Michigan State and Local Public Health COVID-19 Standard Operating Procedures

Interim September 2020

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Background

On December 31, 2019, an outbreak of pneumonia in Wuhan City, Hubei Province, China was reported to the World Health Organization (WHO). This outbreak is now known to be caused by the 2019 novel coronavirus. On February 11, 2020 the WHO announced the official name for the disease as COVID-19. On March 11, the COVID-19 outbreak was characterized as a pandemic by the WHO. As of September 10, 2020, over 28 million cases have been reported worldwide, including over 900,000 deaths.[1] In the US, over 6 million confirmed cases, including over 190,000 deaths, have been reported as of September 10.[2] In Michigan, over 109,500 confirmed cases, including over 6,550 deaths, have been reported as of September 10.[3]

Patients with COVID-19 may experience fever, cough, dyspnea, chest tightness, pneumonia, chills, new loss of taste or smell, headache, sore throat, and muscle pain. Healthcare providers should consider COVID-19 for patients being evaluated with fever and acute respiratory illness. The most current information from the Michigan Department of Health and Human Services (MDHHS) may be found at www.michigan.gov/coronavirus. The MDHHS is working closely with Local Health Departments (LHDs) and the Centers for Disease Control and Prevention (CDC) during this outbreak.

The CDC provides guidance for public health recommendations for potential risk of COVID-19 exposure, addressing travel-associated exposures (https://www.cdc.gov/coronavirus/2019-ncov/php/risk-assessment.html updated August 6), community-related exposures (https://www.cdc.gov/coronavirus/2019-ncov/php/public-health-recommendations.html) updated July 31), and healthcare-associated exposures for healthcare professionals (https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html updated June 18). The Department of State advises against all international travel due to the global impact of COVID-19. This aligned with Governor Whitmer's Executive Order "Stay Home, Stay Safe" that was in effect until June 12, 2020, but was rescinded on June 1, when Governor Whitmer announced that the entire state would be moved to phase four of the MI Safe Start Plan. For the most current information, visit: www.michigan.gov/coronavirus and www.cdc.gov/coronavirus/2019-ncov/index.html. This guidance is subject to change as more is learned about the virus, the outbreak progression, and as CDC recommendations are updated.

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[1] Worldwide case counts available at the 2019-nCoV Global Cases by Johns Hopkins CSSE: https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

[2] US case counts available at: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html

[3] Michigan case counts available at: https://www.michigan.gov/coronavirus

Standardized Surveillance Case Definition for COVID-19

On August 5, 2020, the Council of State and Territorial Epidemiologist (CSTE) Executive Board approved the second interim position statement for COVID-19: "Update to the standardized surveillance case definition and national notification for 2019 novel coronavirus disease (COVID-19)." This interim position statement updates the standardized case definition for COVID-19 and retains COVID-19 as a nationally notifiable condition. This position statement supersedes the April 2020 CSTE COVID-19 interim position statement. The full position statement can be found at the link below. Updates to the August 5 position statement are bulleted below.
https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/positionstatement2020/Interim-20-ID-02_COVID-19.pdf

- Clinical Criteria: new symptoms added
- Laboratory criteria:
  - Presumptive laboratory evidence is now detection of SARS-CoV-2 by antigen test; must be from respiratory specimen.
  - Added supportive laboratory evidence which includes detection of specific antibody in serum, plasma, or whole blood, OR detection of specific antigen by immunocytochemistry in an autopsy specimen.
- Epidemiologic Linkage Criteria:
  - Removed travel to or residence in an area with sustained, ongoing community transmission of SARS-Cov-2
  - Updated close contact definition
- Case Classification:
  - Removed need for either clinical criteria or epi-link to be paired with presumptive laboratory evidence for probable classification
  - Added suspect classification for cases meeting supportive laboratory evidence. Note: suspect case classifications are intended solely for internal health department surveillance tracking purposes and not for official case counts at the state, local, or national level
- Criteria were added for distinguishing a new case from an existing case (i.e., positive SARS-CoV-2 RNA molecular amplification detection test with specimen collection more than 3 months after initial report)
- Vital Records Data: clarified that SARS-CoV-2 must be "an underlying cause of death" or a significant condition contributing to death on a death certificate
- Includes epidemiological classification for work-relatedness

Case Classification

Clinical Criteria
In the absence of a more likely diagnosis:

- At least two of the following symptoms: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, congestion or runny nose **OR**
- Any one of the following symptoms: cough, shortness of breath, difficulty breathing, new olfactory disorder, new 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)

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 by 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

Epidemiologic Linkage

One or more of the following exposures in the prior 14 days:

- Close contact* with a confirmed or probable case of COVID-19 disease
- Member of a risk cohort as defined by public health authorities during an outbreak.
  **Close contact is generally defined as being within 6 feet for at least 15 minutes. However, it depends on the exposure level and setting; for example, in the setting of an aerosol-generating procedure in healthcare settings without proper PPE, this may be defined as any duration. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact. MDHHS note: time frame does not have to be consecutive minutes.*

Vital Records Criteria

A person whose death certificate lists COVID-19 disease or SARS-CoV-2 as an underlying cause of death or a significant condition contributing to death.

Criteria to Distinguish a New Case from an Existing Case

A repeat positive test for SARS-CoV-2 RNA using a molecular amplification detection test within 3 months of the initial report should not be enumerated as a new case for surveillance purposes

Case Classifications

Confirmed

- Meets confirmatory laboratory evidence.

Probable:

- Meets clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for COVID-19.
- Meets presumptive laboratory evidence.
- Meets vital records criteria with no confirmatory laboratory evidence for SARS-CoV-2.

Suspect:

- Meets supportive laboratory evidence*** with no prior history of being a confirmed or probable case.
  ****For suspect cases (positive serology only), jurisdictions may opt to place them in a registry for other epidemiological analyses or investigate to determine probable or confirmed status.*

Patients with Persistent or Recurrent Positive Tests

Current guidance indicates that for persons who remain asymptomatic following recovery from COVID-19, retesting is not necessary during the first 3 months after symptom onset. If there is a positive test in an asymptomatic person within 3 months of the initial symptom date, do not enumerate for surveillance purposes.

For persons who develop new symptoms consistent with COVID-19 during the first 3 months since the date of symptom onset of the most recent illness episode, retesting may be warranted if alternative etiologies for the illness cannot be identified. If reinfection is suspected, repeat isolation and contact tracing may be needed. The determination of whether a patient with a subsequently positive test is contagious to others should be made on a case-by-case basis, in consultation with infectious diseases specialists and public health authorities, after review of available information (e.g., medical history, time from initial positive test, RT-PCR Ct values, and presence of COVID-19 signs or symptoms). Any information on a potential re-infection, including case investigation and contact tracing events, should be added to the previously reported case in MDSS if it is within 3 months of the first case.

If there is a positive molecular test in an asymptomatic person more than 3 months after a person's symptom onset (or specimen collection date of first positive test), clinicians and public health authorities should consider the possibility of reinfection. Until more is known, the determination of whether a patient with a positive test in these situations is contagious to others should be made on a case-by-case basis.

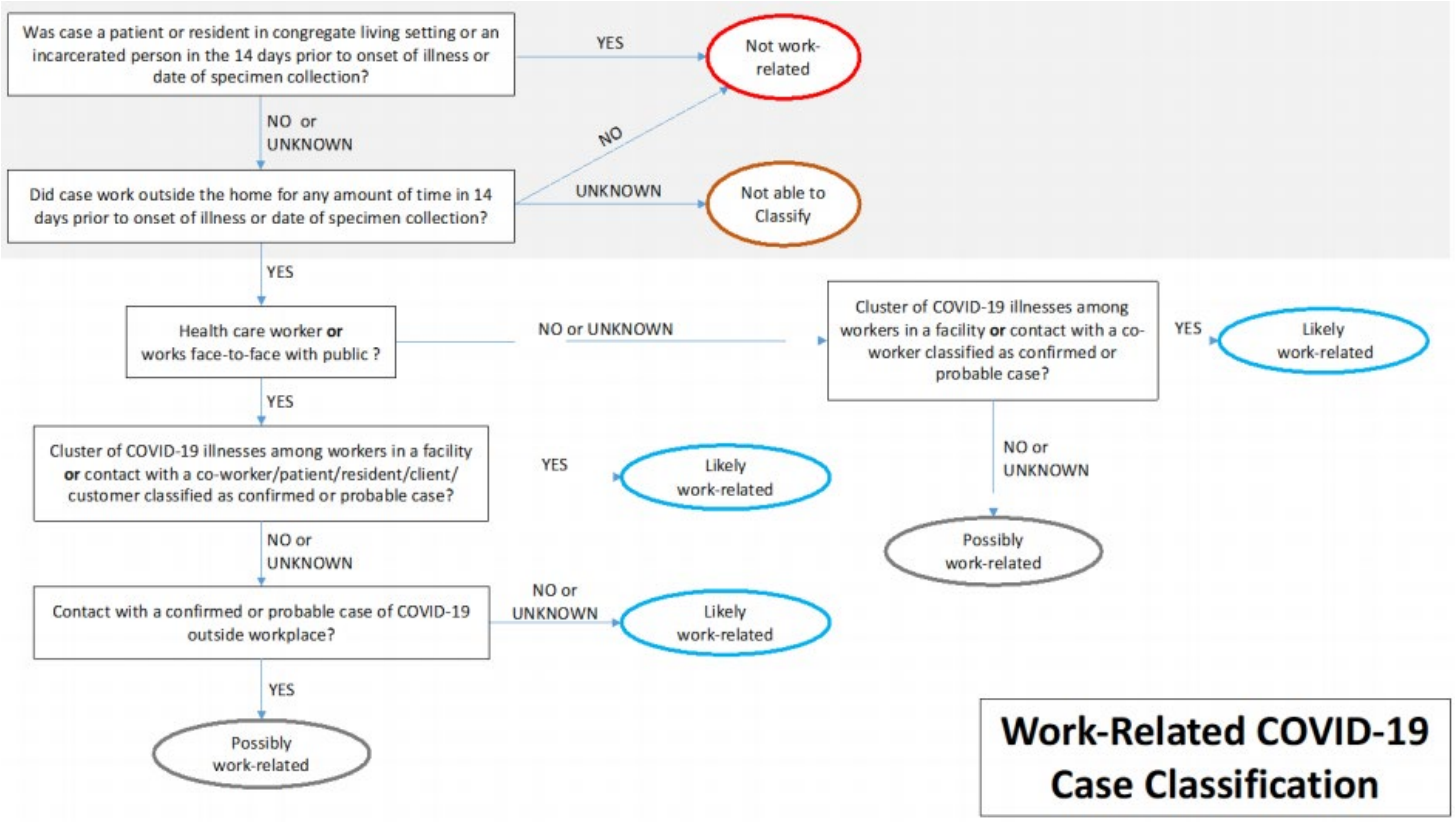
Persons who develop new symptoms consistent with COVID-19 more than 3 months after the date of symptom onset of the most recent illness episode should be retested. Persons with recurrent symptoms after the first 3 months who test positive should be considered infectious and remain isolated until they again meet criteria for discontinuation of isolation or of transmission-based precautions. Contact tracing during the person's second period of symptoms is warranted.

A new, confirmed MDSS case should be created for any person with a positive molecular test after 3 months from symptom onset date (or specimen collection date, if asymptomatic). If, in any of the instances listed above, the person is determined to be infectious, isolation, case investigation and contact tracing is warranted.

This guidance can be found at https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#Patients-with-Persistent-or-Recurrent-Positive-Tests

Work-Related Case Classification

The CSTE Occupational Health Subcommittee created a workgroup to develop standardized surveillance guidance to improve exposure-associated classifications of confirmed or probable COVID-19 cases. Complete definitions can be found on pages 15-19 of the Position Statement. This flowchart summarizes classifications for Likely work-related, Possibly work-related, and Not work-related:



Case Prioritization

All confirmed and probable COVID-19 cases should be investigated. When resources are limited, priorities for case investigation and contact tracing are described in CDC's "Health Departments: Interim Guidance on Developing a COVID-19 Case Investigation & Contact Tracing Plan" https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/overview.html. If, during the investigation, any symptomatic contact is identified, a probable case is to be created in MDSS. If the contact resides in a different jurisdiction, please still add the case with any relevant notes, and notify the receiving LHD.

If testing is negative and concern for COVID-19 remains or the specimen was collected prior to onset, the provider may order a repeat test. Surveillance case definitions are not intended to be used by providers for making clinical diagnoses or determining how to meet a patient's health needs.

Inconclusive Test Results

COVID-19 cases with an inconclusive or indeterminate PCR test result are classified as probable cases in MDSS. These results indicate that only one of two gene targets were detected in the specimen. This usually occurs when the viral levels are low and at the limit of detection. Inconclusive or indeterminate results are not the same as 'invalid' results. If a test is invalid, it means the assay failed. For invalid, inconclusive, and indeterminate results, a new specimen should be collected if clinically indicated.
If during the investigation, any of the following scenarios are found, classify as "Not a Case"

- The same sample was retested and found to be negative **OR**
- For symptomatic cases, a new specimen was collected within 10 days of their onset of symptoms and the PCR was negative **OR**
- The person has no clinical symptoms and/or no epidemiological risk for infection

Please note that if a new inconclusive result comes into MDSS for a case that was already classified as "Not a Case, Completed" then it will be re-opened and classified as "probable" so that the LHD can review.

Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with COVID-19

On May 14, CDC issued a health advisory for multisystem inflammatory syndrome in children (MIS-C) associated with COVID-19 (https://emergency.cdc.gov/han/2020/han00432.asp). On April 26, clinicians in the United Kingdom recognized increased reports of previously healthy children presenting with a severe inflammatory syndrome with Kawasaki disease-like features. The cases occurred in children testing positive for COVID-19. Patients presented with persistent fever and symptoms including hypotension, multiorgan (cardiac, gastrointestinal, renal, hematologic, dermatologic, and neurologic) involvement, and elevated inflammatory markers. Respiratory symptoms were not present in all cases. In May 2020, the New York City Department of Health and Mental Hygiene received reports of children with multisystem inflammatory syndrome. Additional reports of children presenting with severe inflammatory syndrome with laboratory-confirmed COVID-19 or an epidemiological link to a COVID-19 case have been reported by authorities in other countries. As of September 3, CDC has received reports of 792 confirmed cases of MIS-C and 16 deaths; additional cases are under investigation. Healthcare providers who have cared or are caring for patients younger than 21 years of age meeting MIS-C criteria should report suspect cases to their local or state health department. Individuals who are being evaluated for MIS-C, should be reported as both Multisystem Inflammatory Syndrome and COVID-19 in MDSS with case investigations completed for each condition. Each case's status (e.g., confirmed, probable) should be based on each condition's case definition.

Case Definition for MIS-C

- An individual aged <21 years presenting with fever*, laboratory evidence of inflammation**, and evidence of clinically severe illness requiring hospitalization with multisystem (>2) organ involvement (cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic, or neurological); **AND**
- No alternative plausible diagnoses; **AND**

- Positive for current or recent SARS-CoV-2 infection by RT-PCR, serology, or antigen test; or exposure to a suspected or confirmed COVID-19 case within the 4 weeks prior to the onset of symptoms

*Fever≥38.0°C (100.4°F) for ≥24 hours, or report of subjective fever lasting ≥24 hours

**Including, but not limited to, one or more of the following: an elevated C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactic acid dehydrogenase (LDH), or interleukin 6 (IL-6), elevated neutrophils, reduced lymphocytes, low albumin

Additional Comments

- Some individuals may fulfill full or partial criteria for Kawasaki disease but should be reported if they meet the case definition for MIS-C
- Consider MIS-C in any pediatric death with evidence of SARS-CoV-2 infection

Test Interpretation

Molecular
Laboratory tests that detect SARS-CoV-2 RNA using molecular amplification detection (e.g., polymerase chain reaction (PCR) and rapid Abbott ID NOW) are considered diagnostic and provide confirmatory laboratory evidence.

Antigen
Point-of-care (POC) SARS-CoV-2 antigen tests are considered diagnostic and provide presumptive laboratory evidence (probable). Antigen tests are immunoassays that detect the presence of a specific viral antigen, which implies current infection.

- The FDA has granted emergency use authorization (EUA) for antigen tests that can identify SARS-CoV-2.
- CDC has released Interim Guidance for Rapid Antigen Testing for SARS-CoV-2: https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html
- Rapid turnaround time can augment other testing efforts, especially in settings where RT-PCR testing capacity is limited or testing results are delayed (e.g., >48 hours).
- There are limited data to guide the use of antigen tests as screening tests on asymptomatic persons to detect or exclude COVID-19, or to determine whether a previously confirmed case is infectious.
- Antigen tests have lower sensitivity than molecular tests. Negative antigen test results should be confirmed with a molecular test when the pretest probability is relatively high, especially if the patient is symptomatic or has a known COVID-19 exposure. Confirmatory molecular testing following a positive antigen test may not be necessary when the pretest probability is high, especially if the person is symptomatic or has a known exposure. When the pretest probability is low, those persons who receive a positive antigen test should isolate until they can be confirmed by a molecular test.
- For specific guidance on when to repeat testing in the nursing home setting, refer to CDC's guidance at: https://www.cdc.gov/coronavirus/2019-ncov/downloads/hcp/nursing-home-testing-algorithm-508.pdf. A MDHHS memorandum regarding antigen testing was distributed via MIHAN to long term care facilities, nursing homes, and local health departments on September 3.

Serologic
Serologic assays for SARS-CoV-2 can play an important role in understanding the epidemiology of the general population. Serologic tests are not diagnostic; they provide supportive laboratory evidence (suspect).

- Serologic assays for SARS-CoV-2 can play an important role in understanding the epidemiology in the general population. CDC has released Interim Guidelines for COVID-19 Antibody Testing: https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html
- This guidance continues to state that serological tests should NOT inform return to work for healthcare workers or discontinuation of quarantine for contacts. The criteria should remain test-based or non-test-based strategies per CDC guidance.
- There is no change in PPE recommendations based on antibody results. Only assays that have been issued an FDA EUA are considered supportive laboratory evidence. Information about the performance for those tests can be found here https://www.fda.gov/medical-devices/emergency-situations-medical-devices/eua-authorized-serology-test-performance.

Testing Criteria

CDC considerations for COVID-19 diagnostic (molecular or antigen) testing include:

- People with symptoms of COVID-19
- People who have been in close contact (within 6 feet) of a person with COVID-19 infection for at least 15 minutes, but do not have symptoms
- People in a high COVID-19 transmission area and have attended a public or private gathering of more than 10 people (without widespread mask wearing or physical distancing)
- People who work, live in, or receive care in a nursing home or long-term care facility
- People who are critical infrastructure workers, health care workers, or first responders
- State and local public health officials may advise specific people, or groups of people, to be tested.

There is more information on each of the bullets above in the CDC recommendations for testing considerations at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html

MDHHS had expanded COVID-19 testing prioritization criteria to include individuals with mild symptoms in certain circumstances, effective April 14, 2020. MDHHS expanded testing again on April 20 to include all health care workers and first responders (even if they do not have symptoms), as well as critical infrastructure workers (i.e., any worker still leaving the home for in-person work), whether they have symptoms or not. Most recently, in a memorandum dated May 26, MDHHS substantially expanded COVID-19 testing to include the following groups: asymptomatic patients in preparation for surgical procedures, as deemed necessary by the treating clinician; asymptomatic people with known exposure to a person with COVID-19, or symptoms of COVID-19; asymptomatic people who work in a profession that puts them at high risk of exposure; testing to increase rates per million per day in communities facing inequity in access (i.e., areas with higher proportion of racial/ethnic minorities, rural communities). Testing is also permissible for persons without symptoms who are prioritized by local health departments or clinicians, for any reason.

MDHHS COVID-19 Test Prioritization Criteria:

High Priority:

- Hospitalized patients with symptoms
- Any healthcare workers, first responder, or congregate care facility worker with symptoms
- Residents in any congregate care facility, including prisons and shelters, with symptoms

Priority:

- Persons with symptoms of potential COVID-19 infection, including cough, shortness of breath, fever, chills, muscle pain, new loss of taste or small, vomiting or diarrhea, and/or sore throat
- Asymptomatic patients in preparation for surgical procedures, as deemed necessary by the treating clinician
- Asymptomatic people with known exposure to a person with confirmed COVID-19 or symptoms of COVID-19
- Asymptomatic people living or working in a congregate care facility or other high-risk setting (i.e., nursing home, jail, prison, homeless shelter, assisted living facility, et.) that:
    - Had a confirmed case among residents or workers
    - Is located in a region of medium risk or higher, or
    - Is receiving patients from an area of medium risk or higher
- Asymptomatic people who work in a profession that puts them at high risk of exposure, including:
    - Repeated close contact of prolonged duration with the public
    - Working in a high-risk profession where clusters of infections have been identified (i.e., migrant workers, food processing facilities, etc.)
    - Working in person during a period of strict social distancing (i.e., Stay Home, Stay Safe) or, in areas with some sectors re-opening, having worked in person during the period of strict social distancing
- Persons identified by clinicians or public health officials who can be tested for public health monitoring research purposes (i.e., serology, sentinel testing)
- Testing to increase rates per million per day in communities facing inequity in access (i.e., areas with higher proportion of racial/ethnic minorities, rural communities)

Permissible:

- Persons without symptoms who are prioritized by local health departments or clinicians, for any reason
- Asymptomatic people living or working in a congregate care facility or other high-risk setting (i.e., nursing home, jail, prison, homeless shelter, assisted living facility, etc.) in any region
- Asymptomatic people leaving their home for work.

Critical infrastructure workers include those workers as defined in Executive Order 2020-21, sections 8 and 9: https://www.michigan.gov/whitmer/0,9309,7-387-90499_90705-522626--,00.html.

The June 10, 2020 memorandum stated that: MDHHS is also using simplified messaging to promote testing among the public:

- If you feel sick, get tested
- If someone close to you feels sick, get tested
- If you work outside the home, get tested

MDHHS issued additional Emergency Orders mandating testing for specific populations including long term care residents and staff, agricultural workers, inmates, and state prison staff.

- June 15 Emergency Order for testing in long term care facilities
- August 3 Emergency Order for testing in migrant housing camps and agricultural or seasonal workers
- August 15 Emergency Order for testing in jails and prisons
- August 19 Emergency Order for testing prison staff

As stated in the March 24, 2020 MDHHS Emergency Order, all CLIA-certified laboratories in Michigan are required to comply with prioritization criteria as promulgated by MDHHS.

Death Reporting and Investigation

The reportable condition list for the state of Michigan has been expanded to include mandatory reporting of Deaths Associated with COVID-19 within 24 hours of identification consistent with Michigan's communicable disease rules and section MCL 333.5111 of Michigan's Public Health Code. In addition, emergency rule R 325.9031 amended the definition of "infectious agent" to include COVID-19 so that physicians who have actual knowledge of the existence of COVID-19 in the body of a deceased individual must notify funeral directors of this fact *before* the body is released to the funeral director. Reporting should include deaths that are laboratory-confirmed as well as those whose death certificate lists COVID-19 disease or SARS-CoV-2 as a cause of death or a significant condition contributing to death. A clarification of the MDHHS emergency order regarding reporting of deaths due to COVID-19 was issued on May 12, 2020. Where an individual dies from COVID-19, health facilities, including but not limited to hospitals, must contact the Local Health Officer (or designee) to inform them of the death as follows: for deaths occurring between 8 AM and 5 PM (i.e., during business hours), within 2 hours of the death; for deaths occurring between 5 PM and 8 AM (i.e., after business hours), no later than 10 AM. To facilitate reporting, contact the LHD of the patient's residence (otherwise the LHD of the reporting facility). LHDs should investigate and complete the individual MDSS Case Report Form to the best of their ability through a proxy or medical records. In addition, MDHHS conducts enhanced mortality surveillance to assist in identifying deaths associated with COVID-19.

Confirmed Deaths:

- Confirmed cases of COVID-19 in the MDSS that have been marked as deceased as identified through case investigation
- Decedents with a death certificate that lists a COVID-related term (in Part I or II) that are Confirmed cases in MDSS, but were not yet marked as deceased in MDSS
- Decedents with pending causes of death that are Confirmed cases in MDSS, but were not yet marked as deceased in MDSS
- Decedents with death certificates that do not specifically list a COVID-related term (in Part I or Part II) that are Confirmed cases in MDSS, but were not yet marked as deceased in MDSS IF they died within 30 days of symptom onset (or referral date if symptom onset not available) AND died in a manner of death deemed to be 'natural' on the death certificate

Probable Deaths:

- Cases that meet the Probable COVID-19 case definition and have subsequently died, as identified through case investigation
- Death certificates that list a COVID-related term (in Part I or II) where there is no available evidence of a confirmatory test result (positive or negative).

To identify COVID-19 associated deaths in the statewide dataset, three fields are reviewed: Patient Status, Case Disposition, and Patient Died. If any field is marked as 'died' the death will be counted. *Note: special care should be taken with regards to the field, Patient Died, as it has been previously mismarked on the Case Report Form.*

Death records from the Electronic Death Registration System (EDRS) for persons in MDSS are now automatically uploaded to the notes tab. Healthcare providers should provide requested components of the patient's electronic medical record to the LHD to be attached to the "Notes" tab of the MDSS record. A sample death reporting form is provided in Appendix 2. LHDs should also investigate suspect deaths that are residents of a high-risk facility (e.g., long-term care facilities, jails, or prisons) or that may have exposed healthcare workers without appropriate personal protective equipment (PPE). In these situations, testing should be encouraged, if not already pending, and LHDs should conduct contact tracing. Deaths that are clinically compatible for COVID-19 but have no confirmed close contacts or residence in a high-risk facility should be investigated. An Emergency Order for handling of bodily remains, issued May 4, 2020, instructs hospitals and funeral directors to locate a person with authority to control the final disposition of the body of a deceased individual within 24 hours. While in effect, this applies to all deaths in Michigan.

Outbreak Reporting and Investigation

Outbreak Definitions

COVID-19 outbreaks follow the general accepted public health outbreak definition which is defined as two or more cases with a link by place and time indicating a shared exposure outside of a household. Specific definitions of COVID-19 outbreaks are relative to the local context. While it is difficult to define an outbreak case definition that will encompass every scenario, CSTE has developed outbreak definitions and investigation considerations for three outbreak settings. These are available at https://preparedness.cste.org/?page_id=211 and are briefly described below. Please visit the CSTE document for additional information. These definitions are based on current scientific knowledge and are subject to change.

1. **Non-Residential, Non-Healthcare Workplace Settings**

   Outbreak Definition
   Two or more[1] laboratory-confirmed[2] COVID-19 cases among workers at a facility with onset of illness within a 14-day period[3], who are epidemiologically linked[4], do not share a household, and are not listed as a close contact[5] of each other outside of the workplace during standard case investigation or contact tracing.

Footnotes:

1 *Health departments may consider a higher threshold for defining an outbreak if there is a high case rate in the community (community transmission).*

2 *Detection of SARS-CoV-2 RNA in a clinical specimen using molecular amplification detection test.*

3 *For onset, use symptom onset date whenever available. If symptom onset date is unknown or if a case is asymptomatic, use specimen collection date for the first specimen that tested positive. The 14-day period refers to 14 days before the date of first symptom onset or first positive test sample.*

4 *Health departments should verify to the best extent possible that cases were present in the same setting during the same time period (e.g., same shift/department, same physical work area); that the timing fits with likely timing of exposure; and that there is no other more likely source of exposure for identified cases (e.g., household or close contact to a confirmed case outside of workplace setting).*

5 *Close contact is defined as being within 6 feet for at least a period of 15 minutes or more depending upon the exposure. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact. For updated definition of a close contact please refer to CDC Contact Tracing Plan Appendices website at https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/appendix.html#contact*

Outbreak-Associated Cases

- Individual confirmed and probable cases among workers in a non-residential, non-healthcare workplace setting meeting the outbreak definition should be classified as outbreak-associated and included in outbreak case count. This includes cases resulting from secondary transmission from an outbreak-associated case among workers who live in shared housing facilities (e.g. migrant labor camps, man camps) or use shared transportation services for work commute provided by the employer.

- Any individual confirmed and probable cases resulting from secondary transmission from an outbreak-associated case in a family member or close contact of a worker, who is not employed by the business/ employer should not be classified as outbreak-associated and not included in outbreak case count.

Outbreak Resolution
No new symptomatic/asymptomatic probable or confirmed COVID-19 cases after 28 days (two incubation periods) have passed since the last case's onset date or specimen collection date (whichever is later).

2. Educational Settings

Educational settings are broadly defined and include but are not limited to youth camps, youth programs, childcare centers, preschools, primary through secondary schools, vocational schools, colleges, and universities.

Outbreak Definition
Two or more[1] laboratory-confirmed[2] COVID-19 cases among students or staff with onsets[3] within a 14-day period, who are epidemiologically linked[4], do not share a household[5], and were not identified as close contacts[6] of each other in another setting during standard case investigation or contact tracing.

Footnotes:

1 Health departments may consider a higher threshold for defining an outbreak if there is a high case rate in the community (community transmission).

2 Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification detection test.

3 Use symptom onset date whenever available. If symptom onset date is unknown or if a case is asymptomatic, use specimen collection date for the first specimen that tested positive.

4 Health departments should verify to the best extent possible that cases were present in the same setting during the same time period (e.g., same classroom, school event, school-based extracurricular activity, school transportation) within 14 days prior to onset date (if symptomatic) or specimen collection date for the first specimen that tested positive (if asymptomatic or onset date is unknown) and that there is no other more likely source of exposure (e.g., household or close contact to a confirmed case outside of educational setting).

5 May not apply to investigations in educational, residential settings (e.g., boarding school, dormitories), where cases within shared dwellings may be included.

6 Close contact is defined as being within 6 feet for at least 15 minutes. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact. For updated definition of a close contact, please refer to CDC Contact Tracing Plan Appendices website at https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/appendix.html#contact

Outbreak-Associated Cases
Confirmed and probable secondary cases among students or staff in the educational setting should be classified as outbreak-associated. Individual cases outside of the educational setting that resulted from secondary transmission from an outbreak-associated case (e.g., a family member of a student or staff) should not be included in the outbreak case count.

Outbreak Resolution
No new confirmed or probable COVID-19 cases identified after 28 days (two incubation periods) have passed since the last known exposure from a case. If last known exposure cannot be determined, the onset date or specimen collection date (whichever is later) of the last identified case should be used.

3. Acute Care Settings and Long-term Care Facilities

FOR ACUTE CARE HOSPITALS AND CRITICAL ACCESS HOSPITALS

Threshold for Additional Investigation by Facility

- ≥1 case of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition;
- ≥1 case of confirmed COVID-19 in Healthcare Personnel (HCP)[1]

Threshold for Reporting to Public Health

- ≥2 cases of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition, with epi-linkage[2];
- ≥2 cases of confirmed COVID-19 in HCP[1] with epi-linkage[3] who do not share a household and are not listed as a close contact of each other outside of the workplace during standard case investigation or contact tracing.

Outbreak Definition

- ≥2 cases of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition, with epi-linkage[2];
- ≥2 cases of confirmed COVID-19 in HCP[1] with epi-linkage[3] who do not share a household and are not listed as a close contact of each other outside of the workplace during standard case investigation or contact tracing.

FOR LONG-TERM CARE FACILITIES (LTCF) AND LONG-TERM ACUTE CARE HOSPITALS (LTACH)

Threshold for Additional Investigation by Facility

- ≥1 probable[4] or confirmed COVID-19 case in a resident or HCP[1];
- ≥3 cases of acute illness compatible with COVID-19 in residents with onset within a 72h period

Threshold for Reporting to Public Health

- >1 probable or confirmed COVID-19 case in a resident or HCP[1];
- ≥3 cases of acute illness compatible with COVID-19 in residents with onset within a 72h period

Outbreak Definition

- ≥1 facility-acquired[5] COVID-19 case in a resident

Footnotes

1 ***Healthcare Personnel (HCP)*** *defined by CDC include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the healthcare facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel)*

2 ***Epi-linkage among patients*** *is defined as overlap on the same unit or ward or having the potential to have been cared for by common HCP within a 14-day time period of each other.*

3 ***Epi-linkage among HCP*** *is defined as having the potential to have been within 6 feet for 15 minutes or longer while working in the facility during the 14 days prior to prior to the onset of symptoms; for example, worked on the same unit during the same shift.*

4 ***Probable case*** *is defined as a person meeting clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for COVID-19; A person meeting presumptive laboratory evidence; A person meeting vital records criteria with no confirmatory laboratory testing performed for COVID-19 3.*

5 ***Facility-acquired*** *COVID-19 infection in a long-term care resident is defined as a confirmed diagnosis 14 days or more after admission for a non-COVID condition, without an exposure during the previous 14 days to another setting where an outbreak was known or suspected to be occurring.*

Reporting to Local Public Health

In addition to individual cases of COVID-19, clusters of confirmed or suspected COVID cases must be reported to the LHD. LHD authorities should investigate to determine if the cases meet the definition of an outbreak.

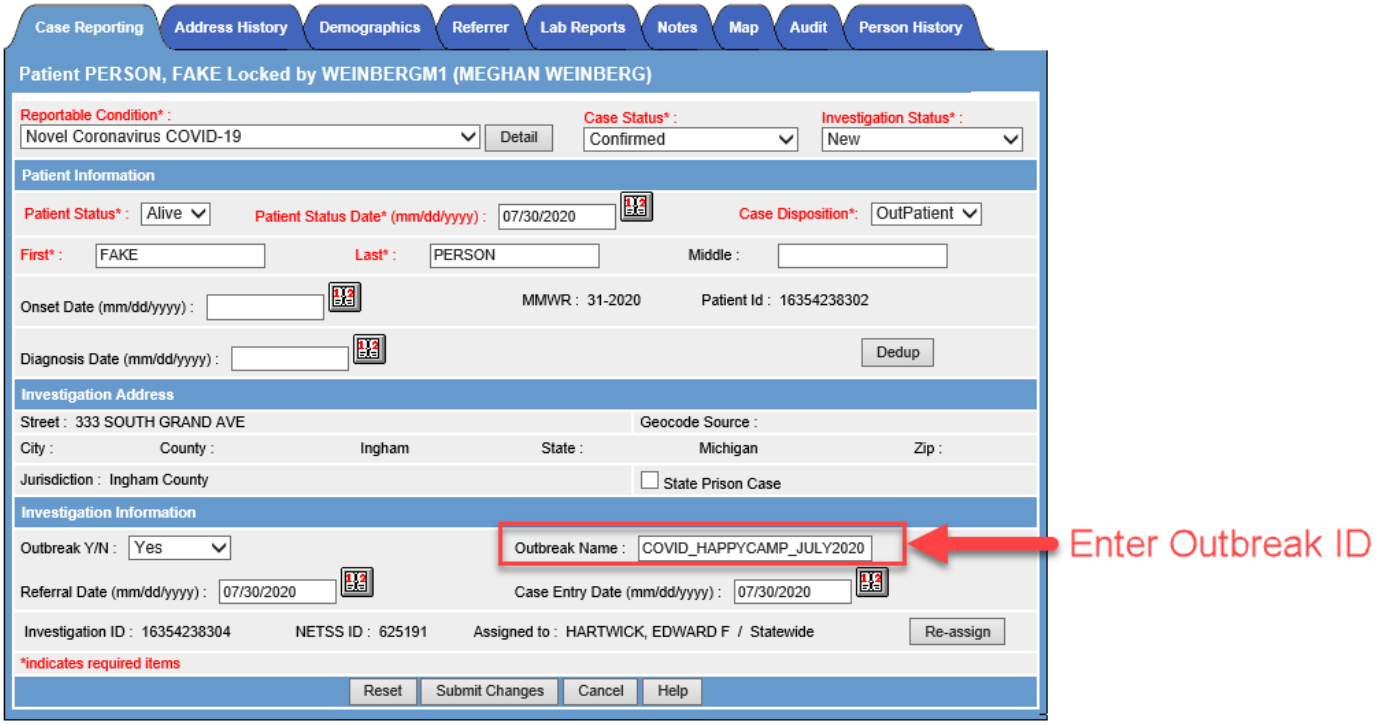
Outbreak Investigations

Local Health Jurisdictions should follow their local policies and procedures regarding outbreak investigations. Additional guidance is available at:

- Centers for Disease Control and Prevention. Managing Investigations During an Outbreak https://www.cdc. gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/outbreaks.html
- CSTE COVID-19 Outbreak Investigation and Reporting https://preparedness.cste.org/?page_id=211

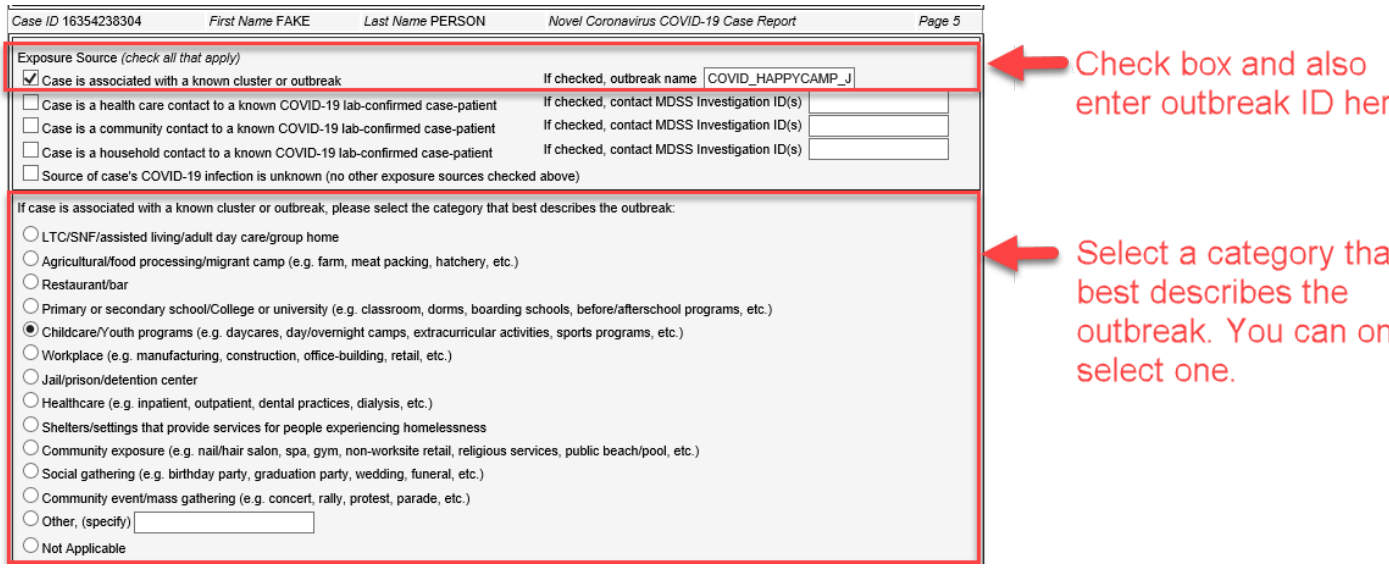
Local Public Health Reporting to MDHHS

- Report all COVID-19 outbreaks in MDSS as an **Aggregate Case Report** using the Novel Coronavirus COVID-19 condition. Important preliminary information includes: name, address, and type of facility, onset date of first ill, number of confirmed cases and total number ill among all residents, total number of residents, number of confirmed cases and total number ill among all employees, total number of employees, and an outbreak name unique to that facility's cluster. Aggregate reports may be updated by LHDs as more information becomes available.
- In addition, all individual cases associated with the outbreak should be entered into MDSS. Please use the same outbreak name from the Aggregate Case Report Form to link cases with the outbreak report.



- Outbreak names can be added to individual cases in MDSS even if not yet considered an outbreak as they can help associate cases with specific settings or events. They can be modified or corrected later if necessary.
- Please assign outbreak names that are specific (e.g., include condition, location/event, month & year) to prevent overlap with other outbreak names.

- For colleges/universities:
  - Use a school outbreak name for student/staff not linked to sub-cluster (e.g., CollegeName)
  - Add the event/dorm/sorority/fraternity to link a sub-cluster and include the month/year the cluster was identified (e.g., CollegeName_SpruceHall_Aug2020)
- With the newer COVID-19 specific MDSS Case Report Form, MDHHS is no longer using generic outbreak names (e.g., WUHAN-19, COVID-19). If the case does not have an outbreak name, the outbreak name field can be left blank.
- Within each case's MDSS Case Report Form, please indicate that the case is associated with an outbreak and provide the outbreak name. Select a category that best describes the outbreak.
- Please notify your Regional Epidemiologist of outbreak investigations. They are able to provide technical expertise and investigation coordination support.



Secondary Cases

- Cases resulting from secondary transmission *within* the outbreak facility/school are considered outbreak cases (for e.g., cases resulting from secondary transmission to other students in school). Those cases should be included under the primary outbreak name.
- If there is secondary transmission to household contacts (or others) *outside* of the outbreak setting, the outbreak name can be modified (e.g., adding "HH," "Contact," or "Second" at the end of the outbreak name) to indicate that the case is a contact to an outbreak-associated case. However, these secondary cases should not be counted as outbreak cases.

For a Secondary Cases Outside of the Outbreak Setting:

Leave unchecked, reserve for primary cases

Check the appropriate contact (health care, community, household)

Exposure Source *(check all that apply)*

- [ ] Case is associated with a known cluster or outbreak — If checked, outbreak name
- [ ] Case is a health care contact to a known COVID-19 lab-confirmed case-patient — If checked, contact MDSS Investigation ID(s)
- [ ] Case is a community contact to a known COVID-19 lab-confirmed case-patient — If checked, contact MDSS Investigation ID(s)
- [x] Case is a household contact to a known COVID-19 lab-confirmed case-patient — If checked, contact MDSS Investigation ID(s) 12345678910
- [ ] Source of case's COVID-19 infection is unknown (no other exposure sources checked above)

The outbreak case they are a contact of.

If case is associated with a known cluster or outbreak, please select the category that best describes the outbreak:

- ○ LTC/SNF/assisted living/adult day care/group home
- ○ Agricultural/food processing/migrant camp (e.g. farm, meat packing, hatchery, etc.)
- ○ Restaurant/bar
- ○ Primary or secondary school/College or university (e.g. classroom, dorms, boarding schools, before/afterschool programs, etc.)
- ○ Childcare/Youth programs (e.g. daycares, day/overnight camps, extracurricular activities, sports programs, etc.)
- ○ Workplace (e.g. manufacturing, construction, office-building, retail, etc.)
- ○ Jail/prison/detention center
- ○ Healthcare (e.g. inpatient, outpatient, dental practices, dialysis, etc.)
- ○ Shelters/settings that provide services for people experiencing homelessness
- ○ Community exposure (e.g. nail/hair salon, spa, gym, non-worksite retail, religious services, public beach/pool, etc.)
- ○ Social gathering (e.g. birthday party, graduation party, wedding, funeral, etc.)
- ○ Community event/mass gathering (e.g. concert, rally, protest, parade, etc.)
- ○ Other, (specify)
- ◉ Not Applicable

Where Outbreaks Are Counted

- Outbreaks are counted in the county where the exposure took place (e.g., worksite, restaurant, childcare, community gathering, college/university location, school).
- Individual outbreak cases are counted in the jurisdiction where the case resides.

Referring Outbreak Associated Cases to Other Jurisdictions

General

Cases may be associated with outbreaks or events that occurred in another jurisdiction. Please complete the initial interview with the case including contact tracing. If the interviewing LHD is aware of the outbreak ID associated with the out of jurisdiction event, please add it to the MDSS record. If the LHD is not aware of an outbreak ID, they can contact their Regional Epidemiologist. Regional Epidemiologists can also assist with notifying jurisdictions about the location of the outbreak or event.

College or University Associated Cases: Home address and School address

The LHD that first receives the case referral shall complete the initial interview with case including contact tracing. If interviewed by the Home LHD, inform case that they may be contacted by the School LHD for follow-up questions. After completion of interview, update case record to reflect school address, set the investigation status to New, and add the outbreak ID (if known). In some instances, the student may leave school and return home for their isolation period. The Home LHD can manage the case in their jurisdiction but should still enter the school's outbreak ID for counting purposes. Decisions about case addresses are at the LHDs discretion.

Cases Associated with Gatherings

With reduced restrictions around gatherings and activities related to businesses, schools, and churches, MDHHS is actively reviewing the potential impacts of the return to participation in gatherings to assess if there is any association with disease transmission. This assessment can contribute to recommendations and guidance for safe practices. LHDs should include an evaluation of participation in community events or large gatherings during case interviews (using the two-week timeframe before symptom onset). Should the respondent indicate participation in any of these community events, please record event information (location, event name, date) in the specific questions in the Epidemiologic Section of the Case Report Form, as shown below. If there is more information such as the event host or coordinator contact information, please add this to the Other Information section of the CRF to assist with identifying contacts. If the guest list cannot be provided by the event coordinator, consideration can be given to utilizing a press release to aid with case and contact finding efforts.

Attended a community event or mass gathering (e.g. concert, rally, protest, parade, etc.) ○ Yes ◉ No ○ Unknown		
If yes, specify		
Community event or mass gathering type	Location	Date *(mm/dd/yyyy)*
Other sites where patient may have been exposed (specify)		

Recovery

Within the MDSS Case Report Form, there is a field to indicate if the patient has recovered. This may be completed if the patient feels recovered at the time of interview. If the patient has not recovered by the time of the interview, there is no expectation that investigators will need to track the case over time to determine recovery date. This field is optional and is not currently contributing to the cumulative total of recovered COVID-19 cases that is posted to the Michigan COVID-19 website. Rather, this information is gathered by reviewing vital records statistics to identify any laboratory confirmed COVID-19 cases who are 30 days out from their onset of illness. Recovered is defined as the number of persons with a confirmed COVID-19 diagnosis who are alive 30 days post-onset (or referral date if onset is not available). If a person dies from a COVID-related cause >30 days from onset/referral, they are removed from the number of persons recovered.

Receiving a Case of COVID-19

CDC developed Interim Guidance on Developing a COVID-19 Case Investigation & Contact Tracing Plan. The guidance includes steps for investigating cases, conducting contact tracing, and investigating outbreaks: https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/overview.html

On August 27, 2020 Governor Whitmer issued Executive Order 2020-172 to protect workers who are recommended to isolate or quarantine due to COVID-19. The Order protects workers from discharge, discipline, and/or retaliation by their employer for choosing to stay home as recommended by local public health. Workers who are exempted from this order are from the following groups: health care professionals, healthcare facilities, first responders, child protective service, childcare institutions, adult foster cares, and correctional facilities.

1. Case referrals may come from health care providers, LHDs, laboratories, Quarantine Stations, or from contact tracing systems (such as OMS or TraceForce).
2. Confirmed and probable cases should be advised to self-isolate immediately.
3. Interviews with cases should be attempted within 24 hours of case referral.
4. Identify close contacts. A close contact is defined by CDC as:
    - An individual who has had close contact (<6 feet)** for ≥15 minutes *** to:
        - a person with COVID-19 who has symptoms (in the period from 2 days before symptom onset until they meet criteria for discontinuing home isolation; can be laboratory-confirmed or clinically compatible illness OR to
        - a person who has tested positive for COVID-19 (laboratory confirmed) but has not had any symptoms (in the 2 days before the date of specimen collection until they meet criteria for discontinuing home isolation)
        - **NOTE:** this is irrespective of whether the person with COVID-19 or the contact was wearing a mask or whether the contact was wearing respiratory personal protective equipment (PPE).

    ** Data to inform the definition of close contact are limited. Factors to consider when defining close contact include proximity, the duration of exposure (e.g., longer exposure time likely increases exposure risk), and whether the exposure was to a person with symptoms (e.g., coughing likely increases exposure risk). While research indicates masks may help those who are infected from spreading the infection, there is less information regarding whether masks offer any protection for a contact exposed to a symptomatic or asymptomatic patient. Therefore, the determination of close contact should be made irrespective of whether the person with COVID-19 or the contact was wearing a mask. Because the general public has not received training on proper selection and use of respiratory PPE, it cannot be certain whether respiratory PPE worn during contact with an individual with COVID-19 infection protected them from exposure. Therefore, as a conservative approach, the determination of close contact should generally be made irrespective of whether the contact was wearing respiratory PPE, which is recommended for health care personnel and other trained users, or a mask recommended for the general public.

***Data are insufficient to precisely define the duration of time that constitutes a prolonged exposure. Recommendations vary on the length of time of exposure, but 15 minutes of close exposure can be used as an operational definition. Brief interactions are less likely to result in transmission; however, symptoms and the type of interaction (e.g., did the infected person cough directly into the face of the exposed individual) remain important. NOTE: MDHHS interprets 15 minutes of close exposure as cumulative, not consecutive.

5. Close contacts should:
    a. Stay home until 14 days after last exposure and maintain social distance (at least 6 feet) from others at all times
    b. Self-monitor for symptoms – check temperature twice a day, watch for fever*, cough, or shortness of breath, follow CDC guidance if symptoms develop
    c. Avoid contact with people at higher risk for severe illness (unless they live in the same home and had same exposure)
    d. Any symptomatic contacts should be entered into MDSS as a probable case. If the contact resides in a different jurisdiction, please still add the case with any relevant notes, and let the receiving LHD know.
    e. To encourage compliance of self-isolation or self-quarantine in a home setting, LHDs should try to establish a rapport with travelers. Inform cases and contacts of cases of resources that can support them (e.g., grocery delivery services, exclusion letters for school/work). Contacts that are quarantined may not travel via mass transit (e.g., traveling by public air, train, bus). More information and resources can be found at: https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine.html

    *For the purpose of this guidance, fever is defined as subjective fever (feeling feverish) or a measured temperature of 100.4°F (38°C) or higher. Note that fever may be intermittent or may not be present in some people, such as those who are elderly, immunocompromised, or taking certain fever-reducing medications (e.g., nonsteroidal anti-inflammatory drugs [NSAIDS]).

6. Determine when cases meet criteria for discontinuation of transmission-based precautions or home isolation. Note: CDC guidance was updated on July 20. For persons previously diagnosed with COVID-19 who remain asymptomatic after recovery, retesting is not recommended within 3 months after the date of symptom onset (or specimen collection date if asymptomatic) for the initial COVID-19 infection.
    - Those in **HOME ISOLATION (symptomatic or asymptomatic)**: https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html
    - Those **HOSPITALIZED**: https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-hospitalized-patients.html
    - Those who are **IMMUNOCOMPROMISED**: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ending-isolation.html

Additional guidance for public health management of specific cases may be found at:

- Guidance on Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with COVID-19: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html
- For those considered by CDC to be Critical Infrastructure Workers, please see: https://www.cisa.gov/publication/guidance-essential-critical-infrastructure-workforce
- Guidance on Implementing Safety Practices for Critical Infrastructure Workers Who May Have Had Exposure to a Person with Suspected or Confirmed COVID-19: https://www.cdc.gov/coronavirus/2019-ncov/community/critical-workers/implementing-safety-practices.html
- Guidance on Public Health Management of Persons (other than Health Workers or other Critical Infrastructure Workers) with Potential COVID-19 Exposures (community-related): https://www.cdc.gov/coronavirus/2019-ncov/php/public-health-recommendations.html

Case Investigation and Contact Tracing Metrics

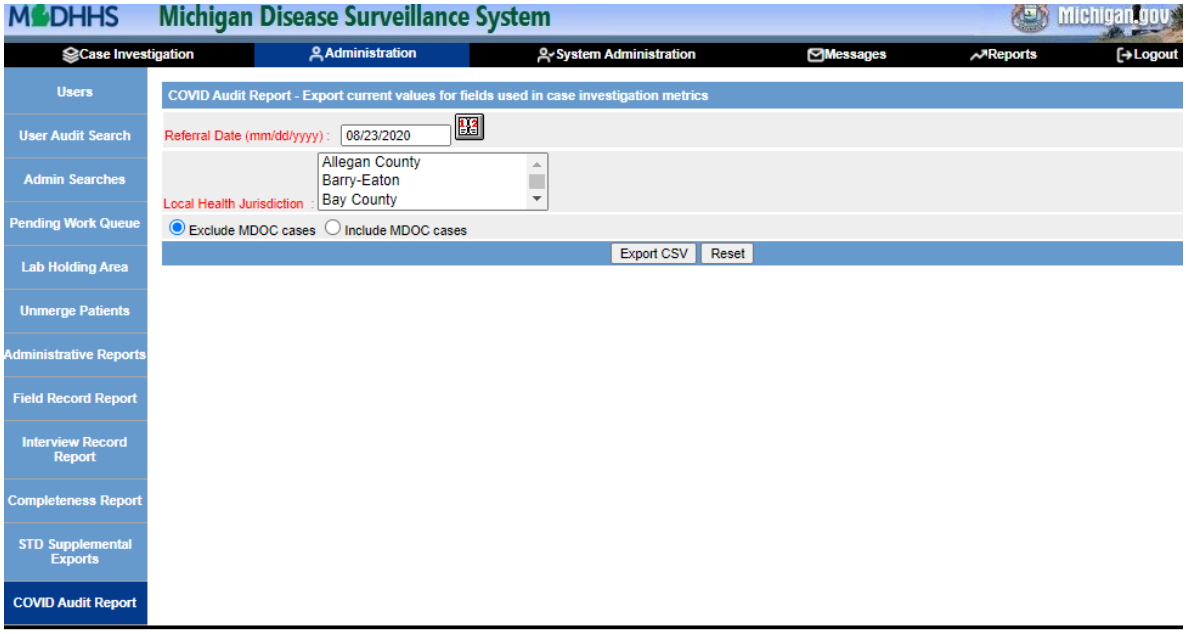
LHDs interview cases and obtain available medical records as soon as feasible, considering available resources. On May 29, Dr. Joneigh Khaldun issued a memorandum introducing the "Test. Trace. Protect" strategy for local health departments. A series of targets on initiation and completion of COVID-19 case investigation and contact tracing was included in that memorandum. Additional guidance was released in a memorandum on July 28 which indicates that LHDs should have established cross-jurisdictional referral processes and that MDHHS developed a set of recommendations for contact monitoring best practices. Michigan-specific and national resources for case investigation metrics can be found under "Case Investigation & Contact Tracing" on the www.michigan.gov/cdinfo website. Resources:

- May 29 Case Investigation and Contact Tracing Targets Memo
- July 28 Case Investigation and Contact Tracing Memo
- COVID Case Investigation Metrics Webinar PowerPoint

Information on onset date, race, ethnicity, workplace, occupation, association (and type) with congregate setting, hospitalization status, and if the patient has died is often missing on the MDSS Case Report Form, but critical to these investigations. Please see this tip sheet for the COVID-19 Case Report Form: https://www.michigan.gov/documents/mdhhs/COVID19MDSSTipSheet_696209_7.pdf

Some LHDs have opted to use TraceForce for contact tracing. For additional information regarding that system, please go to www.michigan.gov/cdinfo

On August 20, 2020 updates were made to MDSS to allow for LHDs to run their own metric reports directly from MDSS. LHD Users with the Administrator role will be able to access the COVID Audit Report from the Administration Tab in MDSS. To run the Audit Report, the user selects the date of referral for review, their local health jurisdiction and select Export CSV. A CSV file with metric data for the selected referral date will be exported from MDSS. This can then be used to create local metric reports.



Receiving a Referral for a Traveler

Public Health Management of Persons with Potential COVID-19 Exposures: Travel-Associated

There is ongoing transmission of novel coronavirus within the US and in destinations throughout the world. Individuals who have traveled should take the following precautions:

- Stay at least 6 feet from other people who are not from your household.
- Wear a mask to keep your nose and mouth covered when you are outside of your home.
- Wash your hands often or use hand sanitizer.
- Self-monitor for symptoms and take your temperature if you feel sick.

If a traveler participated in higher risk activities (being in an area with high levels of COVID-19 spread, going to a social or mass gathering, being in a crowd, traveling on a cruise ship or river boat) or thinks they may have been exposed before or during the trip, it is recommended that individuals **also** take the following extra precautions:

- Stay home as much as possible
    - The individual should be advised to self-quarantine*, limit social interaction, and only leave the house for essential needs; Strategies to increase self-quarantine compliance include rapport building and educating on available resources.
- Avoid being around people at higher risk for severe illness from COVID-19.
- Consider getting testing for COVID-19. If an individual gets sick with symptoms of COVID-19, they should stay home and avoid contact with others until discontinuation of home isolation criteria are met.

* This general guidance for self-quarantine does not limit the authority of the LHD to order quarantine for individuals that the LHD deems necessary, based on the exposure risk to the individual, the risk that individual poses to others, and/or the perceived compliance of the individual.

Areas with high levels of COVID-19 spread may be found at: https://www.cdc.gov/coronavirus/2019-ncov/travelers/map-and-travel-notices.html

CDC provides Interim Guidance for Airlines and Airline Crew and Infection Control Guidelines for Cabin Crew

Website Resources

Johns Hopkins Tracker: https://coronavirus.jhu.edu/map.html

MDHHS Guidance: www.michigan.gov/coronavirus & www.michigan.gov/CDInfo

CDC Guidance: https://www.cdc.gov/coronavirus/2019-ncov/index.html

COVID-19 Monitoring Travelers and Contacts Using the MDHHS Outbreak Monitoring System (OMS)

MDHHS is using the Outbreak Management System (OMS) to maintain monitoring data for the novel coronavirus (COVID-19) outbreak. Monitoring will occur in two instances:

Travel Monitoring

When MDHHS receives a referral for an individual that warrants health monitoring, MDHHS will enter the traveler's information into OMS under the outbreak name 2019-NCOV-2020-TRAVELERS (2019-NCOV-2020-STATEWIDE prior to April 6, 2020). Ideally, Local Health Jurisdictions enter monitoring data into OMS within one business day of each monitoring contact/outreach. For additional monitoring guidance or OMS assistance, please contact your Regional Epidemiologist.

Contact Monitoring

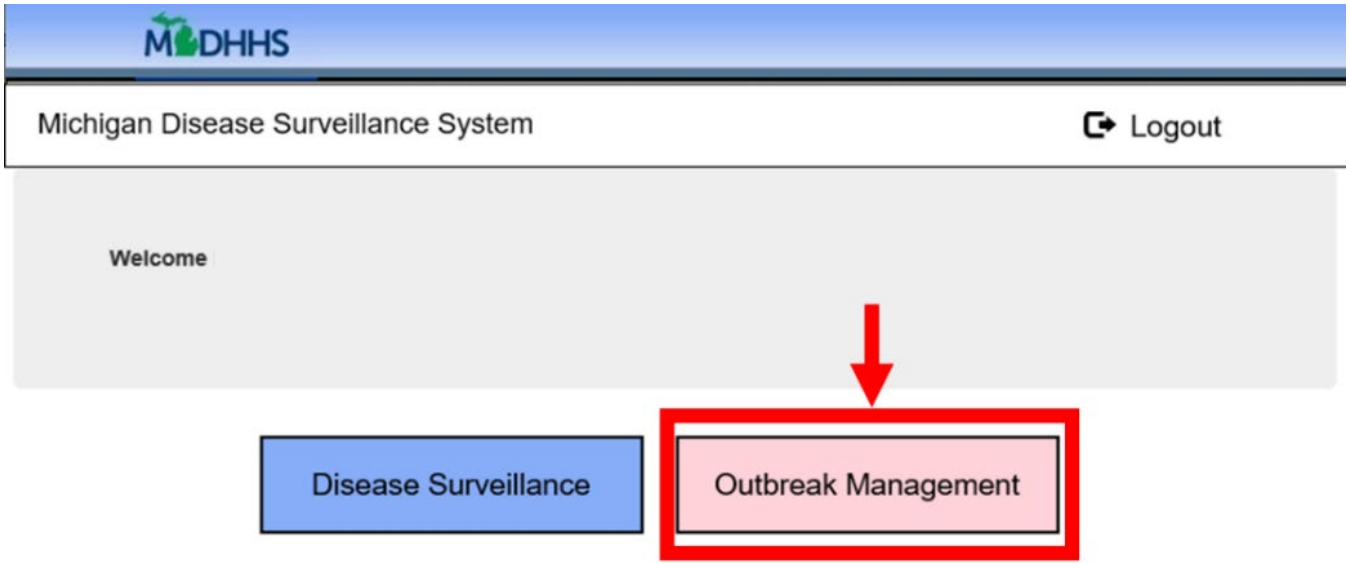
When a confirmed or probable case is identified, all close contacts to that case should be asked to self-quarantine and to be monitored for 14 days from last exposure, as resources allow. The Local Health Jurisdiction will be responsible for identifying the case's close contacts, entering those contacts and monitoring data in OMS under the original outbreak name of "2019-NCOV-2020-STATEWIDE". Household contacts of a confirmed case may need additional assessment regarding monitoring and movement. Ideally, monitoring should be done at least once daily by the Local Health Jurisdiction, with the contact/outreach entered into OMS, but this is dependent on local resources. For OMS assistance, please contact your Regional Epidemiologist.

High Risk Contact Monitoring

For local health departments participating with the MDHHS Volunteer Contact Tracing Program (TraceForce), close contacts of a confirmed or probable case that live/work in a High Risk setting will be added to TraceForce; however, the MDHHS volunteers will not be doing the follow-up. These high-risk contacts will need to be contacted and monitored by Local Health Department staff. These high-risk contacts will also be put in the OMS outbreak named "COVID19-2020 VULNERABLE POPULATION." Local Health Departments not participating in TraceForce will need to check this OMS outbreak routinely to determine if contacts from their jurisdiction have been added.

How to Access OMS

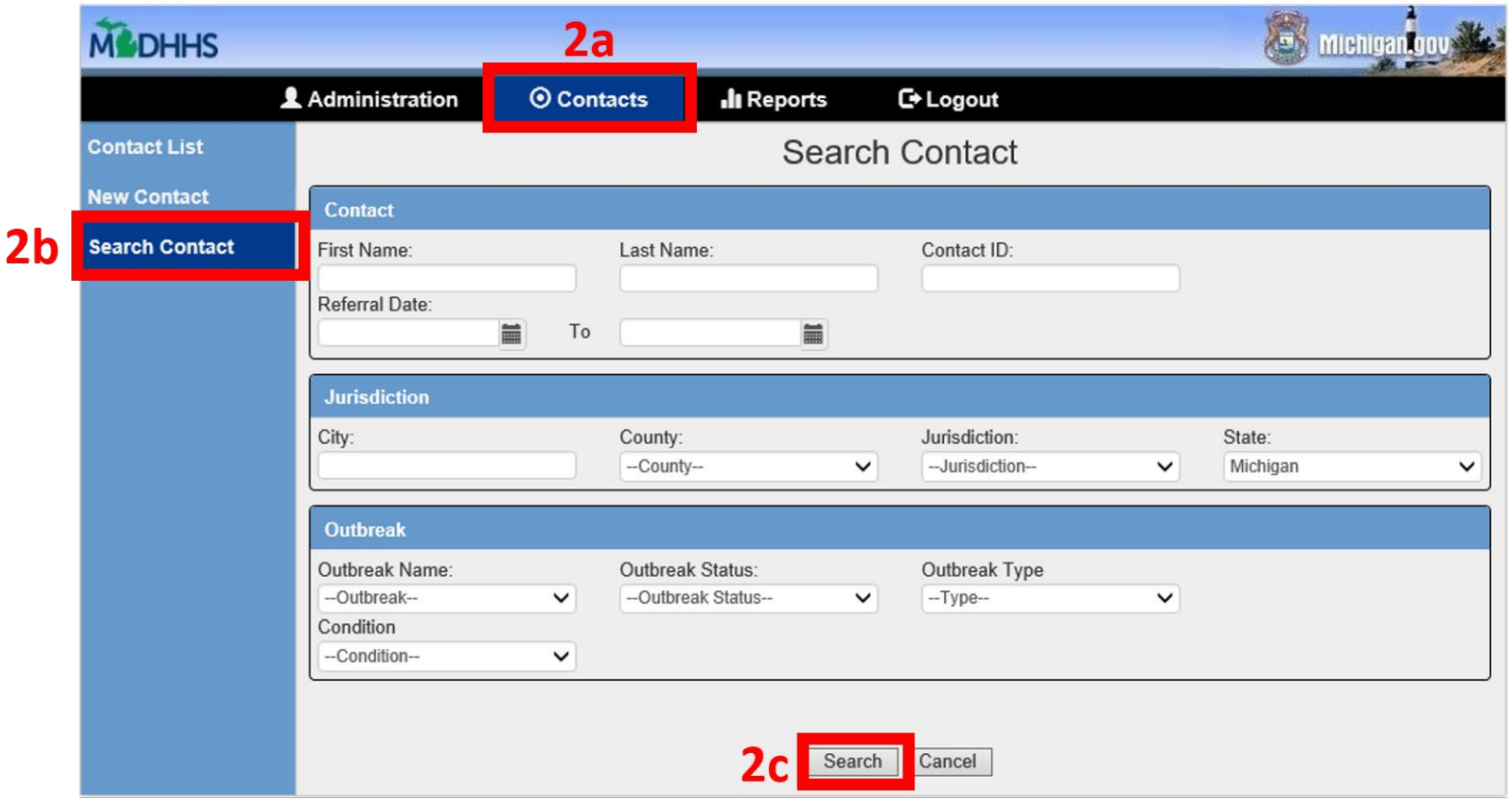
1. Log into MiLogin and select Michigan Disease Surveillance System.
2. Select 'Outbreak Management'. If you do not see that button, contact your Regional Epidemiologist for access.



How to Search for Contacts

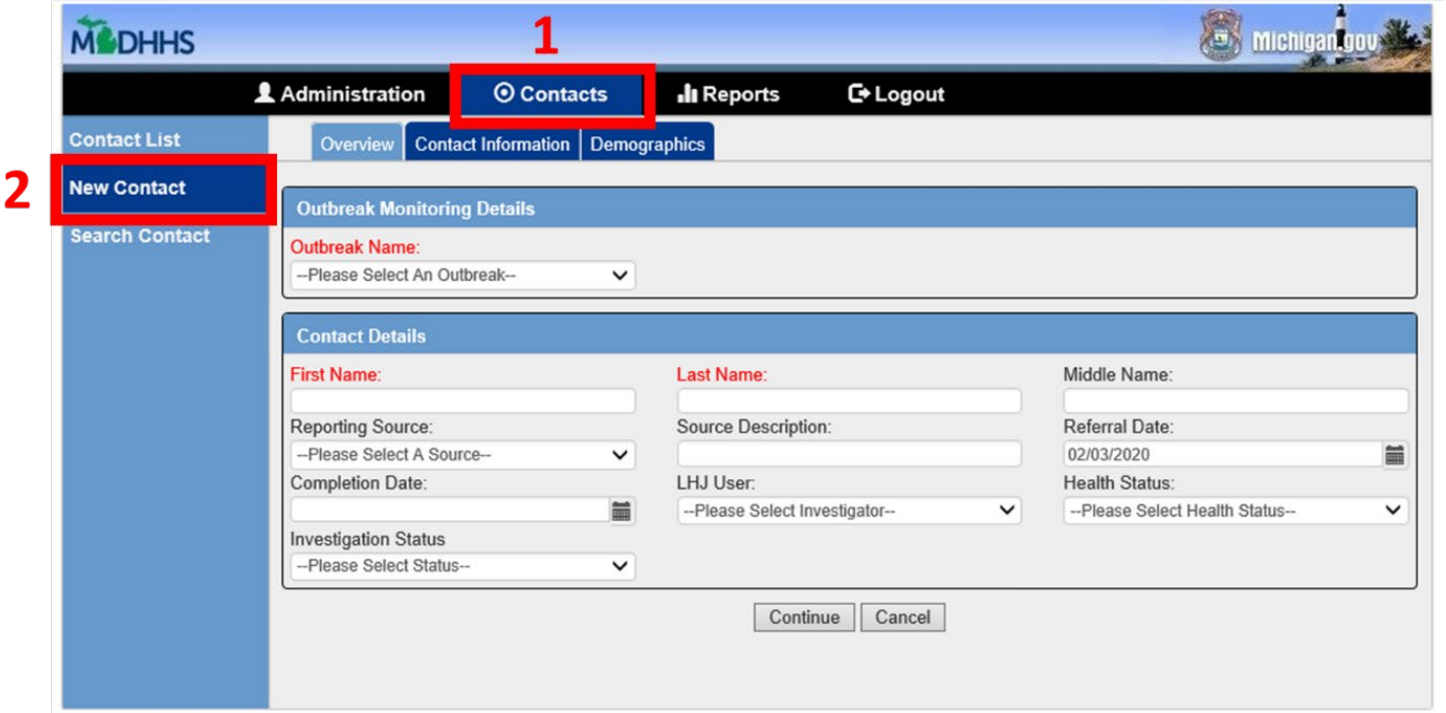
1. To find all outbreak-associated contacts within a jurisdiction:
    a. Click on Contacts Tab (top menu). Some users will be on the Contacts Tab upon accessing OMS.
    b. Click on Contact List (left menu).
    c. Under Filter By, choose the Investigation Jurisdiction and the Outbreak Name and click Filter.
        i. Outbreak Name for Travelers before April 6, 2020 and Contacts of Cases: 2019-NCOV-2020-STATEWIDE
        ii. Outbreak Name for Travelers after April 6, 2020: 2019-NCOV-2020-TRAVELERS

2. To find a single outbreak-associated contact
    a. Click on the Contacts Tab (top menu). Some users will be on the Contacts Tab upon accessing OMS.
    b. Click on Search Contact (left menu).
    c. Search by name and/or contact ID.



How to Enter a New Contact (if the person is not already in the system)

1. Click on the Contacts Tab (top menu). Some users will be on the Contacts Tab upon accessing OMS.
2. Click on New Contact (left menu).



3. Enter the contact data. Select the outbreak name. Required fields are highlighted red. Note: this is just the initial contact entry page; you will not be able to enter monitoring data at this point.
4. Click 'submit' to create the contact.
5. After submitting the contact, return to the list of contacts. See above, "How To Search for a Contact" to find the newly entered contact in order to enter monitoring data.

Note: for entry of multiple contacts, there is an option to bulk upload a contact list from an excel file into OMS. Contact your Regional Epidemiologist for assistance.

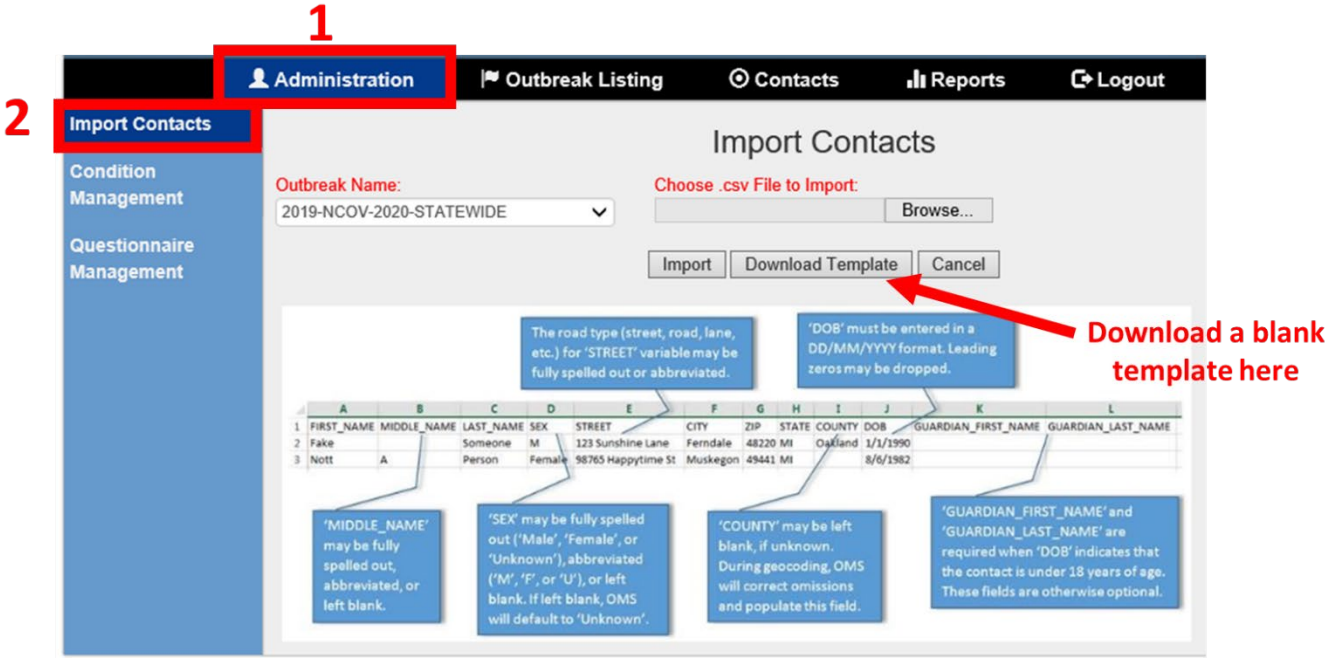
Tips of Out-of-Jurisdiction contacts in OMS

- In the Contact's Overview tab, leave the 'LHJ User' unassigned. In OMS, a contact may show up in TWO jurisdictions at the same time. If a contact's address is in one jurisdiction and the LHJ user assigned to the case is in another jurisdiction, the contact will appear in both jurisdictions' Contact Lists. If you'd like the contact to be in your list while you work on it, you can mark yourself as the LHJ User. To remove it from your jurisdiction's contact list, re-assign the LHJ user to a user in the jurisdiction of residence.
- In the Notes tab, please enter a note with the following information:
    a. "Contact of confirmed {insert county name} case {insert MDSS Investigation ID}"
    b. Date of last known exposure
    c. If you have already contacted the individual, please note that and include any relevant notes (e.g., are they symptomatic? Are they a high-risk occupation like healthcare worker?)
    d. Your name and contact info (phone and/or email). Many health departments are recruiting additional staff to help with data entry and therefore we might not recognize the name or jurisdiction of who entered the contact. Adding your contact info in the notes will help trace the referral back in case of questions.
- Notify the appropriate jurisdiction(s) (e.g., phone or email with contact IDs).
    a. A listing of counties participating in OMS/Traceforce/Homegrown solutions for contact monitoring can be found here, https://www.michigan.gov/documents/mdhhs/LHD_Contact_Tracing_Platforms_8.1.2020_698046_7.pdf. Your Regional Epidemiologist can assist with making referrals to other jurisdictions.
- If the contact is out-of-state, please notify your Regional Epidemiologist with the contact ID(s).

How to Import Multiple Contacts at Once

This function is only available to Admins and it will only import the basic demographics for contacts (e.g., not monitoring data points).

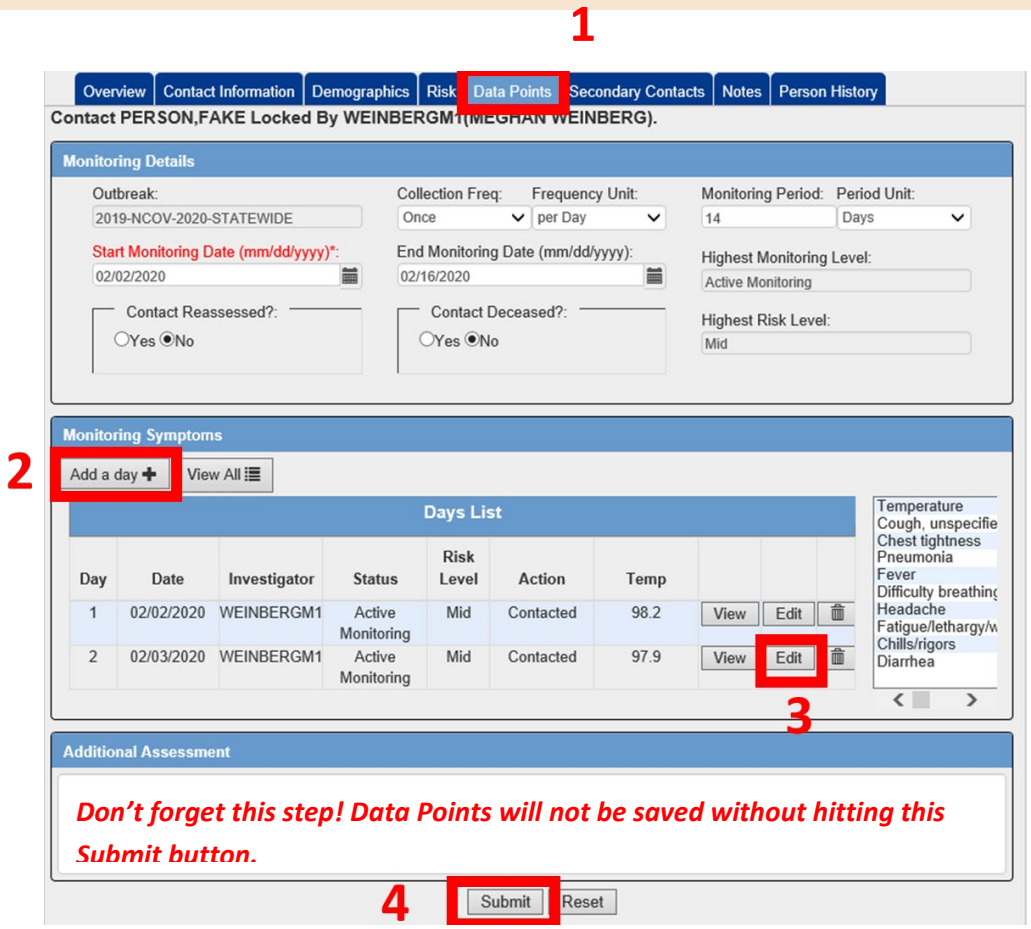
1. Click on the Administration tab along the top. If you don't see that tab, you do not have Admin rights.
2. Click on 'Import Contacts'.
3. Click on 'Download Template'.
4. Open the downloaded .csv file and enter data.
    a. Only those variables listed in the template can be uploaded in bulk.
    b. Do not enter additional columns of data; the file will not upload if you do.
5. Save the file as .csv. If you save the file as .xls or .xlsx, it will not work.
6. When you are ready to import, go back to the Import contacts tab, see steps outlined in the screen shot below.
7. Choose Outbreak Name.
8. Click browse and find your .csv file to upload.
9. Click Import once (there might be a delay, please do not click multiple times!).
10. If someone by that name already exists in OMS, the system will ask you if you would like to merge them or create a new contact (similar to MDSS dedup).



How to Add Monitoring Data to a Contact

Click "Edit" on the contact.

1. Within the contact, click on the 'Data Points' tab.
2. Click "Add a day" to add a monitoring line to the list.
3. Click 'Edit' next to the timepoint. A pop-up box will appear.
   a. Date: enter the date of contact
   b. Monitoring Status: Active Monitoring
   c. Risk Level: Choose the appropriate option; For those at "medium risk", please use "mid" risk level.
   d. Action: Choose the appropriate option
   e. OMS Investigator: select the person who contacted the client
   f. Document the responses; contact your regional epidemiologist if a contact has not been reachable in greater than 24 hours
   g. Click Save Changes in the pop-up box
4. Click Submit to save.



How to Close Out a Contact

1. Click on Overview tab in the contact.
   a. For individuals that have completed their monitoring, enter Completion Date and change Monitoring Status to Complete.
   b. For individuals that transfer to a different state/country, enter Completion Date and change Monitoring Status to Left Jurisdiction.
   c. For individuals that cannot be reached, enter Completion Date and change Monitoring Status to Loss to Follow Up.
   d. For individuals that were incorrectly referred to Michigan OR individuals determined to have no or low risk of exposure, enter Completion Date and change Monitoring Status to Canceled.
2. Click Submit to save changes.

How to Grant OMS Access to a New User

FOR THE USER:

- New users who do not currently have MDSS access, must register for both MDSS and OMS. Registration instructions are available here.
- If the user has MDSS access, they do not need to register again for OMS. An MDSS admin can provide OMS access with their existing account.

FOR THE ADMIN:

1. Since the creation of the OMS inside of MDSS, user access and level assignment into that area had been controlled inside of the User control panel in MDSS. With the release of MDSS 6.2.6, a user control panel has been created in OMS where access level and jurisdiction assignments are set.
2. If the user is not found in OMS, first activate the user for OMS in MDSS. In User list (under Administration tab), navigate to the user you need to update. If you need to also assign MDSS access, select a Role (choose LHJ) and Job Function. If they don't need MDSS access, select 'No Access' in the Job Function dropdown.
3. Check the OMS Access box.
4. Check the Active box (if not already)
5. Hit Submit.

Case Investigation | Administration | System Administration | Messages | Reports | Logout

Users
User Audit Search
Admin Searches
Pending Work Queue
Lab Holding Area
Unmerge Patients
Administrative Reports
Field Record Report
Interview Record Report
Completeness Report
STD Supplemental Exports
COVID Audit Report

User Info
First: BETHANY G Last: REIMINK
Userid: REIMINKB

Role and Function
Roles: LHJ
Job Function: No Access

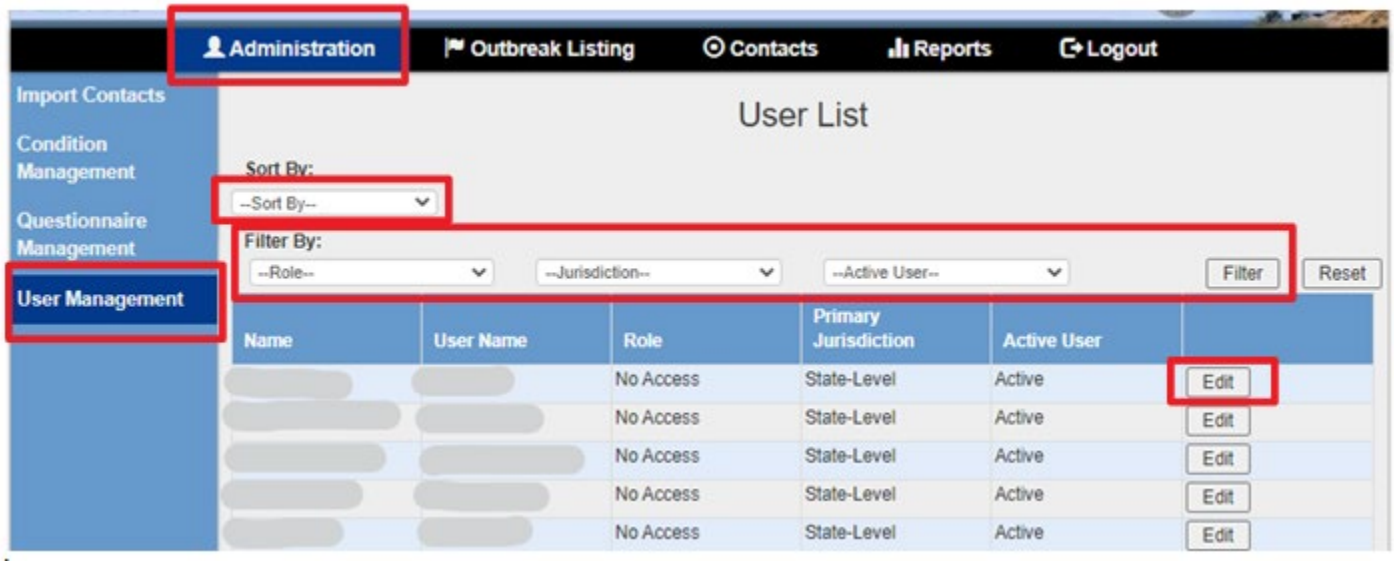
If the user doesn't need access to MDSS, choose "Reports Only" which will provide access to de-identified aggregate MDSS data only

Primary Settings
Program: All Plus Refugee
Jurisdiction: Kalamazoo County
Facility:

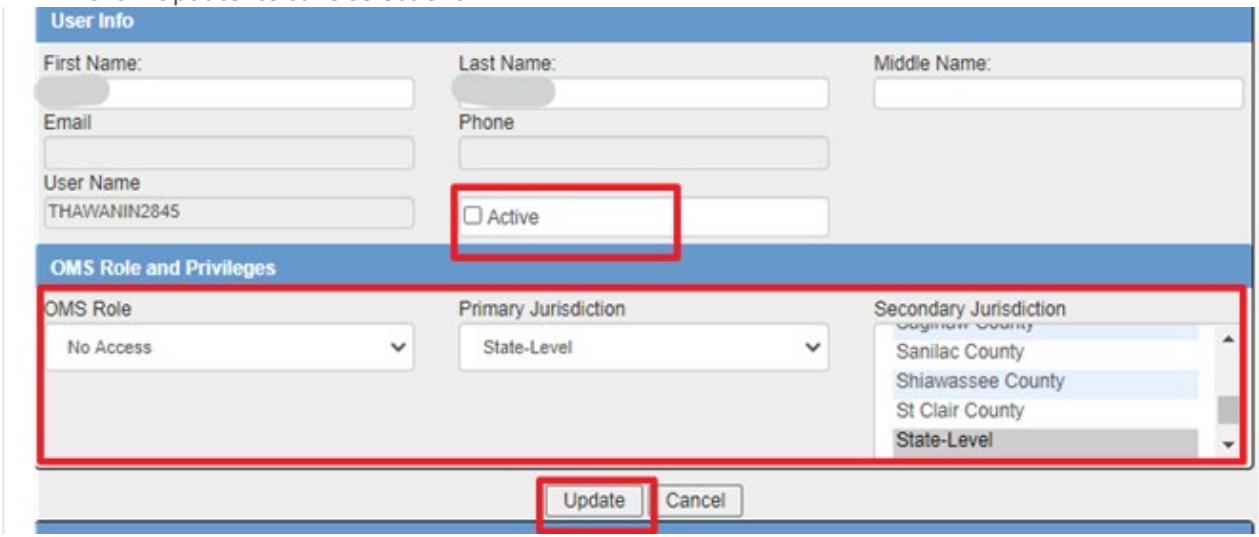
Additional Settings
Jurisdiction: Allegan County, Barry-Eaton, Bay County, Benzie-Leelanau
Facility: ACA_INTERNS, ALLEGAN GENERAL HOSP, ALPENA GENERAL HOSP, ASPIRUS GRANDVIEW
Automatic Case Assignment
MDOC Case Assignment
Receive Registration Emails
MDSS Access ☑ OMS Access ☑
MiCelerity Access ☑ SUP Access
DIS User DIS Region 1

User Status
Last Login 09-01-2020 13:25:26 Active ☑

1. Then, in OMS, click on the Administration tab along the top.
2. Click on the User Management tab on the left side and find the user. Note you can sort by name and/or filter by jurisdiction to find users easily.
3. Click 'Edit' next to the user you need to assign access to.



1. Check the 'Active' Box and assign appropriate OMS Role, Primary Jurisdiction, and Secondary Jurisdiction (if needed).
2. Click 'Update' to save selections.



OMS FAQS

Why is a contact still showing up in my contact list even though I entered an out-of-jurisdiction address?
If the LHJ user assigned to the case (on the contact's Overview tab) is in your jurisdiction, the contact will still appear on your list. It will also appear in the jurisdiction of the contact's residence. If you no longer want it to appear in your jurisdiction list, you must re-assign the LHJ user.

Is there an OMS audit trail like in MDSS? How can I tell who entered this contact?
There is currently no audit trail in OMS. You cannot tell who entered the contact into OMS, which is why we're recommending LHDs to add a note that states why the contact is being referred, date of last exposure, and a point of contact at the LHD.

Does OMS notify jurisdictions when a new contact has been entered into OMS for their jurisdiction?
No, OMS does not have any notifications or alerting functions. The only way to tell if a new contact has been entered is to review the contact list.

Can I remove completed contacts off our jurisdiction's contact list?
Unfortunately, not at this time.

How can I tell if an OMS contact is a traveler who was referred from CDC airport screening?
Starting on April 6, 2020, MDHHS created a separate OMS outbreak for new traveler referrals called "2019-NCOV-2020-TRAVELERS". Moving forward, traveler referrals received from CDC will be entered into this outbreak. LHDs may choose to re-locate previously monitored travelers from the "2019-NCOV-2020-STATEWIDE" outbreak in OMS, but this is optional.
Effective March 17, MDHHS enters the flight information (if known) in the Contact Information tab, under the Parent/Guardian information:

- Guardian First name field = flight number
- Guardian Last name field = country returning from and last day in country (if known)

This is a workaround so travelers can be bulk uploaded into OMS.

Will I be notified of new travelers who are referred from CDC airport screening?
No. Daily HAN notifications regarding traveler referrals to OMS will no longer be issued as of March 20. Please log into OMS daily to review any new travelers to your jurisdiction. Initial contact with the traveler by the LHJ should be attempted within 24 hours of the OMS referral, if possible.

How should I monitor travelers that are referred from CDC airport screening?
LHDs have options regarding monitoring travelers including continuing active daily monitoring as previously described or making initial contact to ensure they understand the self-quarantine. Some LHDs will redirect resources to case investigation and contact tracing.

Appendix 1: Sample language for letter to confirm completion of isolation/quarantine

Sample language for letter to confirm that a case or close contact to a case has completed home isolation/quarantine:

****

Date: [XX/XX/2020]

Re: COVID-19 case home isolation completed.

To whom it may concern,

This letter confirms that [CASE/CLOSE CONTACT] has completed home isolation/quarantine and monitoring for 2019 Novel Coronavirus (COVID-19) in coordination with the [LOCAL HEALTH DEPARTMENT] and the Michigan Department of Health and Human Services. There are no remaining restrictions on movement or activities.

Please remember there is ongoing community transmission of the virus. All persons are expected to follow the Governor's directions for social distancing and self-quarantine until told otherwise. Any symptoms of respiratory infection that develop from this point forward should be tested and treated appropriately by your doctor.

If the individual named above presents for medical care, there is no need for additional precautions or isolation measures beyond those typically used.

If you have any questions regarding the status of this individual, you may contact:

[LOCAL HEALTH DEPARTMENT] – [###/###-####]

or

Michigan Department of Health and Human Services – 517-335-8165

Sincerely,

[LHD MEDICAL DIRECTOR]

Appendix 2: Sample Death Reporting Form

Patient's Name _____

DOB _____ **Date of Death** _____

Gender: _____ Admit Date: _____

County of residence _____

City of residence: _____

Hospital / Org.: _____

Location of Death (ED? ICU?) _____

☐ COVID-19 POSITIVE test by:

☐ reporting hospital test date _____

☐ other *(name):* _____

on (test date) _____

or

☐ COVID-19 SUSPECTED

☐ test pending, test by:

☐ current hospital, test date _____

☐ other *(name):* _____

on *(test date):* _____

☐ COVID-19 contact or travel history

Comorbidities	Comments
☐ Diabetes	
☐ Hypertension	
☐ Heart Disease	
☐ Chronic Kidney Disease	
☐ COPD / Emphysema	
☐ Asthma	
☐ OSA or Sleep Apnea	
☐ Cancer	
☐ HIV	
☐ Transplant Recipient	
☐ Pregnancy	
☐ Other immune problem	
☐ Alcohol Abuse or drug abuse	

Date Reported _____

MRN _____

Patient came from *(mark all that apply)*

☐ Nursing Home

☐ Residential / Group Home

☐ Dormitory

☐ Shelter

☐ Prison

☐ Other Group setting:

Name of Residence / Building:

_____

Address _____

_____

Organization Contact name

_____

and role?_____

(_____) _____ -- _____

HEMS Operator *(Initials)* _____

Who can we call with questions?

Name _____

Role? _____

Phone: (_____) _____ -- _____

cell? office? Other? _____

Appendix 3: Sample MIHAN Message for College/University Outbreaks

The [Local Health Department name] continues to conduct disease investigations related to a large increase in lab-confirmed COVID-19 cases in [County name], associated with the students and/or staff at [College/University name].

As of [insert Date], ### cases have been identified. Individuals are presenting as both symptomatic and non-symptomatic. [Brief description of cases, e.g., associated with athletics, fraternity, dormitory]

As a reminder, we are asking that local health departments help us in the following ways in an effort to best track the cases and close contacts associated with [College/University]:

- Use the outbreak identifier "**COLLEGE MONTH2020**" when conducting disease investigations related to GVSU. For secondary cases or cases in close contacts, use the case identifier "**COLLEGE MONTH2020 SECONDARY".** This will enable us and our local/regional EPI to get a complete and accurate picture of potential transmission.
- If the case you are investigating is currently living at or near [College/University in City], **please enter the student's local address (i.e., their college residence)** in MDSS. Once you change the student's address, please also change the case status to "**NEW**" so that we at [Local Health Department] can find it.
- If the case you are investigating is not living at or near the [College/University] campus, please use the student's permanent address (where they are currently living), but still use the outbreak identifiers described above if the student has substantial exposure to any GVSU facility.

[Local Health Department] is working with [College/University] and our regional epidemiologist to be able to identify cases and close contacts related to this outbreak.

Whenever possible please limit calls to [Local Health Department] by conducting case transfers within MDSS. If you need to contact [Local Health Department], please email [LHD email] or call [LHD phone number]. Thank you for your assistance.

*** This alert is being sent to Roles and Organizations: Local Public Health EPC, Health Officer, Medical Director, LPH CD Role, MDHHS DEPR, Regional Epi, and Regional Coalitions ***

Appendix 4: Report of COVID-19 Positive Test Result to Public Health

Please fax completed form to the Local Health Department where the patient resides.
If interested in reporting results electronically, please visit www.michigan.gov/mdss

Patient Information

Full Name (First & Last): _____

Address: _____ City:_____ ZIP:_____

Phone (___)_____ Other Phone (___)_____ DOB ____/____/_____ Sex: ☐Male ☐Female ☐Unk

Check all that apply (at least one). Unknown may be selected if there is no feasible way to collect specific information.

Race: ☐ American Indian/Alaska Native ☐ Black/African American ☐ Asian ☐ Caucasian
☐ Hawaiian/Pacific Islander ☐ Other_____ ☐ Unk

Ethnicity: Hispanic/Latino: ☐Yes ☐No ☐Unk Arab/Middle Eastern: ☐Yes ☐No ☐Unk

Test Information

Type of Test (Choose one): ☐ PCR ☐ Rapid Molecular (i.e. Abbott ID Now) ☐ Rapid Antigen ☐ Antibody

Specimen Source: ☐ Nasal swab ☐ Nasopharyngeal (NP) swab ☐ Oropharyngeal swab ☐ Serum ☐ Other: _____

Test Ordered: _mm/dd/yyyy___ Specimen Collected: _mm/dd/yyyy___ Report Date: _mm/dd/yyyy___

Ordering Provider

Full Name (First & Last): _____ NPI: _____

Affiliation/Facility name: _____ Phone _(____)_____

Address: _____ City: _____ Zip: _____

Person Providing Referral

Full Name (First & Last): _____ Phone _(____)_____

Ask at Order Entry Questions

Is this the first test for COVID-19?	☐ Yes	☐ No	☐ Unk
Is the patient employed in a healthcare setting?	☐ Yes	☐ No	☐ Unk
Does the patient have symptoms related to COVID-19?	☐ Yes	☐ No	☐ Unk
If yes, what is the illness onset date? mm/dd/yyyy			
Did the infection require hospitalization?	☐ Yes	☐ No	☐ Unk
Was the patient admitted to intensive care unit (ICU) for COVID-19?	☐ Yes	☐ No	☐ Unk
Does the patient reside in a congregate care setting (including nursing homes, residential care for people with intellectual and developmental disabilities, psychiatric treatment facilities, group homes, board and care homes, homeless shelter, foster care or other setting)?	☐ Yes	☐ No	☐ Unk
If female, pregnancy status	☐ Not Pregnant	☐ Pregnant	☐ Unk

Clinical Presentation

Asymptomatic ☐ Yes ☐ No ☐ Unk

Fever (subjective) ☐ Yes ☐ No ☐ Unk	Fever (measured) ____°F	Chills ☐ Yes ☐ No ☐ Unk	Muscle aches ☐ Yes ☐ No ☐ Unk	Runny nose ☐ Yes ☐ No ☐ Unk
Sore throat ☐ Yes ☐ No ☐ Unk	Cough ☐ Yes ☐ No ☐ Unk	Shortness of breath ☐ Yes ☐ No ☐ Unk	Nausea or vomiting ☐ Yes ☐ No ☐ Unk	Headache ☐ Yes ☐ No ☐ Unk
Abdominal pain ☐ Yes ☐ No ☐ Unk	Diarrhea ☐ Yes ☐ No ☐ Unk	Fatigue ☐ Yes ☐ No ☐ Unk	Congestion ☐ Yes ☐ No ☐ Unk	Wheezing ☐ Yes ☐ No ☐ Unk
Chest pain ☐ Yes ☐ No ☐ Unk	Loss of taste or smell ☐ Yes ☐ No ☐ Unk	Pneumonia ☐ Yes ☐ No ☐ Unk	ARDS ☐ Yes ☐ No ☐ Unk	Stroke/VTE ☐ Yes ☐ No ☐ Unk