Follow-up for Positive COVID-19 Cases and their Close Contacts

Tools for LBOHs

June 12, 2020

Hillary Johnson, MHS, Infectious Disease Epidemiologist
Scott Troppy, MPH, PMP, CIC, Surveillance Epidemiologist
Bureau of Infectious Disease and Laboratory Sciences
MA Department of Public Health
Topics Today

- MAVEN LBOH review
- CTC Updates
- Your Questions
- PCRs, Immunity Duration, and Possible Repeat Infections... UPDATES

Day 81 of Social Distancing: Struck up a conversation with a spider today. Seems nice. He’s a web designer.
Tuesday & Friday Webinars for LBOHs

Tuesdays & Fridays @ 11am

- Isolation of Cases and Quarantine of Contacts is the goal until that strategy changes/evolves.
- MAVEN is the main reporting source and where you should document your work.
  - Send Cases to CTC for follow-up if not:
    - Hospitalized, Deceased, or linked to a Cluster Facility
- Focusing on Priority Activities
- Clusters in Facilities in your community need your help.
  - Call Epi Program to create cluster events.

MAVEN Help has Guidance Documents and Previous Webinars:

MDPH Epi Program: 617-983-6800
MDPH MAVEN Help Desk: isishelp@state.ma.us
MDPH Food Protection Program: 617-983-6712
CTC Help Desk: 857-305-2828
Updates for today, Friday 6/12

- **MAVEN Status Map** – one town to go
- **LBOH Notification For Immediate Disease (COVID Only)** – reminder to clear out any cases in the workflow
- **COVID-19 Case Investigation Wizard** – next MAVEN release adding the Employer Address, City, Zip
- **Question Package #8** – Electronic Case Reporting Information (ECR) – CTC Data only populates this question package
- **LBOH Case Report Forms are Pending Workflow** - reminder to clear out any cases in the workflow
MAVEN Status Map as of 6/12/2020

Massachusetts Virtual Epidemiologic Network

Massachusetts Virtual Epidemiologic Network (MAVEN) is a web-based disease surveillance and case management system that enables MDPH and local health to capture and transfer appropriate public health, laboratory, and clinical data efficiently and securely over the Internet in real-time. The system interfaces with Electronic Laboratory Reporting (ELR) efforts, has automatic (24/7/365) notification of state and local officials of any event requiring their attention and geographic information system (GIS) activities. MAVEN will replace the current paper-based methods of data exchange between MDPH, local public health, and clinicians. For more information please contact isishelp@state.ma.us or by phone at (817)-983-6801.

This map displays 350 out of the 351 cities and towns in Massachusetts receiving disease notifications electronically through the MAVEN System as of May 27, 2020.

*Boston reporting data via BoSS MAVEN.

For more detailed information please zoom in on the map or click on town.

MAVEN Status May 2020

- Online (350)
- Offline (1)
Immediate Notification workflow (COVID-19 Only)

• **UPDATE:** We have updated the **COVID-19 Immediate Notification Workflow**
  • This will allow proper notification of all new COVID-19 events for your jurisdiction.
  • Please review all events/cases in this workflow and complete your **Step 1- LBOH Notification to “Yes”** to clear out this workflow.
  • If you are retaining ownership then complete Steps 2 (Investigation Started) & 3 (LBOH Investigator (name, lboh, phone number))
  • When you are done then complete Steps 4 (CRF Complete) & 5 (Final Review)
Electronic Case Report (ECR) QP#8

- CTC case information goes into ECR-QP#8
- CTC information will **not** populate QP#2, #3, #5 and #6
Search for your Communication Event

City: Your town/city
Event: Communication
### Event Summary

#### Basic Information
- **Case ID:** 101623345
- **Event:** Communication
- **Name:** Communication Lawrence
- **Investigation Status:** Open
- **Linked Events/Contacts:** 0 (View)
- **Attachments:** 1 (Add) (View)

#### Notes
- **Scott Troppy [stroppy]**
  - PHN is out of town this week.
  - Disease
- **Scott Troppy [stroppy]**
  - Test note
- **Robert Morreale [rmor]**
  - I will be out of town.
  - Brian will be on coverage for Lawrence.
- **Robert Morreale [rmor]**
  - dsmithclaire - Brian out.

#### Notifications
- **Event/Status/Date/Type Notifier:**
  - Event Status: N/A
  - Event Date: 11/06/2013
  - Event Type: N/A
- **Show Maven Status:**
  - Online/Offline Status: Online

#### Question Packages
- **Question Package:** LBOH Database
  - **Person:** Communication Lawrence
MAVEN COVID-19 Wizard
LBOH Case Report Forms are Pending Workflow

- **LBOH Case Report Forms (CRF) are pending**: We have updated the workflow to only show non-COVID-19 cases that are still pending. Please review this workflow and complete or close out any older events/cases.

<table>
<thead>
<tr>
<th>Workflow Queue</th>
<th>Total Count</th>
<th>Priority</th>
<th>Last Update</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBOH Notification for Routine disease</td>
<td>6</td>
<td>Very High</td>
<td>05/19/2020 08:56 AM</td>
<td>6</td>
</tr>
<tr>
<td>LBOH Case Report Forms (CRF) are pending</td>
<td>0</td>
<td>High</td>
<td>05/19/2020 08:56 AM</td>
<td>6</td>
</tr>
<tr>
<td>LBOH Needs final review</td>
<td>3</td>
<td>Medium</td>
<td>05/19/2020 08:56 AM</td>
<td>3</td>
</tr>
<tr>
<td>LBOH Notification but no follow-up required</td>
<td>2</td>
<td>Medium</td>
<td>05/19/2020 08:56 AM</td>
<td>2</td>
</tr>
</tbody>
</table>
First Responder Report – Confirmed Cases Only

Maven Surveillance and Case Management System

Maven Reporting

- Probable
- Contacts
- Unclassified (negative)

Do not show on this report
MAVEN Help Section

How to Contact the Maven help desk in ISIS. We are available M-F (9-5p.m.):

- ISIS Help Desk 617-983-6801
- ISIS Fax Number 617-983-6813
- isishelp@state.ma.us
  (do not email names or identifying information - use the MAVEN Event ID)
- Epi-of-the-Day and Epidemiologist on Call 617-983-6800
- Maven Change Request Document (please print, complete and out fax back to ISIS to request changes, enhancements, corrections to the MAVEN database)

MAVEN Online Help

- Expand all  Collapse all
  - COVID-19 LBOH
  - General Information
  - Frequently Asked Questions (FAQs)
  - Division of Global Populations (DGP)
  - ePostcards/Webinars
UPDATES to MAVEN Help Section

- Community Tracing Collaborative: Standard Operating Procedures for LBOH is available on MAVEN Help.

- Review this document and we will have CTC representatives on Tuesday 6/16 Webinar to answer your questions.

Next Tuesday’s Webinar Topic will be CTC focused.
Your Questions

• Q. What’s the latest guidance on temperature screening prior to going to work?

• A. The Command center decided that temperature screening wouldn’t be required for school, camp and early childhood.

• Currently temperature screening for everyone entering SNFs is required by CMS guidance and it’s currently required for State Hospitals, though we are talking about changing that.

• Temperature screening may not be as useful as symptom screening for other settings and is pretty high effort. But additional discussion for other workplaces is still going on.
Your Questions

• Q. Should we expect to see more cases?

• A. Incubation Period: The incubation period for COVID-19 is thought to extend to 14 days, with a median time of 4-5 days from exposure to symptoms onset.\textsuperscript{1-3} One study reported that 97.5% of persons with COVID-19 who develop symptoms will do so within 11.5 days of SARS-CoV-2 infection.\textsuperscript{3}
Your Questions

• Q. Other than completing individual case events, is there anything else required to do with clusters?
  
  • A. The goal of tracking at the cluster/facility level is to help ensure infection control and reduce the spread across the facility. As a result, there may be larger infection control and cohorting activities that should be implemented by the facility. LBOH’s role in these activities can vary depending on scope and need.
  • Make sure you are reviewing and updating cluster event notes accordingly.
Your Questions

Q. Can you go over the communication event or how to contact LBOH in other towns?

A. Search (like for a normal event)
   - Event: Communication
   - City: City you want
   - Click on the search results (like from any search)
Your Questions: Communication Event

• Q. Can you go over the communication event or how to contact LBOH in other towns?

• A. Click LBOH Database (Question Package)
Your Questions: Communication Event

- Scroll down in QP.
  - You will see MAVEN users
  - You will also see non-MAVEN users

MAKE SURE TO UPDATE YOUR PROFILE. Look at your colleagues in your town and make sure they have updated as well.

You can add some notes on who to contact when in the comments.
Your Questions

Q. My case recovered but their employer asked for a test before returning to work and it was still positive. What to do?

• A. According to our current guidance, if this patient met the symptom based strategy for exiting isolation and is no longer symptomatic, they are good to go. We know people will test positive via PCR for a while and it does not correlate to viral culture (live virus) so we would not consider them infectious. MDPH discourages workplace testing for returning to work.

• Per Massachusetts COVID-19 COMMAND CENTER: Non-Healthcare Workers: Occupational Exposure & Return to Work Guidance, Revised May 7, 2020:
  • Employers should not require a COVID-19 test result or a healthcare provider’s note for employees who are sick to validate their illness, qualify for sick leave, or to return to work.
Where can we find Case Classification Definitions?

- MAVEN Help Case Classification Manual Folder
  - Page 1: Descriptions
    - Clinical Criteria
    - Lab Criteria
    - Epi Link Criteria
    - Vital Records Criteria
  - Page 2: CSTE Case Definitions
    - Confirmed
    - Probable
    - Revoked
    - Unclassified
    - Contact
Where can we find Case Classification Definitions?

- Pages 3&4
- Table on different Lab Reports
  - Test Type
  - Specimen Source
  - Result possibilities
  - What informatics terms to use for each lab (what you see in the Lab Tab & what the technical IT jargon means)
Q. Is there a more concise version of the quarantine and isolation guidelines to send out to clients?

A. Unfortunately, no. But LBOHs are welcome to create their own materials for your town.

Fact sheets & Printable Materials:
Reopening Massachusetts

- [https://www.mass.gov/info-details/reopening-massachusetts](https://www.mass.gov/info-details/reopening-massachusetts)

- Most questions on phased reopening of businesses and activities:
  - LBOH & Office of Local And Regional Health Calls (Tuesday Afternoons)
    - **Tuesdays at 3:00 p.m.**
    - Dial in number 888-390-5007
    - Participant code 6137873

- Cases will still be cases and need to Isolate. Contacts will still be contacts at risk of developing disease and need to quarantine.
Workplace Clusters

• Guidance is coming on this issue and reporting.
• Not different than what we normally do.
• Things to think about:
  • Place of Work and Workplace Exposure are not the same thing.
    • Much of what we will be doing is clarifying if and when a workplace exposure occurred.
    • If proper social distancing measures are in place, there should be minimal workplace exposures.
  • Sharing cases and clusters with other towns will be critical to making this all work.
    • Very few people live and work in the same town. There will be overlap.
    • Local Health will be the voice of reason.

• We will be here to help implement the guidance for follow-up.
PCRs, Immunity Duration, and Possible Repeat Infections...

- Many of you have been noticing people testing PCR+ for a while and wondering what the guidance is.

- Additionally, now that we have had confirmed cases in MA since Feb/March, these people have recovered and are being identified as close contacts to newer confirmed cases.

- Testing asymptomatic people is now more common.

  - What do additional PCR+ tests tell us?
  - Could previously confirmed cases get COVID-19 again?
PCR, Immunity Duration, and Possible Repeat Infections...

**On the topic of repeat PCR testing...**

- One thing we want to emphasize is that this topic is in rapid evolution and that our guidance will almost certainly change as we learn more in coming weeks.

- We are looking at 6 weeks as a cutoff because it is more cautious and recognize it may lengthen as we learn more.
PCRs, Immunity Duration, and Possible Repeat Infections...

What we know:

• Virus detection by PCR can persist in recovered patient for weeks.

• We would not generally recommend testing for the six weeks following a positive PCR and recovery, and would disregard any positive results obtained before then.
  • While there may be limited circumstances to use a test-based clearance strategy, it is likely to result in longer isolation and may be logistically difficult.
PCRs, Immunity Duration, and Possible Repeat Infections...

**What we know:**

- Isolation of live virus immediately following recovery is extremely rare and transmission from a recovered patient has not been reported.

- Immunity immediately following infection is likely (and is the basis of recovery) but its duration and its correlation with antibody is not known.

- Immunity to other human coronavirus may be short lived and reinfection with community associated coronaviruses occurs frequently within a year of initial infection.
PCRs, Immunity Duration, and Possible Repeat Infections...

**Upcoming Guidance around this issue:**

- CDC guidance is that positive PCR results in a symptomatic patient beyond 6 weeks from completing isolation should be interpreted as possible reinfection.

- A cautious approach to asymptomatic individuals with a positive PCR result would be to treat them as cases and isolate accordingly. Complex situations may require consultation with an ID specialist.

CDC FAQ updated June 4:
Previous (PCR+ lab): Confirmed Cases:

Previous Confirmed Cases (PCR+ lab reported): If these individuals have met criteria for exiting isolation based upon a symptom-based strategy, additional testing is not recommended.

- Disregard any additional positive tests up until 6 weeks after exiting isolation.

- Q. Is there a timeframe after primary symptom onset & recovery where additional +PCRs WOULD require isolation and quarantine regardless of symptoms?
  - A. Yes. 6 weeks after recovery (exiting isolation).
Previous (PCR+ lab): Confirmed Cases:

• Q. Do previously confirmed cases need to quarantine if identified as a contact at a later point?
  • A. Yes if exposed > 6 weeks after exiting isolation.

• Q. Should previously recovered cases isolate and be tested via PCR if symptoms recur at a later date?
  • A. Yes

• Q. If positive, would we do contact tracing based upon new onset dates and exposure?
  • A. Yes
Previously (Serology+ lab): Probable Cases:

Previously Serology Positive Probable Cases (negative PCR or no PCR on record):

- **Q.** Previously serology positive with new symptoms – should they isolate and test via PCR?
  - **A.** Yes
  - If PCR+, we do contact tracing based upon new onset dates and exposure.
  - They would be reclassified as a CONFIRMED case because this is their first positive PCR.

- **Q.** Should Probable cases later identified as contacts quarantine (and retest with PCR per recommendation for contacts)?
  - **A.** Yes
  - If PCR+, follow-up for isolation and contact tracing accordingly.
PCRs, Immunity Duration, and Possible Repeat Infections...

Let’s summarize what we just said:

• Immunity immediately following infection is likely (and is the basis of recovery) but its duration and its correlation with antibody is not known.

• **CDC states:** "If the positive test occurs more than 6-8 weeks after the person has completed their most recent isolation, clinicians and public health authorities should consider the possibility of reinfection."

• **Massachusetts:** We are looking at a 6 week cutoff from recovery (exiting isolation) because it is a cautious cutoff and we may lengthen it as we learn more. OFFICIAL GUIDANCE TO COME.
PCRs, Immunity Duration, and Possible Repeat Infections...

• Q. But what about all this antibody testing?
  
  • A. There is no firm evidence yet that the antibodies that develop in response to infection are protective. If these antibodies are protective, it’s not known what antibody titers are associated with protection from reinfection. - CDC
PCRs, Immunity Duration, and Possible Repeat Infections...

• Q. How does this apply to residents in LTCFs?

  • A. More guidance is coming. If you have specific questions regarding one of your facility clusters, consult with MDPH epi. 617-983-6800.
So what is next?

• MDPH has a call with CDC today to help clarify some of these issues. We will be working to give you written guidance on this topic and implementation.

• Remember this is not evidence that reinfection occurs, but rather that we do not yet have data showing how long immunity lasts. As a result, we will be taking a more cautious approach.

• **Key Points:**
  • Don’t run back to retrospective cases at this point.
  • We will have more guidance in the coming week.
  • Additional CDC talking points on this issue are here: [https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#Patients-with-Persistent-or-Recurrent-Positive-Tests](https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#Patients-with-Persistent-or-Recurrent-Positive-Tests)
Any Questions?!!
Discontinuation of Isolation Guidance!

If Patient Ever Had Symptoms:

**Symptom-Based Strategy**

- At least 3 days (72 hours) have passed since recovery defined as
  - resolution of fever without the use of fever-reducing medications, and
  - improvement in respiratory symptoms (e.g., cough, shortness of breath);
  
  and

- At least 10 days have passed since symptoms first appeared.

**Test-Based Strategy**

- Negative PCR results from at least 2 specimens collected >24 hours apart

  Could also use a test-based strategy, but why?

Use Symptom Onset Date

Symptoms need to have resolved before starting testing