



WISCONSIN DEPARTMENT
OF PUBLIC INSTRUCTION

School Nurse UPDATE

FEATURED STORIES

PRACTICE POINTS – Time to Move On

Delegation Module Now Available (p. 2)

Post COVID Conditions in Teens (p. 4)

Epinephrine Auto Injectors (pp. 3 & 9)

Case Management Course Online (p.11)

SAVE THE DATE

New School Nurse Virtual Orientation – October 21-22, 2021. Registration now open:

<https://forms.gle/mBV7oDk3CBM2XVRi8>

Monthly School Nurse Network Meetings - Third Tuesday of each month 3:30-4:30 PM.

DPI supports best practices/evidence-based resources but does not vet or endorse products/services. User is responsible to evaluate the resource and how it meets local needs. Some pictures courtesy of Unsplash.

#2 September 9, 2021

Greetings!

I sincerely hope your school year got off to a “good” start. I was talking with my school nurse girlfriend on September 1, which was the day many Wisconsin schools began classes. I was reminded of the many years I began the school year fighting back tears and with an intense “impending sense of doom.” I do not say this to discourage you, but to acknowledge what you may be experiencing is not unique to you, your situation, or your abilities to juggle all you are required to do as school nurses, particularly at the start of the school year. Deep breathe and hold your head high! You have done, and will continue to do, amazing things to support your students and school communities!

These days there are numerous stories in the media about school nurses. Last year the theme was the school nurse’s hidden role. This year it is about school nurse frustration. I was directed to [this article](#) by CNN entitled *America’s ongoing school nurses shortage turns dire: ‘I don’t know what the school year is going to bring.’* Read it and you will find you are not alone in your back-to-school worries. My favorite school nurse blogger ([The Relentless School Nurse](#)) has been collecting stories from school nurses. I too worry about the physical and mental health of school nurses. Please reach out if you need support.

Part of that support can come from fellow school nurses. A reminder that the first monthly School Nurse Network virtual meeting will be held Tuesday, September 21st at 3:30 PM. The Zoom link was in the #1 Update and a reminder will be emailed a few days prior.

If you have looked closely, my email signature has slightly changed this past week. My credentials now include “LSN” for Licensed School Nurse. I am one of the Wisconsin school nurses who holds a voluntary school nurse license from the Department of Public Instruction. Read about the recent change to the statute under DPI News. I hope to see more school nurses identifying themselves as holding this voluntary license which demonstrates competency and knowledge of the school nurse specialty.

Last week I listened to the recording of a CDC/Infectious Disease Society of America webinar originally held August 29, 2021. I found it to contain excellent information. Access the webinar [here](#).
Louise

DPI News

New Pathway to Obtain Voluntary DPI School Nurse License

On September 1, 2021, the revised language for [Wis. Admin Code PI 34.060](#) went into effect. A Wisconsin Department of Public Instruction (DPI) school nursing license is not required by state law. However, DPI licensure is available under a voluntary basis to school nurses who choose this option to demonstrate competency in the specialty of school nursing. With this change in statute, school nurses licensed by the DPI are titled “Licensed School Nurses” and may use the credentials of “LSN” to indicate this license and title.

There are now two pathways to obtain a DPI school nursing license.

1) Following completion of an approved higher education program in school nursing and upon receiving the institutional endorsement, the school nurse can apply for a school nurse license by submitting an application form and fee to the DPI. 2) A school nurse may submit proof of national certification as a school nurse from the National Board for Certification of School Nurses, application form, and fee to the DPI.

This statute did not alter the legal definition of a “school nurse” in Wisconsin nor the qualifications to be titled or work as a “school nurse” in Wisconsin. A [document](#) explaining school nurse definition, licensure, and certification has been posted to DPI’s School Health Services [Publications and Resources page](#).

Delegation Module Now Available

The DPI posted a new module to the [School Health Services Orientation](#) webpage. The new module is [Delegation in the School Setting](#). This module is appropriate for new school nurses, school administrators wanting to understand how delegation in the school setting occurs and for seasoned school nurses seeking a review of key delegation principles. There is no certificate of completion or professional contact hours available.

Mask Policy Considerations for Students with an IEP

DPI sent an email to school district administrators on September 1, 2021, informing districts of important issues regarding masks in schools and outlining the responsibility to consider the needs of all students, including those with medical conditions that make them susceptible to COVID-19. The link to this email is: <https://dpi.wi.gov/administrators/email/mask-policy-considerations-students-iep>



There are now two pathways to obtain a DPI school nursing license. DPI licensure is available under a voluntary basis to school nurses who choose this option to demonstrate competency in the specialty of school nursing.

DPI News

New Resources Posted - Autoinjector Procedure/Long-COVID Memo/Family Checklist

Updated procedure and skills checklist for emergency epinephrine auto-injectors have been posted to [Medication Administration Training webpage](#). Both now include instructions for the Teva Generic auto-injector. Note the SnackSafely.com video resource under Miscellaneous in this newsletter that provides manufacturer instructive videos. These manufacturer videos are not DPI-approved training but can be used to supplement DPI materials.

Recently posted to the COVID-19 Health Services website under the Department of Education tab.

UNITED STATES DEPARTMENT OF EDUCATION OFFICE FOR CIVIL RIGHTS OFFICE OF SPECIAL EDUCATION AND REHABILITATIVE SERVICES July 26, 2021 Long COVID under Section 504 and the IDEA: A Resource to Support Children, Students, Educators, Schools, Service Providers, and Families

<https://www2.ed.gov/about/offices/list/ocr/docs/ocr-factsheet-504-20210726.pdf>

A new resource for parents/families was posted to the DPI COVID-19 [webpage](#) under Family Communications. This is a check list [Preparing Your Child For the School Year](#) provided by the publication EducationWeek.

Funds Distribution to Support Student Mental Health and Alcohol and Other Drug Abuse Programs

The Wisconsin Department of Public Instruction's Student Services/Prevention and Wellness team recently distributed \$10.9 million to support student mental health and [Alcohol and Other Drug Abuse programs](#) in schools.

"The mental health and wellness of our students and our school staff is paramount," State Superintendent Jill Underly said. "The pandemic exacerbated the existing challenges our schools and communities face when trying to address mental health needs. While these grants do not completely resolve that demand, they do provide help to schools attempting to offer additional support, resources, and services."

For a full news release, and more information on these programs and grant amounts, visit <https://dpi.wi.gov/news/releases/2021/dpi-sspw-mental-health-aoda-grants>,



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DHS News

Respiratory Report

[The Weekly Respiratory Report](#) (detailing influenza data) is available and updated bi-weekly.

BinaxNOW Antigen Tests Kits Extended Expiration Dates

School districts are reminded before discarding any expired or about to expire Abbott BinaxNOW COVID-19 antigen tests to check if the expiration dates were extended.

You may inquire at DHSK12COVIDTESTING@dhs.wisconsin.gov by supplying the 'Lot number'.

There is also information from Abbott at:

https://content.veeabb.com/1d09429b-8373-419f-8f1a-d28f9586863a/678e2269-44b7-4c6d-8fa9-0a55a40f30f7/678e2269-44b7-4c6d-8fa9-0a55a40f30f7_source_v.pdf



AAP's Council on School Health

Updated Interim Guidance on Face Masks, Transportation

The AAP updated interim guidance on face masks says that effective infection prevention and control requires the correct and consistent use of a well-fitting face mask for those over age 2. The updated transportation guidance during COVID-19 notes that if there has been a sick person or someone who tested positive for COVID-19 in your facility or vehicle within the last 24 hours, you should clean and disinfect the space.

- Interim Guidance: [Face Masks](#)
- Interim Guidance: [COVID-19 and Safe Transportation in Motor Vehicles](#)
- HealthyChildren.org: [Mask Myth Busters: Common Questions About Kids & Face Masks](#)

Post-COVID Conditions in Children and Teens ([Spanish here](#))

Millions of U.S. children and teens have tested positive for SARS-CoV-2, the virus that causes COVID-19. Fortunately, they have been less likely than adults so far to become very ill. However, even if they had few or no symptoms, kids can develop a number of other conditions after the COVID infection. This [new article](#) on HealthyChildren.org, based on AAP interim guidance, advises parents to contact their pediatrician if their child tests positive for COVID-19, ask about lingering or new symptoms to watch for, and what to do if they notice any.

Also see this related piece, also published in July: [Long-Haul COVID-19 in Children and Teens](#) ([Spanish here](#)) by Peter Rowe, MD, FAAP

Transportation guidance during COVID-19 notes that if there has been a sick person or someone who tested positive for COVID-19 in your facility or vehicle within the last 24 hours, you should clean and disinfect the space.

CDC

What is School Doing to Protect Your Child from COVID-19?

The CDC published a set of questions for the public that parents can ask their child's school to learn more about their COVID-19 precautions. The ["What Is Your School Doing to Protect Your Child from COVID-19?"](#) web page has answers to Frequently Asked Questions (FAQs) CDC is hearing from parents and caregivers.

CDC Reports Rapid Increase in Ivermectin Prescriptions and Reports of Severe Illness Associated with Use of Products Containing Ivermectin to Prevent or Treat COVID-19

Ivermectin is a U.S. Food and Drug Administration (FDA)-approved prescription medication used to treat certain infections caused by internal and external parasites. When used as prescribed for approved indications, it is generally safe and well tolerated.

During the COVID-19 pandemic, ivermectin dispensing by retail pharmacies has increased, as has use of veterinary formulations available over the counter but not intended for human use. FDA has cautioned about the potential risks of use for prevention or treatment of COVID-19.

Ivermectin is not authorized or approved by FDA for prevention or treatment of COVID-19. The National Institutes of Health's (NIH) COVID-19 Treatment Guidelines Panel has also determined that there are currently insufficient data to recommend ivermectin for treatment of COVID-19. [ClinicalTrials.gov](https://clinicaltrials.gov) has listings of ongoing clinical trials that might provide more information about these hypothesized uses in the future.

Adverse effects associated with ivermectin misuse and overdose are increasing, as shown by a rise in calls to poison control centers reporting overdoses and more people experiencing adverse effects.

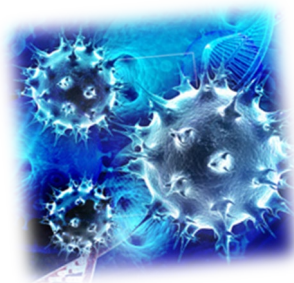
Read the [Official CDC Health Advisory](#).

Medscape Nurses

Large Study Affirms What We Already Know: Masks Work to Prevent COVID-19

A large, real-world test of face masks in Bangladesh shows that masks work to reduce community spread of COVID-19. It also shows that surgical masks are more effective than cloth face coverings.

The [study](#), which was published ahead of peer review, demonstrates the power of careful investigation and offers a host of lessons about mask wearing that will be important worldwide. [Read more](#).



Ivermectin is not authorized or approved by FDA for prevention or treatment of COVID-19.

MMWR

COVID-19 Case Rates in Transitional Kindergarten Through Grade 12 Schools and in the Community – Los Angeles County, California, September 2020–March 2021

Weekly / September 3, 2021 / 70(35);1220–1222

Sherry Yin, MPH; Kaitlin Barnes, MBA; Rebecca Fisher, MPH¹; Dawn Terashita, MD; Andrea A. Kim, PhD

The findings suggest that implementing recommended prevention measures might protect children, adolescents, and adults from COVID-19 in TK–12 schools. The level of protection appears to be higher in children and adolescents than in adults, which is promising for children aged <12 years because no COVID-19 vaccine is currently authorized for this age group. In schools with safety protocols in place for prevention and containment, case rates in children and adolescents were 3.4 times lower during the winter peak compared with rates in the community. This analysis reflects transmission patterns before the more transmissible SARS-CoV-2 B.1.617.2 (Delta) variant became predominant in the United States. A multipronged prevention strategy, including masking, physical distancing, testing, and most recently vaccination of children and adolescents aged ≥12 years, will remain critical to reducing transmission as more students return to the classroom (5). These findings from a large and diverse county present preliminary evidence that schools provided a relatively safe environment during the 2020–21 school year. [Read article.](#)

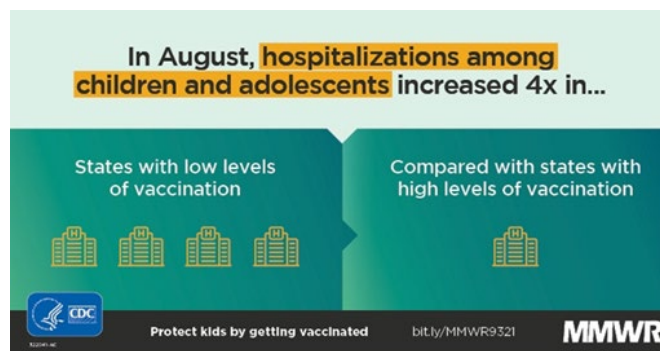
Trends in COVID-19 Cases, Emergency Department Visits, and Hospital Admissions Among Children and Adolescents Aged 0–17 Years – United States, August 2020–August 2021

What is added by this report?

COVID-19 cases, emergency department visits, and hospital admissions increased from June to August 2021 among persons aged 0–17 years. Emergency department visits and hospital admissions in a two-week period in August 2021 were higher in states with lower population vaccination coverage and lower in states with higher vaccination coverage.

What are the implications for public health?

Community vaccination, in coordination with testing strategies and other prevention measures, is critical to protecting pediatric populations from SARS-CoV-2 infection and severe COVID-19. [Read article.](#)



MMWR

Outbreak Associated with SARS-CoV-2 B.1.617.2 (Delta) Variant in an Elementary School – Marin County, California, May–June 2021

Weekly / September 3, 2021 / 70(35);1214–1219

Tracy Lam-Hine, MBA¹; Stephen A. McCurdy, MD; Lisa Santora, MD; Lael Duncan, MD; Russell Corbett-Detig, PhD⁴; Beatrix Kapusinszky, PhD⁵; Matthew Willis, MD

What is added by this report?

During May 23–June 12, 2021, 26 laboratory-confirmed COVID-19 cases occurred among Marin County, California, elementary school students and their contacts following exposure to an unvaccinated infected teacher. The attack rate in one affected classroom was 50 percent; risk correlated with seating proximity to the teacher. [Read article.](#)



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Epidemiologically Linked COVID-19 Outbreaks at a Youth Camp and Men's Conference – Illinois, June–July 2021

Early Release / August 31, 2021 / 70

James Matthias, MPH¹; Sarah Patrick, PhD²; Ann Wiringa, PhD²; Amanda Pullman, MPH, MT¹; Stephanie Hinton, MS, MHS¹; Jon Campos³; Terri Belville⁴; Mallory Sinner, MPH²; Torrie T. Buchanan, PhD⁵; Bryan Sim⁵; Kristin E. Goldesberry, MPH

This investigation underscores the impact of secondary SARS-CoV-2 transmission during large events such as camps and conferences when COVID-19 prevention strategies, including vaccination, masking, physical distancing, and screening testing, are not implemented. [Read study.](#)

MMWR

Hospitalizations Associated with COVID-19 Among Children and Adolescents – COVID-NET, 14 States, March 1, 2020–August 14, 2021

What is added by this report?

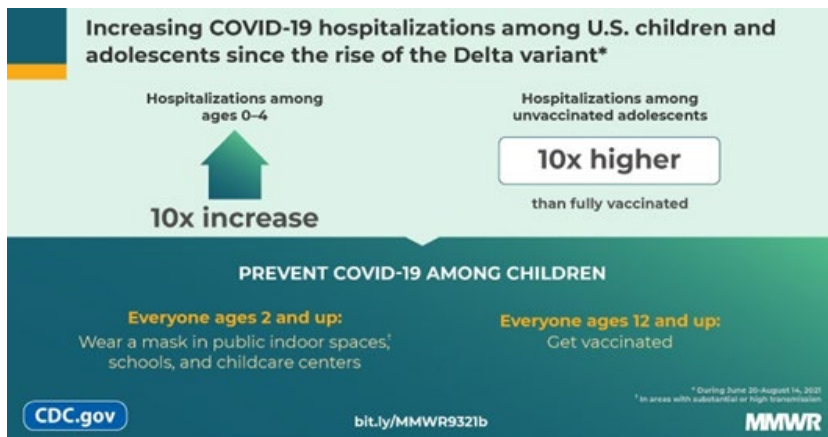
Weekly COVID-19–associated hospitalization rates among children and adolescents rose nearly five-fold during late June–mid-August 2021, coinciding with increased circulation of the highly transmissible SARS-CoV-2 Delta variant. The proportions of hospitalized children and adolescents with severe disease were similar before and during the period of Delta predominance. Hospitalization rates were 10 times higher among unvaccinated than among fully vaccinated adolescents.

What are the implications for public health practice?

Preventive measures to reduce transmission and severe outcomes in children and adolescents are critical, including vaccination, universal masking in schools, and masking by persons aged ≥ 2 years in other indoor public spaces and child care centers. [Read article.](#)



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Miscellaneous

School Nursing During a Pandemic

by Nicole Fauteux

AJN, American Journal of Nursing: August 2021 - Volume 121 - Issue 8 - p 17-19

doi: 10.1097/01.NAJ.0000767776.98974.e7

https://journals.lww.com/ajnonline/Fulltext/2021/08000/School_Nursing_During_a_Pandemic.12.aspx

'It's impossible': Lack of Covid safeguards overwhelm school nurses- NBC News Story August 22, 2021 by Phil McCausland

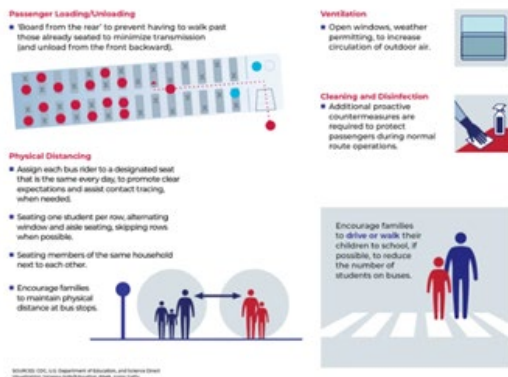
[Read story.](#)

Know Your Epinephrine Auto-Injector Options and How to Use Your Device

<https://snacksafely.com/2018/08/epipen-generic-impax-auto-injector-sorting-through-the-lingo/>

An epinephrine auto-injector automatically delivers a dose of epinephrine when applied as directed and is administered in an emergency when anaphylaxis is suspected. It combines the functions of inserting the needle and delivering the epinephrine in a single step.

EducationWeek® published “A Visual Guide to COVID-Proofing Your School” that districts may find helpful. Read the article [here](#).



It's important to know the proper name for the device that delivers emergency epinephrine in case of a reaction. Many people – including the press – often call this an EpiPen, but “EpiPen” is the brand name of an epinephrine auto-injector. It's like calling a cotton swab Q-Tip or a lip balm Chapstick.

Misc. Continued

WI EMSC Launches Children and Youth with Special Health Care Needs Project

With the school year inching closer, the health and safety of all students is a top priority. To help make sure that children are properly cared for in the case of an emergency, Wisconsin Emergency Medical Services for Children (WI EMSC) launched a project with EMS agencies and schools throughout Wisconsin.

The pilot helps bridge any gaps between the two organizations and improves the ability of first responders to respond to children with complex medical needs during emergency situations. To do this, participating schools utilize an information form and reach out to families who would then volunteer to be part of this pilot. After that, schools work with their respective EMS agencies in their community to share the information.

The program benefits school medical staff and EMS personnel to obtain important information that is critical to a child's medical needs regardless of whether an emergency situation arises at school, home or elsewhere. Ultimately, the pilot poses the largest benefit for the child that is being cared for.

So far, Clayton, Turtle Lake, and Clear Lake School Districts and Clear Lake EMS and FitchRona EMS have begun efforts to implement the program in their communities. If your school is interested in participating, please contact Brittany Farrell (bfarrell@chw.org).

Support for PANS/PANDAS Students

Returning to school for PANS/PANDAS families often includes conversations regarding their child's illness, discussing accommodations, and creating a mental readiness for sending the child back into the school environment. The PANDAS Physicians Network has school-related resources on its [website](#).



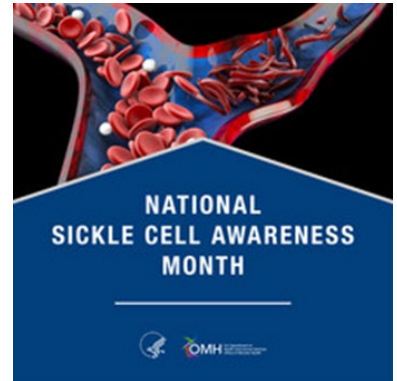
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Office of Minority Health

Learn About Sickle Cell Disease at the OMH Website

September is **National Sickle Cell Awareness Month**. Sickle Cell Disease is a genetic condition that affects the body's red blood cells. It occurs when a child receives two sickle cell genes—one from each parent. In someone living with this disease, the red blood cells become hard and sticky and look like a C-shaped farm tool called a “sickle”.

[Visit this microsite](#) to access social media and outreach resources, a bibliography, recorded webinars, [Sickle Cell Disease Stories](#) from patients, and other resources. [Learn more.](#)



NASN NEWS

Grief Support

School nurses provide grief support in schools through their empathetic presence and active listening to students and adults. Students coming to school this year who have experienced the death of family members and friends during the continuing COVID-19 pandemic will benefit from support. The Coalition to Support Grieving Students wrote [Back to School 2021: Grieving Students, Transitions and COVID-19](#) for school staff.

School Nurses Play a Role in Knowledge About Childhood Obesity

September is National Childhood Obesity Month, and school nurses can play a major role in educating families about the dangers of obesity. The CDC [offers a number of tools and resources](#) you can use to help families in your schools.

School nurses have the knowledge, expertise, and skills to promote the prevention and reduction of overweight and obesity among children and adolescents in schools. Grounded by standards of practice within the *Framework for 21st Century School Nursing Practice™*, school nurses can identify, assess, refer, and follow-up with children and adolescents who are at risk for health problems associated with overweight or obesity. [Read the full NASN position statement on childhood obesity.](#) [See NASN's page on childhood obesity](#) for more resources.

Evidence-Based Practice Manual on Case Management Now Online

At its core, school nurse-led case management (SNLCM) involves the highest form of application of the nursing process. While the focus is on students with chronic health conditions, SNLCM can also be applied to various social, mental, and acute health concerns of individual students or the student population as a whole. *A Model for School Nurse-Led Case Management*, developed in response to requests from the field, is now online. [Learn more.](#)

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PRACTICE POINTS

By Louise Wilson



Time to Move On

Our DPI State Superintendent, Dr. Jill Underly, recently visited several schools on opening day. Dr. Underly, in her weekly email to DPI staff, stated that zero students mentioned wearing masks when asked what they were worried about for the start of school. She said “kids are worried about their friends not being in school or not seeing their friends because of quarantine. They are worried about their sports season being cut short or canceled.”

She noted that the students have moved on from the debate about masks and that it is time adults do too.

DPI has provided strong recommendations to create a safe learning environment. As noted in this newsletter, DPI sent an email to school district administrators outlining the responsibility to consider the needs of all students. The email references both the Individuals with Disabilities Education Act and Title II of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. One type of law focuses on the content of the education itself and provides the supports and adaptations to ensure students are learning. Another makes sure the education is safe and accessible to students, including the school building itself.

I hope your school year is not consumed by never ending debates about following the mitigation measures that will keep all our children in school, learning in a safe environment. As Dr. Underly stated in a recent interview, “it’s time to move on.”

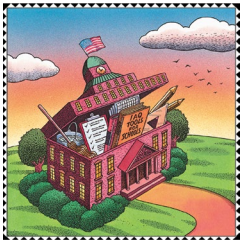
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This publication is available from:
Learning and Support
Student Services Prevention and Wellness Team
(608) 266-8857
<https://dpi.wi.gov/sspw/pupil-services/school-nurse>
September 2021 Wisconsin Department of Public Instruction

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Creating a Game Plan for Indoor Air Quality and Ventilation Improvements for COVID-19 and Long-Term Healthy School Indoor Environments

Ensuring that school buildings have adequate ventilation and filtration is one of the [Centers for Disease Control and Prevention’s \(CDC\) recommended strategies to prevent the risk of transmission of SARS-CoV-2](#) and also is critical to providing [healthy indoor air quality \(IAQ\) in schools](#) now and into the future.

New Federal K–12 Funding for IAQ Ventilation Improvements: The [American Rescue Plan](#) provides funding for K–12 schools to maintain healthy facilities and improve ventilation as one of the strategies to reduce the transmission of SARS-CoV-2 in schools. The funds can be used for the following tasks: inspection, testing, maintenance, repair, replacement and upgrade projects to improve IAQ in school facilities, including mechanical and non-mechanical heating, ventilation and air conditioning (HVAC) systems; filtering, purification and other air cleaning methods, fans and control systems; and window and door repair and replacement. To see additional examples of qualified spending, refer to the U.S. Green Building Council’s (USGBC) [Five Guiding Principles: How Schools Can Use American Rescue Plan Funding to Ensure Healthy, Resilient Facilities for Students and Reduce Energy Costs and Emissions](#).

Implementing IAQ Risk Reduction Strategies for COVID-19 Transmission in Schools as Part of an IAQ Management Program

Strategies that improve IAQ in schools should be implemented as part of a [layered risk reduction](#) approach to reduce the transmission of COVID-19 in schools. Improving IAQ in the classroom through control strategies—ventilation, filtration, supplemental air cleaning—will not only reduce the transmission of SARS-CoV-2 but also reduce pollutants in the air.

To ensure continuous healthy IAQ in the long term, implement the IAQ and ventilation improvements as part of a comprehensive [IAQ management program](#), which includes ongoing monitoring and preventive maintenance.

[EPA’s Framework for Effective School IAQ Management](#)

can be used to build and sustain a successful IAQ management program aligned with the *IAQ Tools for Schools* Action Kit and Technical Solutions, as well as to implement IAQ improvements, such as those recommended to reduce the transmission of COVID-19.

Review the [CDC’s K–12 Schools COVID-19 Mitigation Toolkit](#) and [Ventilation in Schools and Childcare Programs](#) to become familiar with the COVID-19 [layered risk reduction](#) strategies related to IAQ, ventilation and filtration. Implementing these mitigation strategies as part of a comprehensive [IAQ management and preventive maintenance program](#) will help you to make the case for IAQ improvements, ensure sustainability of the IAQ improvements, and maximize your return on investment.



Figure 1. [EPA’s Framework for Effective IAQ Management](#)

Prioritization of Engineering Controls to Reduce Long-Range Airborne Transmission

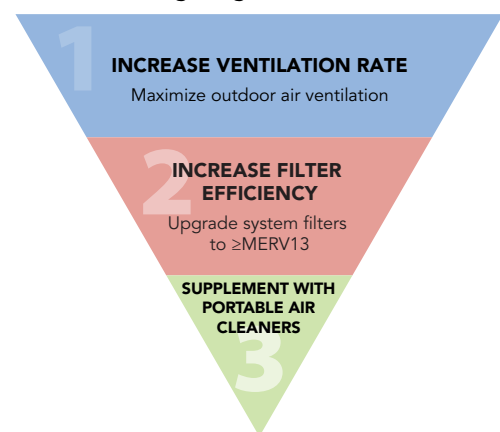


Figure 2. Source: Jones et al., 2020. [Schools for Health: Risk Reduction Strategies for Reopening Schools](#). Harvard Healthy Buildings Program.

What steps should we take to improve our IAQ and reduce transmission of SARS-CoV-2?

<h2>IAQ and Ventilation COVID-19 Mitigation Recommendations</h2> <p>Source: CDC's K-12 Schools COVID-19 Mitigation Toolkit and Ventilation in Schools and Childcare Programs</p>	<h2>Resources</h2>
<p>1. Increase outdoor air ventilation.</p> <ul style="list-style-type: none">• Conduct an HVAC assessment to evaluate the condition of the existing HVAC system components and/or unit ventilation equipment, in accordance with minimum inspection standards of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)/Air Conditioning Contractors of America (ACCA) Standard 180, ASHRAE handbooks, or other equivalent standards and guidelines. During the assessment, note which buildings would benefit from ventilation system upgrades and itemize those upgrades to potentially use in future funding requests.• Ensure there is a scheduled inspection and maintenance program for HVAC systems to allow repair, modification or replacement of equipment, in accordance with ASHRAE/ACCA Standard 180.• Keep unit ventilators clear of books, papers and other items.• Bring in more fresh outdoor air through assessing and servicing your ventilation systems so that they provide acceptable IAQ as defined by ASHRAE 62.1.• Consider other means of bringing in outdoor air, such as opening windows, when HVAC adjustments are not possible or do not bring in enough outdoor air. <p>2. Filter indoor air.</p> <ul style="list-style-type: none">• Increase filter efficiencies in existing HVAC systems (use the highest Minimum Efficiency Reporting Value [MERV] rating possible per equipment specifications). If possible, increase the level of the air filter to MERV-13 or higher on recirculated air.• Make sure the filters are sized, installed and replaced according to the manufacturer's instructions. <p>3. Supplement with portable air cleaners, if needed.</p> <ul style="list-style-type: none">• Consider portable high-efficiency particulate air (HEPA) fan/filtration systems to supplement air cleaning as needed.	<ul style="list-style-type: none">• IAQ Preventive Maintenance Checklist (EPA)• IAQ Walkthrough and Ventilation Checklists (EPA)• Guide to Air Cleaners in the Home: 2nd Edition, Portable Air Cleaners, Furnace and HVAC Filters (EPA)• ASHRAE Standard 62.1-2019¹• ASHRAE Epidemic Task Force: Reopening Guide for Schools and Universities• 5 Step Guide to Checking Ventilation Rates in Classrooms (Harvard)• Maximum CO₂ Concentration Calculator (Harvard)• Portable Air Cleaner Purification Calculator (Harvard)

What strategies should we use to build an effective IAQ management program that also will help us implement ventilation, filtration and air purification improvements?

<h2>Key Drivers and Strategies</h2>	<h2>Resources</h2>
<p>Organize for Success</p> <ul style="list-style-type: none">• Build an effective team, which could include facility staff, administrators, engineers, construction staff, health officials/nurses, teachers, parents and others.• Develop a systematic approach to your IAQ management and preventive maintenance program by assessing your strengths and weaknesses and incorporating IAQ Tools for Schools guidance to address gaps, such as developing formal schedules for HVAC filter replacements, walkthroughs and other maintenance activities to take the guesswork out of preventive action.	<ul style="list-style-type: none">• IAQ Preventive Maintenance Guidance—Staffing and Communication (EPA)• Five Guiding Principles: How Schools Can Use American Rescue Plan Funding to Ensure Healthy, Resilient Facilities for Students and Reduce Energy Costs and Emissions (USGBC)• Administrative Staff Checklist and Backgrounder (EPA)

¹ ANSI/ASHRAE Standard 62.1 and Standard 62.2 on ventilation and IAQ offer detailed information on ventilation system design and acceptable IAQ. These standards were expanded and revised for 2019, and both standards specify minimum ventilation rates and other measures to minimize adverse health effects indoors.

Key Drivers and Strategies	Resources
<p>Communicate with Everyone, All the Time</p> <ul style="list-style-type: none"> • Make IAQ meaningful. Make the case for IAQ management or IAQ improvements by crafting a pitch or value proposition of the benefits of IAQ improvements to gain buy-in. • Communicate results and return on investment. When communicating about your program, consider these messages: (1) IAQ management can address the causes of poor IAQ and also minimize viruses and pollutants in the air children and staff breathe in schools and (2) integrating IAQ management, preventive maintenance and energy efficiency helps reduce costs and ensure healthy, efficient learning environments and smooth building operations. 	<ul style="list-style-type: none"> • IAQ Preventive Maintenance Guidance—Making the Case (EPA) • IAQ & Preventive Maintenance Value Proposition Worksheet (EPA)
<p>Assess Your Environments Continuously</p> <ul style="list-style-type: none"> • Determine a baseline. Conduct field verification and assessments of all schools' HVAC equipment and proposed design upgrades to (1) achieve increased ventilation, (2) achieve increased filtration, and (3) maintain and monitor improvements. To conduct the initial assessments, consider engaging such professionals as an ASHRAE professional engineer to perform testing, determine ventilation rates, assess HVAC during actual conditions, etc.² • Walk the grounds. Develop an approach for regular HVAC assessments and building walkthroughs. • Identify and prevent risks. Compile a list of campuses at risk for IAQ issues—due to building age, environmental conditions and other factors—and then work with the multidisciplinary team to review conditions and develop solutions to manage and solve each issue. <p>“We’re a low-cost, no-cost program, which means communication is our most important prevention tool. We tell our staff, ‘We love little problems!’ because we hate big problems. Creating that awareness, participation and two-way communication is absolutely critical to our success.”</p> <p>–Sean Joyce, Industrial Hygienist, Baltimore County Public Schools³</p>	<ul style="list-style-type: none"> • K–12 Schools COVID-19 Mitigation Toolkit (CDC) • Ventilation in Schools and Childcare Programs (CDC) • IAQ Preventive Maintenance Checklist (EPA) • IAQ Walkthrough and Ventilation Checklists (EPA) • Standards for Ventilation and Indoor Air Quality (ASHRAE) • ASHRAE Epidemic Task Force: Reopening Guide for Schools and Universities • 5 Step Guide to Checking Ventilation Rates in Classrooms (Harvard) • Maximum CO₂ Concentration Calculator (Harvard) • Guide to Air Cleaners in the Home: 2nd Edition, Portable Air Cleaners, Furnace and HVAC Filters (EPA) • Portable Air Cleaner Purification Calculator (Harvard)
<p>Plan Your Short- and Long-Term Activities</p> <ul style="list-style-type: none"> • Prioritize actions. After your assessment, incorporate any additional IAQ and COVID-19 mitigation strategies and actions you have identified into your IAQ Preventive Maintenance Checklist (EPA) and into your IAQ Preventive Maintenance Plan (EPA Template). • Put goals in writing. If ventilation system upgrades are required, develop a clearly outlined proposal with prioritization of improvements and pricing. The proposal should include building-specific plans, ventilation targets, risk mitigation goals, design scopes, etc.² 	<ul style="list-style-type: none"> • IAQ Preventive Maintenance Checklist (EPA) • IAQ Preventive Maintenance Plan (EPA Template) • Roadmap for K–12 Education: Seven Strategies for Promoting Air Quality (Perkins & Will)

² [Ventilation and Virus Mitigation in Schools—Creating a Game Plan to Reduce COVID-19 Risk and Make Lasting Improvements to IAQ](#). EPA webinar held on 2/25/2021.

³ Baltimore County: [Envisioning Excellence: Lessons from Effective School Indoor Air Quality Programs—A Snapshot of Profiles in Excellence \(EPA\)](#)

Key Drivers and Strategies

Resources

Act to Address Structural, Institutional and Behavioral Issues

- **Train occupants to address IAQ risks.** Use training to foster a culture of stewardship and create IAQ champions across the organization. Train all facilities staff members to prevent and identify [root causes of IAQ problems](#). Also, if new technology has been added to your schools, [develop a training](#) session to help your staff understand how to use it.
- **Educate staff about IAQ to change behavior.** Educate staff by using no-cost, on-demand webinars from EPA, such as [Ventilation and Virus Mitigation in Schools—Creating a Game Plan to Reduce COVID-19 Risk and Make Lasting Improvements to IAQ](#). For example, sharing with teachers the importance of ventilation to improve IAQ and reduce the transmission of COVID-19 will help them keep unit ventilators clear of books, papers and other items.

- [Creating Healthy Indoor Air Quality in Schools—COVID-19 Webinar Series \(EPA\)](#)
- [DC Public Schools New Air Filter Training Video](#)

Evaluate Your Results for Continuous Improvement

- **Measure, assess and track program implementation.** Use tracking sheets or tables to record collected data and develop metrics to allow you to [evaluate your program's progress and impact](#).
- **Solicit feedback.** Collect information about the facility IAQ from school staff using the [Collection of IAQ Checklists](#).
- **Determine the most effective strategies for continuous improvement.** Capturing return on investment by monitoring metrics—such as the number of IAQ complaints, the cost of IAQ-related repairs, and changes in school nurse visits, attendance rates and test scores over time—can help you assess the success of your work and better understand how you can refine your plan as needed. In addition, [IAQ sensors](#) are a newer technology that can be integrated into a building management system to help continuously monitor certain IAQ metrics. For COVID-19 risk reduction, in particular, use such tools as [FaTIMA from the National Institute of Standards and Technology \(NIST\)](#) and [COVID-19 Risk Estimator](#) to determine which control measures to put in place and their effectiveness in reducing risk.

- [IAQ Preventive Maintenance Guidance—Evaluation \(EPA\)](#)
- [IAQ Walkthrough and Ventilation Checklists \(EPA\)](#)
- [FaTIMA Model to determine the indoor air fate of microbiological aerosols \(NIST\)](#)
- [COVID-19 Risk Estimator \(Setty\)](#)

Actions We Will Take in Our School/School District to Implement IAQ Improvements and COVID-19 Risk Reduction Strategies

	Ventilation	Filtration	Supplemental Air Purification	Layered Risk Reduction
ORGANIZE				
COMMUNICATE				
ASSESS				
PLAN				
ACT				
EVALUATE				



The ABCs of COVID-19 Within Schools

Prepared by the ABC Science Collaborative

Help keep students, teachers, and local communities safe by identifying and responding to COVID-19 trends within schools.

WHO ARE WE?

We are pediatricians and pediatric specialists, experts in public health and epidemiology, and researchers from academic health centers across the U.S. We have dedicated our careers to learning about and caring for children and are deeply committed to their health and wellbeing. We firmly believe schools are among our strongest and most important partners in children's health and have been privileged to work side-by-side our school colleagues over the course of the pandemic in the face of uncertainty and difficult decisions.

The [ABC Science Collaborative](#) is coordinated by the Duke Clinical Research Institute at the Duke University School of Medicine and is funded through grants from the National Center for Advancing Translational Sciences, the National Institutes of Health, and the U.S. Food and Drug Administration.

Why Do We Think the ABCs of COVID-19 Within Schools Initiative is Important?

As schools across the country make different decisions about policies and mitigating measures, collecting data from as many schools across the country as possible will give us the best opportunity to deepen our understanding of what policies are most effective and what types of circumstances are important as we travel through this next school year. This type of data will help inform local and national guidance, better delineate on- and off-ramps for various mitigation measures, and provide schools with additional tools to make well-informed, real-time policy decisions.

What are the Benefits for Participating Schools?

In addition to making a meaningful contribution to the collective understanding of COVID-19 and schools, participating districts will be provided tools and reports that will help identify trends in your district's data and learn how your data compares to that of other districts in the country or your region.

ABC National Partner Institutions Include:

Case Western Reserve
Children's Mercy Kansas City
Duke University
Emory University
Harvard Medical School
Johns Hopkins University
Oregon Health and Science University
University of California, Irvine
University of California, Los Angeles
University of Louisville
University of Miami
University of Michigan
University of Mississippi
University of Nebraska
University of North Carolina
University of Oklahoma
University of Rochester
University of Utah
University of Wisconsin School of Medicine and Public Health
Washington University/St. Louis

What Are We Asking Schools to Report and How Often?

We have streamlined an automated online data collection system to capture the most important elements in an ongoing way.

Once: Number of students and staff, policies related to masking, quarantine, close contacts, and lunch

Weekly: Primary and secondary cases, sports-associated secondary cases, lunch-associated cases, quarantines, approximate percent mask compliance (for both students and staff; with the option to report by school or grouped for all elementary, all middle, and all high school)

Monthly: Number of students and staff absences (for any reason) in the prior month

As needed: Dates of changes to policies