



Considerations For COVID-19 Testing of Adults and Children Who Work at or Attend a K-12 School

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Families of students, school administrators, staff, and local health leaders are working together as schools reopen across the state to mitigate the spread of COVID-19. K – 12 schools have implemented thoughtful, detailed protocols to prevent and respond to potential cases of the virus among their students and staff. As more tests are becoming available across the country, we know that local partners have questions about the use of COVID-19 testing in education settings and/or among adults and children who work at or attend a K-12 school. This is an emerging area of public health practice and there is currently limited scientific or evidenced-based data on effective and efficient testing protocols and strategies.

As more public health research evolves and more is learned, the North Carolina Department of Health and Human Services (NCDHHS) will update the following considerations as a reference for Local Education Agencies (LEAs) - including independent public schools and charters - and private schools, in consultation with their Local Health Departments (LHDs) to determine their own local approaches to administering COVID-19 tests, at their discretion.

Background on K-12 Covid-19 Testing

Types of Covid-19 Tests

There are two main types of viral tests that could be used to diagnose someone with COVID-19 (diagnostic tests):

- **Molecular/polymerase chain reaction (PCR)** tests detect the virus’s genetic material. This test is the “gold standard” for detecting the virus that causes COVID-19 and typically requires a sample being sent to a laboratory. For this test, it is most common that samples are collected through a nasal or throat swab.
- **Rapid antigen** tests, which detect protein on the surface of the virus, are less sensitive and less specific than the PCR test. This means they miss some infections that would be detected by a PCR test, and they may be positive in someone who does not actually have the infection. In addition, more is known about their accuracy in people with symptoms than in people without symptoms. However, they can be performed without having to send the sample to a laboratory and results come back quickly (e.g., approximately 15 minutes). For this test, a sample may be collected through a nasal swab.

Testing Strategies

There are three different types of testing strategies that can be utilized among adults and children who work at or attend a K-12 school:

- Symptomatic: Testing individuals with signs or symptoms consistent with COVID-19
- Close Contacts of an Individual Diagnosed with COVID-19¹: Testing individuals with recent known close contact to a person with COVID-19
- Broader Testing Strategies: Testing asymptomatic individuals without recent known exposure to a person with COVID-19.

The text below outlines considerations related to these approaches to COVID-19 testing. For more information about these approaches, see the Centers for Disease Control (CDC) webpage at this link: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-testing.html>.

Considerations for Testing Adults and Children Who Work at or Attend a K-12 School

Symptomatic: Testing Individuals with Signs or Symptoms Consistent with Covid-19

- NCDHHS recommends COVID-19 testing of symptomatic adults and children who work at or attend a K-12 school, with or without known contact with someone with COVID-19.
 - If a person with COVID-19 symptoms tests positive using either an antigen test or a PCR test, the individual should isolate for 10 days after the first day of symptoms, until they have had no fever for 24 hours, and their symptoms are resolving, following current state guidance outlined in the [StrongSchoolsNC Public Health Toolkit \(K-12\)](#) under the section titled "Handling Suspected, Presumptive or Confirmed Positive Cases of COVID-19."
 - If a person with COVID-19 symptoms tests negative with a PCR test and has no known contact with someone with COVID-19, it can be assumed that person does not have COVID-19 and may return to school once they are without fever and have felt well for 24 hours.
 - If a person with COVID-19 symptoms tests negative with a PCR test but is a close contact of someone with COVID-19, they still must complete the 14-day quarantine.
 - If a person with COVID-19 symptoms tests negative by an antigen test, a follow up PCR test should be administered and the following next steps should be taken:
 - The person with symptoms should stay in isolation until the follow up PCR test is complete and results are back.
 - If the follow up PCR test result is positive, the individual must continue to stay in isolation and may return to school 10 days since their first symptoms, there

¹ CDC defines a close contact as "someone who was within 6 feet of an infected person for at least 15 minutes starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to specimen collection) until the time the patient is isolated." Source: <https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/appendix.html#contact>

is no fever without the use of fever-reducing medicines for 24 hours, and there has been symptom improvement, including cough and shortness of breath, in accordance with state guidance outlined in the [StrongSchoolsNC Public Health Toolkit \(K-12\)](#) under the section titled "Handling Suspected, Presumptive or Confirmed Positive Cases of COVID-19."

- If the follow up PCR test result is negative and the person has no known contact with someone with COVID-19, the individual may return to school once there is no fever without the use of fever-reducing medicines and they have felt well for 24 hours, following current state guidance outlined in the [StrongSchoolsNC Public Health Toolkit \(K-12\)](#) under the section titled "Handling Suspected, Presumptive or Confirmed Positive Cases of COVID-19."
- If a person with COVID-19 symptoms tests negative with a PCR test but is a close contact of someone with COVID-19, they still must complete the 14-day quarantine.

Close Contacts of an Individual Diagnosed with COVID-19: Testing individuals with recent known close contact with a person with COVID-19

- NCDHHS recommends COVID-19 testing of adults and children who work at or attend a K – 12 school, whether they are symptomatic or asymptomatic, if they are a close contact of an individual who has been diagnosed with COVID-19.
 - If the person tests negative during quarantine with either a PCR or antigen test, **they still must complete a 14-day quarantine before returning to school.**
 - If the person tests positive during quarantine (by PCR or antigen test), they should be considered a positive case and follow the guidance for isolation outlined in the [StrongSchoolsNC Public Health Toolkit \(K-12\)](#) under the section titled "Handling Suspected, Presumptive or Confirmed Positive Cases of COVID-19."
 - 10 days after the first day of symptoms, no fever for 24 hours, and symptoms resolving, or
 - 10 days after first positive test, if they never develop symptoms.
 - If they develop symptoms, 10 days after the first day of symptoms, no fever for 24 hours, and symptoms resolving

Broader Testing Strategies: Testing asymptomatic individuals without recent known exposure to a person with COVID-19.

- Best practices and data on the efficacy of controlling the spread of the virus using broader COVID-19 testing strategies for asymptomatic individuals without recent known exposure to a person with COVID-19, particularly among K-12 adult and child populations, are still evolving. These considerations will be updated as more is known.
- Prior to implementing a broader testing strategy, a LEA/school/LHD should consider the infrastructure and communication needed to support testing and follow up in the school setting, such as facilities for conducting testing (whether on-site at the school or in partnership with another testing location), trained staff to administer and interpret test results, school community (students, staff, families) buy-in to the broader testing approach, and access to a consistent supply of tests (whether antigen or PCR.)
- The trained staff interpreting COVID-19 test results within the context of a broader testing strategy should keep in mind these protocols:

- If a person with no symptoms and no known contact with someone with COVID-19 tests negative with a PCR or an antigen test, it can be considered negative.
- If a person with no symptoms and no known contact with someone with COVID-19 tests positive with a PCR test they should be considered positive and they should follow the guidance for isolation outlined in the [StrongSchoolsNC Public Health Toolkit \(K-12\)](#) under the section titled "Handling Suspected, Presumptive or Confirmed Positive Cases of COVID-19."
 - 10 days after first positive test, if they never develop symptoms
 - If they develop symptoms, 10 days after the first day of symptoms, no fever for 24 hours, and symptoms resolving
- If a person with no symptoms and no known contact with someone with COVID-19 tests positive with an antigen test, a repeat PCR test should be done within 24-48 hours of the antigen test.
 - The person should be in isolation while the follow up testing is being done.
 - If the immediate follow up PCR test is negative and the person remains without symptoms, the antigen test can be considered a false positive and the person can be considered negative and can return to school or work.
 - If the follow up PCR test is positive, the person should follow guidance for isolation as stated above.

In consultation with their Local Health Department, schools may consider the following in creating a local approach to broader testing for K-12 children and adults:

- **BROADER TESTING STRATEGY #1**

A LEA/school/LHD may consider a broader testing strategy at a K-12 school that has experienced a cluster (five or more cases that are epidemiologically linked). The cluster could still be active, or it could be complete.

In this context, the LEA/LHD/school could test all adults and children who were physically present on campus when the cluster was active.

- **BROADER TESTING STRATEGY #2**

A LEA/school/LHD may consider regularly testing a small sample of adults and/or children who work at or attend K-12 schools, especially if the LEA/school is:

- currently operating any in-person learning under Plan A or Plan B and
- located in a county that is currently in the red, orange, or yellow zone according to the [CDC Indicators and thresholds for risk of introduction and transmission of COVID-19 in schools](#).

In this context, the LEA/LHD/school would test a portion or sample of adults and/or children (e.g., 5%) on a regular, routine basis (e.g., weekly or monthly) - sometimes referred to as "surveillance."

Regularly testing samples of adults, as opposed to adults and children, may be more cost-effective to prevent viral spread, as current data shows they may spread virus more efficiently than children.

- **BROADER TESTING STRATEGY #3**

A LEA/school/LHD may consider one-time testing of all individuals without known or suspected exposure to a person with COVID-19, as a requirement for entry to in-person learning.

Universal one-time COVID-19 testing in a school environment, in this context, means that every adult and child who works at or attends the school would be required to be tested for COVID-19 and demonstrate a negative COVID-19 test in order to gain admission to in-person learning.

NCDHHS and the CDC do not recommend requiring one-time universal K-12 testing before entry to in-person learning. Universal COVID-19 one-timed testing of all students and staff in school settings has not been systematically studied. It is not known if requiring universal testing in school settings provides any additional reduction in person-to-person transmission of the virus beyond what would be expected with implementation of other infection preventive measures (e.g., social distancing, masks, hand washing, and enhanced cleaning and disinfecting).

Diagnostic tests can only determine potential infection at a single point in time and may miss cases in the early stages of infection. In other words, an individual may test negative today, but positive tomorrow depending on when they got an infection. Universal testing upon entry may be more effective if it is followed up by a routine repeated testing strategy as described above in Strategy #2.

However, a LEA/school/LHD may determine that they have the infrastructure, communication capacity, testing supply, and staff to support this type of broader testing strategy without creating barriers to accessing high quality learning environments for children.

Logistical Considerations

LEAs/schools/LHDs should collaborate as local education and health leaders, in conversation with legal counsel, as they weigh considerations regarding logistics in standing up a testing site at a school or serving adults or children who work in or attend a K-12 school. Two logistical considerations are outlined below; this brief list is not exhaustive.

Testing Sites

The location of where a COVID-19 test can be administered is an important consideration in order to make testing readily accessible. Point-of-care (POC) COVID-19 tests are intended to be quick with results made available with the person being tested on-site. They are typically done in a clinical setting (e.g. a doctor's office), so the test does not need to be sent off to another laboratory to determine the results. Antigen tests and some specific types of PCR tests are point-of-care.

If a LEA/school wants to administer COVID-19 testing on-site, federal rules require that testing in these settings be conducted in coordination with and under the authorization of a laboratory with a Clinical Laboratory Improvement Act (CLIA) Certificate of Waiver or to maintain a Clinical Laboratory Improvement Act (CLIA) Certificate of Waiver themselves. More information on CLIA Certificates of Waiver may be found at <https://www.cdc.gov/hiv/testing/nonclinical/clia.html>

Reporting

All positive and negative test results must be reported as part of required reporting of COVID-19 diagnostic tests. The most current reporting requirements and methods of reporting of COVID-19 diagnostic tests are described in [the NC Administrative Code Emergency Rule](#) and the [associated NCDHHS guidance for reporting results](#)

Parental Consent

Parental or guardian consent for student testing should be obtained. However, pursuant to [G.S. 90-21.5](#), minors with decisional capacity may, without the permission of a parent or guardian, consent to testing for COVID-19 (a novel coronavirus), as it is considered a medical health service for the diagnosis of a reportable disease.

Questions

For Families

- For questions specific to your child's school and COVID-19 testing procedures, reach out to your local school leaders, such as your school's principal.

For Local Education Leaders and Local Health Departments

- For questions about NCDHHS [statewide guidance](#) related to COVID-19 and K-12 schools, consult the comprehensive [FAQ document](#), or email StrongSchoolsNC@dhhs.nc.gov.
- The NCDHHS Division of Public Health Epidemiologist is on call and available to assist 24/7 (919-733-3419)