COVID-19

Also known as
Severe Acute Respiratory Syndrome Coronavirus 2 or SARS-CoV-2

Investigation Guidance for New Jersey Local Health Departments

September 7, 2020
1 THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

COVID-19 is the infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes coronavirus disease COVID-19, which on March 11, 2020, the World Health Organization (WHO) declared a pandemic.

B. Clinical Description

Common symptoms of COVID-19 include fever, cough, and shortness of breath. Other combinations of symptoms have also been reported, including chills, headache, myalgia, sore throat, a new loss of taste or smell, congestion or runny nose, nausea, vomiting, and diarrhea. Symptoms are mild for most people and begin gradually. Studies have documented infection in patients who never develop symptoms (asymptomatic) and in patients not yet symptomatic (pre-symptomatic). Since asymptomatic persons are not routinely tested, the prevalence of asymptomatic infection and detection of pre-symptomatic infection is not well understood and may be more prevalent than previously expected. WHO reports that data suggest that 80% of infections are mild or asymptomatic, 15% are severe infection, requiring oxygen and 5% are critical infections, requiring ventilation (https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200306-sitrep-46-covid-19.pdf?sfvrsn=96b04adf_4).

Atypical presentations have been described and older adults and persons with medical comorbidities may have delayed presentation of fever and respiratory symptoms. Lymphopenia, neutrophilia, elevated serum alanine aminotransferase and aspartate aminotransferase levels, elevated lactate dehydrogenase, high CRP, and high ferritin levels may be associated with greater illness severity. Most people (about 80%) recover without needing treatment, but approximately 1 out of 6 people infected becomes seriously ill and develops difficulty breathing. Older people, and those with underlying medical conditions such as heart conditions, pulmonary disease or diabetes, are more likely to develop serious illness. The clinical spectrum ranges from mild disease with non-specific signs and symptoms of acute respiratory illness, to severe pneumonia with respiratory failure and septic shock. Treatment for COVID-19 is supportive care.

C. Reservoirs

Much is unknown about COVID-19. Current knowledge is largely based on what is known about similar coronaviruses. Coronaviruses are a large family of viruses that are common in many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses...
can infect people and then spread between people, such as with MERS-CoV, SARS-CoV, and now with SARS-CoV-2, the virus that causes COVID-19.

The SARS-CoV-2 virus is a betacoronavirus, like MERS-CoV and SARS-CoV and is thought to originate in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir.

D. Mode of Transmission

Based on what is currently known about COVID-19, spread is thought to occur mostly from person-to-person via respiratory droplets among close contacts. Close contact is defined as:

a) Being within approximately 6 feet of a COVID-19 case for a prolonged period of time (≥ 10 minutes); OR

b) Direct contact with infectious secretions from a patient with COVID-19. Infectious secretions may include sputum, serum, blood, and respiratory droplets (e.g., being coughed or sneezed on).

Given the growing evidence of transmission risk from asymptomatic or pre-symptomatic persons, the period of exposure risk starts at 48 hours before symptom onset. The risk of transmission is thought to be greatest when patients are symptomatic.

Transmission of novel coronavirus to persons from surfaces contaminated with the virus has not been documented, but current evidence suggests that COVID-19 may remain viable for hours to days on surfaces made from a variety of materials.

At this time, the risk of COVID-19 spreading from animals to people is considered to be low. It appears that the virus that causes COVID-19 can spread from people to animals in some situations. A small number of pets worldwide, including cats and dogs, have been reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19.

E. Incubation Period

Existing literature regarding SARS-CoV-2 and other coronaviruses suggest that the incubation period may range from 2–14 days with a median of 4-5 days.

F. Period of Communicability or Infectious Period

Available data indicate that persons with mild to moderate COVID-19 remain infectious no longer than 10 days after symptom onset. Persons with more severe to critical illness or severe immunocompromise likely remain infectious no longer than 20 days after symptom onset. Recovered persons can continue to shed detectable SARS-CoV-2 RNA in upper respiratory specimens for up to 3 months after illness onset, although at concentrations considerably lower than during illness, in ranges where replication-competent virus has not been reliably recovered and infectiousness is unlikely. The etiology of this persistently detectable SARS-CoV-2 RNA has
yet to be determined. Studies have not found evidence that clinically recovered persons with persistence of viral RNA have transmitted SARS-CoV-2 to others. Infectious virus has not been cultured from urine or reliably cultured from feces (CDC unpublished data, Midgely 2020, Wölfel 2020); these potential sources pose minimal if any risk of transmitting infection and any risk can be sufficiently mitigated by good hand hygiene.

G. Epidemiology

Coronavirus disease (COVID-19) is caused by SARS-COV2 and has been declared a pandemic. Initially, many of the patients at the epicenter of the outbreak in Wuhan, Hubei Province, China had some link to a large seafood and live animal market, suggesting that this is likely the zoonotic origin of COVID-19. Later, the virus spread person-to-person, and was subsequently reported outside Hubei and in countries outside China, including in the United States. The largest number of cases in New Jersey had illness onset in early to mid-April 2020. Initially, cases were concentrated in the northeastern part of the state, but each county in the state has been impacted. New Jersey COVID-19 data is posted online at https://www.nj.gov/health/cd/topics/covid2019_dashboard.shtml & https://www.state.nj.us/health/cd/topics/ncov.shtml.

2 CASE DEFINITION

*CSTE updated case definition: August 2020

INDIVIDUAL CASES

A. Clinical Criteria

In the absence of a more likely diagnosis:

At least two of the following symptoms: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, congestion or runny nose.

OR

Any one of the following symptoms: cough, shortness of breath, difficulty breathing, new olfactory disorder, new taste disorder.

OR

Severe respiratory illness with at least one of the following:

- Clinical or radiographic evidence of pneumonia, or
- Acute respiratory distress syndrome (ARDS)
B. Laboratory Criteria

Laboratory evidence using a method approved or authorized by the FDA or designated authority*:

Confirmatory laboratory evidence:

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

Presumptive laboratory evidence:

- Detection of SARS-CoV-2 by antigen test in a respiratory specimen.

Supportive laboratory evidence:

- Detection of specific antigen by immunocytochemistry in an autopsy specimen.

C. Epidemiologic Linkage

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

- Close contact** with a confirmed or probable case of COVID-19 disease; or
- Member of a risk cohort as defined by public health authorities during an outbreak.

**Close contact is defined as being within 6 feet for at least 10 minutes. In healthcare settings, this may be defined as exposures of greater than a few minutes or more, depending on the type of exposure. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact.

D. Vital Records Criteria

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

E. Case Classification

Confirmed:

- Meets confirmatory laboratory evidence.

Probable:

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

** NJDOH will be using the August CSTE case definition to classify all 2020 antigen-positive cases as PROBABLE.
Possible:

- Any case that has an inconclusive or equivocal laboratory result for COVID-19. Upon subsequent testing, these individuals may be moved to another case status***.
- Meets supportive laboratory evidence with no prior history of being a confirmed or probable case.

Not a case:

- Any case that has a negative (or invalid) laboratory result for COVID-19 (without another positive result).
- Any case with a positive serology test result (IgM, IgG, etc.,) without another positive viral test result.

* Depending on the laboratory performing the test, positive results may be reported as positive, presumptive positive, reactive, or detected.

*** Indeterminate, inconclusive, or equivocal test results: If repeat testing is provided on the same specimen or on a new specimen collected within 2 days of initial specimen collection date and is negative, treat as NAC; otherwise, treat cases as confirmed for the purposes of public health follow-up (isolation, quarantine, social distancing, etc.), but keep case status as POSSIBLE.

F. Criteria to distinguish a New case: A repeat positive test for SARS-CoV-2 RNA using a molecular amplification detection test within 3 months of the initial report should not be enumerated as a new case for surveillance purposes. To date, there has been minimal evidence of re-infection among persons with a prior confirmed COVID-19 infection and growing evidence that repeat positive RNA tests do not correlate with active infection when viral culture is performed. Similarly, the experience with other coronaviruses is that reinfection is rare within the first year. NOTE: The time period of 3 months may be extended further when more data becomes available.

OUTBREAK DEFINITIONS

ACUTE CARE HOSPITALS

- ≥2 cases of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition, with epi-linkage (overlap on the same unit or ward, or cared for by same HCP within 14-day time period)²
- ≥2 cases of confirmed COVID-19 in HCP with an epi-linkage (being within 6 feet of each other for 10 minutes or longer while working in the facility during the 14 days prior to onset of

² Healthcare Personnel (HCP) defined by CDC include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the healthcare facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel)
symptoms), who do not share a household, and are not listed as a close contact of each other outside of the workplace.

**CONGREGATE SETTINGS (OTHER THAN LTCF/LTACH)**

- Two or more laboratory-confirmed COVID-19 cases among residents or staff with onsets occurring within a 14-day period or 1 laboratory-confirmed case and other symptomatic individuals.

**EDUCATIONAL SETTINGS[^3]**

- Two or more laboratory-confirmed COVID-19 cases among students or staff with onsets within a 14-day period, who are epidemiologically linked within the school setting, do not share a household, and were not identified as close contacts of each other in another setting during standard case investigation or contact tracing.

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

**WORKPLACE SETTINGS (NON-RESIDENTIAL, NON-HEALTHCARE)**

- Two or more laboratory-confirmed COVID-19 cases among workers at a facility with onset of illness within a 14-day period, who are epidemiologically linked within the workplace, 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.

- *Note: confirmed and probable cases among workers in a non-residential, non-healthcare workplace setting meeting the outbreak definition should be classified as outbreak-associated. This includes cases resulting from secondary transmission from an outbreak associated case among workers who live in shared housing facilities (e.g. migrant labor camps) or use shared transportation services for work commute provided by the employer. Individual cases resulting from secondary transmission from an outbreak-associated case (e.g., a family member of a worker), who is not employed by the business/employer should not be included in the outbreak case count.*

**COMMUNITY CLUSTERS (NON-HOUSEHOLD)**

- Three or more laboratory-confirmed COVID-19 cases who are epidemiologically linked to each other with onset of illness within a 14-day period, but who do not share a common residence.

[^3]: Educational settings are broadly defined and include but are not limited to youth camps, youth programs, childcare centers, preschools, primary through secondary schools, vocational schools, colleges, and universities.
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This would include individuals who attended a common event or place and for whom disease occurrence is plausible (i.e., occurs within appropriate incubation period).

OUTBREAK CONCLUSION: Outbreaks are considered concluded when there are no new symptomatic/asymptomatic probable or confirmed COVID-19 cases after 28 days (2 incubation periods) has passed since the last case’s onset date or specimen collection date (whichever is later).

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

LTCF/LTACH should report to LHD immediately by telephone:

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

The LHD should work with CDS and LTCF on public health investigation and determine if an outbreak exists. Consult with CDS Epidemiologist and NJDOH LTCF guidance: https://www.state.nj.us/health/cd/topics/covid2019_healthcare.shtml

LTCF/LTACH OUTBREAK DEFINITION

• ≥1 facility-onset COVID-19 case in a resident
  o Facility-onset COVID-19 infection in a long-term care resident is defined as a confirmed diagnosis >14 days or more after admission for a non-COVID condition, without an exposure during the previous 14 days to another setting where an outbreak was known or suspected to be occurring unless there is confirmation of possible transmission or exposure through a breach in PPE.
    - Does not apply to residents who were positive for COVID-19 on admission to the facility and were placed into appropriate Transmission-Based Precautions (TBP) OR residents who were placed into TBP on admission and developed SARS-CoV-2 infection within 14 days after admission, unless there is confirmation of possible transmission or exposure through a breach in PPE.
• ≥2 laboratory-confirmed COVID-19 cases among HCP within a 14-day period.

NOTE: There will be situations where new cases of COVID-19 are reported to local health departments that might not meet the criteria of an outbreak due to increased testing in LTCF/LTACH settings. If new cases are identified at a LTCF/LTACH among staff or residents but a facility does not meet the criteria for an outbreak, there still may be public health action to determine if transmission occurred at the facility. To distinguish these scenarios, CDS will issue an “Investigation number” or “I-number” instead of an “Outbreak number/E-number.” If an investigation at a facility reveals COVID-19 transmission or an outbreak is detected, the “I number” will change into an “E-number.” Table 1 provides additional guidance on the differences between when a facility is in an active investigation or an outbreak and describes the public health actions that long-term care facilities should take for each scenario.

4 New Jersey licensed Long-Term Care Facilities, Assisted Living Residences, Comprehensive Personal Care Homes, Residential Health Care Facilities, and Dementia Care Homes (collectively “LTCFs”)
Individuals can be infected with more than one virus at the same time. Co-infections with other respiratory viruses in people with COVID-19 have been reported. Therefore, identifying infection with one respiratory virus does not exclude SARS-CoV-2 virus infection.

### Table 1: Case and Outbreak Reporting and Investigation Requirements for COVID-19 in Long-Term Care Facilities

<table>
<thead>
<tr>
<th>LTC Status Category</th>
<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td>Investigation Issue “I” Number</td>
<td>1 probable or confirmed COVID-19 case in HCP</td>
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<tr>
<td>Investigation Issue “I” Number</td>
<td>≥ 1 probable or confirmed facility-onset COVID-19 case in a previously known positive resident or HCP (&gt; 3 months from previous illness onset or positive test)</td>
</tr>
<tr>
<td>Investigation Issue “I” Number</td>
<td>≥ 2 new cases of probable or confirmed COVID-19 among residents who have been in the facility &lt;14 days (e.g. 2 residents on observation unit)</td>
</tr>
<tr>
<td>Investigation for COVID-19/Outbreak of unknown etiology Issue “E” Number</td>
<td>≥ 3 cases of acute illness of unknown etiology compatible with COVID-19 in residents or HCP with onset within a 72h period.</td>
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<th>Public Health Action or Recommendation</th>
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<tr>
<td>• Perform facility-wide testing of all residents (who have not tested positive in the previous 3 months) until at least 14 days have elapsed since the most recent positive result and during this 14-day period at least two weekly tests have been conducted with all individuals testing negative.</td>
</tr>
<tr>
<td>• Continue HCP testing, as directed. (see NJDOH Executive Directives 20-026).</td>
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<tr>
<td>• Increase symptom monitoring in all residents to per shift until 14 days have passed with no new cases identified.</td>
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<tr>
<td>• Restrict indoor visitation, group activities and communal dining on affected units. Outdoor visitation may continue per ED 20-017.</td>
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<tr>
<td>• If the newly identified COVID-19 case was a new- or re-admission (less than 14 days), the facility should alert the prior facility where the resident was transferred/admitted from. That facility should identify resident close contacts and assess HCP risk per the NJDOH COVID-19 Disease Chapter Manual.</td>
</tr>
<tr>
<td>• Implement Transmission-Based Precautions for resident care on all affected units.</td>
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<tr>
<td>• If the newly identified COVID-19 case was in a HCP who worked at additional facilities in the 48 hours prior to illness onset or specimen collection, the HCP or the LHD should notify those facilities so they may conduct the appropriate contact tracing and investigation (see Guidance for COVID-19 Diagnosed and/or Exposed Healthcare Personnel).</td>
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<tr>
<td>• If the individual with newly positive test results was previously positive more than 3 months prior, then an infectious disease specialist should be consulted to determine if these results are due to reinfection and if the individual requires isolation.</td>
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<th>Resolution/Conclusion</th>
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<tr>
<td>• No new cases identified amongst HCP or residents in at least 2 rounds of subsequent testing (14 days)</td>
</tr>
<tr>
<td>• No new cases identified amongst HCP or residents in at least 2 rounds of subsequent testing (14 days) AND</td>
</tr>
<tr>
<td>• Cases of acute illness compatible with COVID-19 in residents or HCP test negative for SARS COV-2 and/or an alternate diagnosis is found AND/OR</td>
</tr>
<tr>
<td>• Meet the criteria outlined within the appropriate NJDOH Outbreak and Control Recommendations and any additional public health guidance.</td>
</tr>
</tbody>
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5 Individuals can be infected with more than one virus at the same time. Co-infections with other respiratory viruses in people with COVID-19 have been reported. Therefore, identifying infection with one respiratory virus does not exclude SARS-CoV-2 virus infection.
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<th>Resolution/Conclusion</th>
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</table>
| Outbreak            | ≥ 1 facility-onset\(^6\) probable or confirmed COVID-19 case in a resident | • Issue Outbreak Investigation “E” Number  
• Perform facility-wide testing of all residents (who have not tested positive in the previous 3 months) until at least 14 days have elapsed since the most recent positive result and during this 14-day period at least two weekly tests have been conducted with all individuals testing negative.  
• Continue HCP weekly testing, as directed.  
• Conduct full outbreak investigation and recommendations in coordination with Facility/LHD/NJDOH (see Outbreak Management Checklist). | • No symptomatic/asymptomatic probable or confirmed COVID-19 cases after 28 days (2 incubation periods) has passed since the last case’s onset date or specimen collection date (whichever is later) |

\(^6\) Facility-onset SARS-CoV-2 infections refers to SARS-CoV-2 infections that originated in the nursing home. It does not refer to the following:

- Residents who were known to have COVID-19 on admission to the facility and were placed into appropriate Transmission-Based Precautions to prevent transmission to others in the facility.
- Residents who were placed into Transmission-Based Precautions on admission and developed SARS-CoV-2 infection within 14 days after admission, unless there is confirmation of possible transmission or exposure through a breach in PPE.
3 LABORATORY TESTING

Viral tests are recommended to diagnose acute COVID-19 infection. Authorized assays for viral testing include those that detect SARS-CoV-2 nucleic acid or antigen. Viral tests are acceptable for the purpose of case detection and public health action. A list of FDA Emergency Use Authorizations (EUA) for diagnostic tests is available at https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd.

Generally, viral testing for SARS-CoV-2 is considered diagnostic when conducted among individuals with symptoms consistent with COVID-19 or among asymptomatic individuals with known or suspected recent exposure to SARS-CoV-2 to control transmission, or to determine resolution of infection. Viral testing is screening when conducted among asymptomatic individuals without known or suspected exposure to SARS-CoV-2 for early identification, and surveillance when conducted among asymptomatic individuals to detect transmission hot spots or characterize disease trends.

Viral testing for COVID-19 should be considered for:

- Individuals with signs or symptoms consistent with COVID-19
- Asymptomatic individuals with recent known or suspected exposure to SARS-CoV-2 to control transmission
- Asymptomatic individuals without known or suspected exposure to SARS-CoV-2 for early identification in special settings
- Individuals being tested to determine resolution of infection (i.e., test-based strategy for Discontinuation of Transmission-based Precautions)
- Individuals being tested for purposes of public health surveillance for SARS-CoV-2
- Individuals who are concerned about possible COVID-19 exposure due to higher risk activities (e.g., attending a large gathering where face coverings were not worn and social distancing was not implemented)

Molecular tests (NAAT, RT-PCR) that detect the genetic material of the virus are considered to be the gold standard to detect active COVID-19 infections. These tests have varied sensitivity and specificity and turnaround times.

Rapid antigen tests are less sensitive than PCR tests, and therefore may return a negative result, while a more sensitive test, such as RT-PCR, may return a positive result. The specificity of rapid antigen tests is generally as high as RT-PCR, which means that false positive results are unlikely.

Rapid antigen tests are particularly helpful if the person is tested in the early days of symptoms with SARS-CoV-2 when viral load is generally highest. They also may be informative in diagnostic
testing situations in which the person has a known exposure to a confirmed case of COVID-19. Rapid antigen tests may be used for screening testing in high-risk congregate settings in which repeat testing could quickly identify persons with a SARS-CoV-2 infection to inform infection prevention and control measures, thus preventing transmission throughout the congregate setting. In this case, there may be value in providing immediate results with antigen tests even though they may have lower sensitivity than RT-PCR tests, especially in settings where a rapid turnaround time is required.

In most cases, negative antigen diagnostic test results are considered presumptive. CDC recommends confirming negative antigen test results with an RT-PCR test when the pretest probability is relatively high, especially if the patient is symptomatic or has a known exposure to a person confirmed to have COVID-19. When confirming an antigen test result with a RT-PCR test, it is important that the time interval between the two sample collections is less than two days, and there have not been any opportunities for new exposures between the two tests. If more than two days separates the two tests, or there have been opportunities for new exposures between the two tests, the nucleic acid test should be considered a separate test – not a confirmatory test. [https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html](https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html)

**Serology (antibody) testing** (e.g., IgG, IgA, IgM) for COVID-19 may be used to identify people who were previously infected with COVID-19. Antibodies in some persons can be detected within the first week of illness onset. SARS-CoV-2 infections are somewhat unusual because IgM and IgG antibodies arise nearly simultaneously in serum within 2 to 3 weeks after illness onset. Thus, detection of IgM without IgG is uncommon. How long IgM and IgG antibodies remain detectable following infection is not known and some persons do not develop detectable antibodies following infection. Recurrence of COVID-19 illness appears to be very uncommon, suggesting that the presence of antibodies could confer at least short-term immunity to infection with SARS-CoV-2. However, definitive data are lacking, and it remains uncertain whether individuals with antibodies (neutralizing or total) are protected against reinfection with SARS-CoV-2 or what concentration of antibodies is needed to confer protection.

Serology testing should not be used to diagnose current COVID-19 infection since antibody responses to infection may take days to weeks to be detectable; a negative serologic test does not rule out active infection; and a positive serologic test may reflect prior infection with a human coronavirus other than SARS-CoV-2. Due to the time from illness onset to when sufficient antibodies are detectable through testing, it is likely that public health investigation and control measures would be of limited utility. Serological testing should currently not be used for case detection or public health action. Serologic test results should not be used to make decisions about grouping persons residing in or being admitted to congregate settings, such as schools, dormitories, or correctional facilities; and should not be used to make decisions about returning persons to the workplace. There should be no change in clinical practice or use of personal protective equipment (PPE) by health care workers and first responders who test positive for SARS-CoV-2 antibody. This guidance may change as additional information is known about these tests. [https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html](https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html) & [https://www.state.nj.us/health/cd/documents/topics/NCOV/COVID19_serology_overview.pdf](https://www.state.nj.us/health/cd/documents/topics/NCOV/COVID19_serology_overview.pdf)

**Specimens:** For viral tests, CDC recommends collecting and testing an upper respiratory specimen. Acceptable specimens vary by test kit and include:
A nasopharyngeal (NP) specimen collected by a healthcare provider; or
- An oropharyngeal (OP) specimen collected by a healthcare provider; or
- A nasal mid-turbinate swab collected by a healthcare provider or by a supervised onsite self-collection (using a flocked tapered swab); or
- An anterior nares (nasal swab) specimen collected by a healthcare provider or by onsite or home self-collection (using a flocked or spun polyester swab); or
- Nasopharyngeal wash/aspirate or nasal wash/aspirate (NW) specimen collected by a healthcare provider; or
- saliva specimens.

When it is clinically indicated (e.g., those receiving invasive mechanical ventilation), a lower respiratory tract aspirate or bronchoalveolar lavage sample is also an option. Testing for SARS-CoV-2 is rapidly evolving. Check FDA’s SARS-CoV-2 page (https://www.fda.gov/medical-devices/emergency-situations-medical-devices/faqs-diagnostic-testing-sars-cov-2) for acceptable tests and collection methods. Clinicians should contact their reference lab to find out what specimen types are acceptable and if testing supplies are available. Alternately, clinicians can order testing supplies from their contracted medical supplier.


Testing availability: Testing for SARS-CoV-2 is available at many commercial laboratories, pharmacies, healthcare providers, county-sponsored clinics, and at PHEL. For a list of sites where testing is available (many without a doctor’s order) see https://covid19.nj.gov/.

PHEL Testing Criteria: Public health testing (PHEL) is prioritized for vulnerable populations at greatest risk for adverse outcomes, those in high-risk professions, and testing associated with public health investigations, specifically:

- Hospitalized patients with COVID-compatible illness
- Persons with COVID-compatible illness who work, attend, or are residents of healthcare facilities (acute care, outpatient, long-term care), or other congregate settings (school or daycare facilities, homeless shelters, correctional facilities, etc.).
- Persons with COVID-compatible illness who are associated with clusters or outbreaks as identified by state/local health agencies.

Requesting Testing at PHEL: For patients meeting public health testing criteria, acute care facilities requesting testing at PHEL should enter cases into CDRSS:

- Select disease subgroup 2019 NCOV;
- Enter medical facility (date of admission, if in ICU or on ventilator) and treating provider information;
- Enter signs and symptoms and complete ADDITIONAL REQUIREMENTS section;
• In the LABORATORY AND DIAGNOSTIC TEST INFORMATION section add the test “SARS CORONAVIRUS 2 RNA BY PCR” and add “NJPHEL” to the lab name;
• Include the CDRSS Case ID# as the “CDS Approval Number” on the PHEL SRD-1 form (*one SRD-1 form is required for each specimen*).
• Email the Virology group at Virology.PHEL@doh.nj.gov with the CDRSS # and the estimated delivery time of the specimens.

Providers and facilities not having access to CDRSS should contact their local health department, who should enter the case into CDRSS and issue the SRD-1 form to the provider/facility.

**PHEL Testing Results:** Results should be available 24-48 hours after PHEL receives the specimen(s) and are provided via fax to the submitting laboratory and reported electronically in CDRSS. If it has been > 4 days since the specimen was received at PHEL, contact the NJ Public Health and Environmental Laboratory-Virology Program at 609-530-8516 or virology.PHEL@doh.nj.gov.

**Current guidance on laboratory testing:**


• CDC: https://www.cdc.gov/coronavirus/2019-nCoV/lab/guidelines-clinical-specimens.html

• FDA: https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd

### 4 PURPOSE OF SURVEILLANCE AND REPORTING

• To ensure that COVID-19 cases are quickly identified and appropriately isolated to prevent further disease transmission.

• To identify close contacts and provide recommendations on self-quarantine, social distancing, and movement restrictions, to prevent further disease transmission.

• To identify and manage contacts in high-concern settings, and that care for vulnerable populations, including in healthcare, long-term care, schools and daycare facilities, correctional facilities, and other congregate settings.

• To identify risk factors for exposure, severity, and outcomes to target prevention messaging for at-risk groups.

• To characterize clinical presentation and severe outcomes, so healthcare partners can plan for appropriate patient care.

• To provide epidemiological information to stakeholders and the public.
REPORTING PROCEDURES

A. COVID-19 Test Results

All healthcare providers, laboratories, and facilities performing testing for COVID-19 must report COVID-19-positive and negative laboratory-test results (molecular, antigen, serology) to public health authorities electronically through CDRSS. All reported cases must contain complete contact information for the patient and healthcare provider. Outpatient providers and administrators of other facilities should request COVID-19 Quick Start access to CDRSS and report all laboratory test results electronically into CDRSS. Facilities/providers with a large volume of test reports to report should contact CDRSS Admin personnel to discuss alternatives for electronic reporting: cdrs.admin@doh.nj.gov. In the interim, providers and facilities should notify the local health department (LHD) by telephone and the LHD should enter the information in CDRSS (with the exception of negative serology results for LHDs only). Persons with pending COVID-19 test results do not need to be entered in CDRSS.

B. COVID-associated deaths

Hospital administrators are asked to report COVID-19 associated deaths occurring within their facility electronically through CDRSS, including date of admission, date of discharge (date of death), if patient had pre-existing medical conditions (specify), if patient was in ICU, if on mechanical ventilation, date of death, and if the patient was associated with a long-term care facility or other known outbreak. Documentation in CDRSS serves as public health notification; phone calls are not needed. **If reporting staff don’t have timely access to CDRSS, administrators should report COVID-19 associated deaths by telephone to their LHD. Information should still be entered into CDRSS as soon as is feasible.

Long-term care administrators, outpatient providers, and administrators of other facilities are asked to report COVID-19 associated deaths to their LHD by telephone. Reports should include deaths associated with a suspect or confirmed COVID-19 outbreak, even if the resident that died was not tested for COVID-19.

LHDs should immediately update CDRSS for all COVID-positive deaths, including date of death; if the patient had pre-existing medical conditions (specify); name of medical facility (if hospitalized); dates of admission and discharge (date of death), if patient was in ICU, if on mechanical ventilation, if patient was a resident of a long-term care facility (LTCF) or other communal living facility (specify name); and if this case is associated with a known outbreak (enter E#). Phone calls to NJDOH are not needed if the information is provided in CDRSS. For deaths associated with an outbreak, if the person meets the PROBABLE case definition, LHDs should enter these cases in CDRSS, even in the absence of laboratory confirmation and enter the appropriate outbreak E-number.

C. Suspect or Confirmed COVID-19 Outbreaks
LHDs should continue to report suspected or confirmed outbreaks of COVID-19 by telephone to NJDOH following standard reporting procedures.

D. Out-of-Jurisdiction Close Contacts

Within NJ: LHDs should enter contact information into the case in CommCare, add the contact’s address into the address section, and transfer the contact if the contact lives in another county. If the contact lives in another LHD jurisdiction within their county, update the contact’s address and unassign the contact from the case investigator. The LHD where the contact resides should close the contact record once the investigation is complete.

Out-of-State: If close contacts are identified who live outside of NJ, update CommCare with the correct address and transfer the contact to New Jersey. Please ensure the record has the contact’s name, DOB, address, phone number and/or email, and date of last known exposure to the NJ confirmed case. Please email CDS.COV.DM@doh.nj.gov the CDRSS Case ID# after it has been transferred to the state space in CommCare.

6 CASE INVESTIGATION

A. Investigation

1. Timely investigation of COVID-positive cases and identification of close contacts is critical to prevent further disease transmission. All new COVID-positive cases will be transferred from CDRSS into CommCare (Login: https://www.commcarehq.org/accounts/login/, helpdesk: oit-esd@tech.nj.gov) and should be interviewed accordingly. LHDs should enter all investigation information into CommCare except for outbreak information (E# case linkage), which should still be entered in CDRSS. LHDs are asked to interview COVID-19 cases and identify and communicate with close contacts within 24 hours of case creation/contact identification. The level of disease transmission in each jurisdiction and the availability of local resources may determine if public health efforts should focus on identifying areas of potential exposure, all close contacts, or high-concern contacts (e.g., healthcare, long-term care, other congregate settings with vulnerable populations). All close contacts should be identified and provided with information on self-isolation and/or quarantine. If local resources allow, LHDs should actively monitor close contacts to ensure compliance with recommendations and to quickly identify additional cases.

2. Reinfection / Repeat Testing: Reinfection with SARS-CoV-2 in recovered persons appears to be quite rare. Persons infected with related endemic human betacoronavirus appear to become susceptible again at around 90 days after onset of infection. Thus, for persons recovered from SARS-CoV-2 infection, a positive PCR during the 90 days after illness onset more likely represents persistent shedding of viral RNA than reinfection.

Repeat testing within 3 months after initial positive COVID-19 test: For persons previously diagnosed with symptomatic COVID-19 who remain asymptomatic after recovery, retesting is not recommended within 3 months after the date of symptom onset for the initial COVID-19
infection. If re-testing is performed within 3 months, re-isolation would not be indicated, and quarantine would not be recommended in the event of close contact with an infected person.

For persons who develop new symptoms consistent with COVID-19 <3 months after the date of initial symptom onset, if an alternative etiology cannot be identified by a provider, then the person may warrant retesting; consultation with infectious disease or infection control experts is recommended. Isolation may be considered during this evaluation based on consultation with an infection control expert, especially in the event symptoms develop within 14 days after close contact with an infected person. For persons who never developed symptoms, the date of first positive RT-PCR test for SARS-CoV-2 RNA should be used in place of the date of symptom onset. If re-testing is performed within 3 months, there would be no need for re-isolation and quarantine would not be recommended in the event of close contact with an infected person.

Repeat testing beyond 3 months after initial positive COVID-19 test:

Apart from LTCFs/LTACHs, persons who have a positive viral test >3 months after symptom onset or initial viral test should be treated as a possible reinfection (new case) unless further review from an Infectious Disease Specialist and public health authorities determine that the repeat positive test is not a new COVID-19 infection and that the person is not infectious. In the absence of such determination, appropriate isolation precautions and contact tracing/management should be re instituted, and persons who are identified as close contacts should be quarantined (https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html#Patients-with-Persistent-or-Recurrent-Positive-Tests).

In LTCFs, CDC recommends a more conservative approach. If an individual tests positive (viral test) >3 months after an initial positive test, it should be managed as a new infection or re-infection and control measures should be implemented (Refer to Section 2, Table 1).

Repeat Testing and CDRSS: If repeat testing is performed <6 months after the first PCR test result, the new test result will append to the existing case in CDRSS. Document the new investigation findings in CDRSS and add note in comments: “possible reinfection or persistent/intermittent viral shedding, public health actions re instituted.”

If repeat testing is performed >6 months after the first PCR test, create a new case in CDRSS, document the investigation findings, and note the previous case ID# in comments. Do not merge with previous case.

B. Case Ascertainment and CDRSS Documentation

- LHDs should investigate all positive viral test results (molecular or antigen), implement timely control measures, and classify cases according to the case definition.

- LHDs should link all COVID-19 cases (and deaths) associated with an outbreak (lab-confirmed and clinically compatible with no test results) by entering the outbreak E# in these cases under the Outbreak Information section. COVID-19 outbreak associated cases without laboratory test results should be manually entered into CDRSS and linked using the Outbreak E#.
• LHDs should NOT investigate positive serology (antibody) reports. If an existing case is in CDRSS, a new laboratory report should append to the case without changing case or report status. **Disregard serology results** and investigate/classify the case as per case definition (review type of laboratory test). If a new case is created with a positive serological laboratory test result only (no viral test result), the report will be E-SORTED/E-CLOSED. If results from serology tests are received by fax (e.g., out-of-state laboratory), the LHD should enter **positive** results into CDRSS and classify as NOT A CASE/LHD CLOSED. Negative serology results do not need to be entered manually by LHDs.

**PROBABLE CASES**

• If LHDs become aware of cases meeting the PROBABLE case definition without laboratory evidence (meeting clinical and epidemiological criteria), they should be entered into CDRSS. Persons meeting epidemiological criteria are only those identified through public health investigation – a known close contact or in the context of a known outbreak setting. For persons identified as a close contact in one CDRSS case, if the contact develops symptoms, the LHD should create a separate COVID-19 case for that person. If available, symptomatic close contacts should be considered for COVID-19 testing. Probable cases include cases identified as part of an outbreak that may not be tested for COVID-19. Classify per case definition.

  o If a known close contact develops symptoms and meets the PROBABLE case definition, but then tests negative for COVID-19, assuming testing was performed close to the time of illness onset (not significantly before or after illness onset), the case status should be changed to NOT A CASE.

  o If a LTCF resident meets the PROBABLE case definition as part of an outbreak, but tests negative for COVID-19, the LHD should review the timing of exposure, illness onset, and COVID-19 testing. If testing was performed close to the time of illness onset, the case status should be changed to NOT A CASE and the person should be removed from the line list/outbreak count.

• Deaths meeting PROBABLE criteria that are reported through the Electronic Death Reporting System (EDRS) (meeting vital records criteria) will be entered by CDS into CDRSS as PROBABLE/DHSS APPROVED. Due to the delay in receiving EDRS reports, the possibility of effective public health intervention is low. LHDs do NOT need to investigate death reports entered as PROBABLE/DHSS APPROVED.

  o If COVID-19 test results are received post-mortem, the case status should be changed to CONFIRMED if tests are positive or changed to NOT A CASE if tests are negative (depending on timing of testing in relation to illness onset).

• Contact Tracing: Contact tracing should be performed on PROBABLE cases. PROBABLE cases who haven’t been tested for COVID-19 should be considered for testing if testing is available.
C. Key CDRSS Fields Needed for COVID-19 Cases (most will migrate from CommCare)

<table>
<thead>
<tr>
<th>CDRSS Screen</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Info</td>
<td>For COVID-positive cases, select subgroup 2019 NCOV</td>
</tr>
<tr>
<td>Patient Personal Information</td>
<td>Race and ethnicity are important to understand how novel diseases are impacting New</td>
</tr>
<tr>
<td></td>
<td>Jersey residents</td>
</tr>
<tr>
<td>Addresses</td>
<td>Include out-of-jurisdiction (within NJ) close contacts (or facilities) as an Additional</td>
</tr>
<tr>
<td></td>
<td>Address to grant access to the case to the LHD where the close contact resides. Notify</td>
</tr>
<tr>
<td></td>
<td>that LHD and provide the CDRSS Case ID#.</td>
</tr>
<tr>
<td>Clinical Status</td>
<td>• Illness onset date</td>
</tr>
<tr>
<td></td>
<td>• Was patient hospitalized (complete for both YES and NO answers)</td>
</tr>
<tr>
<td></td>
<td>• Pre-existing conditions (select NONE if applicable)</td>
</tr>
<tr>
<td></td>
<td>• Patient died (complete for YES and NO answers); if YES, add in date of death</td>
</tr>
<tr>
<td>Medical Facility and Provider Information</td>
<td>Patient Status</td>
</tr>
<tr>
<td></td>
<td>For admitted patients (patient status = INPATIENT):</td>
</tr>
<tr>
<td></td>
<td>• Date of admission AND discharge (if died, date of discharge = date of death)</td>
</tr>
<tr>
<td></td>
<td>• Was patient in ICU</td>
</tr>
<tr>
<td></td>
<td>• Was patient on ventilator</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>Is patient pregnant</td>
</tr>
<tr>
<td>Risk Factors</td>
<td>Complete all</td>
</tr>
<tr>
<td>Signs/Symptoms</td>
<td>• Enter responses for all default symptoms (YES and NO answers)</td>
</tr>
<tr>
<td></td>
<td>• SENSORY DEFICIT – write “taste” and/or “smell” in attribute field if applicable</td>
</tr>
<tr>
<td></td>
<td>• Add additional symptoms as needed</td>
</tr>
<tr>
<td></td>
<td>• Enter ASYMPTOMATIC if applicable</td>
</tr>
<tr>
<td>Outbreak Information</td>
<td>Link cases associated with a known outbreak (E-Number)</td>
</tr>
<tr>
<td>Contact Tracing (if feasible given disease burden and resources)</td>
<td>Did the patient have close contact with a laboratory-confirmed case, or an ill person</td>
</tr>
<tr>
<td></td>
<td>epidemiologically linked to a lab-confirmed case, prior to the onset of symptom(s)? (</td>
</tr>
<tr>
<td></td>
<td>If yes, add contacts – by case ID)</td>
</tr>
<tr>
<td></td>
<td>Has this case come in close contact with others during the infectious period? (If yes,</td>
</tr>
<tr>
<td></td>
<td>add contacts – by name; include contact info, last exposure date, and HH/non-HH contact</td>
</tr>
<tr>
<td></td>
<td>type)</td>
</tr>
<tr>
<td>Additional Requirements</td>
<td>Complete all – these questions document high-concern exposures/contacts</td>
</tr>
<tr>
<td>PUI – CDS Use Only</td>
<td>This section is for CDS use only. No LHD entry needed.</td>
</tr>
</tbody>
</table>
CONTROLLING FURTHER SPREAD

A. Isolation

COVID-positive symptomatic cases: Persons should be told to self-isolate, at home if symptoms are mild, or at a hospital if clinically indicated until –

1. At least 24 hours have passed since resolution of fever without the use of fever-reducing medications AND improvement in symptoms; AND,

2. At least 10 days have passed since symptom onset.

*A limited number of persons with severe illness or who are severely immunocompromised may produce replication-competent virus beyond 10 days, that may warrant extending duration of isolation for up to 20 days after symptom onset.

To determine if someone meets criteria for severe illness or severely immunocompromised, LHDs should ask hospitalized individuals if they required supplemental oxygen and if they were in the ICU and ask all individuals if they have cancer, untreated HIV, or other medical conditions that severely impact the immune system, or if they are taking long-term steroids or other medications that can severely impact the immune system. If the individual answers yes to any of these questions, inform the individual that persons with severe illness or who are severely immunocompromised can shed COVID-19 virus for a longer period of time, and that it is recommended that the individual remain on isolation until at least 24 hours have passed since resolution of fever without the use of fever-reducing medications AND improvement in symptoms; AND at least 20 days have passed since symptom onset.

Except for persons who are severely immunocompromised (e.g., medical treatment with immunosuppressive drugs, bone marrow or solid organ transplant recipients, inherited immunodeficiency, poorly controlled HIV), a test-based strategy is no longer recommended to discontinue isolation. For severely immunocompromised persons, and in consultation with infectious disease specialists, if a test-based strategy is used, cases should self-isolate until there is –

1. Resolution of fever without the use of fever-reducing medications; AND

2. Improvement in symptoms; AND

3. Negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from at least two consecutive respiratory specimens collected ≥24 hours apart (total of two negative specimens).
COVID-positive asymptomatic cases: Persons who test positive for COVID-19 but who have not had any symptoms should self-isolate until 10 days have passed since the date of specimen collection and with no subsequent illness. Except for persons who are severely immunocompromised, a test-based strategy is no longer recommended to discontinue isolation. For severely immunocompromised persons, and in consultation with infectious disease specialists, if a test-based strategy is used, asymptomatic persons should self-isolate until receiving negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from at least two consecutive respiratory specimens collected ≥24 hours apart (total of two negative specimens).

Persons who Re-Test Positive for COVID-19 after discontinuing isolation precautions: Persons who have a positive molecular or antigen test >3 months after an initial positive viral test should be treated as a possible re-infection (new case). Appropriate isolation precautions and contact tracing/management should be reinstated. Isolation should be discontinued after meeting criteria for the symptom-based OR test-based strategy. Refer to Section 6A for additional guidance on persons who re-test positive after discontinuing isolation and/or transmission-based precautions.

Pending COVID test results: Persons who are symptomatic should follow home isolation guidance until their test results are available. IF NEGATIVE for COVID-19 persons should stay home and practice social distancing until 24 hours after resolution of fever and symptom improvement. Home isolation should be based on the alternate diagnosis, if available.

Persons with COVID-19 compatible symptoms who are not tested: Persons should be advised to stay on home isolation and follow the same guidance as those who test positive.

References:


After returning to work, HCP should wear a facemask for source control at all times while in the healthcare facility until all symptoms are completely resolved or at baseline. A facemask for source control does not replace the need to wear an N95 or higher-level respirator (or other recommended PPE) when indicated, including when caring for patients with suspected or confirmed COVID-19. Of note, N95 or other respirators with an exhaust valve might not provide
source control. After this time period, these HCP should revert to their facility policy regarding universal source control during the pandemic.

B. Contact Management

A close contact is defined as:

a) being within approximately 6 feet of a COVID-19 case for at least 10 consecutive minutes; OR

b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed or sneezed on).

Timing for identifying close contacts:

1. Contact with a symptomatic COVID-19 case (laboratory-confirmed or clinically compatible) starting from 48 hours before symptom onset until the case meets criteria for discontinuing home isolation, OR

2. Contact with an asymptomatic COVID-19 case (laboratory-confirmed) starting from 2 days prior to the date of specimen collection until the case meets criteria for discontinuing home isolation.

At this time, differential determination of close contact for those using fabric face coverings or for the use of surgical face masks or respirators outside of a healthcare setting is not recommended. Therefore, the determination of close contact should be made irrespective of whether the person with SARS-CoV-2 infection or the contact was wearing a cloth face covering; or if they were wearing a surgical face mask or respirator outside of a healthcare setting.

Asymptomatic close contacts of persons with confirmed or suspected COVID-19 should be told to self-quarantine at home and monitor themselves for symptoms for 14 days since their last close contact with that person. Household contacts of someone with confirmed or suspected COVID should self-quarantine until the household member is off of home-isolation PLUS an additional 14 days.

If COVID-19 compatible symptoms develop during the 14-day quarantine, they should follow the guidance for isolation.

Contact Tracing: Contacts of confirmed and probable cases are identified, recorded, and monitored using the CommCare system and protocols.

All close contacts: Close contacts should be identified and provided with information on self-isolation and/or quarantine. If local resources allow, LHDs should actively monitor close contacts to ensure compliance with recommendations and to quickly identify additional cases. NJDOH has guidance LHDs can send to close contacts describing these recommendations: https://nj.gov/health/cd/topics/covid2019_professionals.shtml.
High-concern contacts: LHDs should notify high-concern and congregate settings when symptomatic close contacts are identified that impact on care of vulnerable populations, including healthcare facilities, long-term care facilities, and school and daycare settings. Those facilities should be notified of the isolation or quarantine recommendations for that close contact and asked about any suspected or confirmed COVID-19 cases.

Contacts of contacts: Testing, symptom monitoring or special management for people exposed to asymptomatic people with potential exposures to COVID-19 (such as in a household), i.e., “contacts of contacts;” is not recommended.

Previous COVID-19 positive (viral test) cases and new exposure as a close contact: A person who tested positive for COVID-19 (viral test), has clinically recovered from COVID-19 and then is identified as a contact of a new case within 3 months of symptom onset of their most recent illness does not need to be quarantined or retested for SARS-CoV-2. However, if a person is identified as a contact of a new case 3 months or more after symptom onset, they should follow quarantine recommendations for contacts.


C. Managing Special Situations

Healthcare Workers

Healthcare workers with COVID-19 should follow guidance provided to them by their occupational health team and their employer. NJDOH has online tools that healthcare facilities can use to assess exposure risk and implement employee isolation or quarantine policies: https://www.state.nj.us/health/cd/topics/covid2019_healthcare.shtml

Critical Infrastructure Workers

To ensure continuity of operations of essential functions, CDC advises that critical infrastructure workers may be permitted to continue work following potential exposure to COVID-19, provided they remain asymptomatic and additional precautions are implemented to protect them and the community. Employers should screen exposed but asymptomatic essential workers for temperature and symptoms, ideally before entry into the facility; staff should monitor for symptoms, wear a mask at all times, and maintain social distancing while in the workplace for 14 days after last exposure; and there should be routine cleaning and disinfection of all workplace areas. https://www.cdc.gov/coronavirus/2019-ncov/downloads/critical-workers-implementing-safety-practices.pdf

Emergency Management Services

Asymptomatic EMS providers who cared for a symptomatic patient who was tested but not yet resulted do not need to be furloughed. If the result for the patient comes back positive then EMS providers are risk assessed using the NJDOH healthcare provider risk assessment
documents at https://www.nj.gov/health/cd/topics/covid2019_healthcare.shtml. If the EMS provider is symptomatic, they should not report to work, and follow their agency’s sick leave policies.

**Group Homes**

There are a variety of group homes that provide services for a variety of persons, including youth, persons with physical or mental health disabilities, needing substance use treatment, etc. Refer to CDC Guidance for Shared or Congregate Housing for guidance to prevent spread in these settings https://www.cdc.gov/coronavirus/2019-ncov/community/shared-congregate-house/guidance-shared-congregate-housing.html and Guidance for Group Homes for Individuals with Disabilities https://www.cdc.gov/coronavirus/2019-ncov/community/group-homes.html. These documents do not address infection prevention and control in healthcare settings. If a facility offers healthcare services, please consult CDC Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings.

**Long-Term Care Facilities**

COVID-19 can quickly spread in congregate settings and nursing homes serve a particularly vulnerable population. LTCFs should report COVID-19 positive cases and respiratory outbreaks (COVID-19 confirmed or not) to the LHD. The LHD should report outbreaks to CDS and provide updated outbreak information as directed by CDS. Facilities should review, implement, and reinforce an infection control plan for preventing communicable disease among residents, visitors, and HCP https://www.state.nj.us/health/cd/topics/covid2019_healthcare.shtml. The plan should include:

- Use of standard and transmission-based precautions which includes appropriate use of personal protective equipment;

- Implement universal source control (i.e., use of barrier to cover the nose and mouth) for all persons entering the facility. All patients/residents, whether they have COVID-19 symptoms or not, should cover their nose and mouth (i.e., source control) when around others, as tolerated. Source control may be provided with tissue, facemasks, or cloth face coverings. Cloth face coverings are not appropriate substitutes for facemasks or respirators in workplaces where masks or respirators are recommended or required and available.

- Respiratory etiquette and hand hygiene programs;

- Patient placement, including cohorting of residents, staff, and equipment; this may involve dedicating certain wings or areas of the facility for separation of groups.

- Restricted movement of residents and staff, no communal dining/activities, and limitations on who can enter the facility;

- COVID-19 and other respiratory virus testing;
• Active surveillance/screening and risk assessment for residents and staff; being aware of atypical presentations in older adults.

PPE Shortages: LTC facilities are to report their PPE inventory on a daily basis, in accordance with EO 111, to https://report.covid19.nj.gov. Facilities in need of PPE can receive PPE based on the information included in this daily reporting and working with their county OEM.

Staffing Shortages: Facilities should try to handle staffing internally (e.g., extra shifts, extra pay, contact staffing agencies); reach out to sister facilities if owner has more than one LTC facility; and contact county or local OEM for Medical Reserve Corps or other possible resources. If all staffing solutions fail, the facility or LHD should contact NJDOH/Licensing (see Healthcare Facility Complaints) to determine operational capacity and compliance of the facility.

CDC and NJDOH have detailed infection control guidance and recommendations for LTCFs:


• NJ: https://nj.gov/health/cd/topics/covid2019_healthcare.shtml

Healthcare facility complaints

Filing a complaint can be done online at https://www.nj.gov/health/healthfacilities/file_complaint.shtml or by calling the Complaint Hotline: 1-800-792-9770 seven days a week. Patients, health care facility employees and other members of the public may file complaints about hospitals, ambulatory surgery centers, home health agencies, nursing homes, assisted living facilities, comprehensive personal care homes, adult medical day care, pediatric medical day facilities, and many other licensed acute- and long-term care facilities.

New Jersey Substance Abuse Treatment Facilities

To register a complaint regarding any substance use treatment facility in New Jersey, call 1-877-712-1868 during business hours and speak with the county coordinator. After hours, call the same number and leave a message and your call will be returned the next business day.

Schools and Daycare Facilities

CDS guidance and public health recommendations for K-12 schools and childcare settings is posted at https://www.state.nj.us/health/cd/topics/covid2019_schools.shtml. In addition, Executive Order 175 provides school reopening requirements. https://nj.gov/infobank/eo/056murphy/pdf/EO-175.pdf. The decision to close a school is made at the local level and is made jointly between the school district and the local health department. The Department of Health does not have authority to mandate closure of private daycares. Daycare facilities should contact New Jersey Department of Children and Families (DCF) for guidance. Questions concerning NJDOE reopening guidance for schools should be addressed to each county’s office of education: https://www.nj.gov/education/about/counties/.
Homeless or other Shelters

For COVID-19 cases or contacts who live in shelters or who are experiencing homelessness, LHDs should consult with their county department of human services for assistance. For additional assistance, LHDs can contact the NJ Department of Human Services 609-292-3717 or call 211. CDC Resources to support persons experiencing homelessness:

Personal Protective Equipment Use/Supply

Facilities needing PPE should submit their inventory at https://report.covid19.nj.gov/. Facilities are also encouraged to share supply needs with their county OEM. CDC has guidance on the appropriate use of PPE and strategies to optimize PPE and equipment:

Post-mortem guidance

Guidance on post-mortem specimens is available at https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html. Additional questions on post-mortem care and disposition should be referred to the regional medical examiner’s office:
https://www.nj.gov/health/me/about-us/contact/.

Airline/Cruise Ship Exposure

If a COVID-positive case traveled on a commercial flight or cruise ship while infectious (including 48 hours prior to symptom onset/date of specimen collection), enter the following information into CommCare/CDRSS and notify your CDS COVID-19 Epidemiologist: illness onset date, symptoms, date of specimen collection, airline/cruise ship name, flight number, seat/cabin #, date & airport/port of departure, date & airport/port of arrival.

D. Preventive Measures

There is no vaccine for COVID-19. Social distancing, respiratory etiquette, hand hygiene, self-isolation and quarantine are key steps in preventing infection. NJDOH has resources on prevention available at https://nj.gov/health/cd/topics/covid2019_community.shtml. CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, such as grocery stores, pharmacies, and gas stations. Cloth face coverings may slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. Resources for face coverings – how to wear, how to wash, are available at https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html.

International Travel

Persons who participated in higher risk activities or think they may have been exposed to COVID-19 before or during their trip should stay home as much as possible during the 14 days after
arrival; avoid being around people at higher risk for severe illness from COVID-19; and consider getting tested for COVID-19. Higher risk activities include: travel to a county at high risk of COVID-19 (https://www.cdc.gov/coronavirus/2019-ncov/travelers/map-and-travel-notices.html); going to a large social gathering like a wedding, funeral, or party; attending a mass gathering like a sporting event, concert, or parade; being in crowds – for example, in restaurants, bars, airports, bus and train stations, or movie theaters; and traveling on a cruise ship or river boat.

Domestic Travel Advisories

Check https://covid19.nj.gov/ for NJ domestic travel advisories. The State has issued an incoming travel advisory that all individuals entering New Jersey from states with a significant spread of COVID-19 should quarantine for 14-days after leaving that state. The self-quarantine is voluntary, but compliance is expected. For information about contacting persons arriving from one of these states by air travel, LHDs should contact the NJDOH Office of Local Public Health.

Cleaning and disinfection

Routine cleaning and disinfection procedures are appropriate. Refer to List N on the EPA website for EPA-registered disinfectants that have qualified under EPA’s emerging viral pathogens program for use against SARS-CoV-2, the virus that causes COVID-19: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

Additional Information

NJDOH: https://nj.gov/health/cd/topics/ncov.shtml