# Coronavirus Disease 2019 (COVID-19) Investigation Guideline

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Effective Date: 04/2020
Current version: 04/2022
Published Date: 04/05/2022
Last Updated: 04/05/2022
## REVISION HISTORY

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<tr>
<th>Date</th>
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<tr>
<td>04/23/2020</td>
<td>-</td>
<td>Released</td>
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<tr>
<td>05/01/2020</td>
<td>04/2020</td>
<td>Updated period of communicability, isolation restrictions to reflect 10 days. Updated Notification section. Updated “Associating Orphan Contacts”.</td>
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<tr>
<td>06/10/2020</td>
<td>05/2020</td>
<td>Updated Laboratory Analysis Section with guidance on serology and antigen testing. Updated Notification of Test Results to Public Health section. Updated Contact Investigation and Contact Management with removal of “Exposure Risk Levels” guidance. Updated case investigation, communicable period, and contact investigation to consider asymptomatic contacts. Added information on pediatric multi-system inflammatory syndrome. Removed Triage of Reports Flowchart - if needed consider <strong>CDC guidance</strong>. <strong>06/19/2020</strong> Updated communicable period to include <strong>CDC language “Persons whose symptoms have resolved and who were previously determined to no longer be infectious by the will not be considered infectious again...”</strong></td>
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<tr>
<td>07/31/2020</td>
<td>06/2020</td>
<td>Updated Laboratory Analysis section. Additional guidance for antigen tests and 95 kPa bags are only required if shipping by air, e.g. FedEx air. For vehicle transport, a zip-top biohazard bag is all that’s required. Added additional guidance under “Person Under Investigation” and updated the PUI definition. Quarantine section clarified that the critical infrastructure listing is a guideline.</td>
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<tr>
<td>09/04/2020</td>
<td>07/2020</td>
<td>Updated COVID Case Definitions. Updated Laboratory Analysis as related to new case definitions. Updated Susceptibility/ Resistance section of Disease Overview. Updated Restrictions, adding guidance on severely immunocompromised/ICU cases and exemption from quarantine based on presumed immunity. Updated broken links.</td>
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<tr>
<td>11/03/2020</td>
<td>09/2020</td>
<td>Updated Laboratory Analysis: molecular testing and specimen submission to KHEL. Revised Disease Overview Communicability and Susceptibility sections; Notifications to Public Health: routing to other jurisdictions and symptomatic contacts; Case Investigations: recurrent infections, clarification on infectious period; Contact Investigations: new definition of close contact; Quarantine: clarification on day 0 and rearrangement of paragraphs; and Managing Contacts: handle contacts with multiple exposures. Added Outbreak Definitions.</td>
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<tr>
<td>11/18/2020</td>
<td>10/2020</td>
<td>Updated Isolation and Quarantine Graphic. Updated Contact Management for promoted probable cases that test negative. Added section on Managing Reinfections in EPI TRAX. Updated notification section with reporting guidelines.</td>
</tr>
<tr>
<td>01/11/2021</td>
<td>12/2020</td>
<td>Disease Overview: resources for vaccine information added. Modified laboratory analysis section with antigen guidance and testing with shortened quarantine. Modifications to presumption of immunity after natural disease and added presumption of immunity after vaccine.</td>
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<tr>
<td>02/23/2021</td>
<td>01/2021</td>
<td>Updated Disease Overview and Quarantine Restrictions based on public health recommendation for vaccinated persons</td>
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<td>Date</td>
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<td>03/10/2021</td>
<td>02/2021</td>
<td>Case definitions: addition of definition vaccine breakthrough, MIS-C case definition and reporting links. Laboratory Analysis: information on requesting rapid antigen testing, LabXchange, and sequencing. Disease overview: information on variants; clarified that persons with presumed immunity who develop symptoms or test positive should be evaluated as potential cases. Changed period of presumed immunity from 90 days to 6 months in Disease Overview and Quarantine Exemptions. Shortened Quarantine: recommendation to use 14-day after exposure to more infectious SARs-CoV-2 variants.</td>
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<tr>
<td>04/20/2021</td>
<td>03/2021</td>
<td>Case definitions: removal of mention of CSTE statement for distinguishing new cases – no guidance has been provided; Laboratory Analysis: added description of WGS; added Figure 3 discussing assessments of potential reinfections and testing; Disease Overview: clarified “currently” asymptomatic persons previous positive retesting positive under communicable period; edited list for variants to agree with KHEL statement on variant surveillance. Case Investigation: Additional clarification with potential reinfections.</td>
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<td>05/28/2021</td>
<td>04/2021</td>
<td>No time limit of presumed immunity for fully vaccinated person. Updated: Disease Overview – Susceptibility and Resistance and Quarantine Restrictions - Quarantine exemption based on presumed immunity after COVID-19 vaccine. Laboratory Analysis: Additional information on rapid antigen tests provided by KHEL (pg.6) Links to communication toolkits placed in Additional Communications...Public Communications (pg.12)</td>
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<td>08/02/2021</td>
<td>05/28/2021</td>
<td>Updated Case Definitions section including surveillance case definition for reinfection cases to be counted as new cases and included criteria for self-administered at home tests to be “suspect cases”. Updated Figure 3 under Laboratory Analysis on evaluating reinfections with an additional note for asymptomatic, vaccinated persons. Updated Managing Reinfections in EpiTrax section. Added link to testing in schools in the Modified Quarantine After Exposure section. 08/02/2021 – Added recent changes for vaccinated persons.</td>
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<td>09/01/2021</td>
<td>08/02/2021</td>
<td>Case Definition: With reinfection, added language for symptomatic, epi-linked persons who re-develop symptoms after exposure but are not tested. Laboratory analysis – additional clarification about antigen testing and confirmation with NAATs and modified instructions on WGS to include ordering test through Labxchange and the ordering of supplies directly from laboratory. Disease Overview: additional comments in “Susceptibility/Resistance” to discuss actions that should occur even with presumed immunity, including testing. Quarantine: Added additional comments for testing of exposed persons after exposure to reflect KDHE guidance (in addition to CDC guidance posted 08/02/2021). Modified quarantine – removed link to discontinued modified quarantine in schools document as KDHE’s preferred method is Test to Stay strategy. Fixed broken web links.</td>
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<td>10/14/2021</td>
<td>09/01/2021</td>
<td>Laboratory Analysis: Replaced algorithm in Figure 2, Antigen Testing Algorithms with updated algorithms from CDC. Updated Outbreak Case Definitions to not include secondary cases in final counts based on CSTE proposed definitions. Updated Data management with guidance/definition of “investigation outcomes.” and “Creating a Contact” with new search feature. Attachments: Replaced “Release from Isolation and Quarantine” graphic with updated version.</td>
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<td>11/05/2021</td>
<td>10/14/2021</td>
<td>Case definitions: Updated Vaccine Breakthrough definition to “all recommended doses” from primary series. Clarified “Reinfection Form” is only to be used for cases created prior to August 1, 2021. Added discussion of “post-Covid conditions” when reinfection is ruled-out. Laboratory analysis: modified based on increased use of POC testing. Stressed that a test’s specific EUA should be used to evaluate specimen reliability.” Screening testing section edited. Figure 1 edited. Added points to consider when determining likelihood of SARS-VoV-2. Added reference for employer-based testing. Notification to Public Health: updated guidance for POC testing. Case Investigation: Added guidance on obtaining vaccination information from WebIZ with section added to Data Management on pulling WebIZ Vaccine info into EpiTrax.</td>
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<td>01/10/2022</td>
<td>11/05/2021</td>
<td>Case Definition: Included RNA detection under suspect at-home tests and further guidance on referring for confirmation tests. Updated reinfection definition for variants. Disease Overview: Added median incubation period and adjusted period of communicability with discussion of lower risk after day 5. Referred user to restriction section for investigation. Deleted Susceptibility and Resistance section. Isolation and Quarantine sections: Modified all associated sections based on new guidance and used wording of 24 hours fever free to agree with CDC. Quarantine based on Presumed Immunity after Infection: Modified to &lt;90 days and notes on variants. Modified Quarantine: Removed mention of some modifications and link to beef, pork, and poultry processing. Laboratory Analysis: included NAAT testing as possible at-home test and removed detailed info on requesting WGS – refer to Laboratories</td>
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<td>04/05/2022</td>
<td>01/10/2022</td>
<td>Notification: Updated reporting requirements. Laboratory: Updated notes on reporting requirements and updated with CDC algorithm for “Guidance for antigen testing for Sars-Co-V for HC Providers Testing Individuals in the Community Setting” and associated text associated to the CDC algorithm. Case Investigation, Case Management, and Contact Management: modified to include information on prioritizing case investigation and contact tracing. Checked accessibility.</td>
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COVID-19
Disease Investigation Guidelines

COVID-19 DEFINITIONS (CURRENT AS OF 08/01/2021)

Clinical Criteria
In the absence of a more likely diagnosis:

1) Any one of the following symptoms: cough; shortness of breath or difficulty breathing; olfactory disorder; taste disorder, confusion or change in mental status; persistent pain or pressure in the chest; pale-gray or blue colored skin, lips, or nail beds (depending on skin tone); or inability to wake or stay awake, OR
2) Severe respiratory illness with at least one of the following:
   o Clinical or radiographic evidence of pneumonia, or
   o Acute respiratory distress syndrome (ARDS), OR
3) With none of the other symptoms, at least two of the following: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, or congestion or runny nose.

Laboratory Criteria
Using a laboratory method approved or authorized by FDA or designated authority:

Confirmatory laboratory evidence:
- Detection of severe acute respiratory syndrome coronavirus 2 ribonucleic acid (SARS-CoV-2 RNA) in a clinical or autopsy specimen using a molecular amplification 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
- Detection of SARS-CoV-2 specific antigen by a self-administered “At-Home COVID SARS Antigen” test

Epidemiologic Linkage
One or more of the following exposures in the 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.

**Close contacts are someone who was less than 6 feet away from an infected person (laboratory-confirmed or a clinical diagnosis) for a cumulative total of 15 minutes or more over a 24-hour period.

Confirmed Case
- Meets confirmatory laboratory evidence.

Probable Case
- Meets clinical criteria AND epidemiologic linkage with no confirmatory laboratory testing performed for SARS-CoV-2.
- Meets presumptive laboratory evidence.
- Meets vital records criteria with no confirmatory lab evidence for SARS-CoV-2.

Suspect Case
- Supportive laboratory evidence with no history of being confirmed or probable case. Refer to the attached algorithm to assess various situations with at-home tests. No investigation is required of suspect cases. Those persons requiring an isolation letter for work or other purposes should be instructed to obtain confirmation testing.
**Vital Records Criteria**

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

**Vaccine (COVID-19) Breakthrough Case Definition**

A person who has SARS-CoV-2 RNA or antigen detected on a respiratory specimen collected ≥14 days after completing all recommended doses of an FDA-authorized COVID-19 vaccine.

**Criteria to Distinguish a New Case from an Existing Case**

Reinfection Case Definition: 1) A person who has a repeat NAAT or antigen positive test on a specimen collected >90 days from a previous case report, or 2) a person with no confirmatory or presumptive laboratory evidence for SARS-CoV-2 who meets the clinical criteria for COVID-19 with onset of symptoms >90 days after previous case report AND has an epidemiologic linkage, or 3) a person with sequencing results identifying a different SARS-CoV-2 lineage regardless of the time since the previous specimen sequenced will be counted as a new surveillance case.

- The 90-day period is based on the most recent specimen collection date compared to the onset date of the previous episode. When onset date is not available, specimen collection date will be used.
- After August 1, 2021, persons meeting the reinfection case definition will be counted as new cases with data collection done using the COVID-19 Case Investigation Form.

For potential reinfection cases with specimen collection dates prior to August 1, 2021, those cases were not counted as new cases; lab results were entered into the existing case record with the Reinfection Form competed in that record.

For symptoms and conditions that reappear within 90 days of recovery, that cannot be explained by other conditions and are not considered “reinfections” based on lack of exposure, the investigator should consider the possibility post-covid conditions along with reinfection. Standardized case definitions are still being developed for post-covid conditions. In the broadest sense, post-COVID conditions can be considered a lack of return to a usual state of health following acute COVID-19 illness and might include the development of new or recurrent symptoms that occur after the symptoms of acute illness have resolved. (Source: Post-COVID Conditions: Information for Healthcare Providers [cdc.gov])

**Previous Case Definitions**

Prior to 09/01/2020 the definition approved by CSTE on April 5, 2020 was used:

1. Coronavirus Disease 2019 (COVID-19) | 2020 Interim Case Definition, Approved April 5, 2020

Prior to 08/01/2021, the definition approved by CSTE on August 5, 2020 was used:

Multi-System Inflammatory Syndrome in Children (MIS-C)

Summary:
- Characterized by persistent fever and features of Kawasaki disease and/or toxic shock syndrome; abdominal symptoms common, but respiratory symptoms were not present in all cases.
- Many have tested positive for SARS-CoV-2 infection by NAAT, serology, or had exposure to confirmed case with COVID-19.
- Healthcare providers who diagnose multi-system inflammatory syndrome in children (MIS-C) potentially associated with COVID-19 should immediately report them to the Kansas Department of Health and Environment, Infectious Disease Epidemiology and Response Section by calling 877-427-7317.

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 NAAT, serology, or antigen test; or exposure to a suspected or confirmed COVID-19 case within the 4 weeks prior to the onset of symptoms. alternative etiology explains the clinical presentation. (note: patients should be reported regardless of SARS-CoV-2 NAAT results).

* Fever >38.0°C 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, lact acid dehydrogenase (LDH), or interleukin 6 (IL-6), elevated neutrophils, reduced lymphocytes and 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.

Reporting:
Immediately be reported to the Kansas Department of Health and Environment by calling the Epidemiology Hotline at 877-427-7317. Additional reporting information:
- Instructions for MIS-C Associated with COVID-19 Case Report Form
- Fillable MIS-C Associated with COVID-19 Case Report Form

Testing:
- Testing aimed at identifying laboratory evidence of inflammation as listed in the Case Definition section is warranted.
- Similarly, SARS-CoV-2 detection by NAAT or antigen test is indicated.
- Where feasible, SARS-CoV-2 serologic testing is suggested, even in the presence of positive results from NAAT or antigen testing. Any serologic testing should be performed prior to administering intravenous immunoglobulin (IVIG) or any other exogenous antibody treatments
- Other evaluations for cardiac involvement including, but not limited to: echocardiogram; electrocardiogram; cardiac enzyme or troponin testing; and B-type natriuretic peptide (BNP or NT-proBNP).

Additional information: https://www.cdc.gov/mis/hcp/index.html
LABORATORY ANALYSIS

SARS-CoV-2 tests are available under Emergency Use Authorization (EUA). An antigen test or a molecular test (nucleic acid amplification test (NAAT)) is preferred for diagnosing acute infection. (Figure 1). Testing occurs in laboratories, at point of care (POC), and through home-based antigen and NAAT testing.

- The interpretation of SARS-CoV-2 test results is based on the context in which they are being used, including the prevalence of SARS-CoV-2 in the population being tested.
- Vaccination status should not affect the results of viral testing for SARS-CoV-2.

Even without testing evidence of SARS-CoV-2 infection, restrictions may still be needed based on clinical criteria or epi-links or because of other possible illnesses:

- Negative testing may indicate that COVID-19 isolation is not needed, but restrictions may be required for a symptomatic person based on exclusion measures needed for the symptom (such as diarrhea or fever) or for the suspected infectious agent that may not be COVID-19.
- Isolation measures can be applied for symptomatic close contact who is classified as probable case without testing or who test negative by tests on unreliable specimens collected greater than the ideal number of days from symptom onset as outlined in the test’s EUA.
  - Refer (Figure 1 and Figure 2) for further discussion of testing interpretations.

Serologic testing (detecting SARS-CoV-2 antibodies in blood) has limitations:

- SARS-CoV-2 serology tests cannot be used to definitively determine protective immunity.
  - Do not use SARS-CoV-2 serology testing to guide personal protective equipment (PPE) use, adherence to social distancing practices, or to alter quarantine orders.
- SARS-CoV-2 serology tests should not be used to diagnose or exclude the possibility of COVID-19.
  - Assume currently or recently symptomatic persons are potentially infected with SARS-CoV-2 unless appropriate viral testing is negative.
- Serological results do not require public health case investigation.

Screening testing for SARS-CoV-2 is intended to identify infected persons who are asymptomatic with no known or suspected exposure to SARS-CoV-2. Screening testing is performed in certain at-risk populations to prevent transmission or when community risk is substantial or high. With screening, false-positives may occur if pretest probability is low.

- Pretest probability is the likelihood that the person being tested has the infection. Likelihood is based on both the proportion of people in the test population or group who have the infection at a given time (prevalence) and the clinical presentation (including symptoms and known exposure) of the person being tested.
- NAAT is preferable for unexposed and asymptomatic people, but antigen testing is acceptable. (Figure 2)

The screening or testing of persons who were previously diagnosed with COVID-19 may cause complications. Figure 3 aids with the evaluation of suspected reinfections.

Whole Genome Sequencing is used to identify variants. The sample preparation used by KHEL enriches even dilute amounts of SARS-CoV-2 genetic material. The genetic material that is present may not be replication competent or complete, but specific lineages can still be identified. The method while useful for surveillance is not diagnostic.
Figure 1. Characteristics of molecular and antigen tests for COVID testing.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>NAAT</th>
<th>Antigen</th>
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<tbody>
<tr>
<td>Specimen type</td>
<td>Nasal, Nasopharyngeal, Oropharyngeal, Sputum, Saliva</td>
<td>Nasal, Nasopharyngeal</td>
</tr>
<tr>
<td>Analyte Detected</td>
<td>Viral Ribonucleic Acid (RNA)</td>
<td>Viral antigens</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Varies by test, but generally high for laboratory-based tests and moderate-to-high for POC tests</td>
<td>Varies depending on the course of infections, but generally moderate-to-high at times of peak viral load.**</td>
</tr>
<tr>
<td>Specificity</td>
<td>High</td>
<td>High *</td>
</tr>
<tr>
<td>Indicates</td>
<td>Acute or recent infection</td>
<td>Acute infection</td>
</tr>
<tr>
<td>Advantages</td>
<td>Most sensitive method available. Usually does not need to be repeated to confirm results.</td>
<td>Comparable to NAATs for diagnosis in symptomatic persons or if culturable virus present. Allows for rapid identification of infected persons.</td>
</tr>
<tr>
<td>Disadvantage</td>
<td>NAAT diagnostic test should not be repeated within 90 days of a previous positive, because detectable RNA may persist after risk of transmission has passed.</td>
<td>Less sensitive** (more false negative results) compared to NAATs, especially among asymptomatic people and with some variants.</td>
</tr>
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</table>

* When pretest probability is low, there is still a chance of a false positive with antigen tests.

** The decreased sensitivity of antigen tests might be offset if the antigen tests are repeated more frequently (i.e., serial testing at least weekly).

Additional information: Overview of Testing for SARS-CoV-2, COVID-19 | CDC

- Molecular (NAAT) tests:
  - Positive molecular tests are evidence of a confirmed case.
  - Positive molecular tests always require case investigation even if followed by a negative test.
  - Detecting viral RNA via molecular testing does not mean that infectious virus is present, but it is assumed until evidence is provided otherwise.
  - It is not recommended that a previously positive person be tested again by molecular testing within 90 days of initial recovery.
  - Two negative molecular tests collected 24 hours apart after a positive test may indicate isolation is no longer necessary for an asymptomatic person, but the method is not promoted as a routine way to remove restrictions.

- Antigen tests:
  - Less sensitive than molecular tests, but preferable if a specimen is collected within the first 5-7 days (refer to test's EUA) from a new symptom onset for a person previously diagnosed with COVID-19. (Figure 1)
  - Antigen levels for patients who have been symptomatic for more than 5-7 days may drop below the limit of detection of the antigen test.
  - If an antigen test is positive, the patient is considered a probable case,
    - Unless a negative NAAT result is obtained on an appropriate specimen collected at the same time as the antigen positive specimen or after but within 48 hours of the antigen specimen collection, resulting in the patient considered “not a case” based on negative NAAT results.
  - Consider the need to confirm negative antigen results by NAAT when the person is symptomatic and has a a high likelihood of SARS-CoV-2 infection. (Figure 2)
  - Consider the need to confirm positive antigen results by NAAT if the person is asymptomatic and has a low likelihood of infection. (Figure 2)
Factors to consider when evaluating the likelihood (high/low) of SARS-CoV-2:
- Are symptoms present?
- Was there a known recent exposure to others with COVID-19?
- What is the patient’s vaccination status?
- Has there been a recent recovery from COVID-19?
- What are the risks related to where the patient lives or works (community level)?

Figure 2: Antigen Testing in Community Settings

1-5 Notes for Antigen Testing in Communities is on next page.
1 If testing after a suspected exposure, test 5 days after last close contact with a person with COVID-19.
2 Consider confirmatory testing with a NAAT or serial antigen testing for a negative antigen test result if the person has a higher likelihood of SARS-CoV-2 infection (e.g., in an area where the COVID-19 Community Level is high or the person has had close contact with or suspected exposure to someone infected with SARS-CoV-2) or if the person has symptoms of COVID-19.
3 A positive antigen test result generally does not require confirmatory testing; however, it could be considered when the person has a lower likelihood of infection (e.g., in an area where the COVID-19 Community Level is low and no known close contact with someone infected with SARS-CoV-2).
4 Confirmatory NAAT testing should take place as soon as possible after the antigen test, and not longer than 48 hours after the initial antigen testing. If the results are discordant, the confirmatory test result should be interpreted as definitive for the purposes of clinical diagnosis. Serial antigen testing is used within a congregate living setting, such as a long-term care facility or a correctional or detention facility, it may not be necessary to perform confirmatory testing with a NAAT when conducting serial antigen testing on those who have received a negative antigen test result. If performing serial antigen testing, wait 24-48 hours between tests. See CDC’s guidance on Quarantine and Isolation.
5 See CDC’s guidance on treatments for COVID-19, particularly if individual is at high-risk of severe disease from COVID-19. Also see CDC’s guidance on Quarantine and Isolation.
Further guidance from CDC is available for testing in the following situations:

- [SARS-CoV-2 Antigen Testing in Long Term Care Facilities | CDC](#)
- [Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities | CDC](#)
- [Interim Guidance for SARS-CoV-2 Testing in Homeless Shelters and Encampments | CDC](#)
- [Guidance for Institutions of Higher Education (IHEs) | CDC](#)

Additional notes on point of care (POC) and rapid antigen testing for COVID-19:

- Anyone performing non-home based, antigen testing should apply for a CLIA-waiver.
  - CLIA certification questions can be sent to [KDHE.CLIA2@ks.gov](mailto:KDHE.CLIA2@ks.gov).
  - Facilities that test under a CLIA certificate of waiver are **no longer required to report NEGATIVE results for tests authorized for use under a CLIA certificate of waiver**, but they are still required to report any positive COVID-19 results for COVID-19 tests that they perform.
    - Laboratories certified under CLIA to perform moderate-or high-complexity tests still report both POSITIVE AND NEGATIVE results for laboratory-based nucleic acid amplification tests (NAATs) and are **required to report positive (but not negative) results for antigen tests** that they perform.
  - KHEL can assist with the registering for LabXchange to allow result reporting.
  - Contact [KDHE.KHEL_Help@ks.gov](mailto:KDHE.KHEL_Help@ks.gov) and include subject line: LabXchange
- Rapid antigen kits are available from KDHE for schools and healthcare facilities:
  - Schools should contact their testing consultant to order supplies;
  - Healthcare providers and facilities should contact the laboratory through [Covid Testing Supply Request (arcgis.com)](https://arcgis.com)

For employer-based testing for business (non-health care), please refer to: [Employer-Based Testing | KDHE COVID-19 (kdheks.gov)](https://kdheks.gov) to obtain:

- Employer Testing Playbook to develop a testing strategy
- Resource list to help find testing providers
- [Email](mailto:) to reach out to the KHDE COVID response team
If a person previously diagnosed with COVID-19 warrants retesting (asymptomatic screening, symptoms that develop within 14 days after close contact with a person infected with SARS-CoV-2, or COVID-19 like symptoms for which an alternative etiology cannot be readily identified by a healthcare provider), the following should be considered to evaluate suspect reinfection and need for re-isolation.

**Figure 3: Investigation of suspect reinfection and recommendation for re-isolation and quarantine**

<table>
<thead>
<tr>
<th>Who</th>
<th>Length from Initial Infection</th>
<th>Recommendations for Testing</th>
<th>Isolation and Quarantine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic person</td>
<td>&lt; 90 days</td>
<td>• No testing is recommended • Reinfec tions are highly unlikely • Any positive test is likely a false positive because of non-infectious viral shedding</td>
<td>• No isolation or quarantine is warranted</td>
</tr>
<tr>
<td>Symptomatic person with a positive antigen or NAAT test</td>
<td>&lt; 90 days</td>
<td>• Investigate other causes for symptoms including testing for other respiratory pathogens (respiratory viral panel) • Test with a confirmatory NAAT if first test is an antigen test ○ Note: There is always concern for a false positive because of non-infectious viral shedding with NAAT testing close to 90 days post-recovery</td>
<td>• If confirmatory test is positive and all other testing is negative • Isolate until criteria is met for discontinuation of isolation • Initiate contact tracing for person’s reinfection and quarantine close contacts. • If confirmatory test is negative, then no isolation or quarantine is warranted.</td>
</tr>
<tr>
<td>Asymptomatic person</td>
<td>≥90 days</td>
<td>• Test with a confirmatory NAAT if first test is an antigen test • If the first confirmatory NAAT is positive, repeat test with another confirmatory NAAT</td>
<td>• If both confirmatory NAATs are positive • Isolate until criteria is met for discontinuation of isolation • Initiate contact tracing for person’s reinfection and quarantine close contacts. • If confirmatory NAAT is negative, then no isolation or quarantine is warranted.</td>
</tr>
<tr>
<td>Symptomatic person</td>
<td>≥90 days</td>
<td>• Perform confirmatory NAAT (if no testing is done or prior test is an antigen test). • If NAAT is negative with a prior positive antigen test and there is concern for a false negative NAAT, repeat another NAAT. • Investigate other causes for symptoms including testing for other respiratory pathogens (respiratory viral panel)</td>
<td>• If confirmatory NAAT tests are positive. • Isolate until criteria is met for discontinuation of isolation • Initiate contact tracing for person’s reinfection and quarantine close contacts. • If second confirmatory NAAT test is negative, then no isolation or quarantine is warranted.</td>
</tr>
</tbody>
</table>


It is recommended that fully vaccinated people with no COVID-19-like symptoms and no known exposure be exempted from routine screening testing programs, if feasible; but, because certain settings do require screening testing, such persons will be managed as a case if testing positive until it is determined by the local and state public health officials to be a false-positive test result in a low incidence population and that there is a very low risk that SARS-CoV-2 transmission will occur.
• Kansas Health and Environmental Laboratories (KHEL) conducts molecular testing that is prioritized for public health purposes and urgent needs.

• **General Specimen (Swab/Saliva) Collection and Shipping instructions:**
  - **DO the following:**
    ✓ Use appropriate PPE and precautions for specimen collection.
      ▪ Review videos available in the KDHE resource center.
    ✓ Use LabXchange ([https://labxchange.io/](https://labxchange.io/)) to submit specimen and patient information.
    ✓ Label the specimen container with patient’s name and specimen type.
    ✓ Specimens:
      ▪ Swabs for nasopharyngeal or nasal mid-turbinate
        o Use a synthetic fiber swab with plastic shaft (not wooden) to collect.
        o Place and keep swab in 2-3 mL of Viral Transport Media (VTM).
        o If VTM is not available, liquid Amies solution, sterile phosphate-buffered saline, or normal **sterile saline** is acceptable.
        o Shorten the length of the swab to allow specimen tube closure.
        o Do not send specimen tube without the swab.
      ▪ Saliva (currently Quicksal collection kits): follow manufacturer’s instructions
    ✓ Ensure the specimen tube is secure and will not leak.
    ✓ Place each specimen tube into its own appropriate zip-top bag.
    ✓ Ensure that sufficient absorbent material is present in the bag, but
      ▪ Do not wrap the tube in the absorbent material.
    ✓ Print the LabXchange submission form and include it in the side pouch of the specimen transport bag.
      ▪ Fold and place forms in the outside pouch of the zip-top bag containing the single specimen or use a double bag method. (The single specimen is in a primary zip-top bag and that primary bag is placed in a second zip-top bag which contains the testing form.)
    ✓ Store specimens at 2-8°C and ship overnight on ice packs as a Category B infectious substance.
  - Rapid shipping is important - specimens must be tested within 72 hours of specimen collection. Ship overnight. Use a weekend delivery option if shipping near the weekend, specifying Saturday Delivery for Saturdays.
  - **Ship or deliver to:**
    Kansas Health and Environmental Laboratories
    6810 SE Dwight St; Topeka, KS 66620
  - Results from KHEL are sent to the submitting facility. Results are sent when available. The status of pending results is not provided by phone.
  - To change report delivery preference: Laboratory Report Delivery Form
  - For KHEL customer service: KDHE.KHEL_Help@ks.gov or 785-266-1620.
  - **Improperly collected or shipped specimens or missing or unreadable submission forms may result is in specimens being rejected or results delayed.**
EPIDEMIOLOGY
Coronavirus Disease 2019 (COVID-19) is an illness caused by SARS-CoV-2 and is spread from person-to-person. This virus was first identified during an outbreak in Wuhan, China at the end of 2019. www.cdc.gov/coronavirus/2019-ncov/cases-updates.

DISEASE OVERVIEW
B. Clinical Description:
   Mild to severe respiratory illness with symptoms of fever, cough, and shortness of breath. Refer to CDC for further details on clinical course.
C. Reservoirs: Likely from an animal source, but still under investigation.
D. Mode(s) of Transmission:
   Mainly person-to-person.
E. Incubation Period:
   Symptoms may appear 2-14 days after exposure with a median of 5 days. The currently circulating Omicron variant has a median incubation period of about 3 days.
F. Period of Communicability:
   The transmission of SARS-CoV-2 is greater the longer an infected person is close to someone, the closer the persons are to each other, and when more than one infected person is around others. It also matters if the infected person is coughing, sneezing, singing, shouting, or doing anything else that could expel more respiratory droplets into the air. Available data indicate that it is much more common for SARS-CoV-2 to spread through close contact with a person who has COVID-19 than through other means of transmission. [Scientific Brief: SARS-CoV-2 Transmission | CDC]
While an infected person (asymptomatic or symptomatic and regardless of vaccination status) could transmit the virus two days prior to symptom onset up until 10 days after symptom onset, an infected person is most infectious two days prior to onset of symptoms until five days after onset of symptoms. The proper use of a well-fitting mask on day 6 to day 10 after onset of symptoms decreases the risk of transmission. Persons admitted to ICU or who are severely immunocompromised could be considered infectious for a minimum of 10 days and possibly up to 20 days after symptom onset.
   Refer to Isolation Restrictions and Quarantine Restrictions for investigation guidance.
G. Vaccine:
   • ACIP recommendations: www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/covid-19.html
H. Variants:
   Viruses constantly change through mutation, and new variants of a virus are expected to occur over time. Multiple variants of SARS-CoV-2 have been documented throughout the pandemic. For up-to-date information: www.cdc.gov/coronavirus/2019-ncov/cases-updates/variant-surveillance/variant-info.html and www.coronavirus.kdheks.gov/160/COVID-19-in-Kansas
   Further discussion under Laboratory Analysis for requesting testing at the state lab.
I. Treatment:
   For information on investigational and developing therapies refer to CDC.
NOTIFICATION TO PUBLIC HEALTH AUTHORITIES

Use the online portal or LabXchange to notify the Kansas Department of Health and Environment (KDHE) of all viral antigen or molecular testing. For matters of urgent concern, outbreaks or high-risk settings, contact the EpiHotline at 1-877-427-7317.

Kansas Department of Health and Environment (KDHE)
Bureau of Epidemiology and Public Health Informatics (BEPHI)
COVID Disease Reporting: Disease Reporting for Health Professionals
Phone: 1-877-427-7317

All mandated reporters are instructed to review and follow the requirements outlined by KDHE at www.kdhe.ks.gov/1500/How-to-Report-Novel-Coronavirus-Testing-

The following topics are addressed in relation to when and how to report:
• Suspicion of disease
• Deaths due to COVID-19
• Screening test results
• Diagnostic testing
• Reference and In-Hospital Reporting Requirements
• Who is a mandated reporter?

ADDITIONAL COMMUNICATIONS IN PUBLIC HEALTH

1. KDHE-BEPHI will receive notifications of testing results for SARs-CoV-2, except for antibody results that do not need to be reported.
   • Required data that must be reported by laboratories is described online.
   • Most reports are received via electronic laboratory reports (ELRs), including LabXchange.
   • Laboratories and point of care testing sites, including physicians' offices, who are not set up to report by ELR will report laboratory results through diseasereporting.kdhe.ks.gov/ or LabXchange.
     ✓ Questions on bulk reporting of laboratory results though the disease portal should be directed to KDHE.epitraxadmin@ks.gov.
   • Those facilities that do not perform point of care (POC) testing do not need to report results to KDHE; lab-based antigen test or NAAT should be reported by the laboratory conducting the SARS-CoV-2 test. All required data, as listed in the online document, must be included in the report.

2. Reports will be entered in EpiTrax and assigned to a local public health agency based on the case-patient’s address listed on the laboratory report, or the address of the diagnosing facility when patient address is not available.
   • For patients with out-of-state addresses treated at a Kansas facility, KDHE will classify the CMR as “Out-of-State” and transfer the case out-of-state.
   • The local public health agency with jurisdiction over the diagnosing facility must notify KDHE-BEPHI if access is needed to an out-of-state case.

3. To better coordinate with local partners, the local public health agency will:
   • Monitor EpiTrax for CMRs not accepted and assigned to an investigator, by reviewing for the following event types - those “Assigned to LHD,” “Reopened by state” and “Reopened by manager”
• Form partnerships with local providers to acquire any missing demographics and patient contact information.

• Reassign CMRs to another public health jurisdiction when it is required but using the following steps:
  ✓ Enter the new address for the case into the demographics tab.
  ✓ Remove the old address as the “Address at Diagnosis,” if needed.
  ✓ Choose the new address as the “Address of Diagnosis.”
  ✓ Use “Route to LHD” feature under Workflow Options to assign the CMR to the new health department jurisdiction.

**IMPORTANT**: If the address of diagnosis is not updated, the case will remain associated to the original jurisdiction in case counts, even if the case has been re-routed to a different investigating jurisdiction.

• If a lab report is not received by KDHE, but is received by the local public health agency, the local investigator should attach the laboratory report to the record in EPITRAX and notify kdhe.epitraxadmin@ks.gov requesting lab be entered into the system and the case classified.

• When a COVID-19 contact becomes symptomatic but is not tested, local public health will need to promote the contact to a case in EPITRAX and record the “yes” to exposure to COVID-19 case and “yes” to any symptoms on the EPITRAX investigation form for the case to be classified as “Probable” case. The local health department will then need to contact KDHE at kdhe.epihotline@ks.gov to allow appropriate review and classification of the “probable” epi-linked case.

PUBLIC COMMUNICATIONS

1. Do not refer the public or patients to the Epidemiology Hotline; it will delay the epidemiologists’ ability to assist healthcare providers and local public health.

2. For persons with general questions, refer to KDHE’s COVID-19 Resource Center online (www.kdheks.gov/coronavirus), by email (COVID-19@ks.gov), or by phone (1-866-534-3463 or 1-866-KDHEINF).

3. For additional resources, review the following toolkits:
   • Document Center • KDHE COVID-19 • Civic Engage (kdheks.gov)
   • Communication Resources for Health Departments | CDC

4. To coordinate press releases between local Public Information Officers and KDHE Office of Communications, call 785-296-1317 or 785-296-5795.
STANDARD CASE INVESTIGATION AND CONTROL METHODS

Person Under Investigation Information (PUI)

1) If a symptomatic patient or a close contact of a COVID-19 case is being tested for COVID-19, they should be isolated with the assumption that they are infectious.
   • For hospitalized patients, follow the CDC guidance for infection control: [https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control.html).
   • For non-hospitalized patients, local public health should coordinate with the provider or contact the PUI to ensure isolation requirements are understood.
     - The PUI must stay at home until results become available or until no longer considered infectious as described online in COVID-19 Isolation & Quarantine documents and the disease overview.
     - Household contacts of PUIs should be encouraged to stay home if lab results are expected to take longer than 72-hours, the PUI has a high risk of COVID-19, or at the discretion of the local health department.
     - Quarantine of non-household contacts is usually not required until positive results are received (refer to contact investigation section).

2) When test results are expected, but not received within 72 hours of submission:
   • With a delay in results, verify where the specimen was shipped for testing by contacting the original submitter.
   • Work restrictions or quarantine measures if not yet enforced should be instituted if test results cannot be obtained for the PUI.

Case Investigation (of Confirmed and Probable Cases)

1) Prioritize settings and groups at risk of serious or widespread transmission in your jurisdiction using current community transmission trends. Plan to investigate cases and notify contacts within those “priority” settings and groups.

2) Investigate the “priority” cases and conduct screening calls to all other cases to identify any association to the following priority settings:
   • Schools
   • Daycare
   • Long Term Care Facilities
   • Correctional Facilities
   • Homeless Shelters
   • Other Group or Congregate Settings.

3) Contact those priority cases directly or the medical provider or infection control representative who is attending to the patient for hospitalized patients or those in group-settings and obtain information to complete the COVID-19 Investigation Form (use paper form or direct entry into EpiTrax Investigation Tab).
   • Current patient status.
   • Hospitalization history: include dates, intensive care stays (ICU), ventilation or intubation use, extracorporeal membrane oxygenation (ECMO) use.
   • Clinical information on symptoms and onset date.
   • Pre-existing medical conditions or immunocompromised patients.
   • Respiratory diagnostic testing results.
   • Occupation of patient, note if patient is a health care worker or first responder.
• Report associations to a learning institution, nursing home, residential care for those with disabilities, psychiatric treatment facility, group home, board and care home, homeless shelter, or any other congregate setting.
• Vaccination status. [For vaccines documented in WebIZ, pull the vaccination information from WebIZ using guidance found in Data Management.]
  – Investigate the possibility of vaccine break-through disease.

4) Examine symptom onset to determine next steps for all priority persons:
• Symptomatic or recently symptomatic within the last 5 days of the current diagnosis, continue investigation as normal.
• Recurrent symptoms after previous diagnosis* with COVID-19:
  – ≥ 90 days from COVID-19 recovery, continue with a new investigation assuming the it is a reinfection until evidence supports it is not a reinfection.
  – < 90 days from the previous COVID-19 recovery, the possibility of reinfection and the need for a complete case and contact investigation will depend upon the review of available information (medical history, time from and type of initial test, alternative diagnosis, and current symptoms).
• Asymptomatic currently but reliable evidence provided of COVID-19 symptoms that resolved within the last 90 days but greater than 5 days prior to the current positive specimen being collected.
  – Report the information needed to classify and close the case;
  – Follow-up if it is within 5 days of symptom resolution to ensure close priority contacts did not become symptomatic.
  – Note: If evidence is not dependable that symptoms experienced within the last 90 days were COVID-19 related, treat person as an asymptomatic person, never experiencing symptoms.
• Asymptomatic and never experienced symptoms or had a positive SARS-CoV-2 test within the last 90 days of current report, continue investigation. *

* For patients being evaluated for reinfections or who had positive SARS-CoV-2 tests within the last 90 days of the current report, review Figure 3.

5) Without a known source of exposure, interview the priority case or proxy about activities 14 days prior to onset (or prior to positive collection date with no symptoms). Use the COVID-19 Exposure Time Line and especially, note:
• Recent travel to areas of concern
• Exposures to household members, close contacts, or recent ill travelers.
• Case’s occupation and association to any congregate living situations.

6) Establish an infectious period for the priority case.
• For currently or recently symptomatic individuals, consider the 2 days before symptom onset (day 0) until date isolation precautions are discontinued.
• For asymptomatic individuals who never experienced symptoms,
  – If a specific day of exposure cannot be determined, use 2 days prior to positive specimen collection (day 0) until date isolation precautions are discontinued.
  – If a discrete day of exposure for the asymptomatic COVID person is known, consider the 2 days after the day of exposure (day 0) until date isolation precautions are discontinued.

Note: If onset does occur after lab collection date, use onset date as day 0.
7) Continue the interview with calculated infectious period and **COVID-19 Exposure Time Line** to examine patient’s occupations and activities while infectious.
   - Prioritize the elicitation of close contacts with exposure in the previous 5 days who are associated to high-risk congregate settings such as, schools, daycare, long-term care facilities, correctional facilities, and homeless shelters. And other group or congregate settings.

8) Investigate epi-links among cases (clusters, household, co-workers, etc).
   - Unreported, highly suspected patients or exposed symptomatic contacts should be investigated as a case and reported to KDHE-BEPHI.
   - Link “orphaned contacts” to previous cases as identified.

9) Follow-up as instructed in **Case Management** and ensure restrictions or isolation measures are in place.

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**Contact Investigation**

1) Review the [**COVID-19 Exposure Time Line**](#) to determine the priority contacts that may require notification by the health department.

2) **Close contacts are those exposed to a person with COVID-19, even if that person didn’t have symptoms, if any of the following situation happened:**
   - Within 6 feet of the person for 15 or more over a 24-hour period; or
   - Direct contact with the infectious secretions of the person (for example, coughed or sneezed on; kissed; contact with a dirty tissue; shared a drinking glass, food, towels, or other personal items).
   - Refer to the following for determining contacts in certain environments:
     - [Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2 | CDC](#)
     - [Steps for Determining Close Contact and Quarantine in K–12 Schools | CDC](#)

Additional notes: The chance of spreading the virus is greater the longer an infected person or persons are close to someone. It also matters if the infected person is coughing, sneezing, singing, shouting, or doing anything else that produces more respiratory droplets that contain virus or if there are exposures to more than one infected person. Household contacts have opportunities for “continuous” exposure.

- The infectious period for someone with COVID-19 disease is **10 days**. There is no evidence that the infectious period is shorter with Omicron or any other variant, but the use of a **well-fitting mask** will lower the risk of transmission.
- **Close household contact**'s last day of exposure would be after the case’s infectious period is over (in most cases 10 days) if exposure is ongoing within the home. However, if the case is able to isolate away from others in the home, for example in their own sick room with their own bathroom, and wears a **well-**
fitting mask covering both their nose and mouth when they are unable to separate from others in the home, the local health department may consider the close household contact’s last day of exposure to be Day 5 of the case’s isolation and allow them to begin their 5 day at-home quarantine.

- **Practicing or playing contact sports** may increase the risk of transmission. This includes sports involving more than occasional and fleeting contact, such as football, basketball, rugby, hockey, soccer, lacrosse, wrestling, boxing, and martial arts. Other sports may be included if social distancing, mask use, and other mitigation measures are not followed.

The final decision on what constitutes close contact is made at the discretion of public health.

3) Use the Contact Investigation Notes Form to create contact listings.

4) **Contacts of a COVID-19 case within healthcare facilities:**
   - Refer to CDC guidance in Potential Exposure at Work.
   - Coordinate with healthcare facility’s Infection Prevention and Control Practitioner (IP) to ensure exposed healthcare personnel (HCP) are identified, assessed, and work restrictions enforced if needed.
   - HCP contacts that are allowed modified quarantine while at work will need to quarantine outside of work.
   - Local public health must ensure adequate follow-up and reporting of data.

5) **Contacts of a COVID-19 case being managed by local public health:**
   - Create listings of all potential close contacts: include date of exposure, phone numbers, email addresses, and county of residence of all potential contacts.
   - Contact information for those persons who are live outside your jurisdiction can be shared with public health agencies that are responsible for jurisdiction of that contact’s residence. Do not share contact listings with other third parties.
   - Contacts who are allowed modified restrictions at locations of occupation that are outside of their residential county must still follow quarantine measures put forth by their jurisdiction of residence when at home and not working.
   - Interview potential close contacts.
     - Note any symptoms COVID-19.
     - Verify exposure details, date of first and last exposure, and if the person meets the definition of close contact.

6) If the contact’s exposure was within the last 5 days:
   - Institute control measures as indicated under Isolation…Restrictions, and
   - Follow-up with close contacts as recommended under Contact Management.

7) If the contact’s last exposure was not within the last 5 days and contact never developed symptoms, no contact management is required for that contact.

8) Educate on avoiding future exposures with If You Are Sick or Caring for Someone | CDC.

### Isolation Restrictions

Non-hospitalized persons* with a suspected or confirmed case of COVID-19, including suspected or confirmed vaccine breakthrough or reinfections with COVID-19, should remain in isolation until:

- At least 5 days have passed since symptoms first appeared (day 0) or, with no symptoms, since positive specimen was collected (day 0); **AND**, **AND**
• At least 24 hours have passed since fever was experienced and any antipyretic medications were used, and other symptoms have improved; AND
• The person continues to wear a well-fitting mask around others for 5 additional days** and avoids situations in which a mask cannot be worn, such as restaurants and some gyms, and eating around others at home and at work.

* Guidance is for the general population. Those who work or reside in health care settings and high-risk congregate settings (such as nursing homes, correctional and detention facilities, homeless shelters, and cruise ships) should isolate for a 10-day period. Those of the general population should avoid exposing those at high risk for severe disease or immunocompromised and should avoid nursing homes and other high-risk settings, until after at least 10 days from their onset or positive collection date.
** Those who cannot wear a mask must isolate for a full 10-days.

Persons who require ICU care or who are severely immunocompromised should remain in isolation for a least 10 days and possibly up to 20 days after onset (day 0) and can be released after afebrile and feeling well (without fever-reducing medication) for at least 24 hours.

If a case refuses to stay in isolation, a legal order may be needed. Refer to the Community Disease Containment Standard Operating Guidelines | KDHE, KS

1) For hospitalized patients:
• Hospitalized patients should be handled with Standard and Transmission-Based Precautions in accordance with CDC guidance.
  − HCP who enter the room with a COVID-19 patient should use a respirator (or facemask if a respirator is not available), gown, gloves, and eye protection.
  − Cloth face coverings are NOT PPE and should not be worn for the care of patients with known or suspected COVID-19.
• To discontinue Transmission-Based Precautions for hospitalized patients, refer to Discontinuing Transmission-Based Precautions for patients with COVID-19.
  − The decision to discontinue should be made on a case-by-case basis in consultation with clinicians, infection prevention, and public health officials.

2) For patients not requiring hospitalization:
• Refer to Coronavirus Disease 2019 (COVID-19 Caring for Patients at Home):
  − Considerations for care at home include whether:
    □ Patient is stable enough to receive care at home.
    □ Appropriate caregivers are available at home.
    □ The caregiver, when possible, should not be someone who is at higher risk for severe illness from COVID-19.
    □ A separate bedroom is available where the patient can recover without sharing immediate space with others.
Resources for access to food and other necessities are available.
The patient and other household members are capable of adhering to precautions recommended as part of home care or isolation.

- If the patient is unable to meet the above criteria, the local public health agency will need to identify appropriate housing for infectious persons.

### Quarantine Restrictions

**Quarantine** is used to keep someone who might have been exposed to COVID-19 away from others during the person’s potential incubation period. An individual is potentially infectious 2 days prior to symptom onset, and symptoms may appear at any time 2 days to 14 days after exposure to the virus with a median of 5 days.

The recommended quarantine for the general population* is a period of 5 days after exposure, with the continued use of a well-fitting mask around others for an additional 5 days after exposure. The last date of exposure is day 0; the last date of quarantine is day 5, with masks** continued to be used on day 6 to day 10.

* Those who work or reside in health care settings and high-risk congregate settings (such as nursing homes, correctional and detention facilities, homeless shelters, and cruise ships) should quarantine for a full 10-day period. Decisions to shorten quarantine are made in consultation with public health. Those of the general population should also avoid exposing people who are immunocompromised or at high risk for severe disease, and avoid nursing homes, other high-risk settings, and situations in which a mask cannot be worn, such as restaurants and some gyms, and eating around others at home and at work, until after at least 10 days from their exposure date.

** Those who cannot wear a mask must quarantine for a full 10-days.

If testing is available, it is recommended that individuals exposed to COVID-19 be tested via a NAAT or antigen test 5 days after exposure. A negative test does not lift the requirement to continue to wear a mask around others until after day 10 post-exposure.

Local public health may need modify any quarantine based on type of exposure, the population that may be affected by future exposures, and testing availability.

### Quarantine for General Population

<table>
<thead>
<tr>
<th>Highest Risk</th>
<th>Lower Risk</th>
<th>Lowest Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test if Possible</td>
<td>Contact must wear mask and monitor for symptoms.</td>
<td>Contact self-monitors for symptoms.</td>
</tr>
</tbody>
</table>

**The following sections consider:**

- Presumed Immunity after Previous Infection
- Presumed Immunity after Vaccine
- Quarantine Options for Close Contacts Unable to Mask
- Modified Quarantine After Exposure to a COVID-19 Case
- Modified Quarantine for Travel Related Exposures
- Modifying Quarantine: Things to Consider
**Quarantine exemption based on presumed immunity after viral testing:**

Close contacts with evidence of previous infection supported by a positive NAAT or antigen test performed by a laboratory or CLIA-waived provider* may be exempt from quarantine after re-exposure if they remain asymptomatic and their re-exposure has a high probability of being similar to the variant to which they were initially exposed, but this is determined by the local health officer based on a possible 90-day period of presumed immunity to the same variant to which they were initially infected.

If an investigation was done documenting the date that symptoms resolved, or the date isolation measures were discontinued for asymptomatic patients, the 90-day period can start from that end date. If those dates are not available, then the period will start from the date of the positive laboratory test. An antibody test may not be substituted for a viral diagnostic test. If the contact becomes symptomatic during the 90 days after recovery, the possibility of reinfection must still be examined and testing via an antigen test is preferred. The sample for the antigen test should be taken within the first 5 to 7 days from symptom onset (depending on the EUA for the test being used).

* Self-administered, at-home testing results require verification by additional testing.

**Quarantine exemption based on presumed immunity after COVID-19 vaccine:**

Two weeks after completion of a COVID-19 vaccination series, persons may be*** exempt from quarantine after exposure or re-exposure to COVID-19 if all the following criteria are met:

- Person is fully vaccinated** with ≥2 weeks following last required dose of the vaccine series,
- Person is considered up-to-date with COVID-19 vaccinations,
- Person has remained asymptomatic since the current COVID-19 exposure

**Note:** Day 0 is the day the last vaccine dose of the series is received; day 14 is the first day the person is considered fully vaccinated.

*** Exceptions to the above guidance:

- Vaccinated inpatients and residents in healthcare settings should continue to quarantine following an exposure to someone with suspected or confirmed COVID-19; outpatients should be cared for using appropriate transmission-based precautions.
- Individuals meeting above criteria that are close contacts to a suspected or confirmed case of COVID-19 do not need to quarantine or isolate if being tested while asymptomatic, but are recommended to:
  - Mask in public indoor settings for 10 days after their last exposure to an infectious case, and
  - Get tested via NAAT or antigen test 5 days after exposure.
    - Close household contacts should get tested 5 days after their initial exposure to the case.

Any time person becomes symptomatic (even after vaccination or previous disease) they should be tested via NAAT or antigen test. Receiving the vaccine does not affect the results of a NAAT or antigen test, only an antibody test. If they had natural disease recently, meaning they had COVID-19 disease in the last few months, an antigen test within the first 5 to 7 days from symptom onset (depending on the EUA for the test they are using) is preferred.
Quarantine Options for Close Contacts Unable to Mask

Infection can appear at anytime in the period of 14 days after exposure. However, most infections appear before or on day 7.

- Quarantine can end after Day 10 without testing and if no symptoms have been reported during daily monitoring.

Modifying Quarantine

Any modification to quarantine will always depend upon the situation and it may be waived following an assessment by the employer and public health:

1. Are the exposed person’s activities critical to the current situation?
2. Is the population that the person serves or works with at higher risk of COVID-19 complications? If they are, can the person be reassigned to populations at lower risk to clients and co-workers at risk of higher complications?
3. Can the person adhere to procedures set forth by the facility to ensure their health is appropriately monitored and immediately stop work if symptoms develop?

If the person is critical to the situation and can work safely, not placing clients and other workers at risk, then the following should be applied for modified quarantine:

1. Exposed person should monitor for signs and symptoms of COVID-19, including checking for a fever of 100°F or higher at least twice per day and monitoring for lower respiratory symptoms including cough or shortness of breath. A symptoms log can be used for documentation.

If symptoms develop during the 14-day period after exposure, persons should stop work immediately and notify their employer and local public health.

Modified Quarantine After Exposure to a COVID-19 Case

Most workers have a mandatory quarantine if determined by local public health to have been exposed to an infectious COVID-19 person.

- Workers in health care and those who work in high-risk congregate settings (such as correctional and detention facilities, homeless shelters, and cruise ships) may be subject to different quarantine and testing strategies and the proper documents and guidance for the type of setting should be followed.

- In certain situations, other critical infrastructure employees may be considered for modified quarantine. Workers that have not had the training offered to healthcare, public health, and law enforcement may represent a higher risk of exposing others to COVID-19 if they develop symptoms. This risk must be scrutinized when deciding to modify quarantine.

- School settings (K-12) may be able to apply testing strategies to allow close contacts to attend school safely. Refer to additional guidance on KDHE COVID-19 resource page for schools and School-Based Testing.

- Use of Cohorts: When situations occur where a well-defined group has been exposed together as a cohort that can be quarantined together in a facility while causing no risk to others.
Modified Quarantine After Travel Related Exposures

The travel associated quarantine may not be mandatory for those who work in critical infrastructure sectors needed for continuity of operations required to sustain normal day-to-day services vital to the economy and way of life. Public health, hospitals, clinics, pharmaceutical, food supply, and first responders are always considered. Other critical infrastructure sectors are considered on a case-by-case basis based on local assessments. See below for modifying quarantine.

For additional guidance, the latest quarantine recommendations are posted on-line refer to the following documents:

- Public Health Management of Exposed Persons
- Releasing from Isolation and Quarantine Graphic and the
- Frequently Asked Questions for guidance.

Case Management

1) For those persons that are not in a priority group being contacted by public health, health departments should support public education to encourage people with COVID-19 to follow isolation guidance and inform close contacts about their potential exposure so close contacts can quarantine, get tested, wear well-fitting masks, take precautions when traveling, and consider treatments as appropriate.

2) For those persons that are contacted by public health, institute isolation measures as recommended by most current guidance.
   - For hospitalized patients: Standard and Transmission-Based Precautions
   - For non-hospitalized patients, ensure proper care and resources are available.
     - Caring for COVID-19 Patients at Home
     - Pets at Home: Managing COVID-19 Pet Owners in Home Isolation
   - For asymptomatic patients that test positive – the date of specimen collection will be considered the “onset date” for isolation measures.

3) Coordinate activities related to isolation with outside facilities.
   - Work with medical providers to track patients in isolation.
   - Notify medical providers of suspect cases who may need medical treatment.

4) Submit data requested on the COVID-19 Investigation Form as soon as possible to assist with the descriptive epidemiology of this disease in Kansas.

5) Cases should be monitored in EpiTrax until isolation period is over.
   - Report on any changes in patient status: discharge, death, recovery date
     - Asymptomatic persons who never developed symptoms do not require a recorded onset date. Mark as “Asymptomatic” on the investigation tab.
     - Date of symptom resolution in asymptomatic cases can be consider 10 days after specimen collection which is the date isolation should end.
   - The date isolation ended can be recorded in LHD investigation completed date field on the EpiTrax Administrative tab.

Contact Management

1) Contact tracing will be conducted to notify priority close contacts who were exposed to laboratory-confirmed or probable COVID-19 persons.
• Health departments will prioritize elicitation and notification of close contacts with exposure in the previous 5 days who are identified during a priority investigation, with the goals of notification to:
  – Identify symptomatic contacts,
  – Recommend quarantine as needed, and
  – Refer contacts to testing and treatment if indicated.
• For those exposed persons not in a priority group, health departments should support public education to encourage people with COVID-19 to follow isolation guidance and inform close contacts about their potential exposure so close contacts can quarantine, get tested, wear well-fitting masks, take precautions when traveling, and consider treatments as appropriate.
• For further guidance, refer to CDC’s “Contact Tracer’s Interview Tool: Notifying People About an Exposure to COVID-19 | CDC” available at: www.cdc.gov/coronavirus/2019-ncov/php/notification-of-exposure.html

2) Close contacts should monitor themselves daily for symptoms.
   • Symptoms Monitoring Log may be used to assist with medium and low risk individuals who are self-monitoring.
   • For contacts that report they are experiencing symptoms.
     – If medical evaluation is needed, refer to appropriate medical care.
       o Pre-notification should occur to the receiving health care facility and EMS, if EMS transport indicated, and with all recommended infection control precautions in place.
       o Testing for COVID-19 should be considered as part the evaluation if the patient meets the most current recommendations for testing.
     – If symptoms are mild and medical care or testing is not needed, the person will remain in home isolation until no longer considered infectious.
       o In some cases, local health departments may be required to assist with specimen collection for COVID-19 testing of patients in home isolation that do not need medical care but are considered part of a potential cluster or outbreak investigation for the community.
       o Even without testing, if the clinical criteria are met for a close contact of a positive COVID-19 patient, the contact is promoted to a morbidity event in EpiTrax and is considered a probable case.
       o Recording “Yes” to exposure to a COVID-19 case and “Yes” to any symptoms on the EPITRAX investigation form results in the case being classified as a “Probable” case.
     – If a contact promoted to a probable case (based on symptoms and epi-link) is determined to be negative by appropriate viral testing (either antigen testing collected in the appropriate time frame or any molecular testing), the promoted case is demoted back to a contact and quarantine continued.
     – Case and contact investigations and any necessary control measures will be carried out for all symptomatic contacts promoted to probable cases.

3) When quarantine measures are instituted:
   • Ensure adequate quarantine measures are in place.
   • Ensure proper care and resources are available to those in quarantine.
For quarantine and isolation orders, refer to Annex C of the Community Disease Containment SOG at www.kdhe.ks.gov/861/Community-Disease-Containment-Standard-O.

**Education**

1) The following are non-pharmaceutical interventions (NPIs) should be addressed to mitigate the spread of disease especially when someone is being allowed a modified or shortened quarantine or is within 10 days of symptom onset:
   - Correct and consistent mask use,
   - Social distancing,
   - Hand and cough hygiene,
   - Environmental cleaning and disinfection,
   - Avoiding crowds,
   - Avoiding high-risk congregate settings
   - Avoiding people who have a condition or are taking medications that weaken their immune system who may not be fully protected
   - Ensuring adequate indoor ventilation, and
   - Self-monitoring for symptoms of COVID-19 illness.

2) For those being isolated or quarantined, instruct on the necessary NPIs and Restrictions.
   - Isolation and Quarantine – Frequently Asked Questions
   - Caring for COVID-19 Infected People & Preventing Transmission in Homes
   - KDHE Tips for Home Isolation

3) For those in quarantine, counsel contacts on NPIs and to watch for signs or symptoms within 14 days after their last exposure to a symptomatic COVID-19 case and how to seek medical attention only if needed.
   - KDHE Quarantine Guidelines
   - COVID Symptom Monitoring Log

4) Utilize templates to inform employees, employers, travelers and potential contacts of exposures and risks.

5) Additional resources:
   - CDC Communication Resources: www.cdc.gov/coronavirus/2019-ncov/communication/
   - Refer to frequently asked questions:
     - KDHE specific: KDHE COVID-19 | Official Website (kdheks.gov)
DATA MANAGEMENT AND REPORTING TO THE KDHE

A. Accept the case assigned to the LHD and record the date the LHD investigation was started on the [Administrative] tab.

B. Organize and collect data.
   - Forms provided to assist the investigator include:
     | Form Name                          | Purpose                                                                 |
     |-----------------------------------|-------------------------------------------------------------------------|
     | COVID-19 Exposure Time Line        | Used to record case-patient’s activities during exposure and infectious period. |
     | Contact Investigation Notes Form   | Used to record and manage contacts of a case patient.                    |
     | COVID-19 Investigation Form        | Used by local investigator to collect data that will be reported in the Kansas EpiTrax System. |
     | COVID-19 Recurrent Presentation Form | Electronic form manually loaded into a EPITrax CMR when symptoms reoccur ≥30 days after symptoms initially resolved. |
   - Investigators can collect and enter all required information directly into EpiTrax [Investigation], [Clinical], [Demographics], [Contact] tabs without using the paper forms.
   - During outbreak investigations, refer to guidance from a KDHE epidemiologist for appropriate collection tools.

C. Report data collected during the investigation into the EpiTrax system
   - Verify that all data requested in Step 1) and on the COVID-2019 Investigation Form has been recorded on an appropriate EpiTrax [tab], or that actions are completed for a case lost to follow-up as outlined below.
   - Some data that cannot be reported on an EpiTrax [tab] may need to be recorded in [Notes] or scanned and attached to the record.
   - Refer to the following page for managing contacts.

D. If a case is lost to follow-up or unable to locate, after the appropriate attempts:
   - Indicate outcome on the [Administration] tab with the number of attempts to contact the case recorded.
   - Record at least the information that was collected from the medical records.
   - Record a reason for ‘lost to follow-up’ in [Notes].

E. After the case investigation and isolation period for the case-patient has ended, record the date in the “LHD investigation completed” field located on the [Administrative] tab.
   - Record the date even if the local investigator’s Contact Management for the contact is not “Complete”. 
F. Once the entire investigation is completed,

- Record the “Investigation Outcome” on the [Administrative] tab.

<table>
<thead>
<tr>
<th>Investigation Outcome</th>
<th>Definition</th>
</tr>
</thead>
</table>
| Completed             | Interview (*) and any other follow-up completed and recorded in EpiTrax.  
*If needed, it may be possible to “complete” an investigation, recording all requested data, without interviewing case-patient. |
| Unable to locate       | Interview was needed to complete investigation, but not able to contact the patient for interview. (e.g., patient never responded to calls/texts/letters) |
| Refused Interview      | Reached patient but they refused to be interviewed |
| Lost to Follow Up      | Initial patient interview completed or started; however, unable to reach patient again for follow-up. |
| No Investigation Performed | Did not complete investigation/patient interview. Case not investigated by LHD |

- After recording the investigation outcome, the LHD investigator will click the “Complete” button on the [Administrative] tab. This will trigger an alert to the LHD Administrator, so they can review the case before sending to the state.
- The LHD Administrator will then “Approve” or “Reject” the CMR.
- Once a case is “Approved” by the LHD Administrator, BEPHI staff will review and close the case after ensuring it is complete.

Managing Contacts in EpiTrax

- Associating Orphan Contacts
- Contact Associated to Multiple cases
- Creating a Contact
- Entering Information About Contacts
- Promoting / Demoting a Contact
**Associating “Orphan Contacts”**

Orphan contacts are contacts who were “removed” from a previous parent-patient or are new cases who were identified as being exposed to a previously reported case-patient but never associated to the “older” case in EPITRAX as a contact. These “orphan” cases/contacts can be associated to a parent-patient by:

1. Open the CMR for the case that caused the exposure, use “Edit” mode (i.e. open the old case or case with earliest onset).
2. Click on the “Contacts” tab.
3. Enter the CMR for the case (newer case) or orphan contact that you want to associate to this opened case that was the source of exposure in the “Link to an orphan contact…” field.
4. Save and Continue.

**What to do when a contact has been associated to more than one case?**

- Associate the contact with the person causing the **most recent exposure**.
- If the contact is already associated to an older case but has not completed the quarantine period, remove the contact from the current parent patient (older case) and assign the contact to the newer case.
- If a contact has been associated to an older case and has completed that quarantine period, create a new contact record. One person can have multiple contact records but be certain the previous contact record is marked “Complete” in the disposition field.

**Creating a Contact**

1. Click on the “Contacts” tab.
2. Search for the exposed person by name, phone, or other demographics.
3. If your person is listed in the search click on the row of their name and demographics or if your person is not listed after the search, use [Create Person and Contact].
4. Scroll to bottom of page where new contact has been added and select appropriate choice for contact type (usually going to be ‘other,’ ‘household ’or ‘healthcare/healthcare worker’).
5. For disposition, leave blank until quarantine over – then mark “Completed.”
6. Enter disposition date as last date patient was exposed to COVID-19.
7. Save and Continue.
**Entering Information on Contacts on Separate Contact Form**

1. Add and save the contact on the case’s (parent patient’s) “Contacts” tab.
2. After the contact is saved, click ‘Options’ and ‘Edit Event’ beside the contact on the listing to enter any further details on the contact.

**Promoting a Symptomatic Contact to a Case**

If a contact becomes symptomatic and meets the “Probable Case Definition”, they should be promoted to a case and classified as “Probable”.

1. Open the contact’s record in edit mode.
2. Click ‘Options’ and ‘Promote’.
3. Click ‘OK’ to the question “Promote this event to a morbidity event?”

If a promoted contact is later determined not to meet the “Probable Case Definition” (i.e. test negative for COVID-19 or diagnosed with another cause for their illness), the record can be “demoted” using the same process.

**Notice**: Contacts, not participating in workflow, will be assigned to the Investigating Jurisdiction of the parent patient after promotion. If the contact is promoted to a case
needing to be investigated by a different county, the “Workflow Options” must be used to assign the contact to the appropriate Investigating Jurisdiction prior to or after promotion.

**Identifying Cases in EpiTrax Needing Investigation**

The following guidance uses the “Advanced Search Feature” in EpiTrax to locate those cases that have been newly assigned to the local health department.

For new cases that have never been accepted by the local agency. The following choices can be made:

- County* = your county
- Condition = Coronavirus Disease 2019 (COVID-19)
- Event type = morbidity
- Investigation status = assigned to LHD
- State case status = confirmed and probable

To identify newly assigned cases with specimens collected the last 14 days include a lab collected date range with the selections listed above.

Avoid using the “Event date range”.

- County* = your county
- Condition = Coronavirus Disease 2019 (COVID-19)
- Event type = morbidity
- Investigation status = assigned to LHD
- Lab collected date range = 14 days prior to current day
- State case status = confirmed and probable

* For cases, assigned to your jurisdiction that do not have a county in the address of diagnosis, use “Investigating Agency” in place of “County”.

**Managing Potential Reinfections in EpiTrax**
Prior to August 1, 2021, information on reinfection cases was entered on the COVID-19 Reinfection Form. The data that was previously reported on the 2019-nCoV form during the original infection was not be erased or deleted.

After August 1, 2021, new positive lab reports collected >90 days from a previous onset date are entered as new cases.

To review the previous COVID case record use the “Options” button beside the Relevant Comorbidity found on the Clinical Tab in EpiTrax.

If vaccine information was entered into the previous event, it can be viewed by clicking “Other Vaccines” on the Clinical Tab. The vaccine information can then be added to the current case record by selecting “+ Add to Event.”

The previous labs from the initial event can also be viewed on the Laboratory tab by selecting “Other Patient Labs”. **DO NOT ADD** the previous labs to the new record.
**At-Home Testing\(^1\) Algorithm Recommendations**

At-Home testing is not performed by CLIA certified facilities; therefore, results of such testing is disregarded when classifying cases.

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1. **Travel Related Exposure or Known Contact to COVID-19 Case**
   - Travel Related Exposure or Known Contact to COVID-19 Case
   - Symptomatic Person
   - No Travel Related Exposure or No Known Contact to COVID-19 Case

   - Positive Result: Treat as probable case (known epi-link plus symptomatic)
   - Negative Result: Treat as probable case (known epi-link plus symptomatic)
   - Positive Results: Suspect case – patient should isolate and recommend confirmatory testing
   - Negative Results: May\(^2\) not need to isolate/can return to work or school

---

1. **Confirmatory Result: POSITIVE**
   - Treat as confirmed/probable case based on type of test performed

2. **Confirmatory Result: NOT DONE**
   - Treat as probable case based on epi-link and symptoms

3. **Confirmatory Result: NEGATIVE**
   - Release from isolation – finish quarantine period from last known exposure

---

\(^{1}\) This algorithm only considers tests performed in “at-home” environments by persons who are not covered by a CLIA certificates or waivers. Tests should be performed within the appropriate timeframe as specified in the FDA EUA from symptom onset or known exposure, and users should follow all the manufacturer’s instructions including taking two tests, a certain amount of time apart, in order to confirm a negative if it is included on the package insert.

\(^{2}\) Negative testing may indicate that COVID-19 isolation is not needed, but restrictions may be required for a symptomatic person based on exclusion measures needed for the symptom (such as diarrhea or fever or influenza-like symptoms). The symptomatic person should always be advised to use appropriate NPI’s and stay at home whenever suffering from acute influenza-like symptoms (an abrupt onset of fever/chills, cough, and/or sore throat). These precautions are best practiced until the symptoms (especially fever) have resolved for at least 24 hours without the use of fever-reducing medications or any lingering symptoms (other than fever) have been improving for the last 72 hours.
Patient Vaccination Data

A patient’s vaccination data can be electronically pulled into EpiTrax from WebIZ in two ways.

**Case (CMR) Clinical Tab**

1. Access the Clinical Tab of the CMR and click on the **Show Vaccine Data From IIS** link in the Vaccines section. Be sure to be in Edit Mode.

2. **Access the WebIZ IIS.** A prompt asking if you want to **Leave site?** will display. Click on Leave if you do not have any unsaved changes in the CMR. Click on Cancel if you need to Save & Continue.
3. **Connect the WebIZ person to the EpiTrax Person.** A connection is established with WebIZ and the results of the Person search are displayed. The search is made on the patient last name, first name and date of birth and an exact match must be achieved. If no results are displayed in the People Found in IIS, WebIZ does not have a vaccination record for the person for the CMR’s specific disease. If a match is found, click on Connect Person to link this WebIZ person record to the CMR. If multiple potential matches are displayed, click on the IIS person you wish to connect.

**Note:** All available WebIZ demographic data for each matched person will display to assist in finding the correct match.
4. **Add Vaccines to EpiTrax.** The Immunization Information System displays all the vaccinations for the patient that are related to the condition in the CMR. Select any or all by clicking on the check box located next to the vaccine Identifier. And click on **Add & Update EpiTrax Vaccines.** If you do not complete this step, the displayed vaccinations will not be linked to the Person or the CMR.

**NOTE:** The Identifier number is the WebIZ unique record in their system. The code is the CVX code for the vaccine.

5. **Disconnect Person.** If you have connected the IIS person in error, click on the Disconnect Person and this IIS person will no longer be connected to the EpiTrax person or CMR.

6. **Confirmation of Added Vaccines.** A report of the added vaccine will display at the top of the page. Select **Back to Event** to view the vaccines in the CMR.
7. **Displayed Vaccines in the CMR.** The Clinical page will display all the selected vaccines linked to this patient’s CMR.
1. Search for the patient by using the People search or click on Edit Person in the CMR. Go to the Clinical Tab and view the data which was previously populated. Click on Show Vaccine Data From IIS to view all of the vaccines found for this patient.

2. Vaccines Available for Person. All vaccines that are available for this connected WebIZ person will display. Click on the Edit button and Select the vaccines you wish to make available in the Person record. Click on Add & Update EpiTrax Vaccines. Then click on Back To Person.

Note: If the patient has an existing CMR condition for a vaccine that is seen here, the CMR will not automatically update. Access the CMR and select Show Vaccine Data From IIS.
# Immunization Information System

## EpiTrax Person
Wayne, Bruce  
**EpiTrax ID:** 2110818  
**Birth date:** 01/15/2005  
**Gender:** M  
**Addresses:**  
- 1320 Elm St, Valley Falls, KS 66008

- **Connected to this IIS person.**

**IIS Immunizations**

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<td></td>
<td></td>
<td></td>
<td>2021-09-22</td>
<td></td>
</tr>
</tbody>
</table>
3. **Vaccines connected to Person.** Go to the Clinical tab in the Edit Person record. All vaccines that are currently linked to an active condition will display for the patient.

4. **View Associated Cases.** The Person record will display all cases that are associated with the vaccine. Vaccines that are not linked to a case for this person will also be displayed.

**NOTE:** Vaccines must be linked to a Condition in EpiTrax for the vaccine to be linked to a CMR. If you find vaccines for the patient in WebIZ that are not importing to the desired CMR, please contact EpiTraxAdmin@ks.gov.
OUTBREAK DEFINITIONS

Outbreaks and clusters of disease occur in households, at events, and in facilities. Some outbreaks at a primary location may result in outbreaks in other settings through secondary transmission. Community outbreaks may represent a conglomeration of these occurrences.

The goal of COVID-19 outbreak reporting is to characterize the epidemiology of the disease in a specific setting, to measure the burden of disease in the setting, and to inform public health action for the setting. The decreasing incidence of cases directly associated to the facility is a good measure of the effectiveness of the control practices within the setting. While it may be proper to associate the secondary cases occurring in settings outside of the primary setting to determine the scope of the outbreak, our current surveillance system does not allow primary and secondary cases to be enumerated separately with the linking of the morbidity events to the outbreak record. Therefore, the focus of surveillance in EpiTrax will be to associate (link) only primary cases to the outbreak record and to report those primary cases in the final numbers. If time allows and the information has been collected, local jurisdictions are still able record the number of secondary cases that occurred with the outbreak in the “Outbreak Summary” of the “Investigation” tab in the outbreak record, but the individual listing of those secondary cases on the “Associated Events” tab will not occur.

The following outbreak definitions are based on proposed CSTE definitions:

- Proposed Investigation Criteria and Outbreak Definition for COVID-19 | CSTE EMERGENCY PREPAREDNESS & RESPONSE

For all outbreaks the following shall be used:

**Outbreak-Associated Cases**
- Confirmed and probable cases associated with the setting meeting the outbreak definition **should be classified as outbreak-associated and included in outbreak case count.**
- Any confirmed and probable cases resulting from secondary transmission from an outbreak-associated case in a family member or close contact of the case who is not associated with the setting **should not be classified as outbreak-associated and will not be 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.

Setting specific Outbreak Definitions follow.
Healthcare, Long-Term Care Facilities, and Long-Term Acute Care Hospitals

Outbreak Definition

- ≥2 cases of COVID-19 in a patient/resident, 7 or more days\(^{\ast}\) after admission for a non-COVID condition, with epi-linkage\(\dagger\);
- ≥2 cases of COVID-19 in HCP* or other staff with epi-linkage\(\ddagger\) 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.

\(\dagger\) If a case is transferred from one facility to another facility and develops COVID-19 less than 7 days later, the case is associated to the first facility’s potential outbreak. If the case becomes the source of an outbreak at the second facility, a notation is made in the first facility’s outbreak record of the secondary outbreak at the second facility. This notation is made on the Administration tab’s description field of the outbreak record.

\(\ddagger\) Epi-linkage among patients/residents: Defined as overlap on the same unit or ward or having the potential to have been cared for by common staff within a 14-day time period of one another.

* Healthcare Personnel (HCP) include, but are not limited to, emergency medical 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 volunteers).

\(\ddagger\) Epi-linkage among HCP: Defined as having the potential to be within 6 feet for 10 minutes or more while working in the facility during the 14 days prior to the onset of symptoms. For example, worked on the same unit during the same shift.

All Other Settings

Outbreak Definition

- ≥2 COVID-19 cases among people at a setting with onset of illness within a 14-day period, who are epidemiologically linked\(\ast\), do not share a household, and are not listed as a close contact\(\ddagger\ddagger\) of each other outside of the setting during standard case investigation or contact tracing.

\(\ast\) To the best extent possible, verify that cases were present in the same setting during the same time-period, that the timing fits with likely timing of exposure, and that there is no other more likely source of exposure for identified cases.

\(\ddagger\ddagger\) Defined as being within 6 feet for 10 minutes or more or having direct contact with secretions (e.g. being coughed or sneezed on).
ADDITIONAL INFORMATION / REFERENCES

A. Quarantine and Isolation: Kansas Community Containment Isolation/ Quarantine Toolbox Section III, Guidelines and Sample Legal Orders
   https://www.kdhe.ks.gov/861/Community-Disease-Containment-Standard-O

B. KDHE COVID-19 Information:
   - Resource Center: https://www.coronavirus.kdheks.gov/

C. Additional Information (CDC):

ATTACHMENTS

To view attachments in the electronic version:
1. Go to <View>; <Show/Hide>; <Navigation Pane>; <Attachments> – OR – Click on the “Paper Clip” icon at the left.
   a. If the icon or attachments are not visible in your browser. Save the document and reopen with Adobe.
2. Double click on the document to open.