  - Always pause to check in with them after you have delivered the initial news.
    - Example: Ask if they have heard about monkeypox in the news (they will say, yes), then say “that’s great! So let me just repeat a few things you might already know...” Then give some basic information on what monkeypox is and how it is transmitted.
    - Check in to make sure they do not currently have symptoms before moving on. If yes, help refer to care and testing.
  - Discuss the 21 days following an exposure where they would be at risk for developing monkeypox themselves. Explain how public health (you) will help stay in touch with them over the 21 days to assist in answering questions, monitoring them for symptoms, and providing referrals to care and vaccination as appropriate. You will work together to ensure their health and to help prevent further spread.
Follow-up for CONTACTS

• Notify the Contact About Their Exposure

  • **Close Contacts:** should not donate blood, cells, tissue, breast milk, semen, or organs while they are under symptom surveillance.

    • If asymptomatic, can be permitted to continue routine daily activities (e.g., go to work, school).
      • No restrictions to routine local transportation (subway, rideshares, busses, etc.)

    • If symptomatic, should isolate. Recommendation to avoid sex or being intimate with anyone prior to test results.
      • If they need to seek medical attention, lesions should be covered, and they should be masked. Personal vehicle transportation preferred. They should call ahead.
Follow-up for CONTACTS

- Establish a Monitoring Plan & Ensure they have best practices for prevention.
  - Contacts should be instructed to monitor their temperature twice daily for the 21 days following exposure.
  - Recommended Cadence for Public Health Check-ins*:
    - **High Risk Contacts**: One Time Per Week
    - **Medium & Low Risk Contacts**: Passive Monitoring (notified of exposure and monitoring period recommendations, but additional LBOH follow-up is not required).
    - *LBOH may monitor at increased cadence based upon local determinations.
  - **Best Practices**:
    - How to reduce current risk and exposure to themselves and others
    - How and where to go for medical treatment if symptoms develop
      - Discuss a plan of action with their own medical provider or a mutually agreed upon location.

- **Answer Questions & Confirm Contact Information for Contact Monitoring & Support Period**
  - Update demographic information and monitoring check-ins in the MAVEN event for tracking.
Housekeeping Details

- HIV status or any HIV-related testing results (positive or negative) should not be recorded in a MAVEN event or on the CRF.

- In addition to close contacts identified through interviews, Massachusetts may receive contacts from other states (patient interviews where MA residents were named as contacts) or from CDC due to potential flight exposures.
  
  - These notifications will be tasked to LBOH for notification and monitoring via a MAVEN Contact event, they just won’t be linked to a know MA index case.

- Guidance will be updated as we learn more about this outbreak and modes of transmission.
Case Classification

• **Suspect Cases: Person Under Investigation (PUI).** A PUI can refer to anyone who is suspected of having monkeypox and is being pursued for testing.

  • A suspect event would be created if an MDPH Epi is called to field a request for testing on a suspect case. If testing is approved, the PUI remains a suspect case until test results are returned. If testing is rejected at the state lab, the Suspect Case will be updated to REVOKED.

  • **7/14/2022 Update:** As new commercial tests come online, positive labs will populate into MAVEN as Suspect cases as well. Epis will update the case status to Probable upon review. Case investigation can begin immediately.

• **Revoked Cases:** Following some investigation, this person is not a confirmed or probable case in MA (either because test results are negative, they did not meet criteria for testing to being with, or the person lives out of state and MA will not be counting the case among Confirmed and Probable cases).

• You will mostly be dealing with **Confirmed** and **Probable** cases and **Contact Events**.
Hospitality & Housekeeping Best Practices

- PPE
  - Staff should wear at minimum, disposable gloves and a well-fitting mask when cleaning
  - Standard clothing that fully covers the skin should be worn and then laundered after.

- Cleaning & Disinfecting Best Practices:
  - Collect and contain in a sealed bag any soiled waste such as bandages, paper towels, food packaging, and other general trash items.
    - These can be discarded in municipal trash.
  - Gather contaminated clothing and linens before anything else in the room is cleaned. Do not shake the linens as this could spread infectious particles.
    - Wash laundry in a standard washing machine with detergent, following label instructions. Laundry sanitizers may be used but are not necessary.
  - Hard surfaces and household items
    - Routinely clean and disinfect commonly touched surfaces and items (such as counters or light switches) using an EPA-registered disinfectant in accordance with the manufacturer's instructions.
  - Upholstered furniture and other soft furnishings & Carpet and flooring
    - If the case had direct skin contact or excessive drainage of fluids from rash onto these surfaces, steam cleaning can be considered. Discuss with state or local health for further guidance.
    - If case had minimal contact with soft furnishings, disinfect the surface with a surface-appropriate disinfectant

https://www.cdc.gov/poxvirus/monkeypox/specific-settings/home-disinfection.html
MAVEN Tips & Tools

- Access to a MAVEN event is based upon the Official City noted in the event. Sharing MAVEN Events with yourself and/or others will be an important case management tool when managing visitors to the Cape who may officially reside elsewhere.

- Check out MAVEN Help for many tips and tool sheets.
  - How do I run a report in MAVEN?
  - Creating Contacts and Sharing Events in MAVEN
Monkeypox Mass.gov Resources

• MDPH webpage!  
  [https://www.mass.gov/monkeypox](https://www.mass.gov/monkeypox)

• MDPH Updates Every Thursday! Case counts and other important information!
  
  • This page also contains information on Vaccination, Specimen Collection, and Clinical Testing Guidance in MA.

  • Also check out CDC’s website: [2022 U.S. Map and Case Count](https://www.cdc.gov/monkeypox/2022/)

• MDPH Epi Program: 617-983-6800

Great CDC Webinar on Monkeypox!
Translation Services Updates

• The following telephone interpreter services are available for assistance in infectious disease case investigations beginning July 1, 2022.

  • Please note, the Vendor for this service is LanguageLine Solutions®.
  • The phone number & access code for this service are as follows:
    • DIAL: 866-874-3972
    • PROVIDE Access Code: ***** (email mavenhelp@mass.gov for access code)

• This new vendor is ONLY for telephonic language interpreter services. LBOH should not utilize this contract/code for things like document translation or other activities.

• Under this new process, LBOH can access this service with the access code above, and you do not need to submit invoices to MDPH.
Monkeypox CDC Resources

• Main Page:  [https://www.cdc.gov/poxvirus/monkeypox/index.html](https://www.cdc.gov/poxvirus/monkeypox/index.html)

• Infection Control At Home:  [https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html)

• Guidance for Household Disinfection  [https://www.cdc.gov/poxvirus/monkeypox/pdf/Monkeypox-Interim-Guidance-for-Household-Disinfection-508.pdf](https://www.cdc.gov/poxvirus/monkeypox/pdf/Monkeypox-Interim-Guidance-for-Household-Disinfection-508.pdf)

• Monitoring People Who Have Been Exposed:  [https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html)

• Monkeypox Vaccination Guidance:  [https://www.cdc.gov/poxvirus/monkeypox/considerations-for-monkeypox-vaccination.html](https://www.cdc.gov/poxvirus/monkeypox/considerations-for-monkeypox-vaccination.html)

• Social Gathering and Safer Sex Facts  [https://www.cdc.gov/poxvirus/monkeypox/specific-settings/social-gatherings.html](https://www.cdc.gov/poxvirus/monkeypox/specific-settings/social-gatherings.html)

• Communication About Monkeypox from The National Coalition of STD Directors  [https://www.ncsddc.org/resource/communicating-about-monkeypox/](https://www.ncsddc.org/resource/communicating-about-monkeypox/)
LBOH Resources

MDPH Epi Program: 617-983-6800
MDPH MAVEN Help Desk: MavenHelp@mass.gov
MAVEN Onboarding: MavenTraining@mass.gov
MDPH MAVEN Help Desk: 617-983-6801
MDPH MAVEN Fax: 617-983-6813

MAVEN Help has Guidance Documents and Previous Webinars:

• Look here for additional tools and tip sheets.
• Let us know how we can help.
Cases & Contacts: A Review

**CASES**
- **Infectious Period:** From the time symptoms start (any symptom – could be prodromal symptom) until the rash has fully healed and a fresh layer of skin or health tissue has formed. (The illness typically lasts 2-4 weeks.)
  - People who do not have monkeypox symptoms cannot spread the virus to others
- **Isolation Period:** People with monkeypox should isolate from symptom onset until all lesions have fully resolved, the scabs have fallen off, and a fresh layer of intact skin or healthy tissue has formed.

**CONTACTS**
- **Incubation Period:** Up to 21 Days (typically 1-2 wks)
- **Quarantine:** No traditional quarantine. May continue routine activities if asymptomatic.
  - **Monitoring Period:** Contacts of animals or people confirmed to have monkeypox should be monitored for symptoms for 21 days after their last exposure.
- **Vaccination:** Post-exposure prophylaxis with vaccine a possibility depending on risk level & speed of notification. (<14 days post exposure)
Questions?