

Operational Considerations for Preventing COVID-19 Transmission in Schools in non-U.S. Settings

Accessible version: <https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/schools.html>

Background

Schools are an essential part of the infrastructure of communities. Schools provide safe, supportive learning environments for students that support social and emotional development, and access to critical services such as school meal programs to behavioral and mental health services for improved life outcomes. Benefits that schools offer to communities include employment opportunities to individuals and enables parents, guardians, and caregivers to work. Multiple studies have shown that transmission rates within school settings, when multiple prevention strategies are in place, are typically lower than – or similar to – community transmission levels.

CDC’s science brief on [Transmission of SARS-CoV-2 in K-12 Schools and Early Care and Education Programs](#) summarizes evidence on COVID-19 among children and adolescents and what is known about preventing transmission in schools and early care and education programs. This guidance identifies multiple prevention strategies that schools can implement in a layered approach to promote safer in-person learning and care in non-U.S. settings. In collaboration with local public health officials, school administrators should consider multiple factors, including local COVID-19 community transmission when implementing layered prevention strategies against COVID-19.

Layering Prevention Strategies

Prevention strategies in schools can be organized into one of the three categories described below. Prevention strategies from each category should be “layered” on top of each other to reduce the overall risk of COVID-19 transmission for students and school staff.

- **Personal strategies:** Individuals’ behaviors to protect themselves and those around them
- **Administrative strategies:** Processes and policies that keep people safe
- **Environmental strategies:** Physical structures put in place to distance people from hazards

Though some ideas may not be feasible in all settings, schools can use as many strategies as possible. School staff and community members must be engaged in the planning and implementation process for any prevention measure to succeed. The ideas below can be adapted to fit the local context by engaging local populations in the planning and decision-making process.

Personal Prevention Strategies

The following personal strategies are behaviors that school staff and students can use to protect themselves and others around them.

Vaccination

All teachers, staff, and students who are eligible to get a COVID-19 vaccination should do so to protect themselves from getting infected and seriously ill with COVID-19 and reduce transmission. Vaccination is one of the most important prevention strategies and should be addressed in school guidelines for educators, school staff, and students.



[cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

[www.cdc.gov/coronavirus/2019-ncov/global-covid-](https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/schools.html)

Masks and respiratory hygiene

- **Wear a mask** when physical distancing of 1 meter is not possible and especially when individuals are indoors with poor ventilation (such as a crowded classroom.) Consistent and correct mask use protects both people who wear them and the people around them. Children under age 2, or anyone who has trouble breathing, is unconscious, incapacitated, or otherwise unable to remove the mask without assistance should not wear masks.
- **Cover coughs and sneezes** using an elbow or a tissue when not wearing a mask. Dispose of the tissue and clean hands immediately either with soap and water or a solution containing at least 60% alcohol. Students should be frequently reminded not to touch their eyes, nose, or mouth or masks.
- **Stay home when sick, or after close contact with someone who is sick.** [If a student or staff member is sick](#), he or she should not come to school. If COVID-19 is suspected or confirmed, students and staff should self-isolate at home until they are no longer sick and have gone 3 days with no fever and 10 days have passed since the day their symptoms began.

Community Measures Aimed at Increasing Physical Distancing

- To the extent possible, **maintain a 1-meter distance** between people who do not live together.
 - Students in primary and secondary schools should be at least 1 meter apart in classrooms.
 - In areas with substantial community transmission, students in secondary schools should maintain at least 2 meters of distance in classrooms.
- In transportation to and from school, create distance between children (for example, seat children one child per row, skip rows), when possible.
- **Maintain distance between staff and others** in shared spaces (e.g., break rooms, entrances and exits, restrooms) and shared transportation to and from the school (e.g., [personal or public transportation](#)) to decrease their risk.

Environmental Prevention Strategies

The following environmental strategies are ways that school staff can change the physical environment to prevent the spread of COVID-19.

Ventilation

Ventilation mitigation strategies [can reduce the number of virus particles in the air, which reduces the likelihood of spreading disease](#). Below are ways you can improve ventilation in your school:

- If possible, **hold classes outdoors** to promote physical distancing and increased ventilation.
- **Open windows or doors** (when safe to do so) to increase circulation of outdoor air.
- Re-purpose large spaces such as cafeterias and gyms to serve as **temporary classrooms**.
- Decrease occupancy in areas where increased ventilation is not feasible.

Cues for physical distancing, hand hygiene, and respiratory hygiene

Below are ways you can use environmental cues to promote prevention strategies:

- **Space seating or desks** at least 1 meter apart, when feasible. Provide physical cues such as tape or chalk to guide spacing.
- Face all **desks and tables in the same direction**. Have students sit on only one side of the table.
- Post signs to encourage physical distancing (≥ 2 meters) as much as possible.
- Add **visual cues** (paint, chalk, or tape on ground or post signs) to indicate appropriate physical distancing for parents at the drop-off/pick-up point.
- Post signs reminding staff and students to wear masks. Provide information to students and their families about [how to properly wear and remove masks](#).
- Post signs instructing staff and students [how to cover coughs and sneezes](#).

- Post signs with visual cues encouraging frequent hand hygiene, especially at [key times](#), and provide [instructions for proper hand hygiene](#).
- Ensure widespread **access to hand hygiene facilities** by placing hand hygiene stations at entrances, exits, within classrooms, and within 5 meters of toilets/latrines.
 - Encourage all teachers, staff, and students to wash their hands with soap and water for at least 20 seconds after using the toilet. Post signs in the bathroom reminding them to wash their hands.

Administrative Prevention Strategies

The following administrative strategies are ways that school staff can adjust school policies and operations to prevent the spread of COVID-19. School administrators can review and complete CDC's [School Readiness and Planning Tool](#) to help protect students and staff and school communities slow the spread of COVID-19.

Identify a designated point of contact

- Designate a **staff person**, such as the school nurse, to be **responsible for responding to COVID-19 concerns**. All school staff and families should know who this person is and how to contact them.
- Train the designated point of contact and/or other staff persons on [contact tracing protocols](#) and ensure they are able to conduct contact tracing activities as needed.

Limiting in-person interactions

- Restrict mixing between different groups of students and teachers.
- Ensure the **same group of students (cohort/pods) stays together each day** with the same staff/teacher (e.g., no switching classes) as much as possible and limit interaction with other classes, staff, and teachers (e.g., schedule breaks and meals at different times).
- Restrict extracurricular activities, field trips, and inter-group events and meetings.
- Restrict entry of parents, non-essential visitors, and volunteers into the school.
- Modify school schedules:
 - **Stagger arrival and dismissal times** and class breaks.
 - Expand the timetable: schedule some students to attend classes in the morning, others in the afternoon, etc.
 - Expand the school week: schedule some students to attend classes on certain days (e.g., Monday, Wednesday, Friday) and others to attend classes on remaining days (e.g., Tuesday, Thursday, Saturday).
- Educate and encourage parents, students, and staff to avoid gathering/socializing when coming to/leaving school and during class breaks.

School policies to promote prevention

- **Require all staff and students** to wear a face mask while on school grounds.
- Encourage family members to wear face masks during drop-off and pick-up.
 - Young students may not understand or adhere to wearing masks all day. In these circumstances, **prioritize wearing masks during drop-off/pick-up, hallway transitions, visits to the toilet** and other communal spaces, and any other time when physical distancing may be difficult.
 - If possible, **provide masks for students**. This may include providing fabric for students to make masks, making masks part of the school uniform, or working with local businesses/nonprofit organizations to make and sell masks for students.
- Make hand hygiene obligatory upon entry and exit of the school.
- Create a schedule for frequent hand hygiene, especially for younger children.

- Develop policies for students and staff to stay home if they have tested positive for or are showing symptoms of COVID-19, are caring for a sick family member, or have come in close contact with someone who is sick.
- Develop **flexible attendance and sick leave policies** to encourage students and staff to [stay home when sick](#) or after [close contact with someone who is sick](#). Discourage the use of “perfect attendance” awards.
- Ensure staff will not lose wages while isolating or in quarantine.
- Ensure students who receive meals at school can still receive food support while isolating or in quarantine at home.
- Have a plan for [if a student or staff member shows signs or symptoms of infectious illness consistent with COVID-19 at school](#).
- Ensure there is a space to temporarily, safely, and confidentially isolate students and staff who become ill or develop COVID-19 symptoms during the day until they can go home.

School-based screening testing

Screening testing provides a critical layer of prevention that identifies infected people with COVID-19, including those with or without symptoms. People who are not fully vaccinated and students, teachers, and staff should be tested frequently to prevent further COVID-19 transmission. [Fully vaccinated people](#) who have come into close contact with someone with suspected or confirmed COVID-19 to be tested 3-5 days after exposure, and to wear a mask in public indoor settings for 14 days or until they receive a negative test result.

Screening testing is particularly valuable in areas with [moderate, substantial, and high levels of community transmission](#), low vaccination coverage, and in schools where other prevention strategies cannot be implemented.

Hand hygiene

- **Wash hands with soap and water.** Soap and water are effective against COVID-19. The cleanest water available (ideally from an [improved source](#)) should be used for handwashing, and all types of soap (bar soap, liquid soap, and powder soap) are effective at removing COVID-19.
- If hands are not visibly dirty and water is not available, **clean hands with an [alcohol-based hand rub \(60% alcohol content\)](#)**. This can be used as an alternative to washing hands with soap and water.
- If soap and water or alcohol-based hand rub are unavailable or infeasible, **handwashing with 0.05% chlorine solution** can be a temporary option. The solution should be made daily using [the instructions found here](#). Due to possibility of increased irritation, young children should not use chlorine solution for handwashing, and everyone should avoid getting the solution near their eyes or mouth.

Schools can support good hand hygiene by doing the following:

- **Teach and reinforce frequent hand hygiene among students and staff.** Make sure that students and staff clean hands when entering and exiting the school; after breaks; after blowing their nose, sneezing, or coughing; before and after eating; after going to the bathroom; and at other [key times](#).
- **Clean** frequently touched surfaces (such as playground equipment, door handles, sink handles) regularly. Use of shared objects should be limited when possible. If shared objects are used, students should wash hands or use hand sanitizer before and after use.

Additional Considerations

Education and training for school staff

Provide instructional materials and training to all staff, including substitute teachers and other temporary personnel, about:

- [Symptoms of COVID-19](#) and [how it spreads](#).
- Risks for workplace exposures and how teachers and staff can [protect themselves](#).
- Risk levels for different populations depending on age and medical condition.
- Proper [handwashing](#).
- [Cleaning and disinfection](#).
- [Cough and sneeze etiquette](#).
- [Screen testing overview](#).
- [Testing strategies for SARS-CoV-2](#).
- Other routine infection control precautions (e.g., putting on or taking off [masks](#), social distancing measures).
- Procedures to follow when an employee becomes sick or is exposed to someone who is potentially sick.
 - Symptomatic people should immediately [isolate](#) from other students and staff
 - An infected person can spread SARS-CoV-2 starting from 2 days before they have any symptoms (or, for asymptomatic patients, 2 days before the positive specimen collection date), until they meet criteria for [discontinuing home isolation](#).

Prevention for younger children

Encourage playtime activities that promote prevention strategies:

- Hold playtime and physical activities outdoors as much as possible.
- Supervise children to ensure children don't congregate in large groups.
- Encourage turn-taking activities, such as hopscotch.
- Divide common areas into sections so that more than one child can play at a time, but separately, for example a large sand box.
- Encourage activities that don't involve physical contact.
- Ensure good hand hygiene following playtime.

Contact tracing strategies

Contact tracing with staff and students is an effective strategy to identify and isolate cases and close contacts to reduce COVID-19 transmission. Students, staff, and educators who are not vaccinated and have had close contact with a person diagnosed with COVID-19 are at greatest risk for infection with SARS-CoV-2. It is important to become familiar with applicable laws, regulations, guidelines, policies, including those relating to privacy, and other resources to support case investigation and contact tracing within schools in an appropriate manner. Contact tracing in combination with quarantine and isolation, and cleaning and disinfection are also important layers of prevention to keep schools safe.

Contact tracing refers to the process of:

- Notifying contacts of exposure to a close contact (someone who has been within 6 feet of a laboratory confirmed or probable COVID-19 patient for a cumulative total of 15 minutes or more over a 24-hour period),
- Referring contacts for SARS-CoV-2 testing, and
- Encouraging contacts to self-quarantine (14 days from last exposure).

Contact tracing strategies can be optimized to maximize efficient use of limited resources:

Case investigation is the process of confirming that the case is aware of their positive test result and then interviewing the case to elicit names and location information of close contacts. Case investigation is recommended for:

- Probable and confirmed laboratory cases
- Contacts with highest transmission risk (those most likely to become infected)

- Notification and quarantine of close contacts, with priority given to those contacts exposed within 6 days of the case investigation interview to maximize potential for reducing further spread of the virus

Source investigation (also known as backward contact tracing) involves looking back over the **14 days prior to symptom onset** or specimen collection date (for asymptomatic cases) to identify people, places, and events or gatherings that might have been the source of the infection for the person with COVID-19.

Additionally, source investigation is useful for:

- Identifying additional cases who might be undiagnosed, to enhance detection of clusters (two or more cases that are epidemiologically linked) and outbreaks.
- When cases decline significantly and the focus shifts to identifying remaining cases or sources of group transmission

Other considerations

- Parents or caregivers should be strongly encouraged to monitor their children [for signs of infectious illness including COVID-19](#) every day.
- Students may rely on school meal programs. If meals or supplementary foods are provided at school, consider:
 - Distributing packaged meals and supplemental foods.
 - If hot meals are served, have only one person serve the food.
 - Food distributors should wear a face mask and wash their hands before putting on gloves.
 - When queuing for food, ensure that students maintain physical distance and wear face masks.
 - Ensure that students wash their hands or use alcohol-based hand rub before eating.
 - Have meals in classrooms or outside instead of congregating in cafeterias