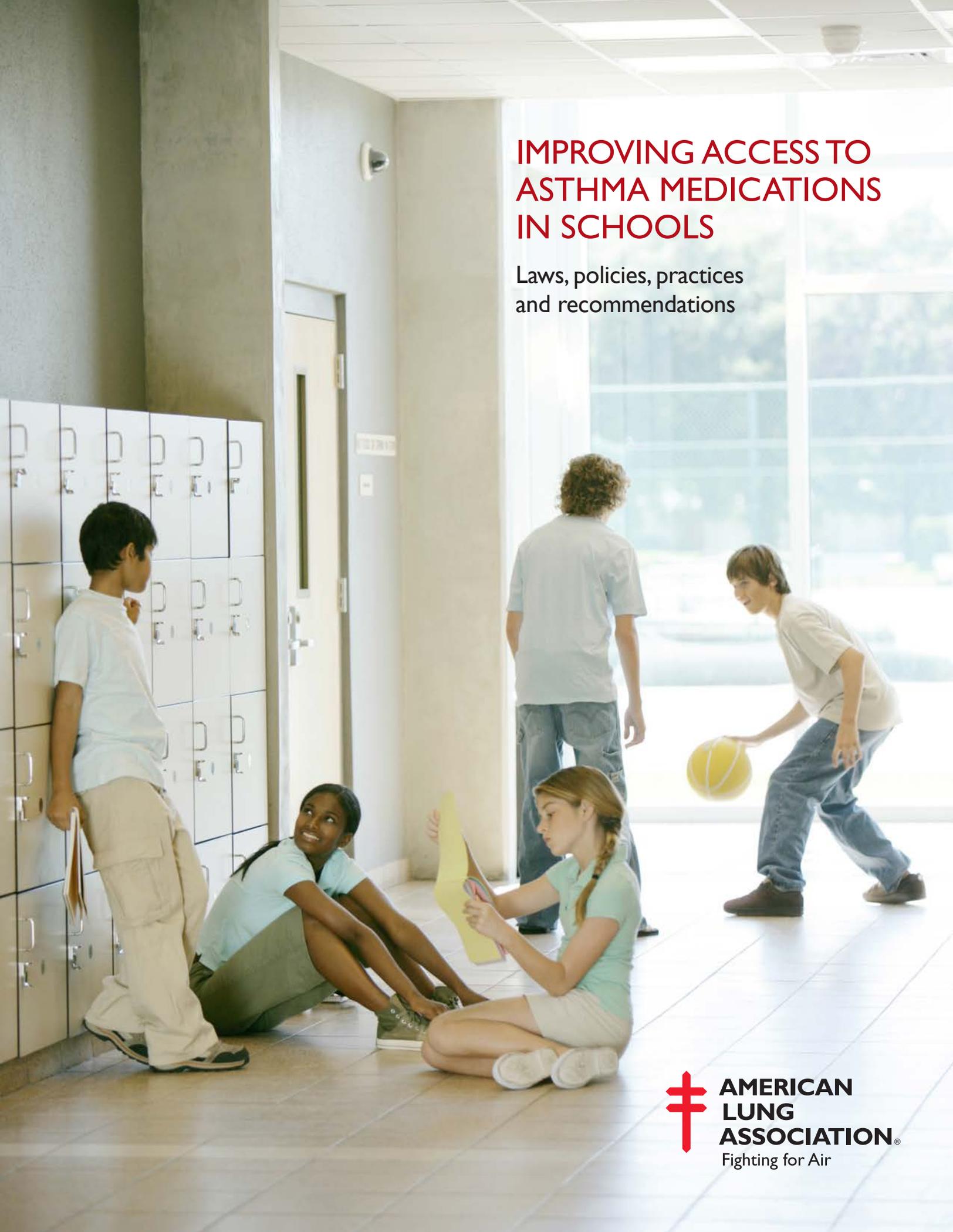


# IMPROVING ACCESS TO ASTHMA MEDICATIONS IN SCHOOLS

Laws, policies, practices  
and recommendations

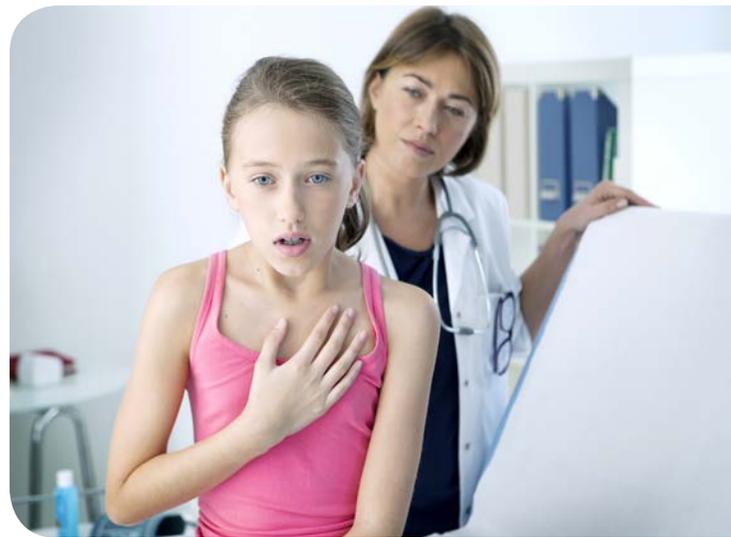




# IMPROVING ACCESS TO ASTHMA MEDICATIONS IN SCHOOLS

## Laws, policies, practices and recommendations

**ASTHMA** is one of the most common chronic childhood illnesses in the United States, affecting close to 7 million children.<sup>1</sup> Although common, asthma can be difficult to manage, and its impact on the well-being of children and families ripples through communities nationwide. Among children who had experienced an asthma attack in the last year, close to 60 percent missed at least one day of school due to asthma, and almost one third reported visiting urgent care or the emergency department in the past year.<sup>2</sup> Deaths from asthma among children are thankfully rare – according to the Centers for Disease Control and Prevention (CDC), 158 children under the age of 15 died from asthma in 2010.<sup>3</sup> But these deaths are also preventable. No child should ever die from this treatable disease.



When children with asthma go off to school, their safety and the management of their condition becomes the shared responsibility of the family, their healthcare providers and school personnel. Most schools are very cognizant of the seriousness of asthma. Between 1990 and 2003, 38 asthma-related deaths in schools were reported. One study found that over 60 percent of asthma deaths in children came from a sudden asthma attack, rather than from the gradual worsening of symptoms. Sudden attacks can be fatal within an hour.<sup>4</sup> For a child who is struggling to breathe, the trip from the classroom or the playing field to the school health room for medication can be perilously far. Allowing students to carry their quick-relief asthma inhalers with them during the school day can prevent or reduce the severity of asthma episodes, and is recommended practice in national guidelines for asthma management.<sup>5</sup>

In the last 10 years, every state and the District of Columbia has passed a law allowing students with asthma to carry their inhalers (called “self-carry”). But school stakeholders from around the country report that there are still a range of policies and practices in place that create barriers to appropriate access to these potentially lifesaving medicines during the school day. This issue brief examines these policies and practices in schools, and makes recommendations on ways that schools, families and communities can better ensure that all students with asthma have quick, reliable access to the medications they need to stay healthy, in school and ready to learn.



## DEFINING “APPROPRIATE ACCESS” TO MEDICATION

Whether or not a child is permitted to self-medicate is a decision that must be made on a case-by-case basis, depending on the developmental maturity of the student, and the wishes of the family. To ensure that the needs and interests of all parties in the decision-making process are protected, school medication policies almost always include some or all of the following requirements:

- Authorization from the child’s parent or guardian to self-carry
- Permission from the child’s healthcare provider, along with details about the medication prescribed
- A written treatment plan for the child, often called an asthma action plan, on file at their school
- Student’s ability to demonstrate asthma management knowledge and skills
- Liability protection for the school and school personnel

## OVERVIEW OF STATE LAWS

School policies and the laws that govern them are typically made at the state and local level. As a result there is much variation in education policy throughout the country; policies allowing students to carry their asthma medications are no exception. In 2004, in an effort to ensure that all children with asthma have appropriate access to medication, Congress passed the Asthmatic Schoolchildren’s Treatment and Health Management Act (PL 108-377), giving preference for receiving certain types of federal funding to states that require schools to allow students to self-carry. This piece of federal legislation resulted in all of the 50 states and the District of Columbia passing laws to allow students to carry their quick-relief asthma medications while at school.

The intention of the federal law was to eliminate the patchwork of protections for students that varied by school and school district. But in spite of the passage of a law in every state, the patchwork remains in effect. State laws differ greatly in how detailed and specific they are. Some states lay out requirements schools must follow, such as getting parental permission and a signed liability release, while other state laws leave most, or even all, of the decision-making on how to implement the law to local school districts. Twelve states<sup>1</sup> use the term “may” rather than “shall” in their state law, which could be interpreted as *authorizing* the school to allow students to self-carry, rather than requiring the school to do so. Most of the state laws apply only to public schools explicitly, leaving private schools to make their own policies, or not.

Overall, state laws that allow self-carry and self-administration of asthma medications have some key provisions in common, but also significant differences especially in the specifics. In addition to the state laws, many local school districts and/or schools also have policies that further specify how and when students can self-carry and self-administer asthma medications.

<sup>1</sup>The 12 states are AR, CA, CO, DC, FL, IN, MI, NH, OH, SD, WV, and WI.

<sup>2</sup>Surveys were administered through Survey Monkey, and results analyzed by the American Lung Association Epidemiology and Statistics Unit, using frequencies and crosstabs within Excel and SPSS software.

## ASSESSMENT OF CURRENT PRACTICES

In 2014, the American Lung Association distributed an assessment tool through its networks to school personnel to gain a greater understanding about the perceptions among staff regarding asthma medication policies, as well as actual practices at the school and school district level (Asthma in Schools Assessment).<sup>ii</sup> Over 1,500 people from 38 states responded. A large majority of respondents were school nurses (88 percent). Others reported having a variety of roles within the school system, including district officials, teachers, school health support staff, and administrators. Almost all (93 percent) were employed in traditional public schools. About a third of respondents were from districts with a school nurse in every school full time, and another third were from districts without a nurse in every school. The others reported either a nurse in every school part-time, or a situation that varies from school to school within the district.

Awareness of a school or school district policy allowing students with asthma to carry their inhalers was high but not universal. Ninety-two percent of survey respondents reported having a policy allowing students to carry their medications in their school district. Four percent reported having no policy in place, and the other 4 percent were uncertain. Most survey respondents (74 percent) said they were either very satisfied or satisfied with the current policy on asthma medications at their school. Satisfaction was highest among respondents from districts where there is a nurse in every school full time. Teachers expressed much lower levels of satisfaction with the asthma medication policy in their schools than did school nurses. Highest levels of dissatisfaction came from those reporting that neither their school nor school district have a self-carry policy.

Additional findings, along with a sampling of anonymous quotes from respondents, are highlighted in the sections below.

*“No student may carry and self-administer asthma medication in our school.”*

## BARRIERS TO OPTIMAL ACCESS TO ASTHMA MEDICATIONS

Analysis of the state laws and results from Asthma in Schools Assessment identified six key issues that create barriers to optimal access to asthma medications in schools. They are: local control, parental engagement, assessing student readiness to self-carry, availability of back-up medication, protection from liability, and penalties.

### Local control

One key issue is the degree of local control over the self-carry policies at a school. Many states have laws with few specific requirements, leaving many of the details of the policies, especially how to implement and enforce the policy, up to school districts and/or individual schools. While having more local control is not a barrier to access by itself, it can have implications that create barriers to access.

More local control results in variation in the specifics of policies, creating the potential for unintentional or intentional barriers to be added into the policy at the local level. Additionally, the patchwork of local policies makes it difficult to obtain and aggregate accurate information about what school districts and individual schools allow, and how well existing policies are being implemented and enforced.

When comparing responses to the Asthma in Schools Assessment from a specific subset of states (Illinois, Iowa, South Carolina, and Virginia), there appeared to be more restrictions in states with more local control. This suggests that states that have laws giving more local control also result in more restrictions on students' ability to self-carry and self-administer their asthma medications.

*"We have a good system in place at our schools. The difficult part is having the parents obtain the doctors order that verifies that they may use their inhaler."*

### Parental Engagement

Most state laws require written authorization from parents or guardians for students to be able to carry their asthma medications, and over 90 percent of Assessment respondents reported that parental permission is required at their school. This is a completely understandable and appropriate expectation, and neither schools nor parents would want that decision-making authority taken out of the hands of a child's family. Unfortunately it appears that, in practice, the requirements on parents can end up being a barrier. Over one third of Assessment respondents expressed the opinion that the ability of students to self-carry at their school is limited by lack of cooperation from parents.

*"Parents do not always adhere to medication policies; although policy information is sent home with students/ on the website, in student handbooks, they say they are unaware."*

Lack of parental engagement is a multi-faceted issue. Examples of the lack of parental engagement cited by respondents to the Asthma in Schools Assessment were not signing permission forms, not keeping the student supplied with medication, and not getting the required information from the healthcare provider.

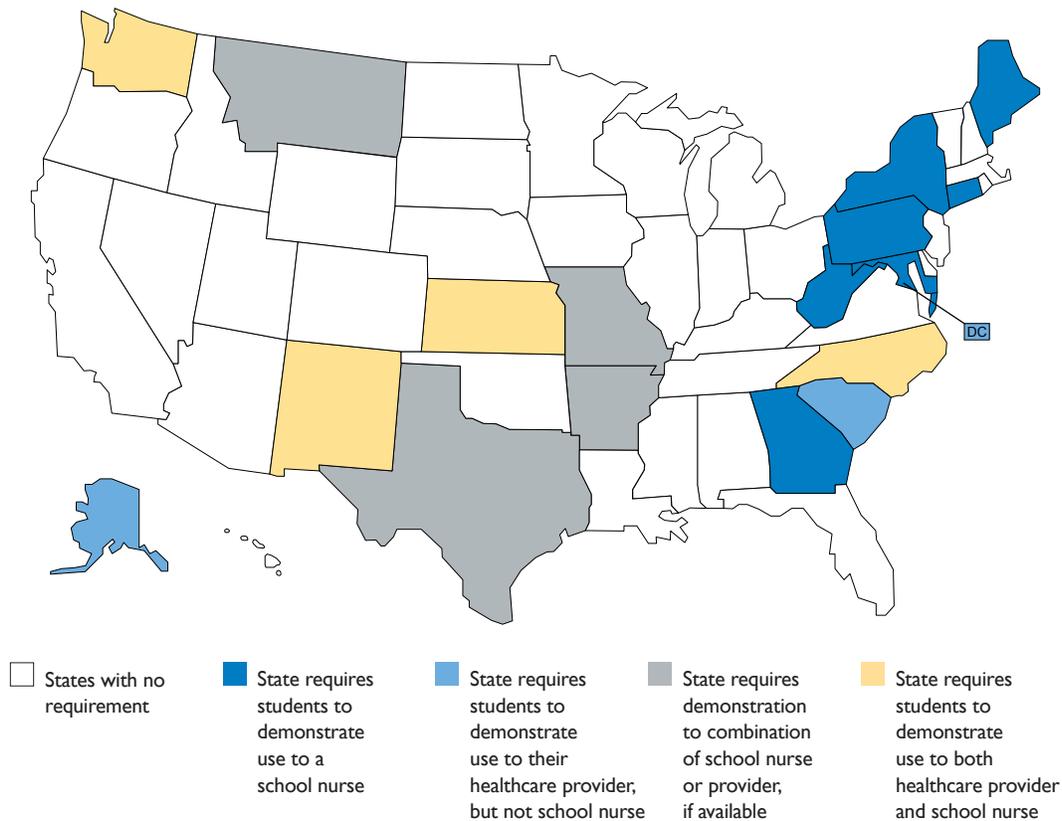
*"Parents just tell the students to hide it in their backpacks. That to me is dangerous."*

### Assessing Student Readiness to Self-Carry

Asthma can be a complex disease to understand and to manage, and not all school-age children are developmentally ready to monitor their symptoms and use their quick-relief inhalers properly. The determination of when a student is mature enough to self-carry needs to be made on an individual basis. Some states require the student's healthcare provider to certify that the child is capable. Other states require the school nurse to assess if the student is ready to self-carry. A few states actually require both. [see map] In a 2012 survey of school nurses nationwide, 84 percent of respondents indicated that their students undergo an assessment prior to being allowed to carry their inhalers.<sup>6</sup> As is the case with parental permission, the rationale for requiring the assessment of student readiness is obvious. The problem comes in practice, where there are multiple

## STATE ASTHMA SELF-CARRY LAWS – LAW REQUIRES STUDENT TO DEMONSTRATE USE TO SCHOOL NURSE

Last updated: May 14, 2014



*“Elementary aged children (for the most part) are not developmentally mature enough to handle self-administration.”*

barriers to successfully completing an objective assessment, for both the school and the student.

The first is a personnel problem. In its biannual survey of members, the National Association of School Nurses (NASN) found that only 50 percent of their members work in only one school building.

Fewer than half worked in school districts that meet NASN’s recommendation of one nurse for every 750 students. A third of school nurses reported serving more than 2,000 students each.<sup>7</sup> A number of respondents to the Asthma in Schools Assessment cited high student-to-nurse ratios as a limiting factor in students’ ability to self-carry.

Attitudes and beliefs about the age-appropriateness of self-carry, and what constitutes readiness can also limit optimal access to

*“Some nurses don’t want students to self-carry and self-administer.”*

medications. Unless the assessment process and tools are objective and consistently applied in every situation, school administrators and school nurses may introduce their own biases. From the comments received in the Assessment, it appears that a number of schools and schools districts have a blanket policy that elementary age students are not allowed to self-carry. However, more than 80 percent of respondents indicated a belief that students 8 years and older should be allowed to self-carry if they are developmentally ready. The American Lung Association's Open Airways For Schools® asthma education program is designed for older elementary students, because research has shown this to be the age when most children are able to take some responsibility for self-management.<sup>8</sup>

### Availability of Back-Up Medication

A number of respondents to the Asthma in Schools Assessment expressed concern about the self-carry policy because students often forget or lose their medication. Interestingly, this is an area that does not seem to be well addressed in laws and policies. Federal law requires schools to store any back-up medication a student provides, but does not require the medication to be provided. None of the state laws include the requirement that students have back-up medication available in order to be allowed to self-carry. Only

28 percent of respondents to the Asthma in Schools Assessment indicated that availability of back-up medication was a requirement for self-carry at their school, but 92 percent thought it was important or very important to have such a requirement. It is unclear whether the availability of back-up medication influences a school nurse's determination of a student's ability to self-carry, but not having any medication available in an emergency certainly puts a child at risk.

*"It can be a burden for families, especially those who do not have health insurance."*

*"Students lose their inhalers on a regular basis and have no back-up inhaler at school."*

Families can have a difficult time providing back-up inhalers for their child. Often an insurance company will only cover one inhaler for a certain period of time. Any additional inhalers would need to be paid for out of pocket, which is a challenge for many. Getting a prescription for the extra inhaler means another trip to the healthcare provider's office and calling the insurance company to get any prior authorization required. The best practice for back-up medication is to institutionalize the availability of the medication by having a stock of medication on hand for use as needed by school health services, as is done with other essential supplies.

*"We don't require that they provide a back-up inhaler if they self-carry, but I always ask for one. Sometimes I get it and sometimes I don't. It would be nice to have stock asthma medications."*



### Penalties that Limit Access to Life-Saving Medication

In the analysis of state laws, there was a disturbing provision that was found a handful of times. Seven states allow schools to restrict a student's access to their asthma medication as a penalty for misusing their asthma medication or otherwise behaving irresponsibly with the medication.<sup>iii</sup> Oregon's law, for example, states "(3) The policies and procedures shall: (f) Allow a school to revoke its permission for a student to self-administer medication if the student does not responsibly self-administer the medication or abuses the use of the medication."

Removing immediate access to life-saving medication in the event of an asthma episode should never be a consequence of bad behavior by students. Taking away medication as a punishment is both dangerous for the student and counter to the goal of empowering them to manage their own health. There are a number of other state laws that codify consequences for misuse of medication, but also specifically state that taking away permission to self-carry cannot be used as a punishment. Mississippi addresses the issue of misuse and discipline, while protecting the students' access to life-saving medications, "(5) If a student uses his/her medication in a manner other than prescribed, he/she may be subject to disciplinary action under the school code. The disciplinary action shall not limit or restrict the student's immediate access to the medication."



<sup>iii</sup> The states are AR, HI, IA, OR, PA, TN, and WV. It should be noted, AR has this provision in its secondary policy mechanism rather than in the law proper.

## RECOMMENDATIONS FOR ACTION

Allowing students to carry their quick-relief asthma inhalers with them during the school day can prevent or reduce the severity of asthma episodes, and keep children healthy, in school and ready to learn. Schools, families, health systems and communities need strong, protective laws and policies that empower students to be responsible stewards of their health, preparing them to be active, productive citizens. And they need to work together to turn those laws and policies into practice in every school, for every child.

Some specific recommendations for action include:

- **State and local officials must educate all school personnel on existing laws and policies, and clarify expectations for their implementation**

Over 100 respondents to the Asthma in Schools Assessment were not aware of any policy in their district allowing students to self-carry, which is probably primarily an artifact of lack of awareness. Some survey respondents expressed confusion about their policy, and the ways in which it was or was not being implemented in their school. Nurses, teachers, coaches, office staff, bus drivers and everyone else who comes into contact with students during the school day needs to understand the asthma medications policy in their school, as well as the protocols for responding to an asthma emergency, and be able to work together to make sure that they are working properly.

- **Schools, asthma advocates and healthcare providers must facilitate parent and caregiver engagement in the management of their child's asthma at school**

One of the reasons cited for lack of parental cooperation with school policies on access to asthma medications in schools is the low level of understanding about the seriousness of the disease. As part of the Healthy Learners Asthma Initiative in the Minneapolis Public Schools, researchers found that many parents did not understand good asthma control, and believed that regular daytime and nighttime symptoms are "normal". Eighty-five percent of parents incorrectly believed that their child's asthma was in good control. The district instituted regular reporting of asthma episodes back to the families; worked with families on ways to improve communication with their healthcare providers; and provided asthma education through a number of channels including in person, by phone and through written materials available in many languages.<sup>9</sup>

A number of school districts have increased the proportion of families that are successfully able to authorize their children to self-carry by simplifying the forms and permissions needed. One proven-effective approach is to use a standardized Asthma Action Plan that serves not just as the students medical treatment plan, but when signed by the healthcare provider and parent, is also an authorization form, thus eliminating the need for schools to collect and track multiple forms.



- School districts must implement standardized protocols and instruments for the assessment of a student's readiness to self-carry

Students are best served when schools facilitate student readiness to self-carry rather than use it as a justification to withhold permission. This requires starting with the attitude that all children but the very youngest and the most disabled can and should learn to carry and administer their own medication appropriately. Effective self-carry policy and practice requires a high-functioning relationship between the student and the school nurse. This means first and foremost that *there must be a nurse present in the school*, and that he or she have the time and the tools to assess each student.<sup>10</sup>

The nurse also needs to be able to track the health status and medication use of the students with asthma who are allowed to self-carry, and to communicate with a child's family and healthcare provider if there is a change. Some schools use a signed agreement between the nurse and the student in which the student commits to keeping the nurse informed.

- Schools must provide access to back-up medication using standing orders for quick-relief medication

The largest number of comments from respondents to the Asthma in Schools Assessment, when asked what needs to be done to overcome barriers to self-carry, were about the problem of back-up medication. Expecting families to provide schools with back-up inhalers is bound to have limited success, especially in disadvantaged communities where asthma rates are often highest.

Some school districts have solved the problem by proactively making quick-relief asthma medication available for the use of all students who have a prescription and a treatment plan on file. This is done with what is called a *standing order*, often written by a consulting physician serving the district. In recent years this approach has been widely adopted for epipens to treat such life-threatening emergencies as food allergies and bee stings.

*"I feel all of our school nurses are strong advocates for students with asthma and have the support of our district to do what is permitted by state medication guidelines and law."*

Asthma and school health advocates can help accelerate the availability of stock medication in schools by developing and disseminating model policies, as well as success stories from districts that have successfully implemented such policies.

## MAKING ALL SCHOOLS ASTHMA-FRIENDLY

Providing access to medication is critical, but it is just one aspect of an effective asthma management plan in schools. Over a decade of effort and investment by federal, state and local governments, researchers, and school health advocates has resulted in a strong body of evidence for the necessary attributes of what can be called an asthma-friendly school.<sup>11,12</sup> These include appropriate school health services, education for school personnel and students, and a healthy school environment. To truly be asthma-friendly, all schools should:

- Identify and monitor all students with a diagnosis of asthma.
- Obtain individualized Asthma Action Plans for all students with asthma to monitor and manage symptoms and reduce exposure to potential asthma triggers.
- Establish well-communicated, step-by-step standard emergency protocols for students without Asthma Action Plans as well as undiagnosed students with respiratory distress.
- Educate all school personnel (especially health service professionals, teachers, physical education teachers, and coaches) about asthma, including how to handle an asthma emergency.
- Provide a full-time registered nurse in every school, every day, all day.
- Ensure students with asthma know the policies and procedures to self-carry, self-administer and have access to quick relief medications (i.e., albuterol inhaler).
- Ensure that students whose asthma is not well controlled are provided with self-management education and case management.

The American Lung Association's Asthma Friendly Schools Initiative (AFSI) is a comprehensive approach to asthma management in schools that enables communities and schools to establish an optimal environment for students to learn. Created with support from the Centers for Disease Control and Prevention (CDC), the AFSI Toolkit (available at <http://www.lung.org/afsitoolkit>) offers a step-by-step guide to maximizing school health services, building asthma education, providing a healthier school environment, and managing physical education for students living with asthma. By following the Toolkit's easy to use structure, which aligns with the coordinated school health model, a school can work with community partners to establish a long-term asthma management plan that is unique to their specific needs and available resources.

## NOTES

<sup>1</sup> Centers for Disease Control and Prevention: National Center for Health Statistics, National Health Interview Survey Raw Data, 2011. Analysis by the American Lung Association Research and Health Education Division using SPSS and SUDAAN software.

<sup>2</sup> Centers for Disease Control and Prevention. Vital Signs: Asthma Prevalence, Disease Characteristics, and Self-Management Education — United States, 2001-2009. *Morbidity and Mortality Weekly Report*. May 6, 2011; 60(17):547-52.

<sup>3</sup> Centers for Disease Control and Prevention. National Center for Health Statistics. CDC Wonder On-line Database, compiled from Compressed Mortality File 1999-2010 Series 20 No. 2P, 2013.

<sup>4</sup> Greiling AK, Boss LP, Wheeler LS. A Preliminary Investigation of Asthma Mortality in Schools. *The Journal of School Health*. 2005 Oct; 75(8): 286-90.

<sup>5</sup> 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.

<sup>6</sup> Allen K, et al. Potential Life-Threatening Events in Schools Involving Rescue Inhalers, Epinephrine Autoinjectors, and Glucagon Delivery Devices: Reports from School Nurses. *The Journal of School Nursing*. 2012; 28(1): 47-55.

<sup>7</sup> Maughan E, Mangena AS. The 2013 NASN School Nurse Survey: Advancing School Nursing Practice. *NASN School Nurse*. 2014; 29:76.

<sup>8</sup> Evans D, et al. A School Health Education Program from Children with Asthma Aged 8-11 Years. *Health Education Quarterly*. 1987; 14:276-9.

<sup>9</sup> Erickson CP, et al. The Healthy Learner Model for Student Chronic Condition Management – Part II: The Asthma Initiative. *The Journal of School Nursing*. 2006; 22(6):319-29.

<sup>10</sup> American Lung Association. Joint Statement on Improving Asthma Management in Schools. Accessed at <http://www.lung.org/lung-disease/asthma/becoming-an-advocate/national-asthma-public-policy-agenda/joint-statement-improve-asthma-mgmt-schools.pdf>. July 2014.

<sup>11</sup> Centers for Disease Control and Prevention. Strategies for Addressing Asthma within a Coordinated School Health Program. Accessed at <http://www.cdc.gov/healthyyouth/asthma/strategies/asthmacsh.htm>. July 2014.

<sup>12</sup> National Heart Lung and Blood Institute. National Asthma Education and Prevention Program. How Asthma-friendly is Your School? Accessed at [http://www.nhlbi.nih.gov/files/docs/public/lung/asthma\\_friendly\\_checklist\\_en.pdf](http://www.nhlbi.nih.gov/files/docs/public/lung/asthma_friendly_checklist_en.pdf). July 2014.

## ACKNOWLEDGEMENT

Development of this Issue Brief was supported by Cooperative Agreement #1U38OT000224-01 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the American Lung Association and do not necessarily represent the official views of the CDC.

### **American Lung Association National Office**

55 West Wacker Drive  
Suite 1150  
Chicago, IL 60601  
312-801-7630

**Our Mission: To save lives by improving lung health and preventing lung disease.**

[www.Lung.org](http://www.Lung.org) • 1-800-LUNGUSA

Copyright ©2014 by the American Lung Association  
American Lung Association and Fighting for Air are registered trademarks.  
Designed by Barbieri & Green, Inc., Takoma Park, MD

### **About the American Lung Association**

Now in its second century, the American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease. With your generous support, the American Lung Association is "Fighting for Air" through research, education and advocacy. For more information about the American Lung Association, a holder of the Better Business Bureau Wise Giving Guide Seal, or to support the work it does, call 1-800-LUNGUSA (1-800-586-4872) or visit [www.Lung.org](http://www.Lung.org).