Novel Coronavirus Disease 2019 (COVID-19)

Interim Investigative Guidelines

January 14, 2022

Notice: In response to the emergence of the Omicron variant at the end of 2021 and its increased transmissibility relative to previous variants, OHA is transitioning to prioritize public health efforts to benefit the people and communities at highest risk, where public health intervention has the greatest opportunity to reduce morbidity and mortality. To meet these goals, as of January 7, 2022, LPHAs are no longer required to conduct universal case investigation and contact tracing and instead should focus their resources on investigating outbreaks and cases associated with high-risk individuals and high-consequence environments, which are discussed later in this document. LPHAs should prioritize supporting individuals who need support to isolate and quarantine by coordinating with local Community Based Organizations. In addition, OHA is initiating a Case Support Team to expand statewide access to health education, case interviews, and information on how to access support services. This phone service was initiated January 12, 2022. More information is available on the OHA website.

Table of Contents

1. DISEASE REPORTING

1.1 Purpose of Reporting and Surveillance

To monitor the burden of COVID-19 in Oregon, inform mitigation efforts to reduce transmission to others, promote health equity and better understand the epidemiology of this disease.

1.2 Laboratory and Physician Reporting Requirements

Healthcare providers and laboratories, including entities who have a CLIA waiver, are required to report test results indicative of and specific for COVID-19 to the local public health authority (LPHA) within 24 hours. Testing entities are required to report negative results of COVID-19 testing within one local public health working day. As of January 13, 2022, the following entities are exempt from the requirement to report negative COVID-19 test results, even if they are operating under a CLIA waiver:

- Children's facilities (e.g., daycare, preschools, etc.)
- Residential youth facilities
- K–12 schools
- Post-secondary institutions

Healthcare providers are additionally required to report within 1 working day:

- All hospitalizations, defined in §10, among persons with COVID-19, whether or not the case was previously reported
- All deaths, defined in §10, among persons with COVID-19, whether or not the case

was previously reported
- All cases of Multiorgan Inflammatory Syndrome in Children (MIS-C) (§3.7)

All of this reporting must be done through an "Online Morbidity Report," which can be found at www.healthoregon.org/howtoreport.

1.3 Local Public Health Authority Responsibilities

1. Educate and consult with local providers and facilities to promote compliance with outbreak reporting, quarantine, isolation, and infection-control procedures.
2. Encourage symptomatic persons and known close contacts of confirmed and presumptive cases of COVID-19 to be tested and follow isolation and quarantine recommendations.
3. Investigate cases and outbreaks of COVID-19 associated with high-consequence settings as defined in §10.
4. Report all confirmed and presumptive cases not already transmitted electronically (e.g., cases identified through outbreak investigation or other passive means) by entering them into Opera with disease "Coronavirus" and subtype "COVID-19."
5. Consult with the ODHS/OHA Shared Services COVID-19 Response and Recovery Unit (CRRU) as needed about patient isolation and protection of contacts, including healthcare personnel, and about strategies for public health response, testing, and contact investigation.
6. Make available education for confirmed and presumptive cases on best practices to prevent disease spread, including self-isolating to limit their additional close contacts, and to inform their close contacts about quarantining, monitoring symptoms and seeking care when appropriate.
7. If auto-processing by OHA not already adopted, process ELRs of positive and indeterminate COVID-19 test results.
8. If auto-processing by OHA not already adopted, process electronic case reports (eCRs) in Opera. Make sure to manually update test results, hospitalization status, and death status.
9. Review suspect cases created from REDCap surveys to determine case status. Update case status accordingly.

1.4 State Public Health Division Responsibilities

1. Update LPHAs on changes to criteria for investigation (e.g., through HAN, multijurisdictional conference calls, etc.).
2. Relay to LPHAs information on suspect, presumptive, and confirmed cases and close contacts received from Oregon Department of Corrections, CDC, or other states.
3. Assist LPHAs in processing eCRs and REDcap surveys in Opera, including creating cases and approving testing for patients who meet testing criteria, adding hospitalization status, and recording deaths.
4. Support investigation of high-risk cases and high-consequence outbreaks of COVID-19.
5. Assist LPHAs in processing ELRs of COVID-19 test results.
6. Develop and maintain information systems for case and contact surveillance and to ensure adequacy of response activities.
7. Manage notifications from the CDC Division of Global Migration and Quarantine (DGMQ)
8. Advise LPHA, Tribal, and private-sector health professionals concerning:

- Quarantine of asymptomatic exposed persons (close contacts);
- Isolation of cases and symptomatic persons;
- Protection of healthcare personnel;
- Diagnostic evaluation;
- Required reporting and surveillance activities;

9. Coordinate multi-jurisdictional outbreak responses.
10. Arrange consultation with infectious disease specialists and CDC as needed.
11. Report confirmed and presumptive COVID-19 cases and deaths to CDC.
12. Report breakthrough cases to CDC.
13. Update REDCap survey, importing, and matching process as needed

2. THE DISEASE AND ITS EPIDEMIOLOGY

2.1 Etiologic Agent

Coronaviruses are enveloped, single-stranded RNA viruses. With the notable exceptions of SARS-CoV and MERS-CoV, most human coronaviruses typically cause mild upper respiratory illness. The coronavirus causing COVID-19 was first identified in Wuhan, China in December 2019 among patients with severe respiratory illness and pneumonia and has since spread around the globe through person-to-person transmission. Genetic sequencing of isolates demonstrates that the COVID-19 virus is a betacoronavirus with roughly 80% genome identity with SARS-CoV and 50% with MERS-CoV. The virus that causes COVID-19 has been named "SARS-CoV-2." Variants with demonstrated or suspected characteristics of public health importance such as increased transmissibility, severity, vaccine resistance or diagnostic or therapeutic escape have been labeled 'variants of concern' or 'variants of interest', respectively.

2.2 Description of Illness

Symptoms may include fever (defined throughout as a temperature of ≥100.4°F or 38.0°C), sore throat, cough, shortness of breath or dyspnea, myalgias, fatigue, loss of smell (anosmia) or taste (ageusia), and congestion or runny nose. Fever may not be present in the very young, very old, immunosuppressed, or people taking antipyretics. Pneumonia generally presents with patchy, multilobar infiltrates on chest X-ray. Gastrointestinal symptoms are not uncommon and may include nausea, vomiting and diarrhea. Cases tend to have lymphopenia. Reported complications have included acute respiratory distress syndrome, cardiac events, and death.

Cases of a COVID-19-associated "multisystem inflammatory syndrome in children" (MIS-C), which may resemble Kawasaki Disease, have been reported in children from several jurisdictions. In addition to a positive COVID-19 test, the syndrome includes fever, multisystem involvement (cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurologic), and laboratory evidence of inflammation.

2.3 Reservoirs

Members of the coronavirus family are common in many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread from person to person, as occurred with MERS-CoV and SARS-CoV. The frequency with which the COVID-19 virus is transmitted from its original animal reservoir(s) to humans is unknown, but such transmission is probably rare. The prevalence of animal infection with SARS-CoV-2 is unknown.

2.4 Sources and Routes of Transmission

This virus probably originated from an animal source, but extensive person-to-person spread ensued. Person-to-person transmission likely occurs from respiratory droplets produced when an infected person coughs or sneezes, as is the case with influenza and pertussis. Other coronaviruses (e.g., that cause MERS and SARS) have spread between close contacts. It is possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes, but this is not thought to be the main route of transmission. Studies (including preliminary studies of SARS-CoV-2) suggest that coronaviruses may persist on surfaces for up to several days. The degree of airborne transmission is currently unknown, but there is evidence that airborne transmission occurs, particularly in crowded, poorly ventilated spaces. Viral sequence is commonly detectable in feces of infected persons, and replication-competent virus has been demonstrated. While no concrete evidence exists for the fecal-oral spread of SARS-CoV-2, one study has demonstrated probable evidence of fecal-aerosol transmission of SARS-CoV-2. Transmission from blood or other body fluids has not been identified.

2.5 Incubation Period

Typically 4–6 (range, 2–14) days.

2.6 Period of Communicability

Our understanding is still developing. Some cases are acquired from infected asymptomatic persons, and virus is detectable in some patients for weeks following resolution of symptoms. That said, transmission appears most likely when patients are febrile or coughing. Studies are being conducted and the information is changing quickly.

In announcing the change to a 5-day isolation period, CDC has cited evidence that “the majority of SARS-CoV-2 transmission occurs early in the course of illness, generally in the 1-2 days prior to onset of symptoms and the 2-3 days after.” Various studies pre-dating the emergence of the Omicron variant indicated an infectious period ranging from 3-9 days after symptom onset. Patients with more severe illness—i.e., hospitalized or severely immunocompromised (see §10 for definition)—have shed replication-competent virus for longer periods of time; they could be contagious for up to 20 days after symptom onset.

2.7 Treatment, Prevention, and Limitation of Spread

Note: FDA’s list of authorized treatments and preventives has changed continually. For the current list, see www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization#coviddrugs.

2.7.1 Vaccines against COVID-19: primary series

1. Pfizer-BioNTech (BNT162b2, Comirnaty®): approved for persons aged ≥16 years; emergency use authorization (EUA) for persons aged 5–15 years.
   The primary series is 2 doses, administered ≥3 weeks apart. The dose for persons ≥12 years is 0.3 mL (30 µg mRNA). The formulation for children 5–11 years of age is different, and the dose is 0.2 mL (10 µg mRNA).
   An additional dose is authorized at ≥28 days after the second dose for moderately or severely immunocompromised persons ≥12 years of age.
   A booster dose of any of the 3 authorized or approved vaccines is recommended at ≥5 months after the primary series (or after the additional dose, if given), with Pfizer or Moderna vaccines preferred as boosters in most situations.
   - persons 12–17 years of age may receive a Pfizer booster, only
   - persons ≥18 years of age may receive any of the 3 authorized or approved vaccines

2. Moderna (mRNA-1273): EUA for persons aged ≥18 years.
   The primary series is 2 doses, 0.5 mL (100 µg mRNA) each, administered ≥1 month apart.
   An additional 0.5-mL dose is authorized at ≥28 days after the 2nd dose for moderately or severely immunocompromised persons ≥18 years of age.
   A booster dose of any of the 3 authorized or approved vaccines is recommended at ≥5 months after the primary series (or after the additional dose, if given), with Pfizer or Moderna vaccines preferred as boosters in most situations. A Moderna booster dose is 0.25 mL (50 µg mRNA).
3. Janssen (Ad.26.COV2.S): EUA for persons aged ≥18 years. **Note: mRNA vaccines are now preferred to this Janssen adenovirus vector vaccine.**
   The primary series is a single dose, 0.5 mL (5×10^{10} virus particles).
   A booster dose of any of the 3 authorized or approved vaccines is recommended at ≥2 months after the initial dose, with Pfizer or Moderna vaccines preferred as boosters in most situations.
   There is no recommendation for an additional dose for immunocompromised persons whose initial vaccination was with the Janssen vaccine.

   Each of the vaccines is contraindicated in patients who have had a severe allergic reaction (e.g., anaphylaxis) to a previous dose of that vaccine or to any of its components. The Janssen vaccine is additionally contraindicated in patients with a history of thrombosis with thrombocytopenia (TTS) following a previous dose of the Janssen vaccine or to any other adenovirus-vectored COVID-19 vaccine (e.g., AstraZeneca's COVID-19 vaccine, which is not authorized or approved in the United States). TTS has been reported in males and females 18 years of age and older, with the highest reporting rate of approximately 1 (one) case per 100,000 doses administered in females 30–49 years of age; overall, approximately 1 out of 7 cases has been fatal.

2.7.2 Prophylactic monoclonal antibodies

1. Bamlanivimab/etesevimab: EUA for post-exposure prophylaxis against COVID-19 in all adult or pediatric patients, including newborns, at high risk of progression to severe COVID-19. (See below for bamlanivimab/etesevimab EUA for treatment.)
2. Tixagevimab co-packaged with cilgavimab and administered together (Evusheld®): administered as two separate, consecutive intramuscular injections (one injection per monoclonal antibody, given in immediate succession), for **pre**-exposure prophylaxis of COVID-19 in certain persons ≥12 years of age and weighing at least 40 kilograms (about 88 pounds). The product is authorized only for individuals who
   a. are not currently infected with the SARS-CoV-2 virus **and**
   b. have not recently been exposed to an individual infected with SARS-CoV-2 **and**
   c. have either
      i. moderately to severely compromised immune systems due to a medical condition or due to taking immunosuppressive medications or treatments and who therefore may not mount an adequate immune response to COVID-19 vaccination (see the fact sheet for health care providers); **or**
      ii. a history of severe adverse reactions to a COVID-19 vaccine or a component of those vaccines, such that vaccination with an available COVID-19 vaccine is not recommended.

2.7.3 Treatments

1. Remdesivir (Veklury®):
   a. FDA-approved for persons ≥12 years of age and weighing at least 40 kilograms (about 88 pounds) for the treatment of COVID-19 **requiring hospitalization**.

b. EUA for treatment of suspected or laboratory-confirmed COVID-19 **requiring hospitalization** in pediatric patients weighing 3.5 kg to <40 kg; or hospitalized pediatric patients <12 years of age weighing ≥3.5 kg.

2. Baricitinib: EUA for treatment, **in combination with remdesivir**, of suspected or laboratory-confirmed COVID-19 in **hospitalized** patients ≥2 years of age requiring supplemental oxygen, invasive mechanical ventilation, or extracorporeal membrane oxygenation (ECMO).
3. Casirivimab/imdevimab (REGEN-COV®), administered together by intravenous infusion: EUA for the treatment of mild to moderate COVID-19 in patients ≥12 years of age and weighing ≥40 kilograms (about 88 pounds), with positive results of direct SARS-CoV-2 viral testing, and **who do not require oxygen therapy or hospitalization** due to COVID-19 but who are at high risk for progressing to severe COVID-19.
4. Bamlanivimab/etesevimab: EUA for treatment of mild to moderate COVID-19 in patients of any age, including newborns, who test positive for SARS-CoV-2, and **who do not require oxygen therapy or hospitalization** due to COVID-19 but who are at high risk for progressing to severe COVID-19.
5. Sotrovimab: EUA for treatment of mild-to-moderate COVID-19 in patients ≥12 years of age and weighing ≥40 kilograms (about 88 pounds), with positive results of direct SARS-CoV-2 viral testing and **who do not require oxygen therapy or hospitalization** due to COVID-19 but who are at high risk for progression to severe COVID-19.
6. Tocilizumab (Actemra®): EUA for the treatment of COVID-19 in **hospitalized** persons ≥2 years of age who are receiving systemic corticosteroids and require supplemental oxygen, non-invasive or invasive mechanical ventilation, or extracorporeal membrane oxygenation (ECMO).
7. Nirmatrelvir/ritonavir (Paxlovid®, copackaged for oral use); EUA for the treatment of mild-to-moderate COVID-19 in patients ≥12 years of age and weighing ≥40 kilograms (about 88 pounds), with positive results of direct SARS-CoV-2 testing, who are at high risk for progression to severe COVID-19. Paxlovid is available by prescription only and should be initiated as soon as possible after diagnosis of COVID-19 and within five days of symptom onset.
8. Molnupiravir: EUA for the treatment of mild-to-moderate COVID-19 in patients ≥18 years of age with positive results of direct SARS-CoV-2 viral testing, and **who do not require hospitalization** due to COVID-19 but who are at high risk for progression to severe COVID-19, and for whom alternative COVID-19 treatment options authorized by the FDA are not accessible or clinically appropriate. Molnupiravir is available by prescription only and should be initiated as soon as possible after diagnosis of COVID-19 and within five days of symptom onset. Molnupiravir is not authorized for use in patients younger than 18 years of age because molnupiravir may affect bone and cartilage growth.
9. Convalescent plasma with high titers of anti-SARS-CoV-2 antibodies: EUA for treatment of COVID-19 in both outpatients and inpatients with immunosuppressive disease or who are receiving immunosuppressive treatment. www.fda.gov/media/141478/download.

3.0 CASE AND CLINICAL DEFINITIONS

3.1 Close Contact

A close contact is a person with an epidemiologic exposure to a person with confirmed or presumptive COVID-19. The exposure may be close contact with a confirmed or presumptive case—in short, being within 6 feet of a COVID-19 case for ≥15 minutes[1]—or

[1] This time is cumulative over a 24-hour period and does not have to be consecutive.

contact with their infectious secretions or clinical specimens.

Notes:

- This definition only applies to persons who have close contact with a confirmed or presumptive case. Persons who have an epidemiologic exposure to a close contact do not meet this definition.
- Outdoor settings can generally be considered low risk exposure settings that may not warrant quarantine, particularly when individuals are unlikely to have been within 6 feet of a confirmed case for 15 or more minutes. LPHAs should consider individual scenarios to determine whether an outdoor exposure warrants quarantine. Circumstances that increase the risk of outdoor exposures include:
    - Low vaccination rate in the community or among those participating in the activity where the exposure occurred
    - High community case rates
    - Type of exposure (e.g., repeated exposures, exposure during an activity where the case was exerting themselves, exposure where case and contacts were in very close proximity)
    - Duration of exposure (prolonged)
- See §8.6.2 for considerations to the close contact definition in the K–12 setting.

3.2 Suspect Case

A suspect case is a person with:

- New onset of symptoms consistent with COVID-19, including fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, or diarrhea
  AND
- No more likely alternative diagnosis

  Note: This includes people who had close contact with a presumptive[2] case and have an acute illness featuring at least two of the following: shortness of breath, cough, fever, new loss of smell or taste, radiographic evidence of viral pneumonia.

  OR

- A test result that, in combination with their symptoms, does not meet the definition of a confirmed or presumptive case, including:
    - An indeterminate reverse transcriptase polymerase chain reaction (RT-PCR), other nucleic acid amplification test (NAAT),[3] or antigen result;
    - A close contact who is getting tested

  OR

- Self-identifies as having COVID-19 and completes the REDCap case investigation survey

[2] If a contact of a presumptive case has symptoms consistent with COVID-19 but neither the contact nor the case has tested positive, the contact remains a suspect case.

[3] e.g., a polymerase chain reaction (PCR) test.

These criteria are for epidemiologic classification and are not meant to direct clinician testing or clinical care. Healthcare providers can identify individuals they suspect to have COVID-19 and test these patients at clinical laboratories.

Individuals who initially are classified as Suspect may ultimately be re-classified to Confirmed or Presumptive pending additional laboratory testing, development of new or worsening symptoms, or previously unknown evidence of epidemiologic linkage. LPHAs should take care to update the case status for close contacts whose test results are pending once those results are reported to public health. See §4.5 for further guidance on managing individuals whose initial test results were obtained from an at-home test kit.

3.3 Confirmed Case

A confirmed case is someone who tests positive using a laboratory-based FDA Emergency Use Authorized (EUA) diagnostic test. Any positive result from a laboratory-based RT-PCR, other NAAT, or antigen platform developed under an FDA EUA, even if conducted as asymptomatic screening, is considered a positive result. A follow-up test which is negative does not negate the first positive test.

If a laboratory report has not been received, but a confirmatory laboratory result has been reported verbally by a healthcare provider or by an electronic case report (eCR) that clearly identifies a confirmatory laboratory result, the case will be considered confirmed.

> Note: If the eCR does not clearly identify a confirmatory laboratory result, consider the person a suspect case with a pending test.

If a person is diagnosed with MIS-C (see §3.6), create a confirmed Coronavirus case in addition to their MIS-C case. If their only diagnostic test was serology, consider them a confirmed case, but do not initiate contact tracing; offer testing to household members.

3.4 Presumptive Case

A presumptive case is a person without a positive laboratory-based COVID-19 RT-PCR, NAAT, or antigen test result,[4] with:

- An acute illness featuring at least <u>two</u> of the following: shortness of breath, cough, fever,[5] new loss of smell or taste, radiographic evidence of viral pneumonia;
  AND
- No more likely alternative diagnosis;
  AND
- Within the 14 days before illness onset:
  - Had close contact with a confirmed case
    OR
  - Lived in the same household or congregate setting as a confirmed case
    OR
  - Is identified as having been exposed in an outbreak

[4] Even with a negative test, a person with an identified epi-link, compatible symptoms, and no more likely diagnosis is still considered a presumptive case.

[5] Fever can be objective (≥100.4°F) or subjective.

OR

- A COVID-19-specific ICD-10 code listed as a primary or contributing cause of death on a death certificate.

OR

- A person with a positive test result from an at-home test kit

If a presumptive case tests positive for COVID-19 by a laboratory-based RT-PCR, NAAT, or antigen test, update the case's status to confirmed. If a presumptive case tests negative for COVID-19 by an RT-PCR, NAAT, or antigen test, the case remains presumptive.

3.5 Vaccine Breakthrough Case

A vaccine breakthrough case is defined as a U.S. resident who has:

- SARS-CoV-2 RNA or antigen detected on respiratory specimen ≥14 days after completing the primary series of an FDA-authorized COVID-19 vaccine (where date of final vaccine dose is counted as day zero)
  AND
- Has not had SARS-CoV-2 RNA or antigen detected on a respiratory specimen collected <45 days before the most recent positive test.

3.6 Multisystem Inflammatory Syndrome in Children (MIS-C)

- An individual aged <21 years presenting with fever,[6] laboratory evidence of inflammation,[7] and evidence of clinically severe illness requiring hospitalization, with involvement of at least 2 of the following organ systems: cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic, or neurological;
  AND
- No alternative more likely diagnosis;
  AND
- Evidence for current or recent SARS-CoV-2 infection by RT-PCR, NAAT, serology, or antigen testing; or COVID-19 exposure within the 28 days prior to the onset of symptoms.

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.

3.7 Multisystem Inflammatory Syndrome in Adults (MIS-A)

OHA will be launching Multisystem Inflammatory Syndrome in Adults (MIS-A) surveillance in the coming weeks. MIS-A is a poorly understood inflammatory syndrome in adults associated with COVID-19 infection or history of COVID-19 infection. OHSU's Dr. Holly Villamagna will be offering a series of webinars for clinical providers statewide and offering telephone consults for providers

[6] Fever can be objective (≥100.4°F) or subjective.

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

with suspected cases. This new surveillance will function like MIS-C surveillance—reporting will occur through OCRP and no case investigation will be required. Clinical chart review will occur at OHA. In sum, no burden should be placed upon local jurisdictions. Please contact Melissa Sutton with questions or concerns. You can read more about MIS-A here: https://www.cdc.gov/mis/mis-a/hcp.html.

4.0 LABORATORY TESTING

4.1 Testing at Commercial Laboratories

Guidance has been established to provide criteria for testing at a commercial laboratories versus OSPHL. Current guidance can be found at OHA COVID-19 Healthcare Partner Resources.

4.2 Testing at the Oregon State Public Health Laboratory

Testing through the Oregon State Public Health Laboratory must be approved by the CRRU testing branch or the CRRU epidemiologist supporting the outbreak**.** The Criteria for COVID-19 Testing at OSPHL provides general information about testing policies and targeted populations tested at OSPHL. Current guidance for specimen collection, handling, and transport is posted on OSPHL's Lab Test Menu.

OSPHL performs the Aptima SARS-CoV-2 NAAT assay and the CDC Influenza/SARS-CoV-2 (Flu SC2) PCR assay. The assays cannot distinguish between new SARS-CoV-2 variants and the original pandemic virus strain.

Whole genome sequencing for SARS-CoV-2 is available at OSPHL. Please review the Criteria for Requesting COVID-19 Sequencing at OSPHL for details on how to make a request, the approvals process, and the preferred specimen types.

Choice of specimen collection may rely upon where the specimen is collected and any clinical considerations. Specimens should be collected as soon as possible after a presumptive or suspect case is identified, regardless of symptom onset date.

Please share the following information with the facility or laboratory that is packing and shipping the specimens for testing at OSPHL:

- Heed the specimen storage and transport temperatures required for the specimen being collected. All requirements are posted at www.healthoregon.org/labtests.
- Ensure the cap of the specimen container is properly threaded and sealed.
- Label each specimen container with two unique patient identifiers (e.g., full name, date of birth, medical record number), unique specimen ID (e.g., laboratory requisition number), specimen type (e.g., NP, OP) and the date the sample was collected. The unique patient identifiers on the specimen must match those on the corresponding Test Request Form.
- Submit one COVID-19 and Flu Test Request Form per specimen (available at www.bitly.com/phl-forms).
- Place the Test Request Form in the outer pocket of the specimen transport bag. Do not put the form in the sealed portion of the bag with the specimen.
- Transport specimens and required forms to OSPHL as soon as possible.

Whenever possible, existing courier systems (e.g., hospital system couriers) or shipping options (e.g., FedEx) should be used for specimen transport. If other transport systems are not available, contact OSPHL (503-693-4100) for help with specimen transport on the next available courier route.

4.3 Collecting Specimens

Specimens should be collected while using proper PPE. See CDC's healthcare infection control guidance.

For specimen collection that involves an aerosol-generating procedure (§10): Using an airborne infection isolation room (AIIR) is ideal, but if one is not available, use a private room and keep the door closed. Mask the patient with a regular facemask during any movement within clinic or facility. See OHA guidance on infection prevention and control for COVID-19.

Many common respiratory infections present with symptoms similar to those of COVID-19. Encourage clinicians to perform in-house diagnostic testing for these more common pathogens as clinically indicated. If a person tests positive for a common respiratory pathogen, it still might be indicated to test for COVID-19, as dual infections occur.

4.4 Guidance Regarding Serologic Tests

The role of serologic tests in relation to the pandemic response is still being evaluated. As we learn more, we will update this guidance. OSPHL has three serology assays available for surveillance only at this time: an anti-nucleocapsid IgG, an anti-spike protein IgG assay, and a total neutralizing antibody test. Serologic test results do not currently alter case classifications.

Some serologic tests will be positive in uninfected but vaccinated people; others will not, depending on the target antigen (spike versus nucleocapsid protein). A list of EUA authorized serologic tests is available here.

Except where specifically identified, all references in this guide to a "test" or "testing" refer to RT-PCR, NAAT, or antigen tests and not to serology.

4.5 Guidance Regarding At-Home Test Kits and Point-of-Care Tests

At-home COVID-19 test kits are available by prescription or over-the-counter in pharmacies and retail stores. Patients with positive test results should be encouraged to follow-up with a medical provider if they have questions or are concerned about their symptoms.

At-home COVID-19 test kits performed by prescription (e.g., Lucira) or as a point-of-care test under a CLIA waiver should be treated as a laboratory-based test. These would have the same reporting requirements as any other laboratory-based test (i.e., a physician or laboratory would be required to report these test results) and should be counted as a confirmed case.

5.0 Quarantine and Isolation

5.1 Quarantine

5.1.1 Recommendations for the General Population

Note: The general population includes students and staff associated with K-12 settings and most other individuals and settings where masks may be worn. Details on individuals and settings excluded from the general population can be found on CDC's webpage and throughout this document. The K-12 setting has additional guidance for determination of close contact and modified quarantine that is described in §10.

- Close contacts of confirmed and presumptive cases who **are not up to date** (Table 1) with their ACIP-recommended COVID-19 vaccinations **should quarantine** for the five days following their last exposure[8].
  - If possible, individuals in quarantine should avoid individuals at higher risk of severe disease and high-risk settings for 10 days after their last exposure
  - Individuals who are **unable to mask** should complete a full 10-day quarantine
  - Individuals who are **unable to quarantine** should wear a well-fitting mask for 10 days when around others at home or in public
  - Close contacts should avoid places where they are unable to wear a mask (i.e., restaurants, gyms) or situations where they are not masked around others (i.e., eating around others) for 10 days after their last exposure
  - Close contacts who test positive or develop COVID-19 symptoms, should follow guidance for isolation in §5.2

- The following people **do not need to quarantine** following exposure:
  - Close contacts who **are up to date** (Table 1) with their ACIP-recommended COVID-19 vaccinations
  - Close contacts who **tested positive for COVID-19** with an antigen test or NAAT in the **previous 90 days**

- **All close** contacts, regardless of vaccination status or prior infection with COVID-19:
  - Must wear a well-fitting mask around other people for the 10 days following their last exposure
  - Should seek testing at least five days after their exposure
  - Should watch for COVID-19 like symptoms for 10 days after their last exposure
  - Should stay home and get tested if they develop symptoms

[8] Last date of exposure should be calculated based on the most recent day a person was in close contact with a confirmed or probable case who was still under isolation. A person in close contact with a case who has completed their 5-day isolation is not considered exposed. This includes household members who are continuously exposed to a case. Their quarantine period should begin on day 6 of their exposure to a household case.

Table 1.

Vaccination Status	Definition *(Will be updated upon further guidance from CDC)*
Up to Date	**For individuals ≥18 years of age:** Boosted **or** Completed the primary series of Pfizer or Moderna within the last 5 months **or** Completed the primary series of J&J within the last 2 months **For individuals 5–17 years of age:** Completed the primary series of COVID-19 vaccines
Not Up to Date	Unvaccinated **or** Has not completed the primary series of any COVID-19 vaccine **or** **For individuals ≥18 years of age:** Completed the primary series of Pfizer or Moderna over 5 months ago and is not boosted **or** Completed the primary series of J&J over 2 months ago and is not boosted

5.1.2 Quarantine Considerations for Ensuring Essential Services

Consistent with OAR 333-019-0014, worksite, child care, and school restrictions can be removed by statement of the local public health administrator that the disease is no longer communicable to others or that adequate precautions have been taken to minimize the risk of transmission. That is, if in the judgment of the state health officer or designee, or the local public health administrator or designee, an asymptomatic non-healthcare worker's job is essential[9] and the workplace situation provides adequate protections against disease transmission, that worker may, in consultation with their occupational health program or their employer, work during their quarantine period. It is imperative that the worker wear a well-fitting mask at all times during the 10 days following their exposure. The worker should still observe quarantine outside of work.

Symptomatic contacts, regardless of their employment, must stay home from work until 24 hours after fever and other symptoms have resolved.

5.2 Isolation

5.2.1 Recommendations for the General Population:

All confirmed and presumptive cases, including asymptomatic cases, should isolate themselves until they meet criteria for discontinuation of isolation. Cases should stay home and away from other people at least five days since their symptom onset have passed, and until 24 hours after fever is gone without use of antipyretics, and other COVID-19 symptoms are improving.

[9] A determination of what is an essential service will be made in coordination with state and local authorities with regulatory oversight of that sector.

- If the case is asymptomatic or discrete onset of symptoms cannot be determined, they should isolate for five days following the specimen collection date of their positive test.
- If an asymptomatic case develops symptoms compatible with COVID-19 (e.g., fever, cough, diarrhea, new loss of taste or smell, or shortness of breath) before the end of their initial isolation period, the five-day isolation period should be restarted on the date of symptom onset.
- Individuals who are unable to mask during days 6–10 of their isolation period should complete a 10-day isolation period.
- Subsequent positive tests in the 90 days after the earlier of first positive test or symptom onset do not affect the recommended period of isolation.
- When possible, COVID-19 cases should take care to not handle pets or other animals while sick. Refer to CDC's guidance on what to do If You Are Sick or Caring for Someone for comprehensive guidance.
- For further guidance on what to do when isolating at home, see Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for Coronavirus Disease 2019 (COVID-19)
- All cases must wear a mask around other people for the 10 days following their symptom onset or date of their positive test.

5.2.2 Isolation Recommendations for Individuals with Severe Illness or who are Immunocompromised

For cases with severe to critical illness—including cases hospitalized for their COVID-19 illness—or who are severely immunocompromised (see §10), the period of isolation is at least 10 days and up to 20 days. Individuals who were severely ill or who are immunocompromised should consult with their healthcare provider to determine when they should resume being around other people. Attribution of hospitalization to COVID-19 should be made by the treating clinician.

As described in the CDC Decision Memo, an estimated 95% of severely or critically ill patients, including some who are severely immunocompromised (see §10), no longer had replication-competent virus 15 days after onset of symptoms; no patients had replication-competent virus more than 20 days after onset of symptoms. Based on this research, it is recommended to use symptom-based release from isolation rather than the test-based strategy.

5.2.3 Discontinuation of Isolation

Symptom-based discontinuation of isolation:

Someone who was symptomatic is considered no longer contagious when it has been five days from their symptom onset, and they have been afebrile without use of antipyretics and have had improving cough, shortness of breath, or diarrhea for 24 hours. If the person was never symptomatic, they are released from isolation five days after the first specimen that tested positive was collected. If an asymptomatic case develops symptoms compatible with COVID-19 (e.g., fever, cough, diarrhea, new loss of taste or smell, or shortness of breath) before the end of their initial isolation period, the five-day isolation period should be re-started on the date of symptom onset. For those with severe to critical illness—including those who were hospitalized for their COVID-19 illness—or who are severely immunocompromised, the recommended period of isolation is 20 days.

Test-based discontinuation of isolation:
In general, the test-based strategy is not recommended for discontinuing isolation. CDC does provide two scenarios in which a test-based strategy could be considered:

- In rare instances, for early discontinuation of transmission-based precautions in healthcare settings. *This should be used with caution as individuals may have prolonged shedding without clear link to sustained transmission risk, which limits the utility of this approach. Could be considered in scenarios where the risk of isolation may outweigh the benefits.*
- To inform discontinuation of isolation if concerns are present that the individual may be infectious for more than 20 days (e.g., if severely immunocompromised). *Recommended that it be conducted in consultation with local infectious disease experts.*

CDC criteria for test-based strategy:

- Resolution of fever without the use of fever-reducing medications **and**
- Symptoms (e.g., cough, shortness of breath) have improved, **and**
- Results are negative from at least two consecutive respiratory specimens collected ≥24 hours apart (total of two negative specimens) tested using an antigen test or NAAT.

5.2.4 Managing Cases After Discontinuation of Isolation

Quarantine within 90 days after their original case

If a confirmed or presumptive case achieves discontinuation of isolation and is later exposed to another case, we do not recommend quarantine and monitoring if the exposure happened within 90 days of symptom onset or first positive test, whichever is earlier, for their original case. If they develop symptoms during this period, they should isolate until they have been afebrile without the use of antipyretics and have improving cough, shortness of breath, or diarrhea for 24 hours.

Becoming a case after 90 days have passed since onset of the original case

If a previously confirmed or presumptive case meets the confirmed or presumptive case definition more than 90 days after symptom onset or first positive test for their original case, create a new, separate case for them in Opera.

5.3 Isolation and Quarantine for Groups and Settings Not Included in the General Population

Please see the sections below for specialized quarantine guidance in the following populations:

- Children < 2 years of age or other individuals who are unable to mask (§5.3.1)
- Healthcare workers (§8.1) (OHA guidance / CDC guidance)
- Inpatient healthcare settings (e.g., hospitals, inpatient hospice) (§8.1) (OHA guidance / CDC guidance)
- Long-term care facilities (LTCFs) (§8.2) (OHA guidance / CDC guidance)
- Adult family/foster homes (AFHs) (§8.1) (OHA guidance / CDC guidance)
- Residential healthcare settings (e.g., child and adult behavioral health residential treatment facilities, group homes for people with intellectual or developmental disabilities) (§8.1) (OHA guidance / CDC guidance)
- Carceral facilities (e.g., prisons, jails, youth detention facilities) (§8.5)
- Travelers (CDC Guidance)

5.3.1 Quarantine for Children < 2 years of age and others who cannot wear a mask

If you are unable to wear a mask when around others, you should continue to quarantine for 10 days. Avoid people who are immunocompromised or at high risk for severe disease, and nursing homes and other high-risk settings, until after at least 10 days.

6.0 LPHA Case Management

6.1 Suspect Cases

Suspect cases are persons as defined in §3.2. Broadly, these are persons who do not meet the presumptive case definition either because they self-identified as having COVID-19 and submitted a REDCap survey or do not have a positive test for COVID-19; it might be pending or indeterminate. Serology might be the only documented test; except in the case of MIS-C, a positive serologic result is not case-defining (see §3.6 and §3.7).

Suspect cases created from REDCap surveys may be periodically reviewed and reclassified to Presumptive or Confirmed cases as is feasible (see §3.3 and §3.4)

Testing Suspect Cases

OSPHL testing is prioritized for high-priority individuals, defined in §10, and in support of outbreak investigations. Testing is generally reserved for symptomatic persons, but testing may be approved for asymptomatic persons in support of outbreak investigations. See Guidance for providers regarding COVID-19 testing for details. We expect that healthcare facilities and other employers will take responsibility for any testing needed by their own staff.

6.2 Confirmed and Presumptive Cases

6.2.1 Interviewing

Universal case interviews are no longer required. LPHAs should prioritize interviewing cases at the highest risk for severe morbidity and mortality and who are at increased risk for transmitting disease in high-consequence facilities. Identification of these cases is expected to be done passively, primarily as outbreaks in high-consequence settings are reported to the LPHA. Once a high-priority case has been identified, interviews may be completed by phone or REDCap survey, and CRRU case support team staff may be able to assist with individual interviews as resources allow.

6.2.2 Contact Investigations

Universal contact tracing is no longer required. Elicitation of close contacts is recommended during investigation of high-consequence outbreaks. As resources allow, obtain the name, address, and telephone number of all persons who have had close contact to the confirmed or presumptive COVID-19 case from 48 hours prior to a case's symptom onset, or for asymptomatic cases prior to the collection of the first specimen that tested positive, to the time the case was placed in isolation. This information may be used to help direct facility infection control practices, exclusion of close contacts, and health education.

7.0 OUTBREAK RESPONSE

7.1 Opening Outbreaks

LPHAs should open an outbreak record when made aware of:

- One or more cases living or working in a congregate residential setting (e.g., long term care facility (LTCF), skilled nursing facility (SNF), assisted living facility (ALF), memory care (MC), residential care facility (RCF), adult foster homes (AFH), child and adult behavioral health facilities, transitional housing, corrections, shelters)
- One or more cases associated with agricultural or food chain facilities (e.g., grocery stores, farms, packing houses, food processing and distribution centers)
- Two or more epidemiologically-linked cases from different households in a K–12 or Early Learning Division (ELD) setting
- Two or more epidemiologically-linked cases from different households in other settings of concern, as determined by the LPHA

7.2 Outbreak Prioritization

LPHAs should prioritize outbreak response in congregate living facilities, food chain facilities, and K–12 settings. During the Omicron surge, LPHA outbreak response activities should focus on linking outbreak sites with appropriate supports (e.g., PPE, infection control consults, vaccination, testing); documentation of outbreak information (e.g., case linkage, identification of secondary cases, vaccine status, etc.) should not be prioritized over public health response.

See §8 for how to manage outbreaks in special situations.

8.0. MANAGING SPECIAL SITUATIONS

8.1 Healthcare settings

8.1.1.Quarantine for Healthcare Workers, Patients, and Residents in Healthcare Settings

For additional healthcare specific guidance, please see:

- **OHA Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure**
- **CDC Interim Infection Prevention and Control Recommendations** for discontinuation of transmission-based precaution guidance
- Key considerations for infection control can be found in the OHA provisional guidance document: **Clinical Care and Healthcare Infection Prevention and Control for COVID-19.**

Note: Healthcare workers should follow the isolation and quarantine guidance provided in the above documents.

In general, inpatients and residents, regardless of vaccination status, in healthcare settings should continue to quarantine for 14 days following an exposure to someone with suspected or confirmed COVID-19 (NOTE: duration of quarantine may be subject to change pending further CDC guidance updates). These settings include:

- Long-term care facilities (LTCFs)
- Adult foster homes (AFHs)
- Residential healthcare settings (e.g., child and adult behavioral health residential treatment facilities, group homes for people with intellectual or developmental

disabilities)
- Inpatient healthcare settings (e.g., hospitals, inpatient hospice)

This exception is due to the unknown vaccine effectiveness in these settings, the higher risk of severe disease and death, and challenges with social distancing in healthcare settings. Although not preferred, healthcare facilities could consider use of shortened quarantine for patients and residents as a strategy to mitigate critical issues (e.g., lack of space, staff, or PPE to safely care for exposed patients or residents) when other options are unsuccessful or unavailable. Use of this strategy should be implemented stepwise and only as necessary, first to patients or residents that are up to date with vaccination followed by partially or unvaccinated individuals. If resource challenges persist, facilities can opt to forgo quarantine for patients or residents that are up to date with vaccination. These decisions must be made in consultation with infection control experts.

Fully vaccinated residents of congregate healthcare settings that work outside of that setting are allowed to return to work after exposure to a confirmed or presumptive COVID-19 case, presuming that they remain asymptomatic and wear a mask for source control. These residents should continue to quarantine away from other residents in the congregate environment to the extent possible.

Irrespective of vaccination status, outpatients that have been exposed to COVID-19 should be cared for using appropriate Transmission-Based Precautions.

8.1.2 Contact Tracing in Healthcare Settings

Healthcare facilities should conduct a risk assessment of HCW exposures and apply work restriction according to level of risk as outlined in CDC's Interim Guidance for Managing Personnel with SARS-CoV-2 Infection or Exposure.

Formal contact tracing for exposures in healthcare settings may be infeasible and of limited benefit when community transmission of COVID-19 is high and staffing is insufficient to maintain this work. In these scenarios, healthcare facilities should consider forgoing contact tracing for exposures in a healthcare setting in favor of broad infection control measures (e.g., well-fitting masks), universal source control for both patients and HCW, and screening of HCW for fever and symptoms of COVID-19 before every shift. Additional infection prevention and control recommendations, including more details about universal source control in healthcare settings, are **available** from the CDC.

Contacts of healthcare workers with COVID-19 who are exposed in healthcare settings with rigorous infection prevention protocols are believed to be at low risk of transmission. In cases of healthcare worker exposures of staff or patients in healthcare systems in which a designated individual or team, qualified by education, training, and experience or certification, is responsible for carrying out facility infection prevention and control protocols and is available to serve as primary point of contact for the facility regarding COVID-19 outbreaks, a risk assessment that takes into account presence of symptoms, proximity and duration of encounters, and the use of personal protective equipment may be performed. The healthcare system will take the lead on contact tracing and exposure notifications and will consult their local public health authority as needed. Healthcare systems have some discretion in identifying exposures that are higher risk and warrant notification and quarantine. Risk stratification should be aligned with CDC guidance.

Features of higher-risk exposures:

- Longer duration of exposure
- Healthcare provider close contact with patient airway, e.g., intubation, pharyngeal examination, bronchoscopy, laryngoscopy
- Patient unmasked

Features of lower-risk exposures:

- Shorter duration of exposure
- No close contact with airway or mucous membrane
- Patient masked

In addition to any determination made due to the above factors, healthcare systems must notify contacts of healthcare providers with COVID-19 if *either* of the following are true:

1) an infection control breach is identified (i.e., the healthcare provider with COVID-19 did not wear appropriate source control during the encounter), **or**
2) the hospitalized patient resides or will be transferred to a congregate care setting.

8.1.3 Caring for Hospitalized COVID-19 Cases

HCW who enter the room of a patient with suspected or confirmed SARS-CoV-2 infection should adhere to standard precautions and use a fit-tested N95 or higher-level respirator (or a facemask if respirator is not available), gown, gloves, and eye protection. Performing or assisting with an aerosol-generating procedure warrants airborne precautions, including an N95 or higher-level respiratory protection. Any necessary aerosol-generating procedures (§10) should be undertaken in an airborne infection isolation room, if available. Additional PPE considerations are provided in Clinical Care and Healthcare Infection Prevention and Control for COVID-19.Transmission-based precautions should continue to be followed until discontinuation of isolation criteria are met.

8.2 Long term care facility settings (SNF, ALF, MC, RCF)

8.2.1 Identifying Outbreaks

COVID-19 can present with a broad range of symptoms (see §3.2), making identification of outbreaks difficult. LPHAs should have a low threshold for investigation when there is a cluster of illnesses in a congregate residential setting. Because COVID-19 and influenza-like illness (ILI: fever, along with cough or sore throat) are similar, it is a priority to investigate any CLI (COVID-19-like illness) or ILI in LTCFs and other congregate settings because they may indicate an outbreak of either; see §6.7 for guidance specific to outbreaks in correctional facilities. Respiratory specimens should be collected from all ill persons in such outbreaks to be tested for COVID-19; and, during influenza season, for influenza; and perhaps for other pathogens.

When a case is identified in a resident or staff member of a congregate setting, provide the facility with the COVID-19 case log for LTCFs and appropriate infection control recommendations.

If the confirmed or presumptive case is identified in a resident or staff member of a congregate setting, the LPHA should create an outbreak in the Opera Outbreaks database to facilitate tracking and linking to other residents or staff who become symptomatic or get tested. Often, identification of a single case has led to the recognition of other cases and prompt institution of control measures. If no more cases are identified within 14 days of the single case, the outbreak will be closed.

For LTCFs (skilled nursing facilities, assisted living facilities, and residential care facilities), LPHA should collect vaccination uptake rates for residents and staff. If the facility is not already tracking COVID-19 vaccination status for all residents and staff, send the OHA-developed vaccine tracking tools to the facility, which will assist the facility to monitor both individual- and facility-level vaccine status information. The Resident Tracking Tool can be found here, and the Staff Tracking Tool here.

LPHAs are encouraged to establish relationships with their Community Developmental Disabilities Programs to support investigations in congregate settings of people with intellectual and developmental disabilities.

Please remember that while influenza itself is not reportable, ILI *outbreaks* are reportable. If an ILI outbreak is identified, call the regular ACDP line (971-673-1111) to report the outbreak.

8.2.2 Testing Guidance

Please be aware of Oregon Administrative Rules, Chapter 411, Division 60 regarding COVID-19 testing in licensed assisted living facilities, nursing facilities, and residential care facilities. The rule states:

> Facility must implement COVID-19 testing of all Residents, Facility Staff and Associated Staff within 72 hours of identification of a new case of COVID-19 in either a Resident, Facility Staff or Associated Staff. A testing strategy should be developed with the Facility's Local Public Health Authority as new cases are identified.

As resources allow, facilities should conduct weekly serial testing on all residents and staff who have previously tested negative until two consecutive weeks with no new positive cases in either staff or residents.

When feasible, coordinate with facility and the CRRU Regional Epidemiologist to schedule outbreak-associated testing of staff and residents at the OSPHL. Once outbreak-associated testing has been completed, routine screening of staff for COVID-19 should return to the facility's contracted commercial laboratory. If assistance with specimen collection is needed, CRRU Regional Epidemiologists can coordinate new specimen collection in collaboration with CRRU Testing Team staff. Coordination of this task is not expected to occur outside of regular business hours.

8.3 Other congregate settings (including, but not limited to homeless shelters, group homes, transitional housing, cruise ships)

Note: This section will be updated pending further guidance from CDC.

8.3.1 Quarantine recommendations for congregate settings

Residents and staff of congregate facilities are recommended to complete a 10-day quarantine. During periods of critical staffing shortages, facilities may consider shortening the quarantine period for staff to ensure continuity of operations. Decisions to shorten quarantine in these settings should be made in consultation with the LPHA or OHA. See §5.2.1.

8.3.2 Isolation recommendations for congregate settings

Due to the high risk of secondary transmission and difficulties in cohorting individuals, a 10-day isolation period is recommended for residents and staff of congregate facilities. During periods of critical staffing shortages, facilities may consider shortening the isolation period for staff to ensure continuity of operations. Decisions to shorten isolation in these settings should be made in consultation with the LPHA or OHA.

8.4 Food chain or agricultural settings

It is a priority to investigate any known cases of COVID-19 in these settings, because the identification of a single case has often led to the recognition of many other cases and represents an opportunity to enact control measures promptly. CRRU will coordinate communication with other state agencies and inform regulatory partners, including ODA and OR-OSHA as appropriate.

To support early identification and investigation of outbreaks, response to a single confirmed or presumptive case in these settings should include the following:

- Creating an outbreak in the Opera Outbreaks database to facilitate tracking. (If a single case is used to initiate an investigation, and no other cases are identified after 14 days, the outbreak will be closed.)
- Excluding cases and contacts of COVID-19 from work until they have been released from isolation. As appropriate, the LPHA may contact employers to facilitate the exclusion of cases and contacts.
- Providing the facility with appropriate infection-control recommendations.

8.5 Carceral settings (prisons, jails, youth detention facilities)

Note: This section will be updated pending further guidance from CDC.

8.5.1 Quarantine recommendations for carceral settings

Residents and staff of carceral facilities are recommended to complete a 10-day quarantine. During periods of critical staffing shortages, facilities may consider shortening the quarantine period for staff to ensure continuity of operations. Decisions to shorten quarantine in these settings should be made in consultation with the LPHA or OHA. See §5.2.1.

8.5.2 Isolation recommendations for carceral settings

Due to the high risk of secondary transmission and difficulties in cohorting individuals, a 10-day isolation period is recommended for residents and staff of carceral facilities. During periods of critical staffing shortages, facilities may consider shortening the isolation period for staff to ensure continuity of operations. Decisions to shorten isolation in these settings should be made in consultation with the LPHA or OHA.

8.5.3 Managing cases associated with the Oregon Department of Corrections

When there is a case of COVID-19 in an Oregon Department of Corrections (ODOC) facility, ODOC will perform a contact investigation within the facility, including a preliminary case interview to identify basic information about the case and contact tracing. Upon release, LPHAs can use this information to support their efforts (§While the case is incarcerated, set the institution of residence to the ODOC facility.

When ODOC knows that a case or contact will be released soon, they will contact CRRU with the pertinent information. ODOC will also contact Community Corrections with contact information and the person's status. LPHAs are encouraged to establish relationships with

their local Community Corrections office.

If a case is identified in a local correctional facility not under ODOC jurisdiction, the LPHA should work with Community Corrections to investigate the case.

Counting and reporting of cases in Corrections

Cases are counted in the county in which they are diagnosed. ODOC might move adults in custody between ODOC facilities for case management purposes, but these cases do not transfer jurisdictions for reporting purposes.

Managing and investigating cases and contacts

CRRU will create confirmed and presumptive cases based on ODOC information that is reported through the Oregon COVID-19 Reporting Portal (OCRP).

For LPHAs who have not opted into auto-processing of ELRs, cases among adults in custody that are reported via ELR should be processed by the LPHA where the corrections facility is located. While the case is incarcerated, the LPHA should set the institution of residence to the corrections facility by clicking the "Set" button in the 'Address' pop-up window in Opera and selecting the corrections facility from the list.

LPHAs are encouraged to coordinate with Community Corrections ahead of the release of a case or contact from the ODOC facility to establish a plan to connect with the case or contact upon release.

8.6 K–12 school settings

For the 2021–22 school year, schools have been directed to plan to provide full-time, in-person education for all students every school day. The Oregon Department of Education Ready Schools, Safe Learners Resiliency Framework for the 2021-22 School Year and related documents (https://www.oregon.gov/ode/students-and-family/healthsafety/Pages/RSSL-Guidance.aspx) outline the recommendations that schools and school districts can implement to ensure the health and safety of students, teachers, staff and visitors, while acknowledging that all recommendations may not be achievable while conducting full in-person instruction. To support the goal of providing full-time, in-person education, OAR 333-019-1015 was implemented to require masking in indoor *K–12* settings, except while eating and drinking.

8.6.1 Opening outbreaks in K–12 school settings

LPHAs should open an outbreak when in-school transmission of COVID-19 is suspected. OHA has adopted the Council of State and Territorial Epidemiologists definition for in-school transmission, which assumes that two or more cases from more than one household were most likely exposed in a school setting or school-sanctioned extracurricular activity (e.g., athletics, clubs, performances, etc.).

8.6.2 Managing close contacts in K–12 school settings

K–12 Close Contact Considerations for Students and Staff:

- **Unmasked indoor** close contact in the K–12 school setting that occurs within 6 feet for 15 or more minutes constitutes exposure and warrants quarantine per the guidelines provided for the general population in §5.1.1. This includes the following:
    - Mealtimes when masks cannot be worn
    - Learning/curricular activities where masks may not be worn (i.e., band

class, welding, swimming)
        - School-related extracurricular activities where masks are not worn
    - **Masked indoor** close contact, regardless of distance, that occurs in the K–12 setting does not constitute exposure and does not require quarantine. This includes the following settings:
        - School buses
        - Classrooms, bathrooms, hallways
        - School-related extracurricular activities where universal masking is implemented
    - **Outdoor** close contact in the K–12 setting does not constitute exposure and does not warrant quarantine.

NOTE: Contact tracing should still occur for indoor unmasked exposures which occur during:

- mealtime close contacts
- unmasked learning close contacts
- unmasked extracurricular close contacts

8.6.3 Quarantine in K–12 settings

General quarantine guidance

Students and staff who work in and attend schools in K–12 settings are covered by the quarantine guidance for the general population as described in §5.1.1. Those specifically exposed in the K-12 setting may qualify for a modified quarantine, described below.

Modified quarantine for K–12 exposures (Test to Stay)

As part of the modified quarantine option, students and staff subject to quarantine and exposed in one of the scenarios below are eligible to remain in school if they are asymptomatic and complete 2 tests during their quarantine period: a test when the exposure is identified and a test at 3 to 5 days following the exposure. Students and staff participating in test to stay may attend **school-related** extracurricular activities but must always mask during these activities for 10 days. **School-related extracurricular activities are activities affiliated with the school which occur outside of the regular school curriculum and include school-sanctioned sports (not community or club sports), before and after-school care, clubs, meetings, tutoring, counseling, etc. School-related extracurricular activities may occur on or off the school premises.** Students and staff participating in modified quarantine must observe quarantine outside of school-related activities for 5 days after the exposure and wear a mask around others for 10 days after the exposure.

Test to stay should be used only in indoor K–12 settings where **universal indoor masking is correctly and consistently implemented**, **in the following exposure scenarios**:

- Unmasked exposures for students or staff actively eating or drinking
- Unmasked curricular/learning exposures for students and staff (i.e., band class, swimming, welding)

Students and staff exposed outside of the above K–12 settings are not eligible for test to stay.

More information is available in the K–12 Diagnostic Testing Program Resources here.

8.6.4 Additional Mitigation Strategies for K–12 Settings

Stable mealtime cohorts

Ideally, students and staff should be distanced 6 feet apart during mealtimes to avoid exposure. Where this is not possible and to minimize the burden of contact tracing, schools should immediately develop stable mealtime cohorts – table groups, lunch bunches and other group situations – where this is not already the practice. If a case occurs within a mealtime cohort that is not physically distanced, the entire cohort group may be considered exposed. Cohorts should be as small as feasible to minimize exposure. Schools that cannot or do not wish to establish stable cohorts should continue to conduct contact tracing individually to identify those students who were exposed to a case. Students who have returned to school and are within days 6–10 of their isolation or quarantine period may eat with their assigned mealtime cohort and do not require further separation or distancing.

Extracurricular cohorts

When possible, it is recommended that students participating in extracurricular activities be grouped into small cohorts to reduce the opportunity for transmission and to limit the burden of contact tracing in the event of an exposure or an outbreak. Organizers should consider establishing cohorts for bus rides, meetings, practices, games, performances, etc. Staggering the presence of cohorts in similar spaces (e.g., small weight rooms, restrooms, locker rooms) can also help reduce opportunities for disease transmission.

8.7 Notifications from CDC's Division of Global Migration and Quarantine and other Federal and State Partners

Individuals who are reported by DGMQ as close contacts (e.g., seated within 6 feet) of a confirmed COVID-19 case on a flight, or of passengers on a cruise ship with identified cases, will be notified of the potential exposure by CRRU staff. Contact letters will be disseminated as resources allow.

As contacts are identified through investigations in other jurisdictions—for example, if an Oregon resident has close contact with a case in a neighboring state—OHA will create a Person Under Monitoring record for those contacts.

8.8 Pregnant Persons

Information is currently insufficient to determine whether pregnant persons are more susceptible than others to COVID-19. Data from a multinational cohort study have shown that women who contract COVID-19 during pregnancy are more likely than matched pregnant but uninfected counterparts to develop pre-eclampsia, to deliver prematurely, and to be admitted to ICU, and maternal mortality is higher. Infants born to mothers infected during pregnancy are more likely to have low birth weight and to have a severe neonatal morbidity index. Vertical transmission of SARS-CoV-2 has been associated with cesarean delivery, but not with breast feeding.10 The virus could presumably be transmitted to a newborn via close contact. Pregnant persons should engage in usual preventive actions to avoid infections, including frequent hand washing and avoiding people who are sick. Testing is recommended for all neonates born to women with confirmed or presumptive COVID-19, regardless of whether

10 Villar J. JAMA Pediatr 2021; doi 10.1001/jamapediatrics.2021.1050

there are signs of infection in the neonate. See the CDC guidance Evaluation and Management Considerations for Neonates At Risk for COVID-19 for details.

9.0 DATA MANAGEMENT

9.1 Data access and processing

Because of the likelihood that contacts and cases will move or have connections across counties, all counties will have "All View/All Edit" access to cases of Person Under Monitoring and Coronavirus in Opera.

Unless someone meets the criteria for a truly separate case (see §5.2), they should only have one Coronavirus case created for them. For example, if someone was a suspect case and then tests positive by PCR, do not create a separate confirmed case. Update the status of the existing case to the most accurate status.

9.2 REDCap platform

The REDCap platform will be maintained by CRRU. Completed REDCap surveys will be reviewed for data quality and imported into Opera Monday through Friday (note: data from REDCap surveys will be pushed to matching cases in Opera after business hours M–F).

- If a matching Confirmed or Presumptive case is found, the REDCap survey will be linked to the case and data will be imported from the survey into Opera.
- Suspect cases will be created from REDCap surveys that do not match an existing case in Opera.

Data from the REDCap survey are mapped to matching variables in Opera. Survey data from REDCap will not override any existing data in Opera.

9.3 Cases who fly or travel across state lines

If you are aware of a confirmed or presumptive case who flew during their transmissible period (see §10), collect details about the travel, including the dates and times of the flight or flights, departure and arrival airports, the airlines, the flight numbers, and the case's seat numbers. Include all of this in the Travel section of the Risks tab in Opera.

9.4 Managing Close Contacts

A web-based platform, known as ARIAS, has been created to support contact tracing. All counties have been onboarded to ARIAS. Training to support contact tracing, including ARIAS training, is available at the Contact Tracing Resources page. For questions regarding ARIAS, contact ARIAS.support@dhsoha.state.or.us; or consult the ARIAS guidance documents.

If you identify a close contact and choose to enter the person into Opera, be sure to use the Contacts tab. If you find that a contact lives in another jurisdiction, update the contact's address and promptly transfer the contact to that jurisdiction in Opera. When transferring a Person Under Monitoring between jurisdictions, the receiving LHD must update the name in the "LHD Epi" field to that of any Opera user in their jurisdiction. Contacts and Persons Under Monitoring will be exported to ARIAS once per day, and all follow-up will occur in that system. Refer to ARIAS workflow documents for guidance on how to manage those contacts.

If a close contact who was exposed to a confirmed case develops symptoms consistent with COVID-19, that person may meet the presumptive case definition (see §3.4). This new presumptive case should be entered into Opera. Do not simply change the condition from Person Under Monitoring to Coronavirus; create a new coronavirus case for that person.

Presumptive cases who test positive for COVID-19 will become confirmed cases. Presumptive cases who test negative will remain presumptive cases unless a more likely alternative diagnosis is made (e.g., influenza).

If a close contact who was exposed to a presumptive case develops symptoms consistent with COVID-19, that person meets the suspect case definition (see §3.2). This new suspect case should be entered into Opera. We do not recommend a full case and contact investigation for suspect cases (see §4.3), but we do recommend that this new suspect case and their source presumptive case be tested for COVID-19.

9.5 MIS-C Case Management in Opera

All MIS-C cases entered in Opera should be classified as suspect; ACDP staff will change the classification to confirmed, as appropriate, once chart review is complete.

9.6 Outbreak Data Management

Use the epi-link type for all cases to indicate the type of exposure. When linking cases to an outbreak, include the outbreak number for all first- and second-generation cases associated with the outbreak. These terms describe a case's proximity to the place of exposure. First-generation cases are those that have the shared exposure; for example, these are workers at a worksite outbreak, or children and staff at a daycare that has an outbreak, even if those cases have onsets spread over time. Second-generation cases do not share the original exposure but have close contact to a first-generation case. Cases beyond the second generation should not have the outbreak number added to their case.

9.7 OHA Reporting to CDC

OHA will electronically report all known COVID-19 cases and deaths to CDC through the National Notifiable Diseases Surveillance System (NNDSS). CDC's Emergency Operations Center (EOC) will be notified at 770-488-7100 only if assistance or guidance is needed.

10.0 GLOSSARY OF TERMS

Aerosol-generating procedures:

Include, but are not limited to:

- Intubation, extubation, and related procedures such as manual ventilation and open suctioning
- Cardiopulmonary resuscitation
- Tracheotomy and tracheostomy procedures (insertion, open suctioning, removal)
- Bronchoscopy
- Surgery and post-mortem procedures involving high-speed devices
- Some dental procedures (such as high-speed drilling)
- Non-invasive ventilation (NIV) such as bi-level positive airway pressure (BiPAP) and continuous positive airway pressure ventilation (CPAP)
- High-frequency oscillating ventilation (HFOV)
- High-flow nasal oxygen (HFNO) [i.e., oxygen delivered through high-flow nasal cannula (HFNC) at ≥15L/min].
- Induction of sputum
- Medication administration via continuous nebulizer

COVID-19-related death: A death is considered to be related to COVID-19 in any of the following circumstances:

- Death of a confirmed or probable COVID-19 case within 60 days of the earliest

available date among exposure to a confirmed case, onset of symptoms, or date of specimen collection for the first positive test;
- Death from any cause in a hospitalized person during their hospital stay or in the 60 days following discharge **and** a COVID-19-positive laboratory diagnostic test at any time since 14 days prior to hospitalization; or
- Death of someone with a COVID-19-specific ICD-10 code listed as a primary or contributing cause of death on a death certificate, regardless of the dates of diagnosis or death.

COVID-19-related hospitalization: If the patient is admitted to an acute care facility following an ER or outpatient visit, then the patient has been hospitalized. A case would not be considered hospitalized if admitted for a <24-hour observation period only. A case would be considered hospitalized if admitted for ≥24 hours in an observation unit or ER. A COVID-19-related hospitalization is defined as:
- Any confirmed case hospitalized within 14 days of any positive test or who tests positive during their hospitalization; or
- Any presumptive case hospitalized within 14 days of their illness onset.

Health care worker (HCW): Any paid or unpaid person serving in a healthcare setting who has the potential for direct or indirect exposure to patients or infectious materials, including body substances (e.g., blood, tissue, and specific body fluids); contaminated medical supplies, devices, and equipment; or contaminated environmental surfaces. HCWs may include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, personal support workers, home care workers, phlebotomists, pharmacists, students and trainees, veterinarians, dentists, contractual staff not employed by the health care facility, and persons (e.g., clerical, dietary, environmental services, laundry, security, maintenance, engineering and facilities management, administrative, billing, and volunteer personnel) not directly involved in patient care but potentially exposed to infectious agents that can be transmitted between HCWs and patients.

High-consequence settings: Congregate settings where there is an increased risk of widespread secondary transmission among vulnerable populations, increased risk of severe illness, or risk of community destabilization. Includes, but is not limited to:
- Long term care facilities (SNF, ALF, RCF, MC)
- Adult foster homes
- Child and adult behavioral health facilities
- Residential treatment facilities
- Carceral settings
- Homeless shelters
- Transitional housing
- K-12 and early learning settings (public and private schools, childcare)
- Other congregate living settings (e.g., communal worker housing, group homes)
- Agricultural and food chain facilities (e.g., farms, packing houses, processing facilities, etc.)

High-Priority Individuals:
People with symptoms in the groups listed below should be prioritized for testing.
- Healthcare workers and first responders (EMS, public safety workers)
- Residents, staff, children, or other people in a congregate setting (e.g., healthcare facility, residential care facility, school, agricultural workers, food-packing plants,

childcare, corrections, shelters, etc.)
- Workers who provide direct care or service in multiple group facilities or who provide in-home services (e.g., hospice care workers, physical or occupational therapists, in-home personal care workers, etc.)
- Essential front-line service workers who have regular contact with large numbers of people (e.g., those working in grocery stores, pharmacies, food service, transportation, delivery, and other critical infrastructure services)
- People 65 years of age or older
- People with underlying medical conditions, including, but not limited to hypertension, diabetes, cardiovascular disease, lung disease, and immunocompromising conditions
- People who identify as Black, African-American, Latino, Latina, Latinx, American Indian/Alaska Native, Asian, Asian-American, or Pacific Islander
- People who identify as having a disability
- People whose first language is not English
- Pregnant women
- People whose condition requires hospitalization
- People who within 14 days of their symptom onset had close contact with a person with laboratory-confirmed COVID-19 or a person determined by a public health authority to be a presumptive case

Period of transmissibility: This is the time when cases can transmit disease to others. For symptomatic cases, this begins 48 hours prior to symptom onset. For asymptomatic cases, this begins 48 hours prior to the collection of the first specimen that tested positive. The period of transmissibility extends until the case has met criteria for discontinuation of isolation.

Physical distancing: Remaining out of congregate settings, avoiding mass gatherings, and maintaining distance (approximately 6 feet) from others to the greatest extent possible. Physical distancing measures reduce opportunities for person-to-person virus transmission and can help slow the spread of the disease, as well as save lives.

Severely immunocompromised person: Those who require care in a protected environment, (e.g., bone marrow transplant recipients, individuals with severe combined immunodeficiency") and HIV+ persons with CD4+ percentages <15% or CD4+T lymphocyte counts <200. Immunocompromised persons include but are not limited to those who:
- Are in an immunocompromised state (weakened immune system)
- Have AIDS or HIV
- Are receiving cancer treatments, anticancer drugs, or chemotherapy
- Are undergoing radiation therapy
- Are undergoing or have had stem cell treatments
- Received an organ transplant
- Take corticosteroids and other immune suppressing medications

REFERENCES

1. OHA main page for COVID-19: https://govstatus.egov.com/OR-OHA-COVID-19
2. CDC main page for COVID-19: www.cdc.gov/coronavirus/2019-ncov/index.html
3. COVID-19 Resource Centre at *The Lancet*: www.thelancet.com/coronavirus
4. 2019 Novel Coronavirus (COVID-19) at the *New England Journal of Medicine*:

www.nejm.org/coronavirus

5. ODE and OHA, Planning for COVID-19 Scenarios in Schools: www.oregon.gov/ode/students-and-family/healthsafety/Documents/Planning%20and%20Responding%20to%20COVID-19%20Scenarios%20in%20Schools%20August%202020.pdf
6. ODE and OHA, Ready Schools, Safe Learners: www.oregon.gov/ode/students-and-family/healthsafety/documents/ready%20schools%20safe%20learners%202020-21%20guidance.pdf

UPDATE LOG

January 14, 2022. Updated K-12 exposure guidance; added mitigation strategies for K-12 settings; eliminated negative test reporting for certain testing entities; clarified isolation/quarantine guidance for other congregate settings and carceral settings (Amanda Faulkner, Lee Peters, Melissa Sutton, Tom Jeanne, Becca Pierce).

January 10, 2022. Updated booster timeline for Moderna; formatting changes. (Amanda Faulkner.)

January 7, 2022. Changes to formatting throughout document; adopted new guidelines for case investigation and contact tracing; updated isolation and quarantine guidelines to match those released on January 4, 2022 by CDC; updated TTS protocol to align with new isolation and quarantine guidance (Amanda Faulkner, Lee Peters, Tom Jeanne, Becca Pierce, Lex Zhang).

December 29, 2021. Adopted new CDC shortened quarantine and isolation guidance for the general population and HCW; updated vaccine and treatment section; removed guidance regarding active monitoring; removed 7-day shortened quarantine with test; removed outbreak guidance regarding general workplaces; added language and intention for prioritizing public health response for COVID-19. (Amanda Faulkner, Paul Cieslak, Becca Pierce, Tom Jeanne).

December 6, 2021. Defined extracurricular activities in the test to stay guidance; clarified that masked staff on school buses are also eligible for test to stay. (Amanda Faulkner, Melissa Sutton).

December 2, 2021. Added language regarding the risk of outdoor exposures and variables to consider when determining if quarantine is needed for contacts; added language for a modified quarantine option for exposures in K-12 settings where universal masking is in place, updated test interpretation table (Lee Peters, Tom Jeanne, Paul Cieslak, Melissa Sutton, Amanda Faulkner)

November 18, 2021. Updated presumptive case definition to specify symptoms for persons who test positive using an at-home test; removed recommendation for people who test positive at-home to follow-up with a confirmatory test; recommended use of 7-day quarantine with negative test option for close contacts who work in or attend K-12 schools (Amanda Faulkner, Lee Peters, Tom Jeanne, Melissa Sutton).

October 19, 2021. Added language about close contact exceptions for outdoor K–12 settings; revised ideal post-exposure test window to 5–7 days (Meagan McLafferty, Amanda Faulkner).

September 24, 2021. Added language about new case investigation protocol; clarified school outbreak management; modified presumptive case definition symptom

requirements for people who test positive with an at-home test; lab updates (Sarah Humphrey, Shane Seavey, Becca Pierce, Lee Peters, Amanda Faulkner).

August 6, 2021. Added new CDC close contact exemption in school settings; added school-specific outbreak response section; updated testing recommendations for close contacts regardless of vaccination status; added information on MIS-A surveillance (Amanda Faulkner, Becca Pierce, Lee Peters, Paul Cieslak).

July 6, 2021. Changed response time for case interviews to one local public health working day; removed requirement for outbreak record to be opened for all schools with more than 1 case; defined testing strategy parameters for discontinuation of isolation. (Amanda Faulkner, Becca Pierce).

June 3, 2021. Updated quarantine guidelines to allow local public health to adopt shortened quarantine periods of 10 or 7 days with a negative test among the general population with exceptions in certain high-risk settings. (Amanda Faulkner)

April 29, 2021. Updated duration of quarantine to 14 days for all unvaccinated close contacts; updated surge conditions guidance section. Added detail to vaccination/treatment section. (Amanda Faulkner).

March 22, 2021. Added clarification surrounding vaccine breakthrough case surveillance follow-up; clarified use of test-based discontinuation of isolation; provided language regarding upcoming OSPHL whole genome sequencing capacity; clarified at-home test kits. (Amanda Faulkner).

February 17, 2021. Added Surge Conditions Guidance section; refined new quarantine guidance for fully-immunized close contacts in health care settings to match CDC's; updated infection control language to align with OHA Clinical and Infection Control Guidance, added breakthrough case surveillance project information. (Amanda Faulkner, Rebecca Pierce).

January 20, 2021. Updated treatment, prevention and limitation of spread section; provided new quarantine guidance for fully-immunized close contacts; clarified timing of isolation period for asymptomatic cases who subsequently develop symptoms. (Amanda Faulkner).

December 9, 2020. Removed language regarding creation of suspect cases based on negative test results; added options for shorter quarantine, adopting CDC options in part (Amanda Faulkner, Melissa Sutton, Paul Cieslak).

November 25, 2020. Added clarification for assessment and notification regarding persons exposed to cases among healthcare workers, removed test-based discontinuation of isolation, modified close contact definition to include '24-hour' time frame in line with CDC, included direction for sharing case information with schools, directed LPHA to classify MIS-C cases as Suspect until chart review is complete. (Kristen Hollywood, Melissa Sutton, Amanda Faulkner).

September 18, 2020. Clarified the recommended isolation period for cases who live in congregate settings, updated language to reflect that all jurisdictions are on ARIAS, defined first- and second-generation in the context of linking cases to outbreaks, added required data elements for outbreak reporting, added the definition of COVID-19-related hospitalization, sundry edits (Steve Rekant).

July 23, 2020. Changed all mentions of Orpheus to Opera, updated discontinuation of isolation criteria for symptoms from 72 hours to 24 hours, deemphasized test-based discontinuation of isolation and added the longer minimum period for specific groups,

included new testing rules and guidance, added positive antigen tests to the confirmed case definition and added language about any test developed under an FDA EUA, added description of criteria for possible work exemptions for quarantine and isolation, sundry edits (Steve Rekant)

July 2, 2020. Clarified language around using test-based discontinuation of isolation in LTCFs, added requirement for LPHAs to share information with employers (Steve Rekant)

June 24, 2020. Added details about investigating outbreaks, added references to ARIAS, clarified definition of suspect and presumptive cases including information about antigen testing, added MIS-C, disentangled discontinuation of isolation and assessment of recovery, harmonized language across sections, sundry edits (Steve Rekant)

May 1, 2020. Added presumptive case definition and revised recommended follow-up with contacts, defined recovery and clarified release from isolation, defined COVID-19-related deaths, clarified language around testing, added required follow-up for close contacts. (Steve Rekant, Kelly Cogswell)

April 1, 2020. Added language for emergency rule regarding reporting deaths and hospitalizations; reduced expectations for follow-up of potentially exposed persons; clarified language regarding testing in clusters; removed negative influenza test as a requirement for automatic testing approval at OSPHL; modified exposure period per new CDC guidance; added revised flowcharts. (Steve Rekant, Madeline LeVasseur, Amanda Faulkner, Rebecca Pierce)

March 23, 2020. Changed requirements for LPHA follow-up and investigation of PUMs, suspect cases, and confirmed cases. Updated guidance on monitoring and restrictions of exposed persons. Updated criteria for testing at OSPHL and overall testing prioritization recommendations. Changed language from PUI to suspect case and changed suspect and confirmed case definitions (Madeline LeVasseur, Steve Rekant, Amanda Faulkner, Orion McCotter)

March 12, 2020. Added information about other laboratories. Sundry edits. (Steve Rekant)

March 8, 2020. Edited testing criteria, PUM, PUI definitions. Updated guidance for discontinuation of isolation. Sundry edits. (Kelly Cogswell, Alexia Zhang)

March 3, 2020. Clarified contact tracing requirements. Added case classification table. Added definition of a presumptive case. Sundry edits. (Tasha Poissant, Madeline LeVasseur)

February 28, 2020. Updated PUI case definition and testing criteria. Updated testing availability at the OSPHL. Added current list of geographic areas with widespread or sustained community transmission. (Tasha Poissant, Madeline LeVasseur)

February 20, 2020. Provided guidance on discontinuation of isolation for PUIs or COVID-19 cases and pregnant persons, and revised figures. (Alexia Zhang, Madeline LeVasseur, Steve Rekant)

February 12, 2020. Clarified expectations of LPHAs regarding contacting PUMs, provided guidance on interpreting testing, and revised figures. (Amanda Faulkner, Steve Rekant, Alexia Zhang)

February 7, 2020. Provided minor clarifications to date of PUM guidance implementation, DGMQ PUM forms, and Figures. (Amanda Faulkner, Steve Rekant)

February 6, 2020. Modification of PUM criteria, monitoring, and self-quarantine guidance.

Updated §2.5 *Incubation Period*. Minor edits for clarity. (Amanda Faulkner, Steve Rekant, Alexia Zhang)

January 2020. First draft. (Nicole West, Amanda Faulkner, Steve Rekant)

Appendix 1: Outbreak reporting elements

- Basics tab
  - Etiology
  - Case counts
  - First and last onset date (for asymptomatic cases, onset date should be the first specimen collection date)
  - Location details
    - Exposure locations (i.e., location of outbreak)
    - Residence locations (i.e., location of exposed people)
    - Contact information for outbreak site
    - Number of employees or persons in a facility
    - Exposure sites (i.e., type of location)
  - Brief overview
- Etiology tab
  - Etiology = Coronavirus
  - Type of testing performed
  - Identified sequence, if any
- Cases tab
  - At a minimum. document the confirmed and presumptive case counts and any known deaths among cases
  - All the Opera cases linked with the outbreak number, where able
- Methods tab
  - Check all that apply
  - Be sure to identify if a HAI investigation was performed
    - Note by whom: facility, LPHA, OHA HAI
- Documentation tab
  - Attach any relevant records such as case logs, provider notifications, press release