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

Tools for LBOHs

August 25, 2020

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MA Department of Public Health
Topics Today

- MAVEN Online/Offline Status Map
- MAVEN Release – new programmatic updates and higher ed variables
- Case Classification Manual updates
- Key Documents – Summary
- Last Week Review
- Updated Public Health Follow-up Table
- Your Questions!
Tuesday Webinars for COVID-19 Case Investigation and Follow-up

Tuesdays @ 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.
  - May Send Cases to CTC for follow-up if not:
    - Hospitalized, Deceased, or linked to a Cluster Facility, Healthcare worker or Pending deduplication
- 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:

Thanks to Shin-Yi Lao in Newton!

MDPH Epi Program: 617-983-6800
MDPH MAVEN Help Desk: isishelp@mass.gov
MDPH Food Protection Program: 617-983-6712
CTC Help Desk: 857-305-2828
COVID19CommunityTracingCollaborativeQuestions@mass.gov
MAVEN Updates

As of 8/25/2020

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Updates for today, Tuesday, 8/25

- MAVEN Status Map – three towns offline
- LBOH Immediate Workflow – COVID-19 event only – please check your workflow and clear out the workflow
- MAVEN B Release – review and update on changes in MAVEN
- Case Classification Updates for COVID-19 (Sue Soliva)
- COVID Use Case Example/Discussion around Higher Education variables
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 (617)-983-6801.

This map displays 348 out of the 351 cities and towns in Massachusetts receiving disease notifications electronically through the MAVEN System as of August 11, 2020.

*Boston reporting data via BoSS MAVEN.

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

MAVEN Status August 2020

- Online (348)
- Offline (3)
Immediate Notification workflow (COVID-19 Only)

- **UPDATE:** COVID-19 Immediate Notification Workflow - **1,186** events in this workflow today
  - This will allow proper notification of all new COVID-19 events for your jurisdiction. *(Confirmed and Probable Cases)*
  - 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)
MAVEN Release Notes

August, 2020

Office of Integrated Services and Informatics Services
Bureau of Infectious Disease and Laboratory Sciences
MA Department of Public Health
General Local Health Updates

- Improve Capture of Cluster/Outbreaks and Exposures at Boarding Schools/Colleges/Universities
- **Update Cluster Line List Report** with name of cluster to last column of report (Add Cluster Name to Report), MAEDSS-12724
- Modify Offline/Online LBOH Notification for Routine Disease Events workflow - update workflows to include *Dengue Fever* and **New Product Code for Powassan virus infection**, MAEDSS-11452
- Change **STEC** product code to a routine disease, MAEDSS-12315
- **Add jurisdiction/town option** in search criteria for clusters/outbreaks, MAEDSS-12720
- Will enable a new **LBOH Cluster Line List Report** to identify all clusters for your jurisdiction(s), with report specifications to allow you to see Total Linked events and the number of linked events that you have access to based on jurisdiction, MAEDSS-12720
Email Field for Cases

- Added email field in the Person Tab, MAEDSS-12616
Outbreak/Cluster Updates

- To better capture clusters/outbreaks at schools, created a new Reference code for Education Institution in the Standard Question Package – (this includes a list of colleges, universities, and boarding schools), MAEDSS-12752
Cluster/Outbreak Updates

- Created new reference code to better capture exposure setting at schools, MAEDSS-12748
Outbreak/Cluster Updates

- Created an option in the Standard Question Package to capture different campuses among larger colleges/universities, MAEDSS-12752
Legionellosis Events– added a concern

• Added a MAVEN concern to Legionellosis events to capture employment. Once employment and occupation are completed in the Demographic Question Package, the red flag/concern will be removed, MAEDSS-11119

Notifications

Event/Status/Date/Type Notifier
- Event Status: Revoked
- Event Date: 01/08/2020
- Event Type: Lab Test Date

Concerns
- If case is employed, please complete Employer Name and Address in the Demographic Question Package.

Case Classification
- Age unit: Years
- Age at time of event: 38.81
Added a Rurality Rating

- Add a variable located in the Demographic Question Package #2 to display **Rurality Rating** by town based off of "Official City" variable. DPH is undergoing work to standardize many data elements, one of which is urban/rural rating by city/town. We have added a document in the MAVEN Help Section under **General Information: Rural Health Information**.

MAEDSS-11985
Updated Question in Risk QP#5

- In QP #5, updated several questions in order to better capture exposures at schools and daycares in addition to healthcare settings. MAEDSS-12737

- New question: “Did case expose others in this setting”

- Updated label for “Is Case a Healthcare Worker” to “Employee of facility listed above” to capture employees at additional types of settings
Additional variables for lab information

- Create four new fields in Clinical QKPG #3 for EPI/IMM model. These are not editable by users, MAEDSS-12737

3. Clinical - Test Covidmultiple - Novel Coronavirus (SARS, MERS, etc)

<table>
<thead>
<tr>
<th>Diagnosis/Clinical Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Specimen Date of First Positive Test Result</td>
</tr>
<tr>
<td>2. Test of First Positive Test Result</td>
</tr>
<tr>
<td>3. Ordering Facility of First Positive Test Result</td>
</tr>
<tr>
<td>4. Lab Facility of First Positive Test Result</td>
</tr>
</tbody>
</table>

- Specimen Date of First Positive Test Result: 03/16/2020
- Test of First Positive Test Result: 2019-nCoV Real-time RT-PCR
- Ordering Facility of First Positive Test Result: Tabor Academy - 228 Front Street, Marion, MA 02738, (508) 748-2000
- Lab Facility of First Positive Test Result: Quest Diagnostics Massachusetts LLC - 191 May Street, Worcester, MA 01602, (508) 368-7888
Updated Employer Information to Capture Multiple Employers, MAEDSS-12737

<table>
<thead>
<tr>
<th>Employer name:</th>
<th>Employer Name #1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer telephone #:</td>
<td>Employer address:</td>
</tr>
<tr>
<td>(617) 555-1235</td>
<td>305 State Street</td>
</tr>
<tr>
<td>Employer city:</td>
<td>Employer state:</td>
</tr>
<tr>
<td>Boston</td>
<td>MA</td>
</tr>
<tr>
<td>Employer zip code:</td>
<td>Does case physically work in Massachusetts?</td>
</tr>
<tr>
<td>02118</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Does case have multiple employers? Yes
  - Employer Name: 

New Question

New Question
Thank you for your suggestions on MAVEN functionality

- For additional information please contact isishelp@mass.gov
Covid19 Case Definition Updates

- Clinical Criteria
- Lab Criteria
- Epi Linkage Criteria
- Vital Records Criteria
- Definitions of Confirmed, Probable and Suspect Cases
Covid19 Case Definition Updates

Clinical Criteria:
- At least two of the following symptoms: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea, vomiting, diarrhea, fatigue, congestion or runny nose new olfactory and taste disorder(s); OR
- At least one of the following symptoms: cough, shortness of breath, or difficulty breathing, new olfactory or taste disorder; OR
- Severe respiratory illness with at least one of the following: clinical or radiographic evidence of pneumonia or acute respiratory distress syndrome (ARDS) AND no alternative more likely diagnosis.
Covid19 Case Definition Updates

Laboratory Criteria

- **Confirmatory laboratory evidence:**
  - Detection of SARS-CoV-2 RNA in a clinical or autopsy specimen using a molecular amplification detection test

- **Presumptive laboratory evidence:**
  - Detection of SARS-CoV-2 antigen test in a respiratory specimen

- **Supportive laboratory evidence:**
  - Detection of specific antibody in serum, plasma, or whole blood
  - Detection of specific antigen by immunocytochemistry in an autopsy specimen
Covid19 Case Definition Updates

Epi Linkage Criteria

• One or more of the following exposures in the prior 14 days:
  • Close contact with a confirmed or probable case of COVID-19 disease; or
  • Member of a risk cohort as defined by public health authorities during an outbreak\textsuperscript{b}

\textsuperscript{b} This would include individuals that meet the clinical criteria who are linked to a group or community defined as a cluster.
Covid19 Case Definition Updates

Vital Records Criteria
- A death certificate that lists COVID-19 disease or SARS-CoV-2 as a cause of death or a significant condition contributing to death
Covid19 Case Definition Updates

Confirmed Case

- Meets confirmatory laboratory evidence (Detection of SARS-CoV-2 RNA)

Probable Case

- Meets presumptive laboratory evidence (Detection of SARS-CoV-2 antigen) OR;
- Meets clinical criteria AND epidemiologic linkage criteria with no confirmatory laboratory testing performed for SARS-CoV-2 OR;
- Meets vital records criteria with no confirmatory laboratory evidence for SARS-CoV-2.

Suspect Case

- Supportive laboratory evidence (Detection of specific antibody) OR;
- Death certificates including a qualifier on the cause of death such as, but not limited to, “suspected”, “probable”, or “possible”
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
Summary of Key Guidance & Tools

• Date: 8/22/2020: - COVID-19 PCR and Antibody Testing Public Health Response Recommendations
  • Table describes different Public Health Actions based upon different testing results.
    • Big take home: PCR & Antigen positive patients should be treated like cases.
    • Serology + cases no longer require public health follow-up.
    • Will be posted to MAVEN Help Shortly

• Updated COVID-19 Case Classification Manual
  • Serology positive labs are now classified as “suspect” cases.
  • Will be posted to MAVEN Help Shortly

• Date 8/10/2020: Follow-up for Positive Antigen Test Results
  • http://www.maventrainingsite.com/maven-help/pdf/Antigen%20Results%20Follow-up%20Guidance_ver1.0_August_10.pdf

• Date: 8/9/2020: Updated Isolation & Quarantine Guidelines Documents
  • Translations Pending

• Date: 8/7/2020: Updated MA Testing Guidance
  • https://www.mass.gov/doc/covid-19-testing-guidance/download
  • Update says to get a PCR with ANY Antigen test
  • Also says no need to test again in 90 days after initial diagnosis.
Date: 7/24/2020 - Gov. Baker issued **COVID-19 Order No. 45** which issues a mandatory 14 day quarantine period for travelers to MA (including MA residents who traveled outside of MA and are returning).

- If travelers (including returning MA residents) don't fit into one of the 3 Exemption Categories, must quarantine.
- There is a form to fill out online. [https://www.mass.gov/forms/](https://www.mass.gov/forms/)
- A negative PCR test within 72 hours of travel can excuse you from quarantine.

Date: Aug 16, 2020 – Updated CDC Guidance on Duration of Isolation & Precautions for Adults with COVID-19

- 10 Day Isolation Period now has more data supporting it.
- Ignore most additional PCR tests up to 3 months after initial illness onset.
- No need to quarantine up to 3 months after initial illness onset.

Date: May 7, 2020 – Occupational Exposure & Return to Work Guidance

Updates – A quick recap for 8/25.

• 8/18 – last week we discussed antigen testing (What to do about discordant Antigens & PCRs.) We really hammered home a bunch of different testing scenarios with different testing results on different days.
  • Remember to look at the Follow-Up For Antigen Positive Test Results Guidance Page to help you navigate situations with both PCR and Antigen test results.
    • [http://www.maventrainingsite.com/maven-help/pdf/Antigen%20Results%20Follow-up%20Guidance_ver1.0_August_10.pdf](http://www.maventrainingsite.com/maven-help/pdf/Antigen%20Results%20Follow-up%20Guidance_ver1.0_August_10.pdf)

• We also discussed the new National Case Definition for COVID-19, and said we would have more information today. Yay! We do! Today we will talk about serologies and their follow-up.
8/22/2020 Update:

• Footnote has been added to recommend a PCR test for confirming Antigen positive results.

• BIG UPDATE: Serology Follow-up Protocol has been updated. Follow-up on antibody positive cases is now a local jurisdiction choice.
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<thead>
<tr>
<th>SARS-CoV-2 PCR Or Antigen Test</th>
<th>Antibody Test</th>
<th>Interpretation</th>
<th>Public Health Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>-</td>
<td>Uninfected, susceptible or incubating infection</td>
<td>No additional follow-up necessary. (Complete remaining 14-day quarantine for contacts if applicable.)</td>
</tr>
</tbody>
</table>
| Negative                      | +            | Confirmed recent infection | Follow-up per current protocols for confirmed cases:  
  - Obtain symptom information and hospitalization status.  
  - Institute isolation based on symptoms or, if asymptomatic, PCR or antigen test date  
  - Identify contacts, quarantine contacts for 14 days from last exposure that occurred within the case’s isolation period |

- For patients with nasal swabs and blood draw done at the same time:
  - X
  - Negative antibody results

- For patients with nasal swab not done or done at some point prior to blood draw:
  - X
  - Positive or negative antibody results

- Unknown, or Previously PCR or Antigen Negative
  - Unknown
  - Unknown
  - Unknown
  - Unknown

- Previously PCR or Antigen Positive
  - Positive
  - Positive
  - Positive
  - Positive

* A PCR test is recommended to confirm all antigen test results.  
* Symptomatic is defined as one or more of the following: cough, shortness of breath, or at least two of the following symptoms: fever, chills, myalgia (muscle aches), rhinorrhea (runny nose), sore throat, and/or nausea.

**Appropriate testing is defined by most recent exposure or symptoms.
8/22/2020 Update:

- Footnote has been added to recommend a PCR test for confirming Antigen positive results.

- **BIG UPDATE:** Serology Follow-up Protocol has been updated. Follow-up on antibody positive cases is now a local jurisdiction choice.
## Serology (Antibody Positive) Follow-up Guidance

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<tr>
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<th>Interpretation</th>
<th>Public Health Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>Negative</td>
<td>IgM</td>
<td>IgG</td>
</tr>
<tr>
<td>For patients with nasal swab not done or done at some point prior to blood draw</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown, or Previously, PCR or Antigen Negative</td>
<td>+</td>
<td>- Or unknown</td>
<td>Likely recent infection</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>+</td>
<td>Likely recent or resolving infection</td>
</tr>
<tr>
<td></td>
<td>- Or unknown</td>
<td>+</td>
<td>Likely resolving or resolved infection</td>
</tr>
<tr>
<td></td>
<td>- Or unknown</td>
<td>+</td>
<td>Infection at some undetermined point</td>
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</tbody>
</table>
Updated Public Health Follow-Up Table

Serology (Antibody Positive) Follow-up Protocol:

• Follow-up for positive antibody results is not required, but local jurisdictions may choose to follow-up with antibody positive individuals as local resources allow.

• if recently (within 14 days) appropriately** symptomatic:
  • Recommend PCR testing
  • If PCR+, see follow-up protocol above.
  • If PCR-, no further action required.
  • If no PCR is obtained, isolation is not required.
Updated National Case Definitions for COVID-19

Updated Case Classifications – what does this mean?

- **Confirmed (PCR+) and Probable (Antigen+ & symptomatic contacts):**
  - We will continue to follow up and treat these results like regular cases we need to do interviews and contact tracing for. These individuals should isolate.
  - Deaths also require data collection (and possibly contact tracing as applicable)

- **Suspect Cases: Serology+ cases**
  - No requirement for follow-up at this time.
  - Prioritize acute cases (mostly PCR+ and Antigen+) for follow-up.
  - Local jurisdictions with bandwidth may choose to follow-up further on serology+ cases.
Updates Summary for Today:

• **We should have a new MA State Case Definition – updated in the Case Classification Manual.**
  • You will be able to view the updated case classifications
  • This will also list out the various labs (how they appear in the Lab Tab).
  • Follow-up Guidance has been updated.

• **MAVEN Updates**
  • Serology + Labs will be created as Suspect COVID-19 Events.
  • Lots of other MAVEN updates including symptoms, Risk Question Packages, Occupation Variables, etc. Many of these updates will help us in tracking University and Daycare related clusters, etc.
University Jurisdiction Questions

- **Students who move to university town, and test positive in their new town, are counted as cases of that town.**
  - The student who moves to school and tests positive day 1, is a case at the school address, not their parent’s home.
  - The student who moves to school and tests positive day 1, but goes back home to isolate at their parents address is a case at the school address, as they are technically still living at school and will be going back after they recover.

- **If there was a case in Town A (university residence), but the student goes home to their parents’ house in Town B to isolate, we count it as a Town A case and I would advise the Town A LBOH to share the event with Town B and give them a little call to let them know the case is isolating in their jurisdiction.**

- **MDPH generally uses this document. This should cover most scenarios.**
  - Revised Guidelines for Determining Residency for Disease Notification Purposes
Correction on Antigen+ cases

Q. Do antigen+ (probable) cases need to quarantine if exposed in the 90 days following their initial illness?

A. Antigen + (probable) cases do not need to quarantine or retest if identified as a contact in the 3 months following their initial diagnosis.

*Correction from statement last week.*

• Antigen+ cases should be treated like PCR+ cases in the 3 months following their initial diagnosis.