



Daniel A. Domenech
Executive Director
The School Superintendents Association
1615 Duke Street
Alexandria, VA 22314

August 10, 2021

Dear Dr. Domenech,

On behalf of the Asthma and Allergy Foundation of America (AAFA), the leading patient organization advocating for people with asthma and allergies and the oldest asthma and allergy patient organization in the world, I am writing to urge school superintendents to take two key steps to improve school safety. First, school districts should use American Rescue Plan Act (ARPA) funds to improve indoor air quality in schools, including the use of proven technologies for this purpose. Second, schools should implement recent guidance from the Centers for Disease Control and Prevention (CDC) recommending universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status. As detailed below, these steps, combined with other COVID-19 safety approaches, will help promote the health and safety of all children as we enter another challenging school year.

The Importance of Indoor Air Quality in Schools

Since children spend much of their time in the school environment, school indoor air quality can significantly influence their respiratory health. According to the Environmental Protection Agency (EPA), approximately 53 million children and 6 million adults in the United States spend a large portion of their days in schools.¹ Research links key environmental factors to health outcomes and students' ability to perform. Improvements in school environmental quality can enhance academic performance, as well as teacher and staff productivity and retention.

Poor indoor air quality is a particular health concern for those with asthma and allergies because indoor triggers increase the risks of severe asthma attacks and allergic reactions.² Nearly 1 in 13 school-aged children have asthma, which is the leading cause of school absenteeism due to chronic illness. There is substantial evidence that indoor environmental exposure to allergens (such as dust mites, pests, and molds) plays a significant role in triggering asthma symptoms, and

¹ Environmental Protection Agency. Indoor Air: Improve Indoor Air Quality in Schools. http://www.epa.gov/airquality/community/details/i-schools_addl_info.html

² Environmental Protection Agency. Questions about your Community: Indoor Air. <http://www.epa.gov/region1/communities/indoorair.html>



these allergens are common in schools.³ Other factors that contribute to poor indoor air quality in schools include:

- **Poor Ventilation & HVAC Systems** - Inadequate ventilation results in unhealthy levels of harmful airborne particulates, volatile organic compound emissions, and carbon dioxide levels. Inadequate ventilation also leads to increased mold and bacteria growth.
- **Aging Buildings** – Many school buildings have not been updated for decades. As a result, many schools have problems with leaks, water damage and excessive moisture – which lead to mold and other airborne allergens, such as dust mites and cockroaches, that contribute to poor indoor air quality.
- **Schools Located Near Sources of Pollution** – Schools that are located in urban areas or near busy trafficways face significant fumes from exhaust and gases like carbon monoxide and ozone.

Indoor Air Quality

Fortunately, the American Rescue Plan Act includes funds that can be used to improve indoor air quality in schools. ARPA provides a total of nearly \$122 billion to State educational agencies (SEAs) and local educational agencies (LEAs) to help schools return safely to in-person instruction, maximize in-person instructional time, sustain the safe operation of schools, and address the academic, social, emotional, and mental health impacts of the COVID-19 pandemic on students. Maintaining healthy facilities and improving ventilation are permitted uses of ARPA funds. Because of the crucial importance of healthy school air not only for COVID-19 but also for the millions of American children with asthma, we urge AASA to encourage your members to invest ARPA funds to improve indoor air quality in their schools.

The Department of Education recently released information, “Improving Ventilation in Schools, Colleges, and Universities to Prevent COVID-19.”⁴ The information outlines ways in which education funds from ARPA may be used to improve indoor air quality for in-person instruction, including through:

- Inspection, testing, and maintenance of current ventilation systems and approaches
- Purchasing appropriately sized portable air filtration units, such as air cleaners with HEPA air filters
- Purchasing MERV-13 (or higher) filters for your HVAC system and ACs
- Purchasing fans to improve air flow and ventilation

³ Environmental Protection Agency, About IAQ Schools. <https://www.epa.gov/iaq-schools/about-iaq-schools>

⁴ U.S. Department of Education, “Improving Ventilation in Schools, Colleges, and Universities to Prevent COVID-19.” <https://www.ed.gov/coronavirus/improving-ventilation>



- Repairing windows and/or doors so that they can open to let fresh air in
- Servicing or upgrading HVAC systems consistent with industry standards
- Purchasing equipment such as portable tables and chairs to hold outdoor classes
- Purchasing carbon dioxide (CO₂) monitors, air flow capture hoods, and anemometers for custodians and building personnel to assess ventilation
- Paying for increased heating/cooling costs due to increased use of heating/cooling systems
- Other spending that supports inspection, testing, maintenance, repair, replacement, and upgrade projects to improve the indoor air quality in school facilities, including mechanical and non-mechanical heating, ventilation, and air conditioning systems, filtering, purification and other air cleaning, fans, control systems, and window and door repair.

The Department of Education information also outlines a variety of strategies for improving ventilation. AAFA urges all superintendents to consider the Department’s guidance carefully and to make evidence-based investments in their facilities’ air quality.

Use of Proven Technologies to Improve Indoor Air Quality

AAFA is increasingly concerned about the use of unproven technologies to address poor indoor air quality in schools. In April, a Lancet COVID-19 commission task force called various air-cleaning technologies — ionization, plasma and dry hydrogen peroxide — “often unproven” with a potential to create “harmful secondary pollutants.”⁵ According to a recent report by the Center for Green Schools, schools have been “bombarded with persistent salespersons peddling the latest air and cleaning technologies, including those with minimal evidence to-date supporting safety and efficacy.”⁶ Funds intended to improve the safety of children returning to school should not be diverted to technologies that may harm children’s health.

The proven measures that should be taken to address airborne transmission risk include properly sized and maintained ventilation (mechanical and natural), mechanical filtration (including portable air cleaners with HEPA filtration), and germicidal ultraviolet light systems,⁷ all of which are consistent with the Department of Education’s permitted uses of ARPA funds. AAFA urges all school superintendents to reject unproven technologies being marketed to improve indoor air

⁵The Lancet COVID-19 commission task force on safe work, safe school, and safe travel. “Designing infectious disease resilience into school buildings through improvements to ventilation and air cleaning.” (April 2021). <https://static1.squarespace.com/static/5ef3652ab722df11fcb2ba5d/t/60a3d1251fcec67243e91119/1621348646314/Safe+Work+TF+Designing+infectious+disease+resilience+April+2021.pdf>

⁶ The Center for Green Schools, “Report shows how schools improved air quality during the pandemic.” (April 2021). <https://www.centerforgreenschools.org/report-shows-how-schools-improved-air-quality-during-pandemic>

⁷Centers for Disease Control and Prevention, “Ventilation in Buildings” (Updated June 2, 2021). <https://www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html>



in schools and to ensure that schools have appropriate guidance about proven technologies to improve clean air in schools.

Use of Masks in Schools

On July 27, CDC updated its “Guidance for COVID-19 Prevention in K-12 Schools.”⁸ CDC now recommends universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status, as part of a set of layered prevention strategies. The American Academy of Pediatrics (AAP) also recommends a layered approach to make school safe for all students, teachers and staff, including a recommendation that everyone older than age 2 wear masks, regardless of vaccination status.⁹ The Asthma and Allergy Foundation of America fully supports these recommendations.

Simply put, the widespread use of masks in schools can effectively prevent COVID-19 transmission and provide a safe learning environment.¹⁰

Of great concern to AAFA is the effort by several states to pass laws barring schools from requiring mask wearing.¹¹ At least ten states – Arkansas, Arizona, Florida, Georgia, Iowa, Oklahoma, South Carolina, Texas, Utah and Vermont – have enacted legislation or issued an executive order that prohibit school districts from requiring masks in schools.¹² In Florida, schools face threats such as withheld funding if they require masks to be worn.

It is critical to use science and data to guide decisions about the pandemic and school COVID-19 plans. AAFA urges states to reject poorly informed policies that would ban mask mandates. We

⁸ Centers for Disease Control and Prevention, “Guidance for COVID-19 Prevention in K-12 Schools” (Updated August 5, 2021). <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>

⁹ American Academy of Pediatrics, “COVID-19 Guidance for Safe Schools” (Updated July 18, 2021). <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>

¹⁰ Centers for Disease Control and Prevention, “Science Brief: Transmission of SARS-CoV-2 in K-12 Schools and Early Care and Education Programs – Updated” (Updated July 9, 2021). https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/transmission_k_12_schools.html

¹¹ Kimberlee Speakman, “These States Have Banned Schools From Requiring Covid Vaccination And Masks.” *Forbes* (July 16, 2021) <https://www.forbes.com/sites/kimberleespeakman/2021/07/16/these-states-have-banned-schools-from-requiring-covid-vaccination-and-masks/?sh=73f0586123aa>

¹² Jacqueline Howard and Elizabeth Stuart, “Pediatricians’ group says all kids should wear masks in school, but some states block such mandates.” *Cnn.com* (July 20, 2021). <https://www.cnn.com/2021/07/20/health/school-mask-mandates-covid-19-cnn-analysis-wellness/index.html>



often receive questions about the safety of mask wearing by persons with asthma, and several studies have demonstrated that people with asthma can wear masks safely.^{13,14}

AAFA looks forward to working with the school superintendents to improve indoor air quality and promote health in schools, during the COVID-19 pandemic and beyond. To aid your efforts, AAFA has developed a “[COVID-19 and Asthma Toolkit for Schools.](#)” It is a tool to help schools manage asthma while preventing the spread of COVID-19 and can serve as a supplement to current CDC, state, and school district guidelines. Please do not hesitate to reach me by email at kmendez@aafa.org with any questions.

Sincerely,

Kenneth Mendez
President and Chief Executive Officer
Asthma and Allergy Foundation of America

cc: Noelle Ellerson Ng
Associate Executive Director, Advocacy & Governance
The School Superintendents Association

¹³ George Freigeh, MD1 , Marisa Hodges, MD1 , Alan Baptist, MD MPH FAAAAI2 , Malika Gupta, MD1 ; 1 University of Michigan, 2 University of Michigan, Division of Alle., “Wear a Mask! Masks Don’t Affect Oxygen Saturation in Patients with Asthma.” Poster presented at 2021 AAAAI Virtual Annual Meeting, which takes place February 26-March 1, 2021.

¹⁴ Shein SL, Whitticar S, Mascho KK, Pace E, Speicher R, Deakins K (2021) The effects of wearing facemasks on oxygenation and ventilation at rest and during physical activity. PLoS ONE 16(2): e0247414. <https://doi.org/10.1371/journal.pone.0247414>