



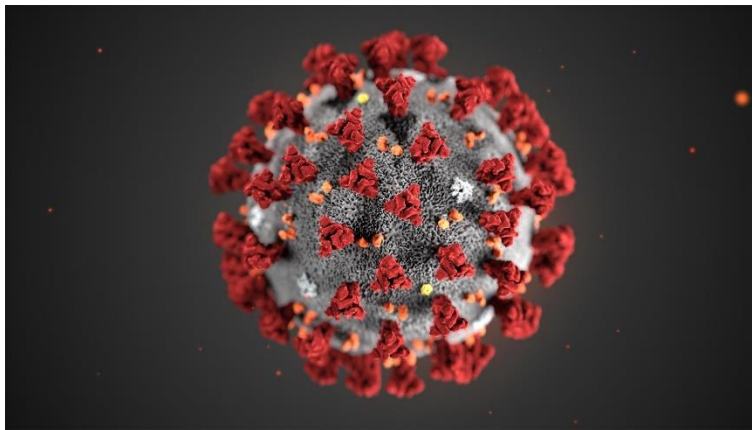
Coalition *for* Healthier Schools

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Coordinated by Healthy Schools Network

NATIONAL CALL TO ACTION

The Pandemic v. Schools



States Must Guide Schools on Reopening, Slowing Spread of Virus

Prepared by

Healthy Schools Network

New Jersey Work Environment Council

With contributions from

New Jersey Education Association, Healthy Schools Now (NJ), NEA Healthy Schools Caucus, Learning Disabilities Association of America, National Association of School Nurses, New York Lawyers for the Public Interest, Asthma and Allergy Foundation of America

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and Staff that Become Ill at School or Arrive Sick

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PREFACE

A PUBLIC HEALTH IMPERATIVE: KEEPING CHILDREN SAFE AT SCHOOL

The 65 million children in schools and child care facilities* every day are 100% of our future. Every state requires children to attend school. Yet unlike the adults at school, they lack federal or state workplace health and safety rights or protections.

By their nature, schools are an environment conducive to the spread of COVID-19. They are densely occupied for long periods. In fact, schools are where children spend the most time, other than home—often 30-40 hours per week. Like adults, children may shed and transmit the coronavirus, yet show no symptoms. Except for masks, there is no PPE for children, who breathe more air per pound of body weight than adults; further, children cannot identify or protect themselves from risks.

Schools can either slow the spread of the virus or speed it up. If they are to reduce, rather than increase, the risk of new COVID-19 outbreaks and repeated closures, schools will need to adopt districtwide, facility-level written school infection prevention and control plans to address the details of cleaning, disinfecting, sanitation, indoor air, and environmental quality, as well as occupancy rates, occupant behaviors, and how to determine day to day who can enter. Right now, schools across the country are struggling to come up with these plans on their own.

COVID-19 is a public health crisis. It demands a public health response. Overburdened local schools are at a disadvantage since they do not have the knowledge, expertise, or resources to develop such a comprehensive response.

This report is the national call to action for the public health community—the states and tribes and big city public agencies—to produce guidance, in the form of an authoritative Plan for Infection Prevention and Control in Schools that local schools can adopt as they prepare for reopening. These authoritative state-level plans offered to schools should include detailed recommendations on specific steps that schools should follow and selected options for other issues.

THE STATE'S ROLE: PROVIDING PUBLIC HEALTH GUIDANCE

Most guidance published to date is only about offering options to local schools. Right now, those schools are making their own decisions about how to reopen, despite the ever-changing science and their lack of public health expertise. This disconnected, piecemeal approach will accelerate the spread of the pandemic. It will also perpetuate already deep disparities in education and health and deprive the poorest parents and communities of authoritative public health tools and guidance they can use to urge schools to be accountable for school health.

**Regarding child care: many of the recommendations herein could also be applied to child care facilities; however, the primary focus of this effort is on PK-12 schools.*

States can bring order out of this chaos by providing clear, authoritative guidance to overburdened schools based on principles of public health. The state plans would become a template for use by cities, school districts, and tribal nations within each state. Local schools would then modify the adopted plans to fit their facilities and occupants within parameters set by the state and their district.

State public health agencies should develop and publish authoritative school infection prevention and control plans suitable for PK-12 schools and child care facilities. Such plans will communicate fairness and transparency to all communities, allay the fears of parents, children, and personnel, and unify local actions against the pandemic.

THE CONDITION OF SCHOOL FACILITIES AFFECTS TRANSMISSION OF THE VIRUS

Sources: [Establishing Environmental Public Health Systems for Children at Risk or With Environmental Exposures in Schools](#), American Public Health Association, Policy #201713; [Towards Healthy Schools: Reducing Risks to Children](#), Healthy Schools Network (2016); [Federal Executive Order and Actions on Risks to Children's Environmental Health and Risks to Children's Safety](#), which requires federal agencies to act to address children's unique vulnerabilities to environmental health hazards

All states have compulsory education laws; today some 56.6 million children attend over 125,000 public and private kindergarten-through-12th-grade schools (and some with on-site pre-kindergartens or child care areas). By the time people graduate from high school, they have spent, on average, 15,600 hours inside a school building.

The challenge of COVID-19 is made more difficult by conditions in schools that already affect children's health and learning. How schools address these conditions will determine whether they reduce or encourage transmission of the virus.

Unhealthy school conditions continue to harm children

In 2011, the US Environmental Protection Agency estimated that more than 45% of public schools in the United States had environmental conditions that contributed to poor indoor air quality. Other studies of America's schools have shown that many are in substandard condition, with poor ventilation, sanitation, lighting, acoustics, chemical management, or pest and pesticide controls.

Unfortunately, the physical conditions of schools are worsening rather than improving as a result of years of deferred maintenance and inadequate investments. In 2017, the American Society of Civil Engineers assigned the US school infrastructure a grade of D+. Also in 2017, the Harvard T.H. Chan School of Public Health reported that school facilities in poor condition can impact children's "health, thinking and learning." In June 2020, the US GAO estimated that HVAC systems in 36,000 buildings should be updated or replaced, among other much-needed repairs and renovations. No entity at the national or federal level (and often none at the city or state level) routinely monitors environmental hazards in such locations or the exposures of the children in them.

A large body of research documents the effects of these conditions on children: increases in health problems, absenteeism, and behavior issues and myriad impacts on concentration, cognition, and learning. These effects are compounded by children's unique biological and behavioral vulnerabilities: breathing more air per pound of body weight than adults, consuming more food and water per pound than adults, having more permeable skin, having developing organ systems, lacking the ability to recognize and understand hazards, lacking the authority or ability to leave harmful environments, and not having the knowledge or language to articulate exposures.

Equity issues: in poor communities, poor children attend poor schools

Public health stops at the schoolhouse door. These conditions are not new and in fact represent longstanding issues of justice and health equity. The poorest children often attend schools in the poorest condition and might be even more vulnerable than their peers. The condition of school buildings has been an issue for decades; it was the initial impetus for *Brown v. Board of Education*. Even though integration officially occurs, low-income children are still concentrated in schools in poor condition or in portable classrooms that can have an array of air pollutants from interior materials and furnishings.

Public schools also disproportionately enroll children of color and children with pre-existing health and learning problems. Public schools today generally have fewer state and federal dollars than ten years ago and thus fewer staff. Clearly, poor ventilation, lighting, and plumbing systems plague many schools, but especially the poorest, serving the neediest children. Those children typically come from the Black and Latinx communities hardest hit by COVID-19.

School conditions will hinder or help the spread of COVID-19

SARS-CoV-2, which causes COVID-19, is an airborne virus. After a person speaks or coughs or sings or sneezes, droplets can travel about six feet before dropping to the floor or a hard surface, where they are active for hours; aerosolized particles will travel up to 27 feet and remain airborne for hours, until slowly dropping. Studies indicate that these tiny particles will resuspend in the air with foot traffic in the space. The tiny particles can also be inhaled deeply. It is not understood how long aerosolized viruses may remain infective. There is also too little science on the short-term and long-term impacts of infections on segments of the population, although thus far, children have milder, harder-to-detect cases than adults. (See Appendix 2 for symptoms.)

We do know that the SARS-CoV-2 virus is highly contagious and that young children typically are not getting sick, but may still have and shed the virus, unlike adults, who gradually become more vulnerable as they age. It seems clear that the poor conditions that plague so many schools will foster transmission of the virus: beyond crowded conditions that have put children and personnel into windowless, airless closets to teach and learn, there is a history of poor air circulation, poor sanitation, and inadequate plumbing. Schools with those attributes will not fare well.

But schools that can mirror those in the European Union, which are operated to provide a healthful learning environment—with clean, fresh air; sinks or sanitizing stations for washing hands; social

distancing; and advanced cleaning and targeted disinfecting protocols—will likely stay open longer and be more productive during the academic year or two ahead.

Federal and state agencies and Congress need to provide adequate funds to assist schools in meeting the demands for PPE, cleaning supplies, enhancements to ventilation, and related steps that will help ensure a healthful school year.

By the Numbers

| | |
|------------|--|
| 45 | Number of states that closed schools in March 2020 (NBC) |
| 131,930 | Public and private PK-12 schools in the US (NCES) |
| 118,000 | Number of schools closed (NBC) |
| 54,000,000 | Number of children affected by closures (NBC) |
| 5,500,000 | Total public school employees (BLS) |
| 300,000 | Number of school custodians (BLS) |
| 20% | Percentage of public school teachers at or over 55 years old (NCES) |
| 50,800,00 | Number of children enrolled in public school (NCES) |
| 56,600,00 | Number of children enrolled in all public and private schools (NCES) |
| 47.6% | Percentage of white children in public schools (NCES) |
| 15.2% | Percentage of black children in public schools (NCES) |
| 26.7% | Percentage of hispanic children in public schools (NCES) |
| 61% | Percentage of children using Internet at home (NCES) |
| 29,900,000 | Number of children on free/subsidized meals (SNA) |
| 7,100,000 | Number of children ages 3-21 receiving special education (NCES) |
| 25% | Percentage of children in schools with chronic health conditions (CDC) |

SCHOOL STAFF VULNERABILITY, COVID-19, and SCHOOLS

Source: [*The National Council for Occupational Safety and Health \(NCOSH\) Safe and Just Return to Work Toolkit*](#)

The Toolkit says workplace protections are indispensable in protecting public health and become ever more essential when a workplace serves a large cross section of a local population, such as in school buildings. State and local governments must take measures to protect the health and safety of school staff, and thereby all residents in a community, during the pandemic.

COVID-19 is a new disease and there is limited information regarding risk factors for severe disease. However, there are workers who are at greater risk than others; these include older employees, people who have serious underlying medical conditions, and staff with hands-on educational positions in health care, special education, and art and vocational classes. Furthermore, it has become evident that workers of color, immigrants, women, and the poor all face a greater threat from COVID-19, as they are disproportionately represented in historically poor working conditions

and in roles considered “essential.” Inadequate protections have left many of these workers exposed to the threat of disease and death. For example, as of May of 2020, African-Americans and Latinx in the COVID-19 hotbed of New York City were twice as likely and 1.5 times as likely, respectively, to die from COVID-19 than whites. Similar trends are seen in cities, towns, and states across the United States.

The reopening of our nation's schools should include input and experience from families, workers and their unions, and occupational safety and health coalition groups. This approach will support a more inclusive and equitable society and protect the larger communities that are served by these workers, as worker protections can provide a measure of protection for school children who lack the same rights as workers.

As with children, accommodations should be made for high-risk school staff. Remote teaching or voluntary reassignment to a position with less exposure are options that should be considered. The CDC has issued guidance on adults considered to be at high risk. For detailed information on adults' symptoms, see Appendix 2, Symptoms of COVID-19 Among Children and Adults, including those at higher risk.

A United Front: Administrators, Educators, Parents, and Community Stakeholders

Source: New Jersey Work Environment Council/Healthy Schools NOW

Children, along with the whole school population—family visitors and volunteers, custodial and maintenance workers, food service workers, secretaries, security officers, bus drivers, teachers, paraeducators, and administrators—are potentially exposed to a wide array of hidden, and not-so-hidden, school hazards. National experts say that schools are one of our most hazardous indoor environments. Every day, students, teachers, and other staff miss school or are less productive because exposures to hazards in the school affect their health. Schools are up to four times more densely occupied than many offices, putting heavy demands on ventilation, mechanical, electrical, structural, and plumbing systems and on maintenance and cleaning staff.

A healthy school will reduce both student and staff illness, absenteeism, and visits to the nurse's office. Studies have linked healthy schools to greater comfort, which may lead to higher academic performance. A well-maintained building can reduce maintenance and energy costs and ensure compliance with various regulations. Liability risk and public relations can also be improved. Research has shown that a good supply of fresh outdoor air, operable windows, natural light, and teacher access to temperature controls improve student health and performance. It is important that all schools have these features.

A united effort from federal and state agencies, as well as from communities, families, and school staff, is needed to improve our nation's schools. Together we can develop a common agenda. Families and staff can also seek outside partnerships with other groups in the community or state to build a wider network and leverage local or state changes.

SCHOOL INFECTION PREVENTION AND CONTROL PLAN

For Public School Districts and Local Public and Private Schools

The pandemic is a public health crisis. General advice to reduce the spread comes from federal health agencies. But that information must be translated into specific actions for local schools, state by state. For that to be effective and align with state conditions (including policies and regulations regarding education, environment, and health), state public health departments need to develop and issue authoritative guidance on reopening schools safely. State or Tribal Nation’s public health agencies are best suited to this role, or those in the largest cities. When we discuss state agency roles, we are including these other entities; our recommendations apply to whatever agency is developing this guidance.

The state-level guidance should specify required steps for schools serving communities in Phase One, Phase Two, or Phase Three of reopening. (See Appendix 3 for the CDC decision tree and discussion on phases.) The guidance must also include specific protections for staff assisting children with special needs and for children with serious health impairments or disabilities.

State guidance will direct schools in how to help meet their Duty to Care for children in their care and Duty to Care for Employees under OSHA during an epidemic or pandemic.

- **General Duty Clause for Employees under OSHA** requires all private employers to “furnish to each of [their] employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.” Some 24 states have adopted a [state OSHA plan](#), approved by OSHA to be at least as effective, to cover public school employees.
- **Duty of Care for Children:** “School districts have a duty to supervise students in their care and to maintain the school premises and any equipment in a safe working condition. . . . However the district has only the duty to exercise the same degree of care toward its students as would a reasonable, prudent parent under comparable circumstances.” (*NY School Law, New York State School Boards Association, 35th edition, 66:13*)
- **Special situations: high-risk children and personnel:** In the context of these duties and of public and private schools’ responsibilities under federal accommodations laws (IDEA, 504, ADA), it will be important for states to provide guidance to schools on how to address school personnel who claim that risk factors prevent them from resuming in-school work. And, since states require all children to attend school and schools are mandated reporters for child abuse and neglect, it will be even more critical for states to provide schools with guidance on how to handle family situations in which there are diagnosed family members who wish a child to attend school, or how to respond to a parent or guardian who claims a child is too high-risk to attend school or is still in prolonged recovery from COVID-19.

FIRST STEPS

In developing these plans, public health agencies must be advised by state education and labor agencies, as well as a task force of stakeholders at the state level: parents, school boards, administrators, nurses, facility directors and personnel, teachers, support staff, transportation, special education professionals.

Given the long arc of the pandemic and the multiple ways schools must adjust over an extended time, states could present the school infection prevention and control plans as stand-alone policy documents to be adopted locally or present them as lengthy new sections to schools' "all hazards" emergency plans.

State health agency

- The state Plan should be developed in partnership with a task force of stakeholders
 - To adapt the Plan for local use and adopt it as a written school policy, the district or school should convene a local stakeholder committee (see below)
- In constructing the Plan, ensure that all federal and state regulations are followed and guidance on reopening in Phases 1, 2, 3, or 4 is embedded; see Appendix 4 for links to federal guidance documents and Appendix 5 for examples of state reopening plans
- Disseminate the Plan to sister state agencies, local health agencies, districts, and private schools
- Establish a parent/personnel complaint line for logging questions or problems with local implementation
- Educate agencies and all public and private schools on the new Plan and their responsibilities
- Initiate tracking of virus outbreaks among school-age children and personnel by school district or zip code

School districts and independent schools

- Adapt the Plan for local facility and occupancy considerations, in partnership with a stakeholder committee, as above, and adopt as policy, then post publicly
- Establish a local infection prevention and control health and safety committee
- Communicate Plan to all personnel and other stakeholders
- Educate personnel, parents, and community on elements
- Train staff on any new elements of work
- Stock supplies for cleaning and maintenance, replacement filters for water and air handling as needed
- Use appropriate PPE for staff and loose face coverings or masks for children and teachers as required in Plan

Comments regarding employees, substitutes, and contractors: There may be an increased need for substitute employees in all positions. To ensure that staffing levels are sufficient to meet cleanliness, physical distancing, student learning, and health and safety needs, schools should consider employing more nurses, health care aides, and full-time substitute employees.

Schools should also identify critical jobs and plan ahead for alternative coverage by cross-training employees so that more than one employee is familiar with the essential job duties. If possible, employ full-time substitute employees who can be trained and assigned to assist in a variety of positions if needed.

TIPS: Avoid the use of outside companies to provide extra workers. Contractors may have a higher rate of turnover at a time when consistency of staffing is critical for preventing the spread of infection. If outside contracting is unavoidable, it is imperative to ensure that all contractors follow the same health and safety protocols as all regular school employees, and that they conduct all pertinent training. If the school uses an outside contractor for cleaning, please see notes in Appendix 6, Cleaning and Sanitizing and Disinfecting, regarding contractor qualifications and cost/benefits in a pandemic.

All workers, including substitutes for school personnel (bus drivers, cafeteria workers, teachers, etc.) must be trained on COVID-19 plans.

SCHOOLS PRE-OPENING

Determine district/school projected enrollment

How many seats, classrooms, facilities, or buses available to maintain recommended social distance

Request occupant health and contact information for school year

- Family or personal history of COVID-19?
- Significant/recent risk factors for COVID-19?
- Children: home/emergency contact, IEP (and updates), health, in-school medications, permission slips

Determine occupancy rates and schedules

- In cooperation with state/local public health: consider options for reoccupancy
 - 25%, 50%, 75%, 100%; by class or by other criteria? Block plan schedule?
- Consider: reserve/designate specific facility areas for special uses
 - Learning labs, computer labs, special needs; keep vacant classrooms for cleaning/ventilation upgrades

School Hazards

Pandemic or no pandemic, health hazards are often present in older and or poorly maintained school buildings. The Infection Prevention and Control Plan, to be developed by states and sent to local schools, might call out these hazards, but should focus first on the immediate need to reduce the viral load indoors: clean air, hand hygiene, face coverings, and distancing. This box prompts agencies and other users on the larger issues of creating and maintaining healthful school facilities.

School buildings present hazards beyond infectious disease. Many health, safety, and security issues found in schools are regulated by federal authorities such as [EPA](#) and [OSHA](#), or by building codes. Some hazards are only minimally addressed, not addressed at all, or lesser known.

Employers are responsible for providing a safe workplace free of recognized hazards even in the absence of federal requirements. But only adult occupants—that is, school employees—are protected from health and safety threats. Children are not protected under workplace regulations. As a result, parents and employees must work together to correct or improve facility conditions; failing that, concerned parents can reach out to state or local environment and health advocacy groups to help ensure speedy reforms.

Refer to federal laws and regulations:

[Occupational Safety and Health Administration \(OSHA\) Laws and Regulations](#)

[Environmental Protection Agency \(EPA\) Laws and Regulations](#)

Recognized hazards covered by federal regulations: asbestos, lead, legionella, bloodborne pathogens, PCBs, disposal of hazardous waste; pesticides and disinfecting products are approved and registered for specific uses

Recognized hazards and irritants NOT covered or minimally covered by federal regulations: infectious disease, indoor air quality contaminants, pests, mold (note these hazards may be covered by state regulations)

Emerging or lesser-known hazards: [PCBs](#) in light ballasts, PCBs in caulk, glass fibers in acoustical ceiling tiles, PFAS in water, [mercury in rubberized gym flooring](#)

Prepare facility as recommended in Plan

Buildings that have not been used in months must be assessed and priority repairs must be identified. Possible actions:

- Conduct all statutory inspections
- Restart equipment in accordance with documented restart procedures/manufacturer's instructions

- Consider providing refresher training for custodial and maintenance workers who may have been away from work for some time and may be unfamiliar with updated safety-critical tasks or equipment
- Conduct post-recovery evaluation and plan accordingly: assess projected costs of changes and acquire adequate cleaning and maintenance supplies; review contractual agreements that may affect custodial or maintenance staff; review and prioritize unfinished safety and health projects
- Conduct on-site walk-through of the facility: [Walk-through Inspection Checklist](#) from US EPA Indoor Air Quality Tools for Schools kit

Exterior

- **Facility exterior:**
 - Check and repair roof, foundation, playground, playing fields
 - Check and repair walks, drives, fencing, gates
 - Look for any wind/water damage, water intrusion or staining, pest intrusions
- **Entries:**
 - Check signage, security, locks
 - Check lighting
 - Mark vehicle idling areas

Interior: indoor air quality (IAQ)

The quality of the indoor air is truly the result of everything that has gone either right or wrong with the facility, from initial design, siting, and engineering to maintenance. [Building-related illness and sick building syndrome](#) refer to conditions in which occupants suffer adverse health effects associated with indoor pollutants: for example, cough, congestion, asthma, nausea, headaches, rashes, loss of concentration, fatigue. The universal advice to school leaders hearing an indoor air complaint is to take the first complaint seriously and investigate fully. Poor indoor air can result in poor learning, poor test scores, and falling attendance and seat time. It can also result in high staff turnover and disabling health issues.

US EPA's [IAQ Tools for Schools toolkit](#) was designed to help schools prevent, identify, and resolve their own problems at low cost and to help them avoid the need to call in an outside contractor. IAQ emergencies include chemical spills and dangerous carbon monoxide leaks, the latter often signaled by occupant reports of headaches, confusion, and nausea, or loss of consciousness.

- **Air quality, ventilation, and aerosol transmission:** See Appendix 7
- **US EPA Building and Grounds Maintenance Checklist:** Identify common trouble spots in and around school buildings where the sources of problems may hide
- **Indoor Air Quality:** 23 states have adopted policies that embed at least two key steps of US [EPA IAQ Tools for Schools](#) indoor air quality management program

- [US EPA Fresh Air: Optimal HVAC Management for Improved Health](#)
 - Key areas needing room exhaust vents to the outside or special ventilation and filtration: nursing/health care suite, isolation room, lavatories, gyms, kitchen/food preparation, pool
 - See [Master Class Training Webinars on IAQ Topics](#)
 - ✓ IAQ, mold, and moisture: check, maintain ventilation; replace filters, A/C if any; consult with HVAC vendor/manufacturer for upgrading filters; ensure windows and vents work; key areas vented to outside such as lavatories, pools, gyms, kitchens
 - ✓ See Appendix 8 for resources on dampness and molds

Interior: cleaning and disinfecting

See Appendix 6 for detailed guidance, cautions on the overuse of disinfectants, and on false marketing claims: 12 states require or promote the use of certified green cleaning products in schools.

- [Inventory Cleaning Products](#): Identify cleaning products currently used and replace high-volume, hard-surface cleaners with unscented, third-party certified green general all-purpose cleaners and safer disinfectants
- Buy Safer Cleaning and Disinfecting Products:
 - Buy third-party Certified Green Cleaning Products
 - [Responsible Purchasing Network](#): Safer Disinfectants
 - [Cleaning for Healthy Schools](#): free training materials
 - [NYS Joint Memo on Cleaning and Disinfecting Appendix C](#) (2020)
 - [Washington State Department of Health on Cleaning for Healthy Schools](#)
 - [Enhanced Green Cleaning Training Manual](#) (NYS 2010)
 - [TURI Toxics Use Reduction Institute - Disinfection](#)

Interior: lead paint management

- [US EPA Lead Renovation, Repair and Painting Program](#): regulations apply to all schools with children ages 6 and under regularly present

Interior: pest control—integrated pest management (IPM), aka safer pest control

Twenty-six states require schools to practice safer pest control and some also ban the use of ornamental herbicides outdoors. Please consult your state and local mandates for IPM regulations and guidance.

In the long term, using IPM protocols and tactics results in less expensive and more effective pest control. Simple pest control methods include blocking pest entries, installing door sweeps, isolating food storage, repairing leaks, cleaning trash areas, and reducing clutter that provides nesting areas.

- [Safer Pest Control: Smart Sensible and Sustainable Pest Management in Your Schools](#), US EPA webinars
- [Checklist for Pest-Proofing Schools](#), US EPA
- [References for Safer Pest Control \(IPM\) in Schools and Childcares](#)
- [School IPM Best Practices](#)
- [IPM for Pennsylvania Schools and Childcares: A How-to Manual](#)

Interior: drinking water

Reopening water supplies in buildings that have been closed and largely unoccupied is an important task. Consult with your local or state health department, and see guidance in Appendix 9.

Some states now require schools served by municipal water systems to test at the tap for lead; US EPA requires all schools that are their own water suppliers to test at the tap and report to EPA.

- Check all drinking and cooking water outlets
- Flush out systems that have been closed for months, following state health department guidance
- [EPA's 3T's for School and Child Care Drinking Water](#)
- [Pediatric Environmental Health Specialty Units \(PEHSU\) Fact Sheet on Lead in School and Child Care Drinking Water](#)
- [CDC Guidance on Reopening Water Systems](#)

Interior: lavatories, sinks

- Check to make sure toilets and sinks work; repair as needed
- Fill toilet paper dispensers
- Provide soap, towels; unplug and tape off hand dryers
- Ensure direct venting to the outside
- Clean

For more information about hand sanitizing stations and hand dryers, see the next section on occupants and see Appendix 6, Cleaning and Sanitizing and Disinfecting.

Interior: kitchen/food prep/cafeteria

- Make sure all equipment works, test heat/cooling; deep clean appliances and vents
- Secure food storage, secure refrigeration
- Prevent pests through sealing and isolating food storage, prep and service; ensure routine cleaning of floors, surfaces, and equipment and sanitizing of food prep surfaces

Interior: classrooms and lockers

- Keep classrooms easy to clean and maintain: take down/eliminate dust catchers; no used furnishing; no plug-ins; no food/coffee; no carpeting
- Encourage donations/provide clear plastic storage containers for classroom projects and supplies
- Cleaning desktops: students can help keep their desktops clean, using plain water and paper towels or unscented baby wipes at the end of the school day, before they place their chairs on the desktops
 - Products used in schools must have Safety Data Sheets on file, meaning that products from home or the local market are not to be used in schools. Children should not use commercial cleaning products or disinfecting wipes.

SCHOOL OCCUPANTS AND OCCUPANCY

This section compiled by the New Jersey Work Environment Council from the following sources: [New Jersey School Boards Association](#), [CDC - Considerations for Schools - May 2020](#), [National Council for Occupational Safety and Health - Safe and Just Return To Work toolkit](#)

Local districts/schools:

Publish a school infection prevention and control handbook for the school community

Online or hard copy, covering major policies and procedures, as defined in the State Plan sent to schools

Provide training to staff and students; offer training to parents/guardians

Ensure that any changes in school procedures and policies are addressed in training

Handbook topics

- Strict limits for visitors/limit nonessential visitors
- Use of face coverings, masks, and PPE
- Handwashing protocol and frequency
- Social distancing
- Symptoms for adults, symptoms for children
- Screening school populations for symptoms
- Emergency plans, modified fire drills, evacuations, lockdowns
- School or home: recommendations for isolation criteria
- [Education of children with disabilities](#)

Staffing

Consider additional staffing needs: nursing time, custodial time; classroom aides, IT, drivers, other support staff.

Face coverings, masks, and PPE

- If the state plan recommends masks or face coverings in Phases 1, 2, or 3, for all staff and all children, the state should provide masks in sufficient quantity
- Face coverings or masks must be available to staff and students who do not have them
- Complaints about masks/face coverings include difficult breathing and irritation: refer to health provider or consider different masks/face coverings
- Make a clear distinction for students, staff, and community between loose face coverings for source control and PPE such as face-fitting respirators, face shields, gloves, gowns, etc.
- PPE for nursing suite and or custodial workers for cleaning: consider potential for aerosolized particles, ensure adequate outside venting
- PPE and sneeze guards for administration, front desk/reception
- PPE is a control method of last resort (see NIOSH Hierarchy of Controls, Appendix 10)

Sanitizing/handwashing stations

- All occupants and visitors sanitize/wash hands prior to gaining entry to building and on exit
- Handwashing breaks/recesses, before and after breakfast and lunch, after school snacks
- [Disconnect and tape off hand dryers in lavatories](#)
- See Appendix 6 on green cleaning and safer disinfectants and sanitizers

Class scheduling options

- Train all staff in distance learning devices/formats for your school
 - Access to IT consultant
 - Upgrade wiring/routers
 - Devices for children
 - Train children on devices; share how-to brochure with parents/guardians
 - Check in with students not attending online sessions
- Cohorting student groups
 - Stagger arrival and drop-off times by group
 - Limit cohort movement and mixing between groups
- Socially distancing class seats: how many children
 - Alternating seating
 - Back-to-back seating
 - Cubicle-style seating

- Hybrid schedule examples
 - Split day
 - Alternating schedule (Grade 1-2 Monday, 3-4 Tuesday, etc.)
 - Half-day schedules for all
 - Half of population M/Tu, deep clean W, 2nd half of population Th/F
 - Stagger class scheduling
- Rotate teachers as opposed to students to minimize exposure in hallways and reduce mixing of students

Modify transportation

May require more drivers/support staff.

- Limit number of children on buses
- Masks for driver, children
- Spaced seating
- Stagger pick-up and drop-off times
- Clean and sanitize between bus runs as directed in plan

Modify student activities

- Arrival/departure for regular school day
 - Stagger times and locations
 - Avoid using communal gathering spaces
- Breakfast, lunch
 - Staggered time slots
 - Breakfast or lunch in classrooms (will increase pest problems)
 - Handwashing prior to/following lunch
 - Retrain on allergy awareness
- Hands-on programs: is additional PPE needed?
 - Special education classes or therapies
 - Robotics
 - Cosmetology
 - Shop classes
 - Art
- Courses requiring high respiratory exchange
 - Choir
 - Band—wind instruments
 - PE/athletics/playgrounds
 - Drama club/theater

At-risk student populations and bullying

- Students who are uncomfortable with or refusing to wear face coverings or masks: refer to health care provider
 - Younger students
 - Students with disabilities or who are medically fragile
 - Students with asthma/respiratory issues
- Remote learners, unable to attend in person
- Biologically vulnerable or educationally at-risk children
 - Children with pre-existing health conditions
 - Homeless children or with no adult at home
 - Children without Internet access/devices
 - Children who require hands-on therapies or teaching
- Be alert to and anticipate bullying of at-risk students; employ anti-bullying programs

At-risk school staff

- Staff over 65
- Medically fragile
 - Ability to teach remotely; and have qualified staff in classroom to monitor

After-school activities and community use of school facilities

- Canceled or modified— may require extra busing
- After-school care capacity and limitations
- Community use of school: continue as is, modify, or discontinue

Standards to screen all occupants and visitors on entry

Currently, both children and adults may be infected, shed the virus, and have no symptoms. There is also too little testing and tracing, and no vaccine. A temperature check at the door will capture occupants who have already shed viruses indoors for several days. Follow relevant CDC and state health guidance on any screening protocol. See Appendix 11, Considerations for School Nurses, and see Appendix 2, Symptoms of COVID-19 Among Children and Adults.

- Screen?
- Trace if there is a confirmed school case
 - Symptoms appear 2-14 days after exposure
 - Record symptomatic adult
 - Record symptomatic children
 - Report: to parent/guardian, district, local health department
 - School must assist local health agency with in-school contact tracing

- COVID-19 is a respiratory illness and should be coded as such in employee illness reporting logs, according to [OSHA](#)
- In-school temporary isolation for individuals with temperatures or low oxygen levels: have an area for symptomatic staff and children
 - Area separate from nurses' suite
 - Designated trained professional (proper PPE)
 - See Appendix 2 on health symptoms
- Prevent transmission of virus
 - Follow state guidance for notifying state and local health agencies
 - Notify board of education, personnel, parents and community of number of new confirmed infections. Encourage individual actions and review and update school-based actions to stem spread.
 - Wait before entering as directed in the Plan, then clean and disinfect affected areas
 - Trace contacts from transportation to schools and or in-school contacts prior to isolation
 - Diagnosed or exposed to COVID-19:
 - Families and staff must notify school if they have been exposed to COVID-19 and are quarantined or if a family member has been diagnosed with or presumed to have COVID-19 or is being isolated
 - Personnel and students with known exposure to someone with diagnosed or presumed COVID-19 must self-quarantine at home for 14 days
 - Personnel or students who travel out of state or to a location with known community spread must self-quarantine at home for 14 days
 - Guidelines should be considered for holding students and personnel harmless for required quarantine period(s)
 - Prevention training
 - Proper use of PPE
 - Handwashing
 - Social distancing
 - Symptoms
 - Conduct training virtually when feasible to ensure social distancing

Implement flexible sick leave policies for staff and accommodate student absences

Establish flexible leave time or distance teaching time for staff; provide educational services to children with extended absences due to isolating at home or family illnesses, consistent with federal laws on accommodations for health-impaired or learning-impaired students (IDEA, 504, ADA).

APPENDIX

APPENDIX 1

School District Response Plan for Anticipating, Recognizing, Preventing, and Addressing Coronavirus

New Jersey Education Association
Part of School Safety and Security Plan
Accessed June 1, 2020

The School District Response plan should be developed in collaboration with the local public health officials, lead emergency response agency, district administrators, school health and mental health professionals, teachers, building facilities personnel, food service directors, the local education association (this would be specific union-appointed representatives separate from staff who may be on the team in their work capacity e.g., school nurse, teacher, custodial staff, etc.) and parent representatives.

The Plan should include the following components: a policy, roles and responsibilities, procedures and training on procedures.

A. Policy: To Anticipate, Recognize, Prevent, and Address Coronavirus Outbreak

B. Roles and Responsibilities:

Define Role and Responsibilities addressing who will carry out policy and procedures.

C. Procedures

1. Develop a dissemination plan

- That promotes prevention strategies regarding hand washing, keeping unwashed hands out of mouths, eyes, etc., respiratory hygiene, e.g. hand hygiene, cough/sneeze etiquette, social distancing, discouraging sharing of food.
- That identifies signs and symptoms of COVID-19, modes of transmission, as well as personal and family protection,
- That asks parents to keep children home who exhibit cold and flu-like symptoms,
- That encourages staff to refrain from coming to work if they have cold and flu-like symptoms.

2. Establish procedures for students and staff who are sick

- Require staff and students to stay home and see a health-care provider if sick.

- Use flexibility to allow staff to stay home to care for sick family members. Staff medical leave should not result in disciplinary action .
- Students who miss school due to extended illness and recovery period should be assigned a (home-hospital) tutor to stay current with class
- Develop a plan with the school nurse or designee to:
 - o Identify and isolate students and staff who arrive at school sick and are sent home as soon as possible,
 - o Establish procedures for students and staff who become sick at school, and send home as soon as possible,
 - o Establish plans for when identified cases of covid-19 have been found in school community, or if an ill student or staff member attended school before being confirmed as a covid-19 case.
- Manage transportation of ill students.
- Schools are not expected to screen students or staff to identify cases of COVID-19. The majority of respiratory illnesses are not COVID-19.
- Address provisions for psychological support services for staff, students, and their families during and after an outbreak.

3. Monitor and Plan for Absenteeism

- Review absenteeism patterns among both students and staff.
- Alert local health officials about increased absenteeism.
- Determine what level of absenteeism will disrupt continuity of teaching and learning.
- Discourage the use of perfect attendance awards or incentives.
- Identify critical job functions and positions and plan for alternative coverage by cross-training staff.

4. Create Communications Plans for Use Within and Outside School Community

- Include strategies for sharing information with staff, students, and their families including those who do not speak English as their first language, and including lead spokespersons and links to other communication networks .
- Include information about steps being taken by the school to prepare, and how additional information will be shared.
- Include strategies for sharing information with local health departments for timely exchange of information.

5. Actively Prevent Discrimination

- Actively prevent discrimination and counter stigma, harassment and bullying related to perception of COVID-19.

6. Perform Routine Environmental Cleaning

- Procure sufficient and accessible infection-prevention supplies, such as unscented soap, unscented alcohol-based/waterless hand hygiene products containing at least 60 percent alcohol, tissues and receptacles for their disposal.
- Provide unscented disposable disinfecting wipes to classroom teachers and aids so that commonly used surfaces (e.g., keyboards, desks, remote controls) can be wiped down by staff before use.
- Routinely clean frequently touched surfaces (e.g., doorknobs, light switches, countertops) with cleaners typically used. Use all cleaning products according to the directions on the label.
- Train custodial and maintenance staff on hazards of cleaning products and how to use them safely.
- Provide where necessary appropriate Personal Protective Equipment (PPE) and training on how to use PPE to custodial and maintenance using cleaning products.

7. Ensure Compliance with Federal Guidelines

- Ensure protocols comply with OSHA on appropriate work practices and precautions to protect employees from occupational exposure. This is particularly for school health personnel who will be in close proximity to persons who might be infectious.

8. Explore Contract Implications

- Explore contract implications for mass and extended individual employee absences, and instruction during school closings.
- Coordinate with the unions in advance.
- Draft any needed agreements.
- Plan for substitutes for all positions -- bus drivers, teachers, cafeteria staff, etc.
- Address any needed sick leave exceptions or waivers.
- Consider emergency sick leave pools.
- Coordinate with health insurance carriers regarding any anticipated challenges with the widespread use of health insurance benefits.
- Determine if staff is infected, who will be responsible for the costs of medical tests.
- Determine, if staff is infected, which will apply: sick leave, personal leave, or workers' compensation.

9. Establish Plans for School Dismissal

- At this time, federal health authorities are not recommending that schools cancel classes, however consider cancelling extracurricular activities, such as field trips and travel abroad based on various levels of illness among students and staff.

- Develop a policy on school closure should closure or dismissals become necessary.
- Establish virtual education options for students, if available, for extended school closures.
- Address how staff will be informed about expectations for student home-based academic work.
- Coordinate with the state educational agency about the possibility of school closings. How will attendance days and/or virtual class time be counted?
- Explore deploying visiting teachers to monitor or ensure education remains on track in case of school closings; recruit parents to assist in the delivery of educational services to their children.
- Coordinate with local health and welfare agencies to ensure children receiving free and reduced-price meals continue to receive nutrition usually supplied at schools.
- Address how the school district can provide information and support to families in need of childcare when schools are closed.
- If the congregation of students prevents group childcare, explore with local agencies and community groups the kinds of services for childcare available for in-home care and serve as a resource for parents, particularly in high-poverty areas.
- Prepare for continuity-of-operations plan for essential central office functions, including payroll and ongoing communications, such as social media groups, with students and parents such as hotlines, telephone trees, dedicated websites, and local radio or TV stations, etc. for communicating pandemic status and actions to school staff, students and families,
- Determine under what conditions schools will reopen.
- Offer training opportunities to parents regarding home school learning systems and check-ins.

D. Training on Procedures

- Provide educational sessions for explaining the pandemic plan to staff and outlining the roles of those responsible for implementing any part of the plan . Update and retrain as needed

Also see [NJEA - Education Recovery Plan - June 2020](#)

APPENDIX 2

Symptoms of COVID-19 Among Children and Adults

A few selected studies are posted below, as of June 2020. The peer-reviewed literature is emerging. Not enough is known yet on the short-term and longer-term effects of exposures on adults and especially on children. Advisories from federal and state agencies will therefore continue to evolve as more becomes known.

Pediatric Rheumatology, June 1, 2020

[Characteristics of Children in ICU](#)

World Health Organization, May 2020

[Multisystem inflammatory syndrome in children and adolescents temporally related to COVID-19](#)

American Academy of Pediatrics, May 2020

[Ask the Expert: What are the presenting signs and symptoms in children with confirmed COVID-19 disease?](#)

Understanding of disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in children is changing rapidly. The first confirmed pediatric case of COVID-19 infection in the United States was reported to the Centers for Disease Control and Prevention (CDC) on March 2, 2020.

Since that time, pediatric cases of symptomatic COVID-19 disease (caused by SARS-CoV-2) appear to be less common than among adults. In the United States, about 2% of confirmed cases occur in people younger than 18 years of age. In China, less than 2.2% of cases occurred among people younger than 19 years of age.

When symptomatic, reported signs and symptoms of COVID-19 infection in children appear to be similar to other viral respiratory infections. The prevalence of asymptomatic SARS-CoV-2 infection is not well-understood because asymptomatic children are not tested routinely.

Children of all ages appear to be susceptible to infection by SARS-CoV-2, so far the majority of COVID-19 cases in children are mild. Few children with COVID-19 infection are hospitalized, and fewer children than adults experience fever, cough or shortness of breath (see table). Although rare, hospitalization rates appear to be highest among children younger than 1 year of age and those with underlying conditions (chronic lung disease including asthma, cardiovascular disease, and immunosuppression).

See chart below, next page.

Signs and symptoms among 291 pediatric and 10,900 adult cases with laboratory confirmed COVID-19 infection, Feb. 12-April 2, 2020

| <u>Sign/symptom</u> | <u>% with sign/symptom</u> | |
|---------------------|----------------------------|--------------|
| | <u>Pediatric</u> | <u>Adult</u> |
| Fever | 56 | 71 |
| Cough | 54 | 80 |
| Headache | 28 | 58 |
| Sore throat | 24 | 35 |
| Myalgia | 23 | 61 |
| Shortness of breath | 13 | 43 |
| Diarrhea | 13 | 31 |
| Nausea/vomiting | 11 | 16 |
| Runny nose | 7 | 7 |
| Abdominal pain | 6 | 12 |

Source: *Morbidity and Mortality Weekly Report*. 2020;69(14):422

Journal of the American Medical Association Pediatrics

[Characteristics and Outcomes of Children With Coronavirus Disease 2019 \(COVID-19\) Infection Admitted to US and Canadian Pediatric Intensive Care Units](#)

Findings: In this cross-sectional study of 46 North American PICUs, between March 14 and April 3, 2020, 48 children were admitted to 14 PICUs in the US and none in Canada. A total of 40 children (83%) had pre-existing underlying medical conditions, 35 (73%) presented with respiratory symptoms, and 18 (38%) required invasive ventilation, and the hospital mortality rate was 4.2%.

Meaning: This early study shows that COVID-19 can result in a significant disease burden in children but confirms that severe illness is less frequent, and early hospital outcomes in children are better than in adults.

The St. Louis American

[COVID-19 hitting area black children, youth harder than whites](#)

UNICEF COVID-19 Response

[Considerations for Children and Adults with Disabilities](#)

Children and adults with disabilities may have underlying health conditions that increase their risk of serious complications from COVID-19. Girls and boys with disabilities may be at risk of exclusion from education if remote/distance learning programmes are not accessible or they do not have assistive devices to allow participation and accommodate learning higher needs.

CDC

[What You Can Do To Protect Yourself if You Are at Higher Risk for the Disease](#)

[People Who Need Extra Precautions](#)

People of any age with the following conditions are at increased risk of severe illness from COVID-19 (as of June 25, 2020):

- [Chronic kidney disease](#)
- [COPD \(chronic obstructive pulmonary disease\)](#)
- [Immunocompromised state \(weakened immune system\) from solid organ transplant](#)
- [Obesity \(body mass index \[BMI\] of 30 or higher\)](#)
- [Serious heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies](#)
- [Sickle cell disease](#)
- [Type 2 diabetes mellitus](#)

Children who are medically complex, have neurologic, genetic, metabolic conditions, or have congenital heart disease are at higher risk for severe illness from COVID-19 than other children.

COVID-19 is a new disease. Currently there are limited data and information about the impact of underlying medical conditions and whether they increase the risk for severe illness from COVID-19.

Based on what we know at this time, people with the following conditions might be at an increased risk for severe illness from COVID-19:

- [Asthma \(moderate-to-severe\)](#)
- [Cerebrovascular disease \(affects blood vessels and blood supply to the brain\)](#)
- [Cystic fibrosis](#)
- [Hypertension or high blood pressure](#)
- [Immunocompromised state \(weakened immune system\) from blood or bone marrow transplant, immune deficiencies, HIV, use of corticosteroids, or use of other immune weakening medicines](#)

- [Neurologic conditions, such as dementia](#)
- [Liver disease](#)
- [Pregnancy](#)
- [Pulmonary fibrosis \(having damaged or scarred lung tissues\)](#)
- [Smoking](#)
- [Thalassemia \(a type of blood disorder\)](#)
- [Type 1 diabetes mellitus](#)

Asthma and Allergy Foundation of America

[New Asthma and COVID-19 Toolkit for Schools](#)

Schools are facing a major challenge in the 2020-2021 school year as many may be required to reopen during the [COVID-19 pandemic caused by the new coronavirus \(SARS-CoV-2\)](#). As schools develop new strategies for learning, school meals and physical activity while preventing the spread of the new coronavirus, some policies can impact children and staff with asthma. Required and/or suggested face masks or coverings, physical distancing, schedule changes and new cleaning practices will reshape learning environments. It's important to understand how this may affect students and staff with specific health needs like asthma.

Stop the Spread of COVID-19

WASH YOUR HANDS often with soap and water for 20 seconds.

USE HAND SANITIZER with at least 60% ethyl alcohol or 70% isopropyl alcohol when handwashing is not available.

WEAR A MASK or fabric face covering.

STAY AT LEAST 6 FEET APART.

STAY HOME IF YOU'RE SICK.

Asthma and Allergy Foundation of America
aafa.org/covid19

IS IT COVID-19, THE FLU, A COLD OR ALLERGIES?

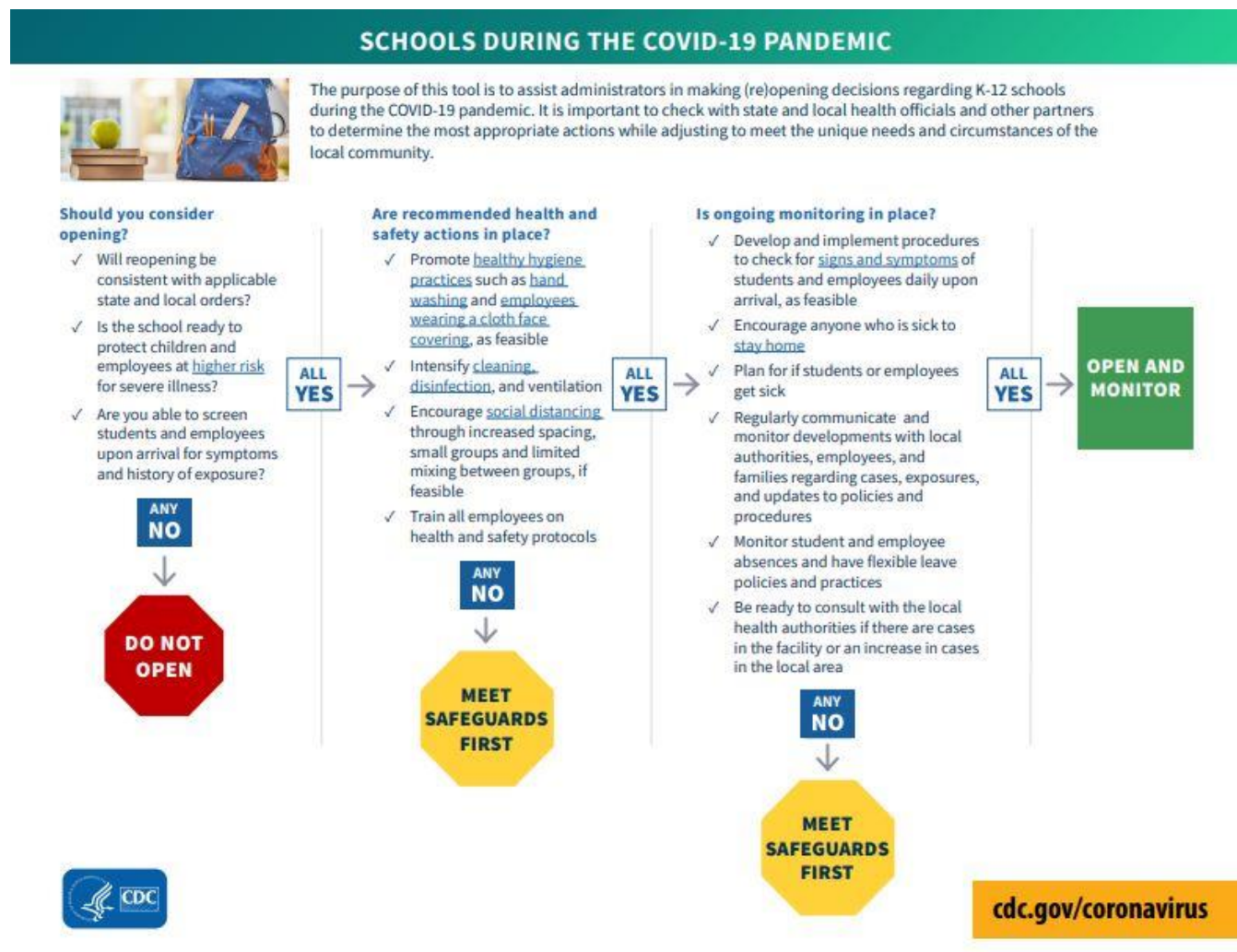
| Symptoms | Coronavirus* (COVID-19) <small>Symptoms range from mild to severe</small> | Cold <small>Gradual onset of symptoms</small> | Flu <small>Abrupt onset of symptoms</small> | Seasonal Allergies <small>Abrupt onset of symptoms</small> |
|-------------------------|--|--|--|---|
| Length of symptoms | 7-25 days | Less than 14 days | 7-14 days | Several weeks |
| Cough | Common (usually dry) | Common (mild) | Common (usually dry) | Rare (usually dry unless it triggers asthma) |
| Shortness of breath | Sometimes | No** | No** | No** |
| Sneezing | No | Common | No | Common |
| Runny or stuffy nose | Rare | Common | Sometimes | Common |
| Sore throat | Sometimes | Common | Sometimes | Sometimes (usually mild) |
| Fever | Common | Short fever period | Common | No |
| Feeling tired and weak | Sometimes | Sometimes | Common | Sometimes |
| Headaches | Sometimes | Rare | Common | Sometimes (related to sinus pain) |
| Body aches and pains | Sometimes | Common | Common | No |
| Diarrhea | Sometimes | No | Sometimes for children | No |
| Chills/repeated shaking | Sometimes | No | Sometimes | No |
| Loss of taste or smell | Sometimes | Rare | Rare | Rare |

Your symptoms may vary. *Information is still evolving. **Allergies, colds and flus can all trigger asthma, which can lead to shortness of breath. COVID-19 is the only one associated with shortness of breath on its own.
Sources: Asthma and Allergy Foundation of America, World Health Organization, Centers for Disease Control and Prevention. edited 4/29/20 • aafa.org/covid19

APPENDIX 3

Phased Reopenings Federal Centers for Disease Control and Prevention “Decision Tree”

Source: CDC and Johns Hopkins Bloomberg School of Public Health - [Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors](#) - April 2020



Note that screening upon arrival may not identify all infected individuals entering the building: “Symptom screening will not identify individuals who are infected but otherwise asymptomatic or pre-symptomatic.”

Discussion: Phased Reopening and Assessing Risk

Phase I

A phased reopening consists of community-level physical distancing measures to “slow the spread,” is meant to increase access to diagnostic testing and increase public health and medical system capacities, and safely identifies and treats all COVID-19 patients and prepares for a shift from community mitigation to case-based interventions (focusing testing and resources on individuals with disease who may be infectious and their close contacts).

Phase II

Businesses and sectors can begin a process of reopening, with modifications, and can be considered when the following 4 criteria have been met:

- The number of new cases has declined for at least 14 days;
- Rapid diagnostic testing capacity is sufficient to test, at minimum, all people with COVID-19 symptoms, as well as close contacts and those in essential roles;
- The healthcare system is able to safely care for all patients, including having appropriate personal protective equipment for healthcare workers; and
- There is sufficient public health capacity to conduct contact tracing for all new cases and their close contacts, as described in our National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the US.

Phase III

Looks ahead to a time when an effective therapeutic or vaccine is available.

Phase IV

Identifies some policy priorities for increasing preparedness for the next public health threat.

The Importance of Risk Assessment

Risk assessments should be integrated into the decisions around reopening. Risk assessments are formalized processes to evaluate risks and hazards. Assessing the risks of easing social distancing measures and restarting parts of the economy requires a measurement of the likelihood of increased transmission and the consequences of that transmission. Likelihood in this case means the probability that reopening a business, school, or other organization where people congregate will cause significantly increased transmission. Consequence is the impact that increased transmission could have on individuals or communities if a business, school, or other organization reopens or eases social distancing measures.

The Case for Reopening

Unlike businesses and sectors that primarily serve adults, the consequences of increased transmission are potentially different for settings and activities that primarily serve children. Children are less vulnerable to severe illness from COVID-19 than adults. A recent report found that fewer than 2% of cases of COVID-19 in the United States were diagnosed in children, and of those (for whom data were available), between 5.7% and 20% required hospitalization. Most children requiring hospitalization were under 1 year of age. These considerations favor the reopening of schools and childcare facilities.

The Case Against Reopening

However, it is still not known what role children play in the transmission of SARS-CoV-2. For other viral illnesses, like influenza, children are drivers of transmission. Early and prolonged school closures have been shown to reduce overall community transmission of influenza. There has been some evidence that COVID-19 produces more mild illness in children and therefore it may be less likely to be detected than in adults. However, without more conclusive evidence, it is difficult to quantify the role of children in propagating COVID-19 to other students, their family members, teachers, and school staff. Furthermore, schools and childcare facilities are staffed by adults, some of whom may be at risk of severe illness. These considerations weigh against reopening.

APPENDIX 4

Federal and Other Authoritative Resources Related to COVID-19

List compiled as of June 15, 2020, and will not be updated. Since federal guidance can change, check agency websites often and or subscribe to their e-lists, if available.

- [Opening America](#): Guidelines for Opening Up America Again, a three-phased approach based on the advice of public health experts
- [Coronavirus.gov](#): Public information provided by the U.S. government related to Coronavirus Disease (COVID-19)
- [USA.gov Coronavirus](#): What the U.S. government is doing in response to Coronavirus (COVID-19). [View en español](#)
- [Coronavirus Guidelines for America](#): The president's Coronavirus guidelines for America
- [Coronavirus Frequently Asked Questions](#): Interagency website, organized by the White House Coronavirus Task Force, for definitive information on the public's most frequently asked questions

Federal Emergency Management Agency (FEMA)

- [FEMA Coronavirus \(COVID-19\) Response](#): Updates on federal partners working with state, local, tribal, and territorial governments to execute a whole-of-America response to the pandemic
- [FEMA Mass Care/Emergency Assistance Pandemic Planning Considerations, June 2020](#): Considerations for hurricane response during a pandemic
- [FEMA Rumor Control](#): A resource helping the public distinguish between rumors and facts regarding the Coronavirus (COVID-19) pandemic

Federal Centers for Disease Control and Prevention (CDC)

- [Interim Guidance for Administrators of US K-12 Schools and Child Care Programs](#)
- [What School Nutrition Professionals and Volunteers at Schools Need to Know about COVID-19](#)
- [Latest COVID-19 Information](#)
- [Cleaning and Disinfection](#)
- [Guidance for Businesses and Employers](#)

- [Guidance for Schools and Childcare Centers](#)
- [COVID-19 Prevention](#)
- [Handwashing Information](#)
- [Face Coverings](#)
- [Social Distancing](#)
- [COVID-19 Frequently Asked Questions](#)
- [People at Higher Risk](#)
- [Managing Stress and Coping](#)
- [HIPAA and COVID-19](#)
- [CDC Communication Resources](#)
- [Community Mitigation](#)
- [OSHA Guidance on Preparing Workplaces for COVID-19](#)

US Environmental Protection Agency

- [Healthy School Environments](#)
- [Coronavirus COVID-19](#)
- [Questions about Indoor Air and Coronavirus](#)
- [Cleaning and Disinfecting Guidance from EPA and CDC](#)
- [List N: Disinfectants Effective Against the SARS-CoV-2 \(COVID-19\)](#)

US Department of Education

- [COVID-19: Information and Resources for Schools and School Personnel Readiness and Emergency Management for Schools \(REMS\)](#)
- [Preparing for Infectious Disease: Department of Education Recommendations to Ensure the Continuity of Teaching and Learning for Schools \(K-12\) During Extended Student Absence or School Dismissal](#)
- [Questions and Answers on Providing Services to Children With Disabilities During Extended Student Absence or School Dismissal](#)

US Department of Labor/Occupational Safety and Health Administration (OSHA)

- [COVID-19](#)
- [Guidance on Preparing Workplaces for COVID-19](#)
- [Guidance on Returning to Work](#) - June 2020

National Institutes of Health/National Institutes of Occupational Safety and Health

- [COVID-19](#)
- [COVID19 Worker Training Resources](#)
- [Protecting Yourself](#)

Other Resources

- CDC and Johns Hopkins University, Caitlin Rivers et al., [Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors](#), *Johns Hopkins Bloomberg School of Public Health, April 17, 2020*.
- NIEHS National Institute of Environmental Health Sciences - [Workplace Checklist for Prevention of Exposure to SARS-CoV-2 Virus in Non-Healthcare Industries](#)
- AIHA American Industrial Hygiene Association - [Back to Work Safely](#) (for various sectors)
- AIA American Institute of Architects - [Re-Occupancy Assessment Tool V1](#) - May 2020
- FEMA Federal Emergency Management Agency - [Pandemic Influenza Continuity of Operations Annex Template Instructions](#)
- National Schools Boards Association (NSBA), [Covid-19 Addendum, Preparing for Widespread Illness in Your School Community, A Legal Guide for School Leaders](#) - March 2020
- American Federation of Teachers - [Covid19 A Plan to Reopen America's Schools and Communities](#)
- [Harvard T Chan School of Public Health - Schools for Health](#) - June 2020
- [NEA National Education Association - Initial Guidance for Reopening Schools](#) - June 2020

APPENDIX 5

Sampling of State Plans to Reopen Schools

As of June 22, 2020

- **Arizona Department of Education:** [Roadmap for Reopening Schools](#), June 2020
- **California Department of Education:** [Stronger Together: A Guidebook for the Safe Reopening of California's Public Schools](#), June 2020
- **Kentucky Department of Education:** [COVID-19 Considerations for Reopening Schools, Initial Guidance for Schools and Districts](#), May 15, 2020
- **Maryland:** [Recovery Plan Education](#), May 2020
- **Missouri School Boards Association:** [Pandemic Recovery Considerations Re-Entry and Reopening](#), (April 2020)
- **New Jersey Department of Education:** [The Road Back: Restart and Recovery Plan for Education](#), June 2020
- **Pennsylvania Department of Education:** [Preliminary Guidance: Phased Reopening of Pre-K to 12 Schools](#), June 3, 2020

APPENDIX 6

Cleaning and Sanitizing and Disinfecting

National Collaborative on Green Cleaning and Chemical Policy Reform in Schools

The smell of clean is no smell!

Start by keeping easy-to-clean, neat classrooms. No food. No plants. No pets. Don't decorate with dust catchers. Keep materials in clear plastic bins. Make sure everyone washes their hands often during the day. Dirty hands leave grime and microbes on surfaces like desktops and doors.

Cleaning and disinfecting tips:

Tip 1: Buy **unscented or low-odor** products to help protect indoor air quality; do not use plug-ins or room deodorizers; keep tops of unit ventilators or other air intakes and air exhausts free of clutter, like books, papers and plants.

Tip 2: Surfaces must be cleaned before they can be disinfected.

Tip 3: Disinfectants are anti-microbial pesticides and labeled not for use by children.

Tip 4: Disinfecting wipes do not clean. Read and follow directions.

Tip 5: Do not bring cleaning products from home; use only those products approved by your school that have Safety Data Sheets (SDS) on file.

Tip 6: Do not mix products; do not overuse products. Read the directions.

Cleaning:

Normal routine cleaning with soap and water will decrease the human coronavirus (SARS-CoV-2) on surfaces and objects, which reduces the risk of exposure. Use conventional (unscented) general all-purpose cleaners without added disinfectants or use (unscented) Green Seal or EcoLogo third-party certified cleaning products for institutional/commercial (large-scale) buildings. EPA's Safer Choice labeled products are usually for home use.

Cost of green:

Third-party-certified green cleaning products have been used for more than 15 years by state agencies, schools, and child care facilities, often at the same or comparable costs to conventional products.

Sanitizing:

Sanitizing lowers the number of germs on surfaces or objects to a safe level, as judged by public health standards or requirements. Products designed to sanitize are not registered to deactivate the coronavirus. Sanitizers are typically used in food service and preparation areas.

Disinfecting:

Disinfectants kill or deactivate germs and viruses on surfaces. By killing germs, you can further lower the risk of spreading infection. Germs return each time a dirty hand touches a surface: wash your hands. Not all disinfectants are the same: some kill the human coronavirus, others do not. Read the directions. Find out what the target microbe is, how to use the product, what protective gear to use, and what the product “dwell” time is, that is, how long the wet product must sit to deactivate the virus (1-10 minutes).

Warning. If your school or child care classroom or facility has sat empty for days, the human coronavirus will no longer be active. If you are being pressured to apply more chemicals indoors than directed, check with your state or local health agency. And check the [EPA N-List](#) if a new vendor is pressuring your school to buy new and possibly untested or unregistered products.

Find disinfectants: All disinfectants are registered for use by US EPA under FIFRA, the Federal Insecticide, Fungicide, and Rodenticide Act. They are not for use by children. To find the disinfectants that deactivate the human coronavirus, see [US EPAs’ N-List](#).

The EPA N-List has some products that are less harmful to human health: see the [culled list of safer products from the Responsible Purchasing Network](#).

How to Clean and Disinfect Schools

- Comment regarding contractual services: If your school contracts out janitorial work, you will want to reassess the cost benefit of in-house staff, given the recommended frequency of cleaning needs during a pandemic. Alternatively, use the NYS Joint Memo (below) as a reference for your contractor, or use [Green Seal Standard 42](#) as a basis for contractual commercial/institutional janitorial services.
- [New York State Joint Memo on Cleaning and Disinfecting Appendix C \(2020\)](#)
- [Washington State Department of Health on Cleaning for Healthy Schools](#)
- [Enhanced Green Cleaning Training Manual \(NYS 2010\)](#)
- [Cleaning for Healthy Schools](#) (National Collaborative Work Group on Green Cleaning and Chemical Policy Reform in Schools)
- [Disinfecting Wipes Guide](#) (Healthy Schools Network)


- [US EPA/CDC Joint Guidance on Cleaning and Disinfecting for Public Spaces](#) (4/29/20)
 - US EPA and CDC: Develop and Implement a [Cleaning Plan](#) (indoors and outdoors; hard and soft surfaces)

Healthy Schools Network note: errors in CDC's advisories on cleaning

1. **Wipes.** CDC recommends giving students wipes to clean hard surfaces. Hard surfaces are where the virus lingers for hours; disinfecting wipes are pesticidal products labeled not for use by children.
2. **Diluting bleach.** CDC recommends one dilution recipe for using bleach as a disinfectant. However, not all bleach products are disinfectants; further, there are multiple types of bleach products on the EPA N-List that come in different strengths, different dilutions, and different dwell times.
3. **List of Disinfectants.** CDC's February 2020 guidance on cleaning and disinfecting cited a list of "emerging," pre-approved disinfectants produced by the American Chemistry Council (ACC). Some states may still have that advice posted for schools and child care facilities. EPA published its N-List the following week in March 2020 and since has expanded the list. The EPA N List is the list to use not the list of the ACC.

Caution: false marketing claims regarding disinfecting products and equipment

[Green Seal's new booklet/guide to safer disinfecting](#) (June 2020) includes a chart of the newer, unproven and heavily marketed processes.



Should You Use These to Disinfect?

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| | | |
|------------------------------------|------------------|--|
| EPA List N Products | YES | Follow label directions for approved application methods and required contact times. |
| Electrostatic Spraying | MORE INFO NEEDED | EPA and CDC are reviewing safety and effectiveness. |
| Ultraviolet, Ozone or Steam | MORE INFO NEEDED | EPA and CDC are reviewing effectiveness. |
| Fogging | NO | Increases hazardous chemical exposure and provides no added benefit. |
| Ultrasonic Waves or LED blue light | NO | There is no data to suggest these are effective against COVID-19. |

> **Antimicrobial manufactured products** - countertops, desks, door handles, etc.

Healthy Building Network reviewed and reaffirmed its 2017 findings that these products are not proven to create healthier environments. None are proven effective against SARS-CoV-2. The two major manufacturers of antimicrobials embedded in products, Microban and Ultrafresh, put specific statements to this effect on their websites for a short while, then took them down. Some of these products, such as antimicrobial paints, can be quite a bit more expensive. All of them carry the risk that people will lower their guard and not stick to the required cleaning regimes that are the best practice recommended by the CDC. See [COVID-19 Statement: Understanding Antimicrobial Ingredients in Building Materials](#).

APPENDIX 7

Indoor Air, Ventilation, and Aerosol Transmission

- **US Government Accountability Office (GAO) K-12 Education:** [School Districts Frequently Identified Multiple Building Systems Needing Updates or Replacement](#)
- **American Society of Heating and Refrigeration Engineers (ASHRAE),** [Position Document on Infectious Aerosols, 2020](#)
- **ASHRAE,** [Statement on airborne transmission of SARS-CoV-2:](#) Transmission of SARS-CoV-2 through the air is sufficiently likely that airborne exposure to the virus should be controlled. Changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures.
- **ASHRAE,** [Statement on operation of heating, ventilating, and air-conditioning systems to reduce SARS-CoV-2 transmission:](#) Ventilation and filtration provided by heating, ventilating, and air-conditioning systems can reduce the airborne concentration of SARS-CoV-2 and thus the risk of transmission through the air. Unconditioned spaces can cause thermal stress to people that may be directly life threatening and that may also lower resistance to infection. In general, disabling of heating, ventilating, and air-conditioning systems is not a recommended measure to reduce the transmission of the virus.
- **2019 ASHRAE,** [Handbook — HVAC Applications - Chapter 9 Health Care Facilities:](#) may be relevant to school-based health care or nursing suites. Recommendations include: presumed infected individuals should be isolated within 5 hours of suspicion; isolation rooms should be delivered 12 air changes per hour (ACH); negative pressure of isolation rooms should be tested daily.
- **ASHRAE Epidemic Task Force,** [Reopening Schools and Universities](#) checklist for reopening schools: Checklist No. 2: Startup Checklist for HVAC Systems Prior to Occupancy |
- Maintain proper indoor air temperature and humidity to maintain human comfort, reduce potential for spread of airborne pathogens and limit potential for mold growth in building structure and finishes (refer to [ASHRAE Standard 55](#), recommended temperature ranges of 68-78 degrees F dry bulb depending on operating condition and other factors, recommend limiting maximum RH to 60%). Consider consulting with a local professional engineer to determine appropriate minimum RH levels based on local climate conditions, type of construction and age of the building under consideration. Recommend minimum RH of 40% if appropriate for building. Consider the addition of humidification equipment only when reviewed by a design professional to verify minimum RH set points will not adversely impact building or occupants by contributing to condensation and possible biological growth

in building envelope. Trend and monitor temperature and humidity levels in each space to the extent possible and within the capability of BAS, portable data loggers and handheld instruments.

- Verify proper separation between outdoor air intakes and exhaust discharge outlets to prevent/limit re-entrainment of potentially contaminated exhaust air (generally minimum of 10-foot separation - comply with local code requirements).
- Consider having airflows and building pressurization measured/balanced by a qualified Testing, Adjusting and Balancing (TAB) service provider.
- Consider having airflows and system capacities reviewed by design professionals to determine if additional ventilation can be provided without adversely impacting equipment performance and building Indoor Environmental Quality (IEQ).
- Measure building pressure relative to the outdoors. Adjust building air flows to prevent negative pressure differential.
- Verify coil velocities and coil and unit discharge air temperatures required to maintain desired indoor conditions and to avoid moisture carry over from cooling coils.
- Review outdoor airflow rates compared to the most current version of [ASHRAE Standard 62.1](#) or current state-adopted code requirements.

Filtration in all mechanical equipment:

- Verify filters are installed correctly.
- Develop standards for frequency of filter replacement and type of filters to be utilized.
- Select filtration levels (MERV ratings) that are maximized for equipment capabilities, use MERV 13 if equipment allows, while assuring the pressure drop is less than the fans capability. See Filtration Upgrades.

If Demand-Controlled Ventilation (DCV) systems using Carbon Dioxide (CO₂) sensors are installed, operate systems to maintain maximum CO₂ concentrations of 800-1,000 Parts Per Million (ppm) in occupied spaces:

- Trend and monitor levels continuously if controls system is capable of doing so (use portable data loggers and handheld instruments and document readings where needed to demonstrate compliance with District or Campus requirements).

- Consider adjusting to maximize outdoor air or disabling operation of DCV if it will not adversely impact operation of overall system (Temporary recommendation while operating under infectious disease crisis).

Perform initial air flush of all spaces prior to occupants re-entering building:

- Mechanical systems should operate in occupied mode for minimum period of one week prior to students returning (may be completed at same time as teachers start returning to building) while assuring the outside air dampers are open.
- [CalOSHA Aerosol Transmissible Disease Standards \(ATD\)](#)

APPENDIX 8

Dampness and Growing Molds in Schools

Resources compiled by Healthy Schools Network

There is no such thing as a mold-free school or building.

“How common is mold in buildings? Molds are very common in buildings and homes. Mold will grow in places with a lot of moisture, such as around leaks in roofs, windows, or pipes, or where there has been flooding. Mold grows well on paper products, cardboard, ceiling tiles, and wood products. Mold can also grow in dust, paints, wallpaper, insulation, drywall, carpet, fabric, and upholstery. The most common indoor molds are *Cladosporium*, *Penicillium*, and *Aspergillus*. We do not have precise information about how often different molds are found in buildings and homes.”

Source: [CDC Basic Facts About Molds](#)

“Molds gradually destroy the things they grow on. By controlling moisture and eliminating mold growth you can: Prevent damage to building materials and furnishings; Save money; Avoid potential health risks.”

Source: [US EPA Mold Remediation](#)

Buildings that have been closed up for days and weeks without any ventilation will likely become damp and moldy. Indoor environments with damp, dank, or earthy odors are moldy. Mold and rot are natural processes of decay; so while people are concerned about trouble breathing or about developing asthma or other health symptoms from growing molds, the molds are expanding by eating or digesting the building and its interior furnishings. See Healthy Schools Network’s guide [Molds at School](#), outlining information on why schools are moldy, the impact mold has on health, basic prevention practices, and ensuring swift cleanups over mold-testing.

If your school (or child care center) was closed due to the pandemic and you notice dank, damp, or earthy odors, consider using the National Institutes of Occupational Safety and Health (NIOSH) guide *Mold and Dampness Assessment Tool* to determine if in-house personnel or an outside contractor should remediate moldy building structures. The NIOSH guide could also be useful in helping schools track dampness from area to area in the facility and in documenting mold growth. [Mold and Dampness in Schools](#) outlines how to use the NIOSH Mold and Dampness Assessment Tool.

The first step in mold remediation is to notice signs of water damage or damp, earthy odors, then search for sources of dampness or high humidity (condensate), leaks, interior or exterior water damage, or water pooled at the foundation or below it and seeping into the building. Get the building aired out and dried out. That includes replacing any interior building materials that are damp or have been flooded and not fully dried out within 24-48 hours.

- See US EPA's [Ten Things You Should Know About Mold](#).
- For human health effects and more, see US EPA's [Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture](#) (2004).
- For guidance on remediation, see US EPA's [Mold Remediation in Schools and Commercial Buildings Guide](#).
- For further guidance on assessment and remediation, see New York City Department of Health and Mental Hygiene - [Guidelines on Assessment and Remediation of Fungi in Indoor Environments](#).



APPENDIX 9

Drinking Water

[US EPA](#): Building and business closures for weeks or months reduce water usage, potentially leading to stagnant water inside building plumbing. This water can become unsafe to drink or otherwise use for domestic or commercial purposes. EPA recommends that building owners and managers take proactive steps to protect public health by minimizing water stagnation during closures and taking action to address building water quality prior to reopening.

EPA guide [Maintaining or Restoring Water Quality in Buildings With Low Use or No Use](#)

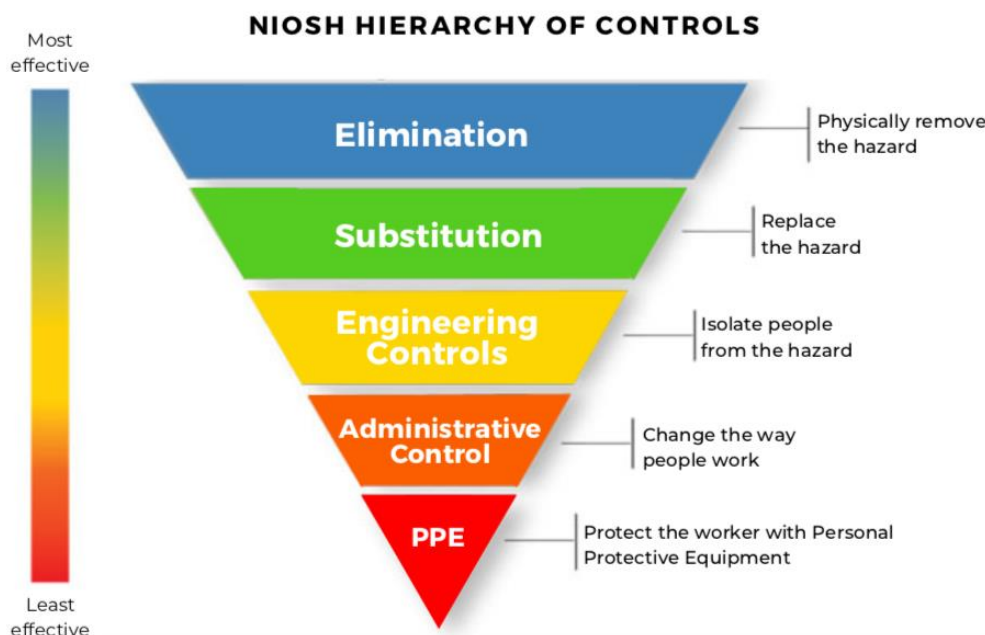
[CDC: Guidance for Reopening Buildings After Prolonged Shutdown](#)

Two potential microbial hazards that should be considered prior to reopening after a period of building inactivity are mold and *Legionella* (the cause of Legionnaires' disease). For mold, a "prolonged period" may be days, weeks, or months depending upon building-specific factors, season, and weather variables. For *Legionella*, a "prolonged period" may be weeks or months depending on plumbing-specific factors, disinfectant residuals, water heater temperature set points, water usage patterns, and preexisting *Legionella* colonization.

[ANSI/ASHRAE Standard 188-2018: Legionellosis: Risk Management for Building Water Systems](#)

APPENDIX 10

National Institutes of Occupational Safety and Health



The National Institute of Occupational Health and Safety hierarchy of controls is a framework for protecting workers and all building occupants from recognized hazards. The risk of infection by SARS-CoV-2 (the virus that causes COVID-19) can be mitigated most effectively by eliminating the presence of infected individuals in the building through stringent security controls. The next most effective means of reducing hazards is typically to replace the hazard, although in the case of infectious disease, this level of control does not apply. An example of using engineering controls would be to maximize the introduction of outdoor air for ventilating the building. Administrative controls could include staffing or scheduling modifications, or clear communications with parents and the community on proper isolation criteria. Finally, personal protective equipment (PPE) can also be made available, although it should be considered that relying on PPE to reduce the risk is a control method of last resort.

APPENDIX 11

Considerations for School Nurses Regarding Care of Students and Staff that Become Ill at School or Arrive Sick

National Association of School Nurses

Excerpt:

- Identify your students most at-risk for the condition as well as if schools close and create a plan to address potential needs.
- Establish procedures to ensure students and staff who become sick at school or arrive at school sick are sent home as soon as possible.
- Create a “When to isolate and send students and staff home” flow chart for unlicensed staff and school administrators to follow if the school nurse is not present 100% of the time in the school.
- Refer parents of high-risk students to their healthcare providers to determine when school re-entry is recommended.
- Send ill staff immediately home with administrative support, and isolate students if caregivers are not present to immediately take them home.
- Train unlicensed assistive personnel on the administration of the flow chart, proper temperature taking procedure, and the use of Personal Protective Equipment (PPE), including eye protection, gowns, gloves, and facemasks.
- N95 masks are recommended for healthcare providers and must be fitted to ensure proper protection. School nurses should work with local public health and or other health organization to meet this requirement.
- If N95 masks are not available due to supply issues, other facemasks may be used. See CDC Strategies for Optimizing PPE.
- Establish a process for immediate handwashing or the use of hand sanitizers prior to school building entry.
- Although hand sanitizer can be used, handwashing is the preferred method if available.
- Additional thermometers, PPE, and hand sanitizer may be available from local health departments from state stockpiles.