

Novel Coronavirus (COVID-19)

Los Angeles County Department of Public Health COVID-19 Testing Strategy for Los Angeles County

Background

The purpose of this document is to explain the County's strategy for testing to detect current COVID-19 infection. Note, it does not discuss the use of serology (antibody) tests as these blood tests should not be used alone to diagnose current infection.

COVID-19 Prevention

Testing for current infection is used to help healthcare providers diagnose COVID-19 in people who are sick. It is also used as a public health tool to identify and manage cases and outbreaks to help prevent further spread. Testing has a limited role in preventing infections.

The mainstays of COVID-19 prevention include:

- Physical (or social) distancing (staying at least 6 feet from people who are not in the same household)
- Wearing face coverings to protect others from infection
- Frequent and thorough hand washing
- Environmental cleaning and frequent disinfection of high-touch surfaces
- Checking employees, staff, patients, and visitors for symptoms before they enter facilities
- Staying home when sick*
- Immediately isolating people who are sick*
- Quarantining people who have been in close contact with people who are sick or diagnosed with COVID-19*

**These measures require non-punitive leave policies that allow employees to stay home when they are ill or exposed to someone who is ill, or if they need to care for sick household members*

Expanded Testing Recommendations

The testing landscape is expanding and changing rapidly. Many commercial clinical laboratories, most hospital systems, and many academic centers, as well as the County, are now offering tests to diagnose COVID-19. The number and types of tests continue to increase too. There are now many molecular tests (PCR) tests available to diagnose current COVID-19 infection. In addition, the first antigen tests are becoming available as well (these tests have the advantage of being faster and easier to run but come with the drawback of missing more infections than PCR tests). Most COVID-19 tests are used on nasal swabs or saliva samples. Some tests can be run in the clinician's office (point of care or POC tests). In addition, for some of the tests, specimens can be collected by the patient, including at home. This reduces the demand for personal protective equipment (PPE) and the risk of staff and others being exposed to infection.

There continue to be factors that limit the number of tests that can be performed such as the availability of test swabs, media (the liquid used to store the specimens) and test reagents as well as laboratory capacity. For this reason, it is important to use an evidence-based approach when deciding how to prioritize COVID-19 testing. While risk factors for severe illness and death from COVID-19 are still being evaluated, data and experience show that the elderly, particularly those who are living in congregate living facilities, and people with certain [underlying medical conditions](#) are at highest-risk for severe illness. These individuals should be prioritized for

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testing. Public Health has encouraged medical providers and healthcare systems to test more symptomatic patients as their resources allow.

Public Health's current priorities and rationale for the use of COVID-19 diagnostic tests are shown below.

Priorities for COVID-19 Testing

Highest Priority for Testing

Persons with symptoms suggestive of COVID-19

- Hospitalized patients
- Healthcare facility workers, workers in congregate living settings, and first responders
- Residents in long-term care facilities or other congregate living settings, including prisons and shelters

Asymptomatic persons as part of an outbreak response or contact investigation in high risk settings

- Persons working and living in settings such as skilled nursing facilities, congregate living facilities, correctional facilities, and persons experiencing homelessness.

The rationale includes ensuring optimal care for all hospitalized patients, lessening the risk of nosocomial (hospital acquired) infections, and detecting and controlling outbreaks in acute- and subacute-care health facilities and high-risk congregate living settings.

Testing is strongly encouraged

Persons with symptoms suggestive of COVID-19

- Persons 65 years of age and older
- Persons with [underlying conditions](#)

The rationale includes ensuring that those who are at highest risk of complications are identified.

Testing is recommended *assuming sufficient resources*

- Symptomatic persons not meeting any the criteria above
- Asymptomatic persons who are close contacts to people with COVID-19 (cases)

The rationale is to detect new cases to decrease community spread.

Routine testing of the people without symptoms not recommended unless they are identified as a close contact to someone with COVID-19.

Facility-Wide Testing

Skilled nursing facilities (SNFs) have been the hardest hit in the County with the largest number of COVID-19 cases and high mortality rates. Infection control, universal source control (such as the use of masks and face coverings), and physical distancing remain the mainstays to reduce the risk of COVID-19 transmission in SNFs.

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In addition, Public Health is now also using facility-wide testing a supplemental tool to prevent or reduce the size of outbreaks in SNFs. When a single or small number of people with symptoms are diagnosed with COVID-19, facility-wide testing has identified many other infected residents and staff with either no symptoms or mild symptoms. Based on testing results, Public Health can recommend a variety of strategies based on how many residents are infected and where they are located within the facility. Infected staff are either excluded from work or, if there are critical staffing needs, allowed to work only with infected residents and other staff. Facility-wide testing is resource intensive and often requires weekly retesting of all negative residents and staff until no new cases are identified.

Public Health's highest priority for facility-based testing is medically vulnerable persons in congregate settings, primarily SNFs and also in homeless shelters. The aim is to better manage facility outbreaks as well as to mitigate community transmission.

Targeted Testing

Public Health is encouraging targeted testing to prevent asymptomatic spread of COVID-19 within lower risk congregate settings such as residential and non-healthcare facilities and workplaces. This strategy is aimed to supplement infection control, universal source control, and physical distancing measures.

With the targeted testing strategy, when there is a known COVID-19 case, all of their close contacts are tested whether the contacts have symptoms or not. For every new case that is detected, a new contact investigation is started to identify, isolate, and test the close contacts of the new case.

Targeted testing can be a strategic, structured, manageable, and efficient approach for a facility. It should identify residents/clients and staff with previously unrecognized COVID-19 who may be associated with a COVID-19 case at the facility. In addition, it should help the agency and Public Health to understand the scope of COVID-19 spread at the facility and guide decisions about selecting residents/clients and staff for isolation and quarantine at a given point in time.

Limitations of testing strategies

- The molecular (PCR) and antigen tests that are currently used to diagnose current COVID-19 infection are not perfect. Molecular tests are more sensitive than antigen tests (they have fewer false negatives) but both tests can have false negative results – which means that a person infected with COVID-19 may have a negative test in error and their diagnosis may be missed. The accuracy of a test to diagnose COVID-19 depends on many factors including how well the specimen is collected, which test is used, the patient's clinical condition, and how likely it is that they are infected.
- Another concern is that a patient who has had COVID-19 may continue to have a positive molecular test for a long time after they have recovered because the test may detect part of the virus or dead virus that cannot cause infection.
- A test can only tell if the person is infected at one point in time. They could become infected after the sample is taken.

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- The turn around time for laboratory results varies, but delays in COVID-19 test results are not uncommon.
- There are still limitations on the amount of testing that can be done in the County.

Summary

With widespread community transmission of COVID-19, residents of LA County should assume everyone is possibly infected and take personal preventive measures including wearing face covers, practicing physical distancing, and frequent handwashing. Testing is recommended for people who are sick or who are part of a case investigation.

