

Voluntary Sentinel Surveillance for K-12 Schools in South Dakota

COVID-19 101

Symptoms of COVID-19

- COVID-19 can cause a wide range of symptoms or no symptoms at all
- Symptoms may appear 2-14 days after exposure to the virus
- COVID-19 symptoms may include
 - Fever or chills
 - Cough
 - Shortness of breath
 - Difficulty breathing
 - Fatigue
 - Muscle or body aches
 - Headache
 - Sore throat
 - Congestion or runny nose
 - Nausea or vomiting
 - Diarrhea

For more information, please see CDC's
["Symptoms of Coronavirus"](#)

COVID-19 Testing 101

#1 Goal: Slow the Spread of COVID-19

- [Testing](#) to diagnose COVID-19 is only one component of a comprehensive strategy to slow the spread of this disease
- Other critical components include:
 - [Promoting behaviors that reduce spread](#)
 - [Maintaining healthy environments](#)
 - [Maintaining healthy operations](#)
 - [Preparing for when someone gets sick](#)



For more information, please see CDC's
[“Considerations for Schools”](#)

South Dakota COVID-19 Testing Plan

Strategies

1. Ensure Statewide Access to Testing for all Symptomatic Individuals
2. Conduct Mass, Point Prevalence and Sentinel Testing for At-Risk and Targeted Vulnerable populations
3. Assist Communities to Conduct Testing
4. Adapt to Changing Testing Needs and Capabilities

Types of COVID-19 Testing

- **Mass Testing:** testing a large number of individuals in a short amount of time to determine the prevalence of SARS-CoV-2 in a population
- **Sentinel Testing:** testing a few asymptomatic individuals over time (i.e. each week or month) to monitor SARS-CoV-2 in a population
- **Point-Prevalence Testing:** testing individuals that may have had a high-risk exposure to a known case of COVID-19 in a population

Types of SARS-CoV-2 Tests

- **Antibody Tests:**
 - Detect past SARS-CoV-2 infections
 - Antibody tests typically detect immunoglobulin proteins (IgM/IgG)
 - Not useful for identification of active infections
- **Diagnostic Tests:**
 - Detect active SARS-CoV-2 infections
 - Antigen Tests: detect viral proteins
 - Molecular (PCR) Tests: detect the genome of SARS-CoV-2

For more information, please see CDC's
[“Testing for COVID-19”](#)

Testing Close Contact of COVID-19 Cases

- **Symptomatic close contacts** to a COVID-19 case should seek medical evaluation and, if appropriate, testing.
- **Asymptomatic close contacts** to a COVID-19 case should seek medical evaluation and, if appropriate, Priority 1 close contacts should be tested.
 - Individuals living, working or visiting community congregate settings such as educational institutions.

For more information, please see CDC's
[“Contact Tracing for COVID-19”](#)

Current CDC Recommendations for K-12 Schools

CDC *does not recommend* universal entry testing [mass testing] of all students and staff in school setting for SARS-CoV-2 prior to the start of the school year, regardless of whether they are showing symptoms or have a known exposure to someone with COVID-19.

For more information, please see CDC's [“Interim Considerations for K-12 School Administrators for SARS-CoV-2 Testing”](#)

Why No Universal Entry Testing for K-12 Schools?

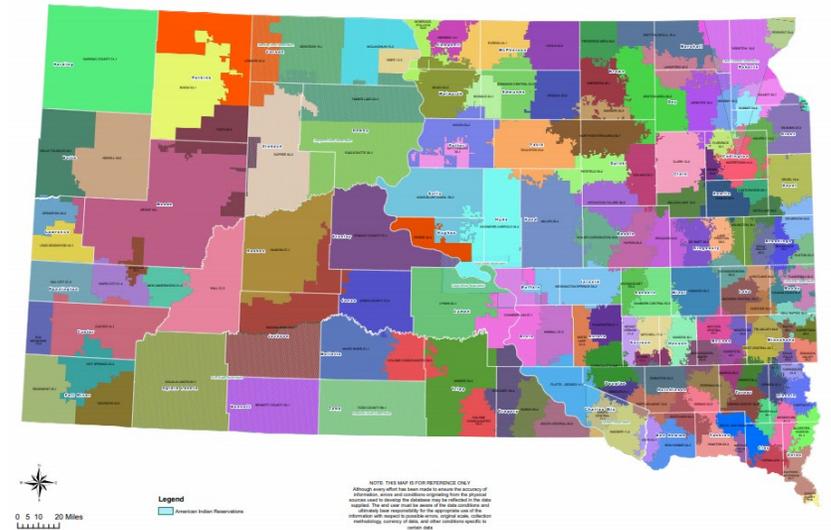
- Testing for SARS-CoV-2, the virus that causes COVID-19, only provides COVID-19 status for individuals at the time of testing
- Universal entry testing, or mass testing, could miss COVID-19 cases in the early stages of infection
- Universal entry testing could miss exposures that happen after the mass testing event

If not universal entry testing, then what kind of testing should be performed in K-12 schools?

Sentinel Surveillance: What to Expect

Sentinel Surveillance: Voluntary Enrollment

- Participation in K-12 sentinel surveillance is a voluntary process but is strongly encouraged
- K-12 districts that want to participate in sentinel surveillance will enroll with the Department of Education
 - Joe Moran: Joe.Moran@state.sd.us
- Enrollment information will be used to distribute educational materials, guidance documents, and specimen collection supplies to participating school districts



Sentinel Surveillance: DOH Support

1. CDC-based guidance about K-12 sentinel surveillance
2. Personal protective equipment and guidance on how to use it
3. Specimen collection supplies and guidance on how to use them
4. Laboratory testing support at the state public health laboratory
5. Follow-up services such as case investigation and contact tracing

Sentinel Surveillance: By the Numbers

- Federal partners recommend that a minimum of 2% of South Dakota's resident population be tested for SARS-CoV-2 each month
 - This is approximately 18,000 tests each month
- South Dakota has set a goal to test the equivalent of 5% of South Dakota's population each month
 - This is approximately 44,400 tests each month (but there may be duplicates)
- SDDOH is building a sentinel surveillance program for K-12 schools that will allow monthly testing of 5% of our K-12 adult population
 - This is approximately 1,200 tests each month

Sentinel Surveillance: How It Works

Sentinel Surveillance: Process Overview

1. Medical order(s)
2. Participant Identification
3. Participant Consent
4. Specimen Collection
5. Specimen Packaging
6. Specimen Shipping
7. Specimen Testing
8. Result Reporting

1. Medical Order(s)

- Medical orders come from a health care provider such as a physician
- Medical orders can be provided as a standing order for multiple participants over time
- DOH is working to provide a simplified medical ordering option for schools that participate in sentinel surveillance



2. Participant Identification

- Sentinel surveillance is performed for asymptomatic individuals
- Only adults will participate in weekly sentinel surveillance in K-12 schools
- Adults will be selected by school administrators
 - The same adult(s) should not be tested each week
 - DOE and DOH will provide guidance for selection criteria
- DOE and DOH are working together to determine how many asymptomatic adults need to be tested in each school district each week

3. Participant Consent

- Sentinel surveillance is not mandatory but is strongly encouraged
- Participants must consent to specimen collection and testing
- School districts can create a consent and release of information form or they can use the consent/ROI form provided by the DOH



4. Specimen Collection

- Nasal specimens will be collected for K-12 sentinel surveillance
- Specimens can be self-collected if observed by a health care professional
- Specimens can also be collected by a health care professional
- Specimens can be collected in a school or health care setting but must be collected using appropriate personal protective equipment (PPE)



Provider Observed Self Collection



Provider Collected Specimen

K-12 Sentinel Testing: Nasal Specimen



Nasal Specimen Collection Instructions:

- Insert a swab at least ½ inch inside the nostril
- Firmly sample the nasal membrane by rotating the swab for 10 to 15 seconds
- Sample both nostrils with same swab
- Place swab in transport medium, break or cut swab shaft, and cap the tube.

Options for Specimen Collection Support

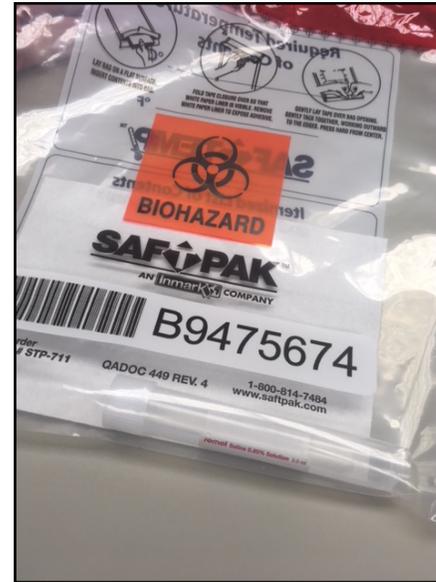
- A variety of professionals can support collection of nasal specimens
 - School-based nurses
 - Local health care providers
 - Health Clinics or Hospitals
 - Rural Health Clinics
 - Community Health Nurses



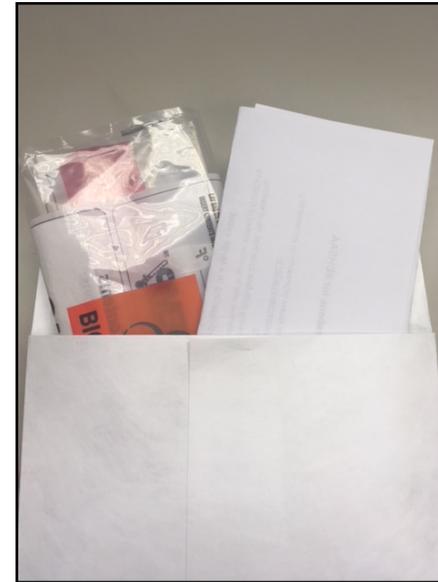
5. Specimen Packaging



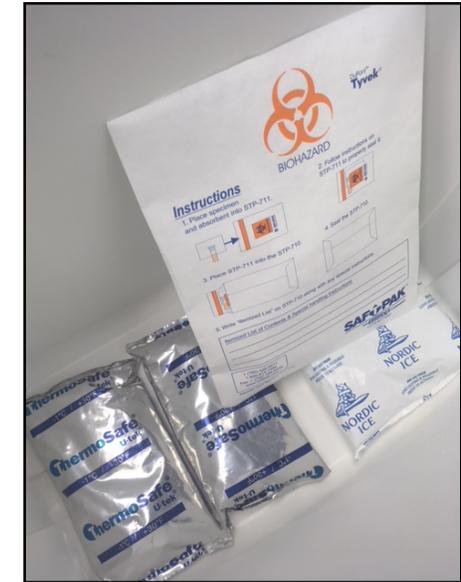
Following collection, break-off or cut plastic shaft leaving swab in the vial. Recap the vial.



Place vial with swab in the plastic biohazard bag and seal by removing plastic tape strip.



Place biohazard bag with specimen and the requisition in the Tyvek envelope and seal the envelope.



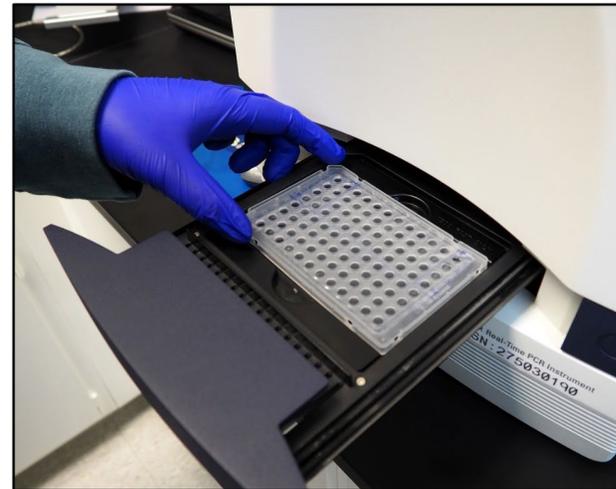
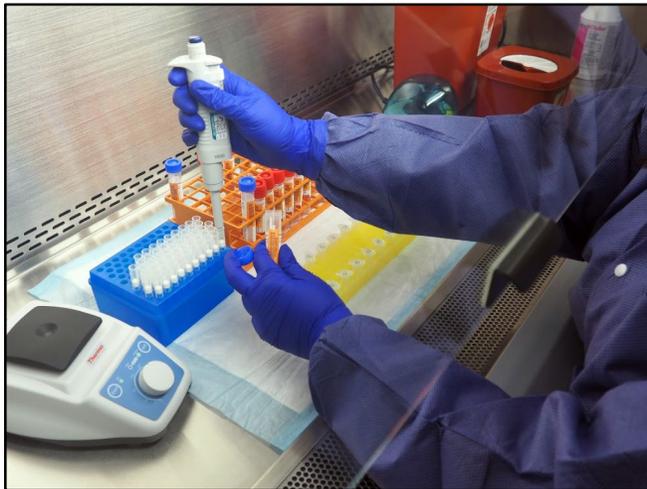
Place the specimen in the provided shipping container.

6. Specimen Shipping

- A statewide courier service is available for transport of specimens to the South Dakota Public Health Laboratory
- For on-demand courier service, please contact the following:
 - MedSpeed: 877-434-9366, Option 1

7. Specimen Testing

- SDPHL performs highly sensitive and specific testing for SARS-CoV-2
- SDPHL uses the CDC RT-PCR test and can test upwards of 1,000 specimens in a day using RT-PCR alone



8. Result Reporting

- SDPHL provides 24-48 hour turn-around time on SARS-CoV-2 testing but TAT is test volume-dependent
- Results will be given to the ordering health care provider listed on each requisition.
 - Secure Fax: for providers with a secure fax agreement in place
 - USPS: hardcopy result by mail if secure fax agreement is not in place
- The ordering healthcare provider will provide the SARS-CoV-2 test result to each participant.

Personal Protective Equipment

PPE for SARS-CoV-2 Testing in Schools

<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-testing.html>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/broad-based-testing.html>

Interim Considerations for K-12 School Administrators for SARS-CoV-2 Testing

More resources for K-12 schools:

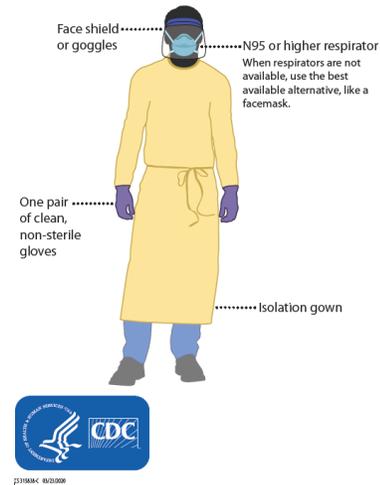
- For more information on facility-wide testing for asymptomatic individuals, please see the [Standardized procedure for broad-based testing for SARS-CoV-2](#).

<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-testing.html>

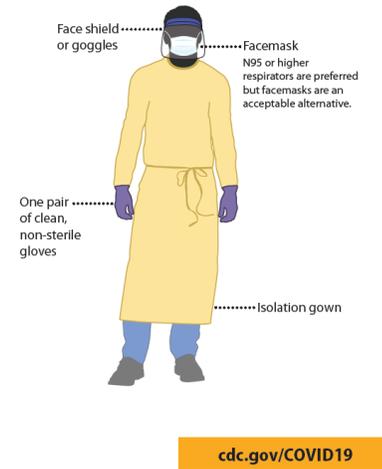
PPE

COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

Preferred PPE – Use N95 or Higher Respirator



Acceptable Alternative PPE – Use Facemask



- All PPE required for specimen collection
 - N-95 (Or high level Respirator) or Facemask if respirator is not available
 - PAPR also appropriate
 - Eye Protection
 - Gloves
 - Gown
 - [Performing Broad-Based Testing for SARS-CoV-2 in Congregate Settings](#)

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

Supplies Needed

[Personal Protective Equipment \(PPE\)](#): N95 equivalent or higher-level respirator (or facemask if respirators are not available), facemasks, gloves, gowns, eye protection, and physical barriers.

[Cloth face coverings](#) or facemasks for people being tested.

Sanitation and hygiene: [cleaning and disinfection](#) supplies; [hand sanitizer](#);¹ handwashing station with potable water, soap, and paper towels; and supplies for cleaning a spill of transport media or biological specimens.

Registration materials:² folding chairs, folding table, clipboards, pens, markers, specimen sticker labels,³ paper forms, laptops or tablets, software,⁴ and access to power.

[Test kits](#): as provided.

[Educational materials](#): as needed

General supplies: tape to mark lines for [6 feet of separation](#), cooler and ice packs, on-site refrigeration with temperature monitor

Notes:

¹ Alcohol-based hand rub with 60%-95% alcohol.

² Use items made of materials that can be cleaned between individuals.

³ Ideally, preprinted with space for date, name, date of birth, ID number, and specimen type.

⁴ Contact tracing software being used by public health authority or spreadsheet with fields for demographic information, location and date of testing, and results.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/broad-based-testing.html>



Planning

- PPE requirements vary based on the staff's role in specimen collection and whether they will be 6 feet away from the person being tested (Table):
 - Gloves and facemask are needed for staff who will not be directly involved in specimen collection or who will be greater than 6 feet away from person being tested.
 - Gown, N95 equivalent or higher-level respirator (or facemask if a respirator is not available), gloves, and eye protection are needed for staff collecting specimens or working within 6 feet of the person being tested.
- Ensure that all staff involved in specimen collection are appropriately [trained](#) and wear [PPE](#) as appropriate to their role. Training includes [proper use of PPE](#), including donning and doffing; and proper technique for [specimen collection](#).
 - For staff having direct contact with participants or specimens, gloves should be changed and hands sanitized after every participant. Staff not having regular direct contact with participants or specimens should change their gloves and sanitize their hands after contacting individuals or potentially contaminated surfaces.
 - Staff should change or clean and sanitize eye protection when it is soiled (e.g., after a patient sneezes or coughs onto it) or whenever they touch it or take it off.
 - Staff should change their respirators and facemasks whenever they are soiled or become wet or whenever they touch them or take them off.
 - Staff should change their gown when it becomes soiled or when they have more than minimal contact with the person being swabbed. They may wear the same gown to swab more than one person, provided they minimize contact with the person being swabbed.

Donning and Doffing PPE

Donning (putting on the gear):

More than one donning method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of donning.

- 1. Identify and gather the proper PPE to don.** Ensure choice of gown size is correct (based on training).
- 2. Perform hand hygiene using hand sanitizer.**
- 3. Put on isolation gown.** Tie all of the ties on the gown. Assistance may be needed by another HCP.
- 4. Put on NIOSH-approved N95 filtering facepiece respirator or higher (use a facemask if a respirator is not available).**

If the respirator has a nosepiece, it should be fitted to the nose with both hands, not bent or tented. Do not pinch the nosepiece with one hand. Respirator/facemask should be extended under chin. Both your mouth and nose should be protected. Do not wear respirator/facemask under your chin or store in scrubs pocket between patients.*

 - » **Respirator:** Respirator straps should be placed on crown of head (top strap) and base of neck (bottom strap). Perform a user seal check each time you put on the respirator.
 - » **Facemask:** Mask ties should be secured on crown of head (top tie) and base of neck (bottom tie). If mask has loops, hook them appropriately around your ears.
- 5. Put on face shield or goggles.** When wearing an N95 respirator or half facepiece elastomeric respirator, select the proper eye protection to ensure that the respirator does not interfere with the correct positioning of the eye protection, and the eye protection does not affect the fit or seal of the respirator. Face shields provide full face coverage. Goggles also provide excellent protection for eyes, but fogging is common.
- 6. Put on gloves.** Gloves should cover the cuff (wrist) of gown.
- 7. HCP may now enter patient room.**

Doffing (taking off the gear):

More than one doffing method may be acceptable. Training and practice using your healthcare facility's procedure is critical. Below is one example of doffing.

- 1. Remove gloves.** Ensure glove removal does not cause additional contamination of hands. Gloves can be removed using more than one technique (e.g., glove-in-glove or bird beak).
- 2. Remove gown.** Untie all ties (or unsnap all buttons). Some gown ties can be broken rather than untied. Do so in gentle manner, avoiding a forceful movement. Reach up to the shoulders and carefully pull gown down and away from the body. Rolling the gown down is an acceptable approach. Dispose in trash receptacle.*
- 3. HCP may now exit patient room.**
- 4. Perform hand hygiene.**
- 5. Remove face shield or goggles.** Carefully remove face shield or goggles by grabbing the strap and pulling upwards and away from head. Do not touch the front of face shield or goggles.
- 6. Remove and discard respirator (or facemask if used instead of respirator).*** Do not touch the front of the respirator or facemask.
 - » **Respirator:** Remove the bottom strap by touching only the strap and bring it carefully over the head. Grasp the top strap and bring it carefully over the head, and then pull the respirator away from the face without touching the front of the respirator.
 - » **Facemask:** Carefully untie (or unhook from the ears) and pull away from face without touching the front.
- 7. Perform hand hygiene after removing the respirator/facemask** and before putting it on again if your workplace is practicing reuse.

Donning and Doffing FAQs

- Used PPE can go into regular trash ([Waste Management Question #3](#))
- There are many different Donning and Doffing Procedures, so please refer to facility policy ([CDC Link](#)) ([CDC Link #2](#))
- Risk reduction activities
 - Outside collection
 - Facemask over mouth of person collected
 - Monitored Self Collection

- Collect swabs for SARS-CoV-2 following the appropriate laboratory and CDC Infection Control Guidance
 - [Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons for Coronavirus Disease 2019 \(COVID-19\)](#)
 - [Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 \(COVID-19\) in Healthcare Settings](#)
 - [Using Personal Protective Equipment \(PPE\)](#)
 - [Performing Broad-Based Testing for SARS-CoV-2 in Congregate Settings](#)
 - <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-testing.html>

PPE Request Procedure

Requests for PPE from DOH must be:

- Emailed to COVIDResourceRequests@state.sd.us

Contact Tracing

☑ DOH NOTIFICATION TO THE SCHOOL

1. Following notification to positive case, DOH investigator will notify school Superintendent
2. DOH will provide school with COVID-19 Reporting Document to record the following information for the positive case and school-related close contacts. Please submit this information to the DOH Investigator as soon as possible.
 - Name
 - Parent(s) / Guardian
 - Indicate if close contact is a student or faculty member
 - Birthdate
 - Address
 - Phone number/ other contact information
 - Timeframe of attendance and setting
 - Classroom (gym, music), bus, extracurricular activity (sport / club name), lunchroom, after school care, locker / back pack area
3. DOH will provide close contacts with quarantine recommendations.
4. School may consider sending COVID-19 Exposure Notification letter drafted by DOH
 - School Close Contact Letter
 - School General Notification Letter
5. After investigation is complete, DOH investigator will provide mitigation strategies to Superintendent
6. School can participate in daily DOE/DOH “Office Hours” for additional questions and assistance as necessary
 - Monday through Friday, 9:00AM-10:00AM CT

☑ What is the school POC's responsibility with contact tracing?

1. Once the DOH receives confirmation of a positive case, the DOH investigation specialist will contact the school's POC.
2. DOH will ask for information specific to the case. Information included, but not limited to:
 - Name and parent/guardian information
 - Indicate if close contact is a student or faculty member
 - Birthdate
 - Demographic information (address & phone number)
 - Timeframe of attendance and setting
 - Classroom (gym, music), bus, extracurricular activity (sport / club name), lunchroom, after school care, locker / back pack area
 - Potential student rosters
3. School POC will be requested to assist DOH in determining students who potentially meet the criteria of "close contact".
 - For COVID-19, a **close contact** is **defined** as any individual 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 positive specimen collection) until the time the patient is isolated.
 - Identifying close contacts is not limited to "6 foot for 15 minutes or longer".
 - Length of exposure in confined settings, heavy exertion, contact sports and other factors are considered when identifying close contacts. These factors can impact who is considered a close contact.
 - Masking is effective in reducing the risk of transmission to others, but does NOT rule that person out as a close contact.
4. Once a list of close contacts is determined, the DOH will reach out to each of the close contacts to inform them of exposure and provide quarantine recommendations. The school will NOT be responsible for individual notification to close contacts.
5. School may consider sending COVID-19 Exposure Notification letter drafted by DOH.
 - School Close Contact Letter
 - School General Notification Letter
6. School can participate in daily DOE/DOH "Office Hours" for additional questions and assistance as necessary.
 - Monday through Friday, 9:00AM-10:00AM CT

Questions?