



Childhood Asthma Leadership Coalition

Consensus Statement on Asthma Care Management in Schools

As a coalition of leading advocates and experts, the Childhood Asthma Leadership Coalition (CALC) promotes federal and state policies that further evidence-based prevention, treatment, and management of asthma symptoms in children. CALC is committed to ensuring that children with asthma have safe places in which to live, play, and learn.ⁱ

Asthma is the single most common chronic condition among children in the United States. Approximately 6.13 million children in the U.S. have asthma, including 8% of all school-aged children.ⁱⁱ Of these children, 49% miss school days due to asthma, totaling over 7.2 million missed days per year, making pediatric asthma one of the leading causes of school absenteeism.^{iii,iv} Evidence suggests that improving asthma management and reducing exposure to triggers could not only help save healthcare costs, but could also help millions of children lead healthier lives and perform better in school.^{v,vi}

Unfortunately, many schools nationwide lack the funding and resources necessary to keep children with asthma safe in school and to ensure a healthy environment conducive to learning.

CALC supports the following principles regarding asthma management in schools.

All public elementary and secondary schools should employ a full-time school nurse

To provide the level of care that children with asthma need, schools must have full-time nurses.^{vii,viii,ix} Students with asthma require regular, preventive care and disease management, as well as prompt treatment of symptoms to prevent an asthma attack from escalating.^x

In an emergency, the lack of a school nurse presence can have devastating consequences for children with asthma.^{xi,xii} But nurses are also crucial to the ongoing management of a child's asthma. School nurses are often the ones to maintain student health records and train other staff about how to monitor a child's condition and intervene when necessary.^{xiii} Nurses can provide close supervision, help children adhere to their medication schedule, and coordinate with parents and primary care providers to maximize the health of children with asthma.

All schools should have protocols to implement students' asthma action plans and to support access to asthma control medications

Schools must have a method to identify all students with asthma and ensure that these children can manage their disease throughout the school day. Students' asthma action plans, typically developed by a primary care provider, provide schools with valuable resources and information to monitor and manage that child's condition. Asthma action plans describe a child's individual health needs, including which medications to take and when; their potential triggers; early symptoms of an asthma attack; and what to do in case of an emergency.^{xiv}

All schools should have and be ready to implement students' asthma action plans.^{xv} School staff, especially school nurses, gym teachers, and others overseeing physical activities, should be trained and required to understand and follow the asthma action plans for the students with asthma in their charge. This includes training for school staff about asthma, trigger management, and comprehensive emergency responses. Staff should coordinate with students' families and primary care providers to create an environment that is supportive of children with asthma.

Schools should also have the appropriate rescue medications stocked and accessible, in the event that a child cannot access their personal rescue medication. Being prepared with asthma supplies, students' action plans, and training to understand and follow asthma action plans enables schools to help children manage their asthma so they can remain healthy throughout the school day.^{xvi}

School buildings should be healthy environments that mitigate exposure to asthma triggers

Schools should be built and maintained as safe and healthy spaces for all students, especially those with chronic health conditions such as asthma.^{xvii} Indoor dampness, dust, pests, tobacco smoke, and other fumes and allergens are known asthma triggers.^{xviii,xix} Poor heating, ventilation, and air conditioning (HVAC) systems as well as old windows can exacerbate these adverse effects.^{xx} Investments must be made to maintain and modernize school structures: deteriorating walls should be replastered, leaking roofs should be fixed, mold should be removed, and pests should be exterminated. Indoor air quality should be improved through improved ventilation, the use of low-emission building materials, green cleaning practices, and integrated pest management. Students' health and ability to learn are better supported when school buildings are well-maintained.

School grounds should be healthy environments that limit exposure to pollution

Children spend time outside of school upon their arrival and departure, and often during school activities. At these times, outdoor air pollution and particulate matter can trigger asthma symptoms.^{xxi,xxii,xxiii} Exposure to vehicular emissions, secondhand smoke and vapor, and pollen can be particularly damaging.^{xxiv,xxv} School policies that limit bus idling and ban smoking on campus, and other policies that mitigate triggers, can help protect children with asthma.

More substantial protections can be achieved through policies that prohibit sources of pollution in proximity to schools and nationwide. Improving public health, including the health of children with asthma, is directly tied to climate change and air pollution, and policies that fight these environmental disasters are of the utmost importance.

Schools should consider integrating education on asthma and harms of tobacco into curriculums.

Asthma education programs delivered in school have been shown to be effective to helping families learn how to manage asthma. Schools can help provide this education by either

offering these services or partnering with community organizations that provide such interventions. In addition, schools should continue to lead in educating all students about the harms of tobacco use, including e-cigarettes. Tobacco use, including e-cigarettes, has been shown to be a primary trigger for asthma symptoms. Given the significant rise in youth e-cigarette use, schools should consider integrating education about the harms of these products into their health curriculums.

School-based health centers should be expanded to serve more children

Approximately 2,580 school-based health centers (SBHCs) serve millions of students in 48 states, the District of Columbia, and Puerto Rico.^{xxvi} SBHCs provide students with primary and acute care in a safe and convenient location. Because SBHCs are typically established in underserved areas, their on-site health care professionals often serve as students' primary care providers. This opportunity to receive comprehensive care at low or no cost is particularly important for students with chronic health needs, such as asthma.^{xxvii} Collaboration with school administrators, teachers, and support staff means that SBHCs can also directly help improve symptom monitoring and interventions throughout the school day.

As Medicaid and CHIP become increasingly important sources of funding for school-based health services, these programs should be strengthened

Approximately 45 million children are enrolled in Medicaid and the Children's Health Insurance Program (CHIP), including nearly half of all children with asthma. Because asthma disproportionately affects low-income and minority children, high rates of asthma and Medicaid coverage tend to overlap with communities that experience barriers in access to care, including a lack of providers. Increasing the availability of Medicaid-covered care in schools would help make care both more affordable and accessible to particularly vulnerable children.

As more and more states are developing pathways for schools to bill Medicaid for health care services provided to eligible children, Medicaid and CHIP are becoming an increasingly important source of coverage for healthcare services delivered in schools. Continued funding for Medicaid and CHIP not only supports the health of low-income children and families, but also enables schools to serve as essential care providers in their communities, particularly in helping children with asthma and other chronic conditions manage their symptoms so they can focus on learning.

More and better data should be collected, shared, and made publicly available

Public health infrastructure and surveillance are central to the task of developing and implementing evidence-based policy. Unfortunately, the currently available data on childhood asthma is often outdated and inconsistently collected. Just as schools must be funded and equipped to provide care to students with asthma, so too must they be supported to participate in robust data collection and sharing. We cannot ensure that the potential beneficial outcomes of policy change are realized without such information. Data about a child's condition

can and should be systematically recorded and shared among school staff, their physicians, and their family. The School-based Asthma Management Program (SAMPRO) offers a resource to facilitate such collaboration.^{xxviii} Models like SAMPRO should be adopted and scaled as part of nationwide, multi-sector investments to improve data collection and sharing about child health.

Conclusion

Policymakers on Capitol Hill and across the states should pursue policy opportunities to provide schools with the resources and funding necessary to support the health of children, in particular those with asthma, and ensure all children have healthy school environments that are conducive to learning.

ⁱ Childhood Asthma Leadership Coalition, “About Us,” Available at: <https://www.childhoodasthma.org/about>

ⁱⁱ Centers for Disease Control and Prevention, Current Asthma Population Estimates by age (2016), 2016 National Health Interview Survey (NHIS) Data, Table 3-1, Available at: https://www.cdc.gov/asthma/nhis/2016/table3-1.htm#modalIdString_CDCTable_0

ⁱⁱⁱ Centers for Disease Control and Prevention. National Health Interview Survey, 2003 and 2013, Cited by National Center for Environmental Health, Vital Signs, Feb 2018, At: <https://www.cdc.gov/vitalsigns/pdf/2018-02-vitalsigns.pdf>

^{iv} Patrick W. Sullivan, et al., “The national burden of poorly controlled asthma, school absence and parental work loss among school-aged children in the United States,” *Journal of Asthma*, 2018; 55(6). Available at: <https://www.tandfonline.com/doi/abs/10.1080/02770903.2017.1350972>

^v P. Hoppin, M. Jacobs, and L. Stillman, “Investing in Best Practices for Asthma: A Business Case for Education and Environmental Interventions,” Asthma Regional Council of New England, June 2010.

^{vi} Successes of the National Asthma Control Program, 2009-2014, Stories from “Addressing Asthma from a Public Health Perspective” Grantees. CDC. At: https://www.cdc.gov/asthma/pdfs/Success_Stories_Final_508.pdf

^{vii} National Association of School Nurses. (2015). Framework for 21st century school nursing practice. *NASN School Nurse*, 30(4), 218-231. doi:10.1177/10598405030190020301

^{viii} Wang, L. Y., Vernon-Smile, M., Gapinski, M., Desisto, M., Maughan, E., & Sheetz, A. (2014). Cost-benefit study of school nursing services. *JAMA Pediatrics*, 168(7), 642-648. doi:10.1001/jamapediatrics.2013.5441

^{ix} Michael, S., Merlo, C., Basch, C., Wentzel, K., and Wechsler, H., (2015). Critical connections: Health and academics. *Journal of School Health*, 85(11), 740-758. doi: 10.1111/josh.12309

^x National Heart, Lung, and Blood Institute, “National asthma education and prevention program: Expert panel report 3: Guidelines for the diagnosis and management of asthma,” (2007) Retrieved from <http://nhlbi.nih.gov/files/docs/guidelines/asthgdln.pdf>

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^{xii} Golden, E., “Minnesota’s School Nurses Now Are Facing a Growing Workload,” *Minneapolis Star Tribune*, 2019, Available at: <http://www.startribune.com/minnesota-s-school-nurses-face-growing-workload/561639292/>

^{xiii} Centers for Disease Control and Prevention, “Managing Chronic Health Conditions in Schools: The Role of the School Nurse,” 2017, Available at: https://www.cdc.gov/healthyschools/chronic_conditions/pdfs/2017_02_15-FactSheet-RoleOfSchoolNurses_FINAL_508.pdf

^{xiv} Elana Pearl Ben-Joseph, “What is an Asthma Action Plan?” *KidsHealth (Nemours)*, Available at: <https://kidshealth.org/en/parents/action-plan.html>

^{xv} Robert F. Lemanske Jr., et al., Creation and implementation of SAMPRO™: A school-based asthma management program (2016) *The Journal of Allergy and Clinical Immunology*, 138(3): 711-723, DOI: <https://doi.org/10.1016/j.jaci.2016.06.015>

^{xvi} *Id*

^{xvii} *Supra n. 15*

^{xviii} Watcharoot Kanchongkittiphon, et al., “Indoor Environmental Exposures and Exacerbation of Asthma: An Update to the 2000 Review by the Institute of Medicine,” *Environmental Health Perspectives*, Jan 2015; 123(1).

^{xix} Mark J. Mendell, Janet M. Macher, and Kazukiyo Kumagai, “Indoor Dampness and Mold as Indicators of Respiratory Health Risks, Part 3: A Synthesis of Published Data on Indoor Measured Moisture and Health,” *Proceedings of Indoor Air*, 2014.

^{xx} U.S. Environmental Protection Agency, Introduction to Indoor Air Quality, Available at: <https://www.epa.gov/indoor-air-quality-iaq/introduction-indoor-air-quality>

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- ^{xxviii} *Supra n. 15*