



<b>Standard Operating Procedure (SOP)</b>	
<b>Issued:</b> 8/26/2020	<b>Revised:</b> 9/9/2020: To reflect designation of close contacts from school sports 9/15/2020: To clarify conditions under which an outbreak investigation is opened 9/23/2020: To clarify the definition of close contacts in an outbreak 9/28/2020: To clarify case investigation process, AHOC, and bus windows 9/29/2020: To clarify the role of antigen testing and, separately, school sports by creating Appendix B 9/30/2020: To clarify bus exposures and, separately, to add Appendix C for school-based testing documents
<b>SUBJECT:</b> Investigation of COVID-19 in Pre-K-12 Schools	
Maine Center for Disease Control and Prevention Division of Disease Surveillance	

## I. BACKGROUND AND RATIONALE

SARS-CoV-2, the virus that causes COVID-19, has become widespread globally and in the United States. Emerging evidence indicates that children of all ages are susceptible to COVID-19 although their clinical presentation is often less severe than that seen in adults. However, severe disease is possible, including rare fatalities and a multisystem inflammatory syndrome in children that can lead to a severe and life-threatening illness in rare cases.

Less clear is the role that children play in transmission of SARS-CoV-2, both to other children and to their adult family members, who could be at increased risk of severe illness. Reports from international settings suggest the possibility of secondary transmission from young children; however, due to school closures across the United States, little U.S.-based evidence is available to confirm these findings. As Pre-K-12 schools reopen in the fall of 2020, clusters of COVID-19 cases linked to school settings are a possibility. The number of COVID-19 cases will likely vary by community, depending on intensity of transmission in the community, adoption and access to prevention and control strategies, and timeliness of identification of index cases in schools.

## II. PURPOSE

This SOP provides a framework for response to case(s) of COVID-19 among students, teachers, or staff within a school. It will be updated frequently as more is learned about transmission and mitigation of COVID-19. The guidance in this SOP is not exhaustive, nor does it replace direct engagement with Maine CDC. This SOP assumes that students, teachers, and staff comply with the Six Requirements for Safely Opening Schools in the Fall, which are found in the Maine Department of Education's Framework for Reopening Schools and Returning to In-Person Instruction.

### III. OBJECTIVES

The primary reason to investigate cases or outbreaks of COVID-19 in schools is to control the outbreak and, with lessons learned from that investigation, help prevent future outbreaks. Specific objectives of investigations may include, but are not limited to:

1. Implementing measures to prevent or mitigate transmission of COVID-19 within a school setting.
2. Determining the magnitude of the outbreak and characterizing chain(s) of transmission (e.g., secondary transmission among children, school staff members, and household members).
3. Describing characteristics of school populations, including demographic, health status, clinical characteristics (for cases), and exposures, stratified by COVID-19 case status.

### IV. METHODS

#### A. Case Definitions

Maine CDC will follow CSTE case definitions for COVID-19. These case definitions are subject to change. COVID-19 interim case definitions can be found at <https://www.n.cdc.gov/nndss/conditions/coronavirus-disease-2019-covid-19/case-definition/2020/>

#### B. Investigation Approaches

Interviews with school staff are useful to assess the school environment and strategies adopted by the school to prevent or mitigate COVID-19 spread. Gathering detailed information on school operations, space layout, number of staff members, teachers and students, class sizes (density), and daily schedule (pick up, drop off, rotation through different classrooms and other school spaces) will help with understanding the daily routine and potential mixing among students from different classes.

Maine CDC will initiate an investigation when it learns of a confirmed case (or cases) associated with a school. In the event that the school is informed of a confirmed case (or cases) of COVID-19 prior to Maine CDC, the school or school administrative unit (SAU) will alert the Maine DOE School Nurse Consultant, who is the primary point of contact for schools to Maine CDC. The DOE School Nurse Consultant will contact Maine CDC's school liaison during business hours. During off hours, the Maine CDC case investigator will call the school nurse at the school for an individual case. If the school nurse is unavailable the case investigator will leave a message. If there is an additional contact on the voicemail, the case investigator will reach out to that individual. If an outbreak investigation is opened during off hours, the outbreak investigator will call the superintendent. In addition, the outbreak investigator will notify DOE's school nurse consultant and Deputy Commissioner in such circumstances.

Recommended public health actions will depend on the number of cases, the location of the cases, and the degree of contact those cases may have had with other students, teachers, or staff. Table 1 below summarizes the various stages of public health recommendations based on these factors. It is important to note that the circumstances of a specific outbreak may result in a deviation from these recommendations.

#### C. School Nurse Responsibilities

The school nurse (or other official designated) affiliated with the school where a positive case is identified will be an essential part of the public health investigation. The school nurse will serve as the primary point of contact for public health investigators. The school nurse or designee should also contact the applicable designated school administrators, school health advisors/school physicians, and, where possible, the primary care provider of the student who has tested positive.

As noted in Section V (Notification and Communication) below, the school nurse shall serve as the primary point of contact with families of confirmed cases. When the school nurse communicates with the

family of a confirmed case, the school nurse should share isolation information as well as quarantine information for family members living in the same household. Doing so will save time prior to Maine CDC contacting the family and may reduce the likelihood of further transmission. The school nurse should communicate that any school-aged siblings that live in the same household should be sent home from school and placed into quarantine. The school nurse can make social service referrals with family's permission to [covidsocialsupport@maine.gov](mailto:covidsocialsupport@maine.gov).

The school nurse should recommend that the parent/guardian monitor other family members for symptoms of COVID-19. These include: fever (>100.4°F) 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. The school nurse should also advise families to ensure that the COVID-19-positive student remain in proper isolation, especially from people who are at higher risk for getting sick from COVID-19. Families where a member has tested positive for COVID-19 should alert their health care provider, especially if symptoms worsen. In addition, the school nurse can provide a brief overview of the case investigation process, contact tracing, and Sara Alert system for the family.

The school nurse can also then begin the process of determining who within the school may constitute a close contact (*see* Sections F and G below). Although this process can be started by the school nurse, Maine CDC case investigators will assume primary responsibility for contact tracing efforts.

In general, a close contact is defined as someone with exposure to the confirmed case within 6 feet for 15 minutes or more regardless of if individuals were wearing face coverings. To help protect students in the school and out of an abundance of caution, Maine CDC considers everyone within a classroom to be close contacts. In addition to close contacts from the classroom setting, the school nurse can begin to compile information on close contacts from transportation and during extracurricular activities.

#### **E. Laboratory Testing**

Maine CDC recommends testing for all close contacts of persons with SARS-CoV-2 infection 5-7 days after exposure. Because of the potential for asymptomatic and pre-symptomatic transmission, it is important that close contacts of individuals with SARS-CoV-2 infection be quickly identified and tested in the appropriate time frame, even though close contacts must remain in quarantine for 14 days irrespective of the test result. Testing of close contacts also helps identify additional cases, which in turn allows identification of further close contacts who should be in quarantine. Though antigen-based methods are available, Maine CDC recommends that testing of asymptomatic close contacts be performed using PCR-based methods at this time. Completeness of reporting for all individuals testing positive or negative can optimize investigation efforts for case classification and provide an initial assessment of attack rates when combined with line lists provided by the school.

Maine CDC will work with School Administrative Units (SAU) to identify potential locations where students, faculty, or staff could obtain COVID-19 testing. Maine CDC cannot guarantee the availability of on-site testing for every school experiencing an outbreak. State-sponsored sample collection sites can be found on Governor Mills' COVID-19 [site](#); additional options can be found at [Get-Tested-COVID19.org](http://Get-Tested-COVID19.org).

Maine CDC also recommends that SAUs begin assessing testing options within their communities. For example, a SAU may wish to convene a meeting with local health care providers to determine their ability to conduct swabbing for COVID-19 for a classroom or even an entire school, if needed. As part of this planning process, SAUs should ask area health care providers to evaluate, among other things, the availability of: (1) supplies needed to conduct testing (swabs, viral transport media, etc.), (2) qualified medical personnel who can conduct or observe COVID-19 swabbing among students/teachers/staff, and (3) where such testing could be conducted.

## **F. Isolation and Quarantine**

With respect to isolation and quarantine recommendations, Maine CDC follows the same guidelines for school-related cases as it does for other outbreaks. Students, teachers, or staff who test positive for COVID-19 will be isolated until they meet the U.S. CDC criteria for release for isolation. Maine CDC case investigators release COVID-19 cases from isolation.

All student close contacts of positive cases must remain in quarantine for at least 14 days following their last exposure to the confirmed case. In a school setting, close contacts may range from an entire classroom to the entire school, depending on the number and location of confirmed cases (*see* Table 1 below).

It is important to note that a close contact who receives a negative test result must remain in quarantine for the balance of the 14-day period. Close contacts will be identified using the exposure and infectious periods outlined in the 2019 Novel Coronavirus protocol.

School staff (teachers, nurses, bus drivers, etc.), however, are considered essential workers.<sup>1</sup> For school staff who are close contacts of confirmed cases in a school, the school staff may return to work while in quarantine so long as (1) there are no substitute school staff members available, (2) the school staff members take appropriate infection control precautions, including the use of PPE, and (3) the staff remain in quarantine outside of work.

Maine CDC will use the following criteria when making recommendations around isolation and quarantine for exposed contacts of confirmed cases.

(1) For one or two confirmed or probable case(s) in a student/staff/teacher who has/have been within a single classroom/pod for the entire day:

- All other students/staff/teachers in that classroom/pod are considered close contacts regardless of the setup of the classroom or face covering use.
- Art, library, recess, and cafeteria exposures for student/staff/teacher will be reviewed on a case-by-case basis.
- The classroom where the confirmed case is located should be cleaned according to federal CDC guidelines found here: <https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html>.

(2) For one or two confirmed or probable case(s) in a student/staff/teacher who has/have been in multiple classrooms/pods:

- All students/staff/teachers of any classroom where the student/staff/teacher attended a class are considered close contacts regardless of the setup of the classroom/pod or face covering use.
  - Art, library, recess, and cafeteria exposures for the student/staff/teacher will be reviewed on a case-by-case basis.
- The classrooms where the confirmed case is located should be cleaned according to federal CDC guidelines found here: <https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html>

(3) Bus exposures:

- In general, if a COVID-19 case is on a bus for fewer than 15 minutes, no one else on the bus is considered a close contact.
- In general, if a COVID-19 case is present on a bus for greater than 15 minutes, without any assigned seating, and with closed windows, all riders will be considered close contacts.
- Bus rides that fall between these two scenarios will be assessed on a case-by-case basis by Maine CDC.

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<sup>1</sup> See [https://www.cisa.gov/sites/default/files/publications/Version\\_4.0\\_CISA\\_Guidance\\_on\\_Essential\\_Critical\\_Infrastructure\\_Workers\\_FINAL%20ALG%2018v2.0.pdf](https://www.cisa.gov/sites/default/files/publications/Version_4.0_CISA_Guidance_on_Essential_Critical_Infrastructure_Workers_FINAL%20ALG%2018v2.0.pdf)

- An “open window” is defined as at least two windows fully opened (one in front and one in back) on each side of the bus.
- Any bus that carried a confirmed or probable case should be cleaned according to federal CDC guidelines <https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html>

(4) After school activities:

- Anyone with more than 15 minutes of cumulative contact will be considered a close contact.
- Indoor extracurricular activities will have to be assessed independently depending on the nature of the activity, the setup of the activity, and the mitigation strategies in place.

(5) Evaluation of sports-related activities

- If a COVID-19 case plays a sport in the “Higher Risk” or “Moderate Risk” category while infectious, the entire sports team is considered a close contact.<sup>2</sup>
  - If, during the period of infectiousness, a COVID-19 positive case plays against another team, the other team will be reviewed on a case-by-case basis for close contacts
- If a COVID-19 case plays a sport in the “Lower Risk” category while infectious, contacts are evaluated on a case-by-case basis for close contacts.
- Those deemed to be close contacts may not play sports during their period of quarantine.
- Sections of The Maine Community -Sport Guidance; including a table of the Higher, Moderate and Lower Risk category are now in Appendix B.

Maine CDC recommends that school community members be notified when a confirmed or probable case has been detected that is associated with the school.

### **G. Outbreak Response**

Once a school reaches outbreak status (3 or more confirmed cases from different households within 14 days):

- All individuals associated with the school should be notified by the school of the outbreak (*see* Section V below). School officials should make such notifications in writing, using a template provided by Maine CDC (*see* Appendix A).
- A Maine CDC outbreak investigator will coordinate with the school, and each case will still be assigned a case investigator who will follow the standard investigation protocol.
- If all three cases are within a single classroom, the entire classroom shall be considered a close contact for purposes of quarantine and testing.
- If three cases are spread across multiple classrooms:
  - There will be a presumption that all students, teachers, and staff within the school are close contacts and should be tested.
  - The school will follow cleaning guidance from U.S. CDC: <https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html>
  - Students, teachers, and staff who test negative must complete a 14-day quarantine from the last day of exposure in the school.
  - Essential workers may return so long as they follow the guidelines outlined in Section F.
- Maine CDC will recommend suspending all in person extra-curricular activities during the 14-day quarantine.
- In situations where students are cohorted in a single classroom and teachers rotate through the classroom, where there is a single case, all the teachers who rotated through the classroom will be considered close contacts.
- A student, teacher, or staff member may return to the classroom after release from isolation or quarantine.
- Outbreaks are closed 28 days after the last positive test or symptom onset, whichever is later.

<sup>2</sup> Designations can be found here: <https://www.maine.gov/decd/checklists/community-sport>

The following table summarizes the public health actions that will be taken in response to cases detected within schools.

**Table 1: Recommended Public Health Actions for COVID-19 in Schools**

Number of Cases	Location	Testing Recommendation	Quarantine Recommendation	Cleaning/Closure Recommendation	Notes
1 or 2	Single classroom/cohorts/pod	All students/staff within the classroom	All students in the classroom	Clean or leave classroom dormant for 7 days	Additional potential locations for close contacts include busses, after-school activities, etc.
1 or 2	Two or more classrooms/cohorts/pod	All students/staff within both classrooms	All students in the classrooms	Clean or leave classroom dormant for 7 days	Additional potential locations for close contacts include busses, after-school activities, etc.
3+ (outbreak*)	Single classroom/cohort/pod	All students/staff within the classroom	All students in the classroom	Clean or leave classroom dormant for 7 days	Additional potential locations for close contacts include busses, after-school activities, etc.
3+ (outbreak*)	Multiple classrooms/cohorts/pods	All students/staff in the same classrooms, cohorts, pods, buses, and extracurricular activities are considered close contacts and are recommended to be tested.  Close contacts may expand to include the entire school depending on the epidemiological investigation, considering factors such as adherence with public health guidelines and the age of the students.	All students in the same classrooms, cohorts, pods, buses, and extracurricular activities are considered close contacts and will need to quarantine for 14 days, regardless of test results.  Close contacts may expand to include the entire school depending on the epidemiological investigation, considering factors such as adherence with public health guidelines and the age of the students.  Non-close contacts may return to school with no testing after cleaning or the period of dormancy is complete.	Clean or leave classroom dormant for 7 days	Additional potential locations for close contacts include busses, after-school activities, etc.  If and only if students are cohorted in one classroom, it is possible that only affected classrooms will be closed.
*An outbreak is defined as 3 or more confirmed cases from different households within 14 days in a school.					

## V. NOTIFICATION AND COMMUNICATION

### A. Notification of a Confirmed or Probable Case to Schools

The Maine CDC case investigator will alert school nurses of a confirmed or probable COVID-19 case in the schools and begin an investigation. Maine CDC will have a designated liaison who will work closely with the Maine Department of Education (DOE) on COVID-related matters in schools. Maine CDC's school liaison and Maine DOE School Nurse Consultant will monitor new cases.

**B. Notification of a Confirmed or Probable Case to Maine CDC**

School officials may be notified of a confirmed or probable case among a student, teacher, or staff member by the individual or parents (if the case is a student). If school staff are notified by a parent/guardian that their child received notice from their health care provider that their COVID-19 test was positive, school staff should contact the school nurse. The school nurse will notify Maine DOE's School Nurse Consultant, who will notify Maine CDC's school liaison of the suspect case. Once Maine CDC receives the positive lab report a case investigator will begin the COVID-19 investigation. The school nurse will be the communication link among the family, the Maine DOE School Nurse Consultant, and the Maine CDC school liaison.

**C. Communication with Family Members**

Maine CDC recommends that the school nurse communicate with the family of a confirmed or probable case (when that case is a student). The school nurse will be best suited to provide information to the family and reassure the family that Maine CDC investigators will be in contact with them. The school nurse should also reach out to the DOE School Nurse Consultant to inform DOE of the case. DOE's School Nurse Consultant will coordinate with Maine CDC's school liaison. The school should notify family members of students that will be in quarantine. A sample letter is available in Appendix A.

**D. Communication with School Community**

Maine CDC recommends that school community members be notified when a confirmed or probable case has been detected that is associated with the school. The school is best able to notify parents, staff, teachers, and other community stakeholders (*e.g.*, Board of Education, Superintendent, etc.) of the confirmed or probable case(s). Template letters for such communication are available in the appendices. Maine CDC strongly recommends confirming COVID-19 cases and outbreaks prior to schools sending public communications.

**E. Public Reporting**

Maine CDC will report publicly when an epidemiological investigation has been opened into a potential outbreak of COVID-19 associated with a school, as it does in other settings. In general, such investigations are opened after three or more epidemiologically linked cases are identified within a 14-day period.

**F. After Hours**

Maine CDC investigates COVID-19 cases seven days a week until 5 P.M. A Maine CDC case investigator will reach out to a school nurse when a confirmed or probable case identifies a school exposure. If the school nurse is unavailable the case investigator will leave a message. If there is an additional contact on the voicemail, the case investigator will reach out to that individual prior to 5 PM. If Maine CDC opens an outbreak investigation after hours, the outbreak investigator will contact the superintendent of the school district as well as and DOE's on-call contact.

## **VI. CONTACT TRACING PROTOCOLS IN SCHOOLS**

Maine CDC will work with school officials to conduct contact tracing and symptom monitoring for close contacts of confirmed COVID-19 cases within schools.

Maine CDC uses a platform called Sara Alert to conduct symptom checks and monitoring on close contacts of confirmed cases. Maine CDC will enroll asymptomatic close contacts of confirmed cases—whether teachers, students, or staff—into Sara Alert for daily monitoring during the quarantine period. Maine CDC will monitor those close contacts during their quarantine period and, if any of those individuals becomes symptomatic, will provide guidance on testing and other clinical evaluation. The DOE school nurse consultant and the Maine CDC school liaison will have access to the Sara Alert system.

Note that school contacts will be enrolled into a dedicated jurisdiction within Sara Alert.

## VII. GLOSSARY

<b>Term</b>	<b>Definition</b>
Close contact	In general, being within 6 feet of an infected person (with or without a face mask) for at least 15 minutes (in aggregate for certain situations like extra-curriculars or athletics), or having unprotected direct contact with secretions or excretions of a person with confirmed COVID-19 during the infectious period
Community transmission	Occurs when individuals acquire COVID-19 through contact with someone in their local community, rather than through travel to an affected location.
Confirmed case	A person who has tested positive for SARS-CoV-2 infection (the virus that causes COVID-19)
Contact tracing	Process of identifying individuals who have had close contact (see definition above) with someone infected with COVID-19
Cohort	A consistent group of students and staff who interacts with each other but not with members of other groups on a regular basis. Groups should be as small as possible, with maximum numbers outlined in the different reopening scenarios. When in a cohort, each group must physically distance themselves from each other and from other cohorts.
COVID-19	Abbreviation for the disease caused by the novel coronavirus SARS CoV-2
Incubation period	The time between exposure to an infection and the appearance of first symptoms. The virus that causes COVID-19 has an incubation period of 2-14 days.
Infectious period (asymptomatic cases)	2 days prior to testing (the date of the swabbing was conducted) until CDC criteria to discontinue isolation are met
Infectious period (symptomatic cases)	2 days before symptom onset until CDC criteria to discontinue isolation are met
Isolation	Process of separating individuals who are infected with COVID-19 from others. Isolation lasts a minimum of 10 days from symptom onset if symptomatic. If a person infected with COVID-19 has no symptoms, isolation lasts a minimum of 10 days from the date of test specimen collection (test). For individuals with severely immunocompromising conditions, isolation is at least 20 days.
Outbreak	3 or more confirmed cases from different households within 14 days in a school
Protocol	Recommended actions to follow in the event of a probable or confirmed case of COVID-19 occurs
Probable case	Individual who has at least two of the following symptoms: fever (measured > 100.4 degrees Fahrenheit or subjective), chills (rigors), body aches (myalgia), headache, sore throat, nausea or vomiting, diarrhea, fatigue, or congestion or runny nose OR at least one of the following symptoms: cough, shortness of breath, or difficulty breathing, new loss of smell or new loss of taste AND is epidemiologically linked to another case or has a positive antigen test.
Quarantine	Process of separating and restricting the movement of individuals who were in close contact with someone who tested positive or had symptoms of COVID-19. Anyone who has been in close contact with someone who has COVID-19 must stay home for a minimum of 14 days since the last day of contact with the person with COVID-19 and watch for symptoms of COVID-19. Persons in quarantine should self-monitor for symptoms and seek medical advice and test if recommended by Maine CDC or healthcare provider.
Screening	Assessing individuals for symptoms of COVID-19 verbally or via self/parent attestation. Temperature checks may be performed by the school if desired.



<b>Symptomatic individual</b>	A person who is experiencing one or more of the symptoms of COVID-19 as defined in CDC guidelines
<b>Testing</b>	Three types of tests are available for COVID-19: molecular, antigen, and antibody tests. Molecular and antigen tests indicate if you have a current infection while antibody tests indicate a previous infection. Throughout this document, 'testing' refers to either molecular or antigen-based tests to diagnose a person with current COVID-19 infection.