



## **State School Health Policy Issue Brief: Summary and Analyses of State Policies on Asthma Education, Medications, and Triggers**

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(All information current as of 02/22/05)

### **Highlights**

The National Association of State Boards of Education (NASBE) performed analyses of the written policies of all 50 states as of February 2005 collected in NASBE's online state school health policy database at [www.nasbe.org/healthyschools](http://www.nasbe.org/healthyschools).

Asthma-related education policies encompass a broad array of issues. This analyses shows that nearly all states have addressed asthma in at least one major policy area, but that no state has a comprehensive set of written policies on asthma.

Major findings are as follows:

- **Eleven** states require or recommend all students to receive instruction on asthma awareness or education about chronic health conditions.
- No state requires professional development for school staff on asthma awareness, asthma management, or policies and procedures for emergency response to episodes of asthma.
- **Nine** states have policies requiring or recommending student health examinations or assessments that help schools identify students with asthma.
- **Twenty-eight** states require that individual education plans or individual health plans incorporate accommodations and medical instructions for students with chronic health conditions.
- **Forty** states have policies on administration of prescribed medication by school staff.
- **Thirty-three** states allow students to possess and self-administer prescribed medications at school.
- **Thirty-nine** states have policies addressing tobacco use in school buildings or on school property.
- **Four** states have policies on "tobacco-free environment" that explicitly prohibit use of tobacco by students, staff members, and school visitors on school property, in school transportation vehicles, and at school-sponsored activities.
- **Twenty-three** states have policies addressing indoor air quality in school buildings.
- **Twenty-four** states have policies on pesticide use on school grounds.

This analysis focuses solely on written state policies and does not address nonbinding guidance on implementation of policies.

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## **Introduction**

Asthma is a chronic disease of inflamed airways and lungs, characterized by recurrent episodes of shortness of breath, wheezing, coughing, and chest tightness. Although the causes of asthma are not well understood, its prevalence has increased in recent years. As of 2004, asthma had been diagnosed in 9 million children under the age of 18.<sup>1</sup> This number represents more than 14 percent of all U.S. children in this age group (one in seven). Treatment costs were estimated at \$3.2 billion per year in 2002.<sup>2</sup>

Asthma is a treatable disease. Children whose asthma is properly controlled can lead fully active lives with minimal symptoms. Control is possible through the proper use of prescription medications and avoidance of asthma “triggers” (e.g., indoor and outdoor allergens and irritants). However, when asthma is not properly controlled, acute attacks can lead to life-threatening situations and occasionally death. More than 3.2 million children and youth ages 5-17 years had an asthma attack in 2002—6 percent of everyone in this age group—and 99 deaths occurred.<sup>3</sup>

Asthma is a serious issue for educators, not least because it is a leading cause of school absenteeism, accounting for about 14 million missed school days per year.<sup>4</sup> Students whose nighttime sleep is disrupted by asthma symptoms can experience lack of concentration, mood

swings, poor recall memory, and greater difficulty with schoolwork.<sup>5</sup> Additionally, children with asthma sometime suffer from depression, low self-esteem, decreased confidence, and feelings of inadequacy and helplessness.<sup>6</sup> Not surprisingly, children with asthma are more likely unable to pass to the next grade level in school.<sup>7</sup>

Asthma is not just an issue for children and youth who have a diagnosis of the condition. An asthma attack is a distressing event that can disrupt the learning process for *everyone* in a classroom or school.

States are addressing the needs of students with asthma by developing and implementing policies in several areas. This issue brief summarizes and analyzes the state-level policies of all 50 states that are included in NASBE's online [State School Health Policy Database](#) as of February 2005. For details on the policy collection methodology, please visit [www.nasbe.org/HealthySchools/States/About.html](http://www.nasbe.org/HealthySchools/States/About.html).

Hyperlinks to the actual state policies are included wherever possible. Some states require Internet users to maneuver their way through layers of menus to locate specific policies. All state education agencies may wish to assess the ease and convenience of accessing their policies. Difficulty in locating state policies online can inhibit local implementation.

#### *The challenge of comparing policies across states*

Various organizations collect and analyze information about state policies. Summaries from these disparate sources of data do not always match. Upon careful examination, different results can often be attributed to differences of methodology, timeframe, interpretation, or the ambiguities inherent to any discussion of policy and practice.

For example, the state-level data collected by the Centers for Disease Control and Prevention (CDC) for its School Health Policies and Programs Study (SHPPS) 2000 were based on self-administered mail questionnaires completed by designated respondents in state education agencies. In those questionnaires, "policy" was defined as "any mandate issued by the state school board, state legislature, or other state agency." In contrast, NASBE collects written policies directly from states and then summarizes the information contained in those policies.

Subjective interpretation is unavoidable both when persons are responding to questions about the policies under which they work and when others are analyzing written policies that vary in content, depth, and completeness. Across states, awareness, dissemination, interpretation, and enforcement of policies also varies tremendously. As a result, policy measurement and policy analysis—like policymaking itself—remains both an art and a science.

## 1. Education for Asthma Awareness

Although 42 states call for students to receive instruction in health education, only 11 states have policies that mention asthma awareness or education about chronic health conditions in the school health curricula:

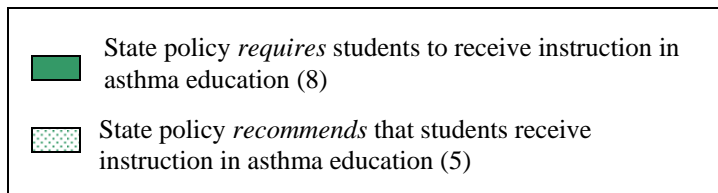
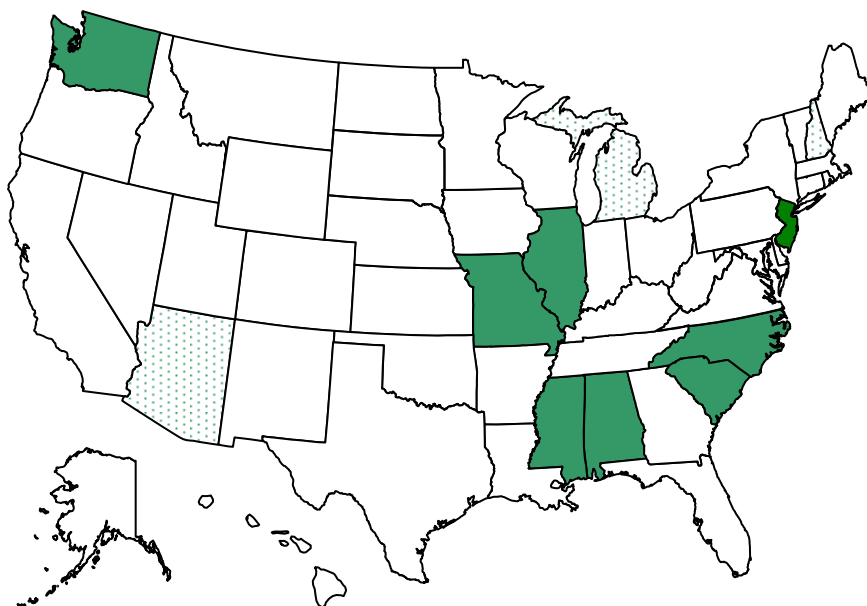
- [Alabama's Course of Study](#) outlines instruction on chronic illnesses at both the elementary and high school levels.
- Arizona includes asthma education in Standard 1 of its [Comprehensive Health Education Standards](#) for grades 1-3.
- [Illinois' State Goals](#) call for students to receive instruction on chronic illnesses at the high school level.
- Michigan's State Board of Education [Policy on the Management of Asthma in Schools](#) recommends each school and district provide asthma awareness and lung education as part of health curricula and other curricula areas.
- [Mississippi's curriculum framework](#) calls for instruction on chronic diseases at the elementary, middle, and high school levels.
- [Missouri's Framework for Curriculum Development in Health Education and Physical Education](#) requires students in grades 5-8 to receive instruction on environmental impacts on health that cause specific conditions such as asthma.
- New Hampshire incorporates asthma education for elementary, middle, and high school grades in its [Health Education Curriculum Guidelines](#).
- New Jersey's guidance for [Comprehensive Health and Physical Education](#) requires students at the elementary, middle, and high school levels to receive instruction on communicable and noncommunicable diseases, health and fitness concerns, and the effects of vigorous physical activity and exercise. Students in grade 6 must receive instruction on comparing and contrasting diseases and health conditions prevalent in adolescents, including asthma, and students in grade 12 must receive instruction on the effects of secondary smoke for individuals with allergies and asthma.
- By statute, [North Carolina](#) requires districts to provide instruction about asthma in grade 6.
- [South Carolina's Health and Safety Standards](#) specify that students at the middle and high school levels are to receive instruction on asthma awareness.
- [Washington's Health and Fitness Essential Academic Learning Requirement Benchmark 1](#) requires students to receive instruction on non-communicable diseases, such as asthma.

Two additional states, [Pennsylvania](#) and [South Dakota](#), include identification and prevention of unspecified health problems of children in their standards instruction.

Because students spend most of their time in the classroom, regular support from teachers and teachers' aides is important in asthma management. In addition, school staff should be trained to act in the event of an acute asthma episode.

As of February 2005, no state requires school staff to receive instruction on asthma awareness, asthma management, or policies and procedures for emergency response to asthma episodes. However, [Michigan's](#) policy recommends professional development for all school staff on asthma basics, asthma management, trigger management, and emergency response, and [New Jersey's](#) statute specifies that all members of the teaching staff should be offered annual opportunities to receive asthma education.

**States with written policies on education for asthma awareness for students and school staff  
(2005)**

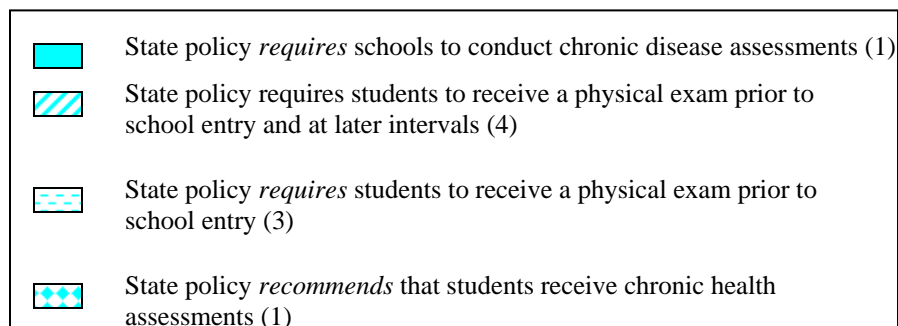
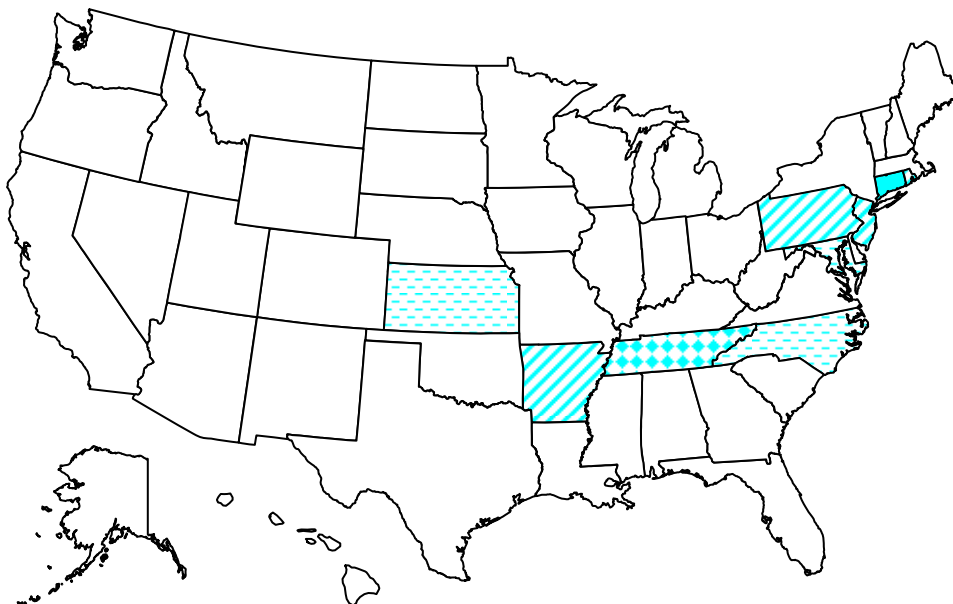


## 2. Identifying Students with Asthma

Early diagnosis and proper management and monitoring of asthma contribute to the prevention of serious episodes and morbidity. **Nine** states have policies addressing health examinations or assessments for students:

- [Connecticut](#) law requires that a licensed school health professional conduct a health assessment for chronic disease including asthma once in grade 6 or 7 and again in grade 10 or 11.
- [Arkansas](#), [New Jersey](#), [Pennsylvania](#), and [Rhode Island](#) mandate that students receive a physical examination or health appraisal before entry in and at later intervals but screening for asthma is not specifically required.
- [Kansas](#), [Maryland](#), and [North Carolina](#) require students to receive a physical examination or health appraisal before entry in school.
- [Tennessee](#) has written guidelines recommending that students with acute or chronic health issues receive a health assessment by a registered nurse.

States with written policies on asthma and general health examinations for students (2005)



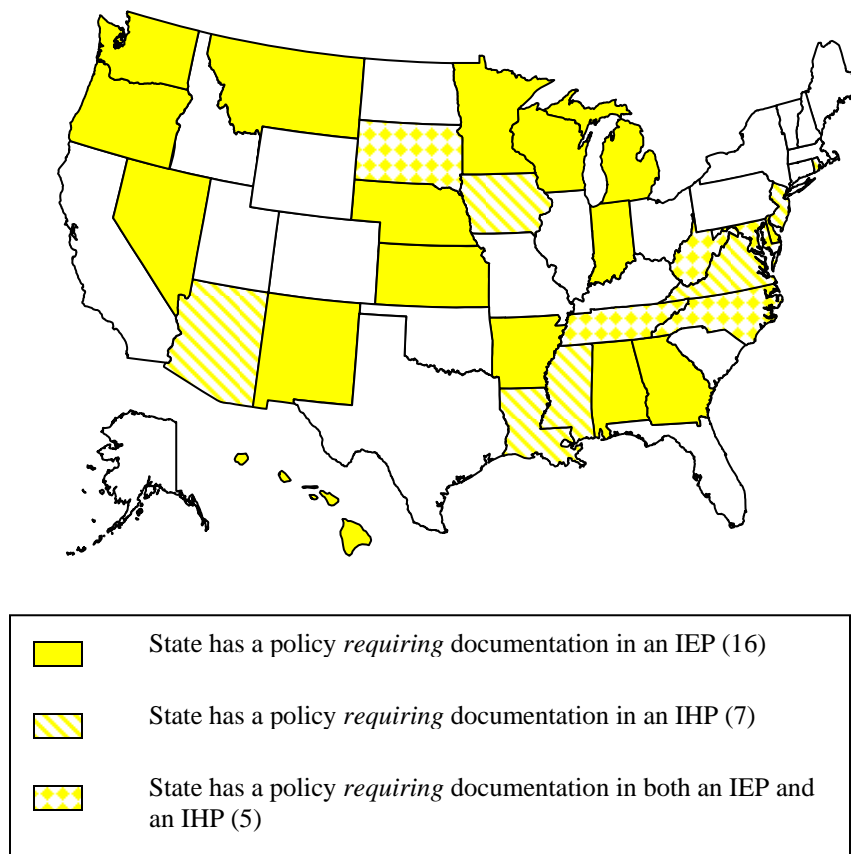
### 3. Individual Student Health Plans

Students with asthma who qualify for services under the Individuals with Disabilities Education Act, because of a need for special education or related services must have an individual education plan (IEP) that details how the student's unique academic needs will be satisfied. The special needs of students with complex health conditions that require modifications in the school environment are also commonly documented in an individual student health plan (ISHP), also known as an individual health plan, student services plan, nursing care plan, or student medications plan. Such a plan typically provides information on a student's chronic health condition, instructions on the administration of medication, and emergency contact information. A combination of plans is often necessary to helping the management of a student's health condition in a school and classroom setting.

**Twenty-eight** states have policies that require some form of documentation for students with chronic illnesses or health impairments, as follows:

- Sixteen states ([Alabama](#), [Arkansas](#), [Delaware](#), [Georgia](#), [Hawaii](#), [Indiana](#), [Kansas](#), [Michigan](#), [Minnesota](#), [Montana](#), [Nebraska](#), [Nevada](#), [New Mexico](#), [Oregon](#), [Washington](#), and [Wisconsin](#)) have policies that require districts to include in a student's IEP statements of "related services, other health impairments, and/or health services" the student needs or is being provided under the Individual Disabilities Education Act to satisfy unique academic needs.
- Six states ([Arizona](#), [Iowa](#), [Louisiana](#), [Mississippi](#), [Rhode Island](#), and [Virginia](#)) have policies that require districts to create ISHPs, distinct from IEPs, that may include statements of health services, testing results, and diagnoses from medical evaluations.
- Five states ([Maryland](#), [North Carolina](#), [South Dakota](#), [Tennessee](#), and [West Virginia](#)) have policies for the development of both IEPs and ISHPs for students with chronic illness.
- [New Jersey](#) requires that every pupil who is authorized to self-administer asthma medications have an asthma treatment plan prepared by a physician.

**States with written policies requiring schools to document medical conditions of students with asthma in an individual education plan (IEP) or individual student health plan (ISHP) (2005)**



#### **4. Using Prescribed Asthma Medication at School**

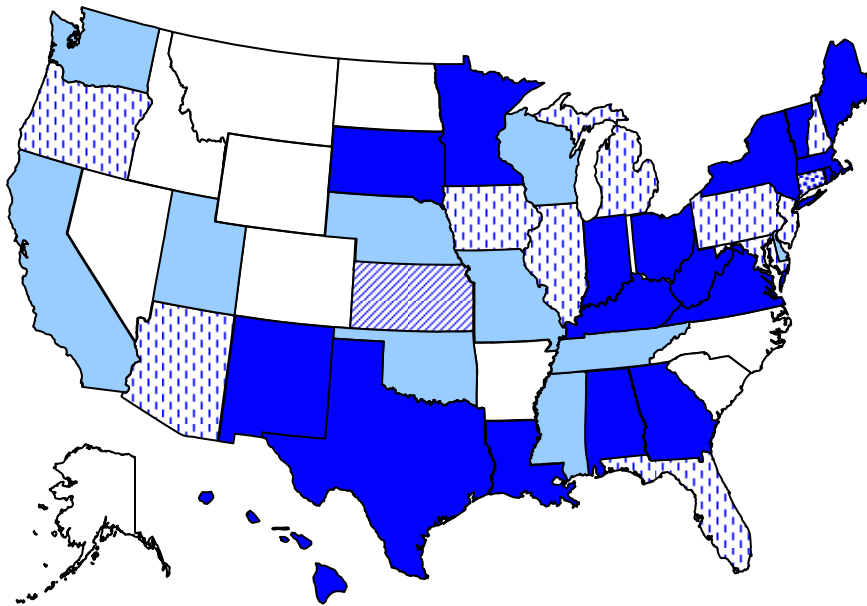
##### ***Administration by School Staff***






A student experiencing an acute asthma attack needs immediate access to prescribed medication. **Forty** states have policies addressing the administration of prescription medication by school personnel who are certified professionals or designated staff who have received specific training:

- Seventeen states ([Alabama](#), [Georgia](#), [Hawaii](#), [Indiana](#), [Kentucky](#), [Louisiana](#), [Maine](#), [Massachusetts](#), [Minnesota](#), [New Mexico](#), [New York](#), [Ohio](#), [Rhode Island](#), [South Dakota](#), [Texas](#), [Vermont](#), [Virginia](#), and [West Virginia](#)) have statewide policies that require all schools to designate staff who will administer medication to students during the school day. All policies require written authorization from a parent or guardian and the prescribing physician. Rhode Island's policy specifically addresses the needs of students with asthma or severe allergic reactions. Massachusetts specifically allows schools to administer epinephrine by auto-injector (e.g. EpiPen®) in life-threatening situations.



**States with written policies on administration of prescribed medication by school staff  
(2005)**



	State policy <i>requires</i> the administration of prescribed medication by school personnel (18)
	State policy <i>allows</i> the administration of prescribed medication by school personnel (10)
	State policy <i>requires</i> local districts to adopt administration of prescribed medication policies (10)
	State policy <i>allows</i> local districts to adopt administration of prescribed medication policies (1)
	State policy <i>recommends</i> local districts adopt administration of prescribed medication policies (1)

- Ten states ([California](#), [Delaware](#), [Mississippi](#), [Missouri](#), [Nebraska](#), [Oklahoma](#), [Tennessee](#), [Utah](#), [Washington](#), and [Wisconsin](#)) authorize schools to administer medication during the school day but do not require that all schools provide this service. California, Tennessee, Utah, and Wisconsin specifically grant education personnel permission to administer epinephrine through auto-injectors to students experiencing severe asthma symptoms or allergic reactions. [Nebraska](#) requires all its schools to adopt and implement an Emergency Response to Life-threatening Asthma or Systemic Allergic Reactions Protocol, although the state does not require schools to administer medications for other conditions.
- Ten states ([Arizona](#), [Florida](#), [Illinois](#), [Iowa](#), [Maryland](#), [Michigan](#), [New Hampshire](#), [New Jersey](#), [Oregon](#), and [Pennsylvania](#)) require all local districts to develop policies or protocols mandating the administration of medication in

schools. New Jersey requires local boards of education to develop policy for the use of epinephrine auto-injectors or nebulizers in cases of emergency.

- [Connecticut](#) authorizes local boards of education to develop policies to administer medication but does not require them to do so.
- [Kansas](#) recommends school districts to develop a policy for the safe administration of medication in the school setting.

Liability concerns for the administration of medications have also been addressed by several states. [Florida](#), [Indiana](#), [Kentucky](#), [Michigan](#), [New Jersey](#), [Ohio](#), [Oklahoma](#), [Oregon](#), [Utah](#), [Washington](#), and [Wisconsin](#) have written policies that shield districts and school staff from liability resulting from the proper administration of medications to students during the school day, provided that services were not rendered in a negligent or wanton manner.

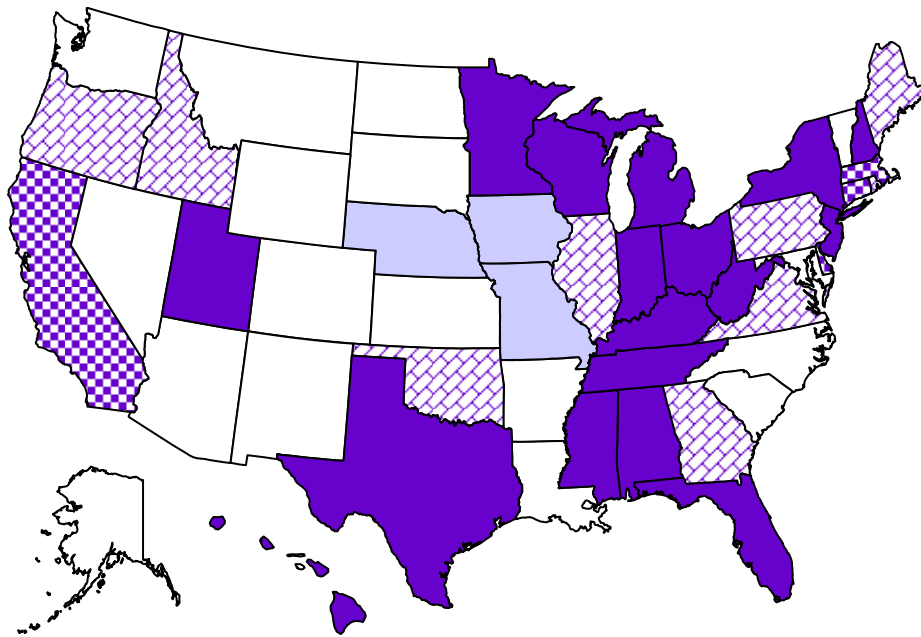
### ***Self-administration***





The American Academy of Pediatrics, the American Lung Association, and many other associations concerned with medical and asthma-related issues recommend that students with asthma who are competent and responsible should be allowed to carry and administer their own medication during the school day.

**Thirty-three** states have policies addressing possession or self-administration of medication by students. Guidelines vary, but all require written permission from a parent or guardian and the prescribing physician.

- Seventeen states ([Alabama](#), [Florida](#), [Hawaii](#), [Indiana](#), [Kentucky](#), [Michigan](#), [Minnesota](#), [Mississippi](#), [New Hampshire](#), [New Jersey](#), [New York](#), [Ohio](#), [Tennessee](#), [Texas](#), [Utah](#), [West Virginia](#), and [Wisconsin](#)) have statewide policies that allow students to both *possess* and *self-administer* approved medication during the school day. Florida, Hawaii, Michigan, Minnesota, New Hampshire, New Jersey, New York, Ohio, Tennessee, Utah, and Wisconsin specify inhaler and/or epinephrine as medications that students may self-administer. New Hampshire addresses possession as well as self-administration of prescribed medications. Ohio specifies asthma inhalers.
- Three states ([Iowa](#), [Missouri](#), and [Nebraska](#)) authorize schools only allow students to self-administer medication, but schools are not required to adopt such a policy.
- Lawmakers in another 9 states, ([Georgia](#), [Idaho](#), [Illinois](#), [Maine](#), [Oklahoma](#), [Oregon](#), [Pennsylvania](#), [Rhode Island](#), and [Virginia](#)) have mandated that local school districts must develop their own policies or protocols requiring self-administration of medication in schools. Georgia, Idaho, Maine, Oklahoma, Pennsylvania, Rhode Island, and Virginia address possession as well as self-administration of asthma medication in schools.
- [California](#), [Connecticut](#), [Delaware](#), and [Massachusetts](#) allow local districts to adopt policies permitting students to possess and self-administer prescribed medications but do not require districts to adopt such policies. Delaware specifies asthma quick relief inhalers.

**States with written policies on self-administration of prescribed medication by students during the school day (2005)**



	State policy <i>requires</i> schools to allow students to self-administer prescribed medication during the school day (17)
	State policy <i>authorizes</i> schools to allow students to self-administer prescribed medication during the school day (3)
	State policy <i>mandates</i> local districts to adopt policies allowing students to self-administer prescribed medication during the school day (9)
	State policy <i>allows</i> local districts to adopt policies allowing students to self-administer prescribed medication during the school day (4)

To address liability concerns, 22 of the 30 states listed on the previous page ([Alabama](#), [California](#), [Delaware](#), [Georgia](#), [Illinois](#), [Indiana](#), [Iowa](#), [Kentucky](#), [Michigan](#), [Mississippi](#), [Missouri](#), [New Hampshire](#), [New Jersey](#), [Ohio](#), [Oklahoma](#), [Pennsylvania](#), [Rhode Island](#), [Tennessee](#), [Texas](#), [Virginia](#), [West Virginia](#), and [Wisconsin](#)) also address issues of liability related to student self-administration of medication.

## 5. Reducing Environmental Triggers for Asthma

Treating asthma with medication is just one aspect of successful management of asthma. It is also essential to minimize students' exposure to the environmental triggers (allergens and irritants) that can increase airway inflammation and cause an asthma episode.

**Forty-two** states have policies on reducing one or more asthma triggers, as indicated in the table on the next page:

- **Thirty-eight** states have policies addressing *tobacco use* in school buildings, on school property, and/or on school transportation vehicles.
- **Twenty-three** states have policies on *indoor air quality* in school buildings.
- **Twenty-four** states have policies *pesticide use* on school grounds.

### *Tobacco Use*

Cigarette smoke is considered the most consequential environmental irritant that exacerbates asthma conditions. Secondhand smoke is known to precipitate asthma attacks. The American Lung Association estimates that 200,000 to 1 million students with asthma have worsened conditions due to secondhand smoke.<sup>8</sup>

**Thirty-nine** states have a written policy that addresses tobacco use at school and reinforces or enhances the federal [Pro-Children's Act](#), which prohibits smoking "within any indoor facility owned or leased or contracted for and utilized by such person for provision of routine or regular kindergarten, elementary, or secondary education or library services to children." The states' policy provisions vary:

- Twenty-six states ([Arizona](#), [Arkansas](#), [California](#), [Colorado](#), [Connecticut](#), [Delaware](#), [Florida](#), [Hawaii](#), [Idaho](#), [Illinois](#), [Iowa](#), [Kansas](#), [Maryland](#), [Massachusetts](#), [Minnesota](#), [Mississippi](#), [New Hampshire](#), [New Mexico](#), [Ohio](#), [Oregon](#), [Rhode Island](#), [Texas](#), [Vermont](#), [Washington](#), [West Virginia](#), and [Wisconsin](#)) prohibit students and school staff from smoking or using other forms of tobacco in school buildings and on school grounds. Many of these policies also apply to school visitors. (For purposes of this analysis, school property is defined as the areas inside a school building and outside on school grounds that does not include school transportation vehicles.)
- Another 12 states ([Alaska](#), [Kentucky](#), [Louisiana](#), [Michigan](#), [Missouri](#), [Montana](#), [New Jersey](#), [New York](#), [Oklahoma](#), [Pennsylvania](#), [Tennessee](#), and [Utah](#)) prohibit tobacco use by students in school buildings and on school grounds, but designated smoking areas for employees are allowed.
- [Nebraska](#) only prohibits tobacco use in school transportation vehicles.

**States with written policies on one or more of the three environmental triggers: tobacco use, air quality, and/or pesticide use (2005)**

State	Tobacco use	Air quality	Pesticide use
Alabama			
Alaska	X		X
Arizona	X	X	X
Arkansas	X		
California	X	X	X
Colorado	X		
Connecticut	X	X	X
Delaware	X		
Florida	X	X	
Georgia			
Hawaii	X		
Idaho	X		
Illinois	X		X
Indiana		X	X
Iowa	X	X	
Kansas	X		
Kentucky	X	X	X
Louisiana	X		X
Maine		X	X
Maryland	X		X
Massachusetts	X	X	X
Michigan	X	X	X
Minnesota	X	X	X
Mississippi	X		
Missouri	X		
Montana	X	X	X
Nebraska	X		
Nevada			
New Hampshire	X	X	X
New Jersey	X	X	X
New Mexico	X	X	X
New York	X		
North Carolina		X	
North Dakota			
Ohio	X	X	
Oklahoma	X		
Oregon	X		X
Pennsylvania	X		X
Rhode Island	X	X	X
South Carolina			
South Dakota			
Tennessee	X		
Texas	X	X	X
Utah	X		
Vermont	X	X	X
Virginia			
Washington	X	X	
West Virginia	X	X	X
Wisconsin			X
Wyoming		X	
<b>TOTAL</b>	<b>38</b>	<b>23</b>	<b>24</b>

X - indicates the state has a written policy

The following variations are seen among the 39 states with a policy on tobacco use:

- According to the Centers for Disease Control and Prevention, a tobacco-free environment exists if the state, district, or school has a policy prohibiting cigarette, cigar, and pipe smoking and smokeless tobacco use by students, faculty,

staff, and visitors; the policy prohibits tobacco use in school buildings, on school grounds, in school buses or other vehicles used to transport students, and at off-campus school-sponsored events.”<sup>9</sup> [Arizona](#), [Delaware](#), [Hawaii](#), and [West Virginia](#) have policies that meet all these criteria.

- Twelve states ([Alaska](#), [Arkansas](#), [Colorado](#), [Connecticut](#), [Hawaii](#), [Maryland](#), [Massachusetts](#), [New Hampshire](#), [New Jersey](#), [Oregon](#), [Rhode Island](#), and [Washington](#)) require schools to post signs on school property and transportation vehicles to indicate nonsmoking areas.
- Seventeen states ([Arizona](#), [Arkansas](#), [Colorado](#), [Connecticut](#), [Delaware](#), [Hawaii](#), [Louisiana](#), [Massachusetts](#), [Michigan](#), [Minnesota](#), [Mississippi](#), [Missouri](#), [Montana](#), [New York](#), [Pennsylvania](#), [Rhode Island](#), and [West Virginia](#)) prohibit smoking on school transportation vehicles in addition to school buildings and school grounds. [Nebraska](#) only prohibits smoking in school transportation vehicles.
- Fifteen states ([Arizona](#), [California](#), [Connecticut](#), [Delaware](#), [Hawaii](#), [Illinois](#), [Michigan](#), [New Jersey](#), [New Mexico](#), [Ohio](#), [Oklahoma](#), [Oregon](#), [Texas](#), [Vermont](#), and [West Virginia](#)) extend the prohibition of tobacco use to include all school-sponsored activities on or off the school campus.

**States with written policies on tobacco use by students in one or more of three locations: on school property\*, on school transportation vehicles\*\*, and at school sponsored-activities† (2005)**

State	School property	School transportation vehicles	School-sponsored activities
Alabama			
Alaska	X		
Arizona	X	X	X
Arkansas	X	X	
California	X		X
Colorado	X	X	
Connecticut	X	X	X
Delaware	X	X	X
Florida	X		
Georgia			
Hawaii	X	X	X
Idaho	X		
Illinois	X		X
Indiana			
Iowa	X		
Kansas	X		
Kentucky	X		
Louisiana	X	X	
Maine			
Maryland	X		
Massachusetts	X	X	
Michigan	X	X	X
Minnesota	X	X	
Mississippi	X	X	
Missouri	X	X	
Montana	X	X	
Nebraska		X	
Nevada			
New Hampshire	X		

State	School property	School transportation vehicles	School-sponsored activities
New Jersey	X		X
New Mexico	X		X
New York	X	X	
North Carolina			
North Dakota			
Ohio	X		X
Oklahoma	X		X
Oregon	X		X
Pennsylvania	X	X	
Rhode Island	X	X	
South Carolina			
South Dakota			
Tennessee	X		
Texas	X		X
Utah	X		
Vermont	X		X
Virginia			
Washington	X		
West Virginia	X	X	X
Wisconsin	X		
Wyoming			
<b>TOTAL</b>	<b>38</b>	<b>18</b>	<b>15</b>

X - indicates the state has a written policy

\* School property is defined as inside a school building and outside on school grounds

\*\* School transportation vehicle is defined as a school bus or other vehicle used to transport students

† School-sponsored activity is defined as an activity sponsored by the school located on or off campus

### ***Indoor Air Quality***

An estimated 90 percent of the school day is spent indoors where students can be exposed to environmental triggers such as pests, mold, animal dander, and air pollutants from unvented stoves, heaters, and sprays. A study conducted by the U.S. General Accounting Office (GAO) in 1995 reported that 14 million children attended school in buildings that threatened their health with poor indoor air quality.<sup>10</sup>

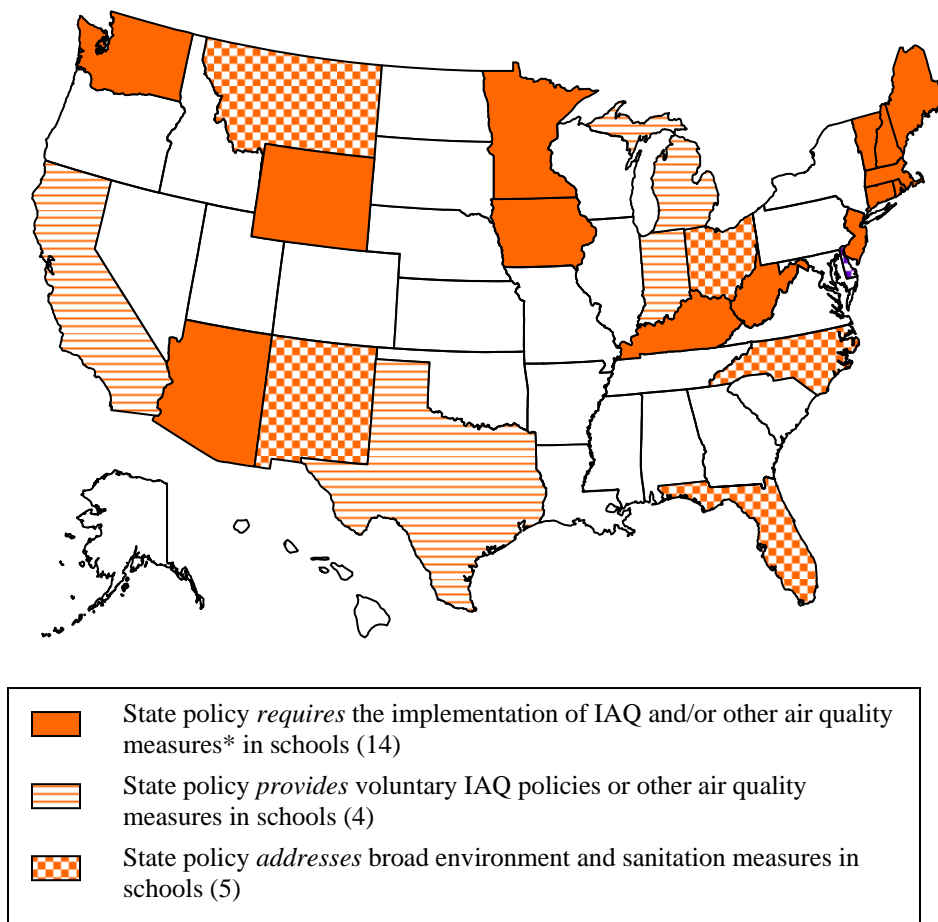
**Twenty-three** states have policies addressing indoor air quality, school ventilation systems, or healthy school environments. The following 18 states specifically address indoor air quality in schools:

- Ten states ([Arizona](#), [Connecticut](#), [Kentucky](#), [Maine](#), [Minnesota](#), [New Hampshire](#), [New Jersey](#), [Vermont](#), [Washington](#), and [West Virginia](#)) require the implementation of indoor air quality programs or the assessment of air quality or of ventilation systems in schools. New Jersey also requires schools to maintain healthy school environments by prohibiting the use of hazardous substances in or around school buildings when children are present.
- Four states ([California](#), [Indiana](#), [Michigan](#), and [Texas](#)) offer voluntary guidance concerning school indoor air quality.
- [West Virginia](#) highly recommends that carpeting, which can harbor dust mites and mold, be restricted in public school buildings.
- [Minnesota](#), [Rhode Island](#), and [West Virginia](#) require school bus operators to minimize the idling of school bus engines to prevent exposure of children to diesel exhaust fumes. Diesel school buses must be parked and loaded at

sufficient distance to prevent diesel fumes from being drawn into school ventilation systems.

- [Iowa](#) and [Wyoming](#) require the construction of school buses to be reasonably dust proof to minimize environmental asthma triggers for students who use bus transportation.
- [Massachusetts](#), [Minnesota](#), and [New Jersey](#) require all school construction projects to implement containment procedures for dusts, gases, fumes, and other pollutants.

### States with written policies on indoor air quality in schools (2005)



\* other air quality measures include school bus idling, dust-proof buses, and construction projects

The remaining five states have broad policies establishing standards and requirements for maintaining healthy school environments, although the policies do not specifically mention indoor air quality:

- [Montana](#), [New Mexico](#), and [Ohio](#) require schools to provide environments that promote safe and physical well-being of persons in school buildings.



- State statutes in [Florida](#) and [North Carolina](#) require the establishment and maintenance of safety, health, and sanitation standards for school facilities.

***Pesticide Use***

Pesticides—chemicals used to kill pests, rodents, and insects in and around school buildings—can be hazardous to human health, especially for people with asthma whose condition can be exacerbated through inhalation, ingestion, or skin contact with pesticides.

**Twenty-four** states have policies addressing the use of pesticides on school property.

- Sixteen states ([Illinois](#), [Indiana](#), [Kentucky](#), [Louisiana](#), [Maine](#), [Maryland](#), [Massachusetts](#), [Michigan](#), [Montana](#), [New Jersey](#), [New Mexico](#), [Pennsylvania](#), [Rhode Island](#), [Texas](#), [Vermont](#), and [West Virginia](#)) require schools to implement an integrated pest management program that includes procedural guidelines for pesticide application, education of building occupants, and inspection and monitoring of pesticide applications.
- Four states ([California](#), [Connecticut](#), [Minnesota](#), and [Wisconsin](#)) give school districts the option of implementing an integrated pest management program.
- Thirteen states ([Alaska](#), [Connecticut](#), [Indiana](#), [Louisiana](#), [Maine](#), [Massachusetts](#), [Minnesota](#), [New Hampshire](#), [New Mexico](#), [Oregon](#), [Rhode Island](#), [Texas](#), and [Vermont](#)) impose limits on applying pesticides on school grounds.
- Eighteen states ([Alaska](#), [Arizona](#), [California](#), [Connecticut](#), [Illinois](#), [Indiana](#), [Kentucky](#), [Maine](#), [Maryland](#), [Massachusetts](#), [Michigan](#), [Minnesota](#), [New Hampshire](#), [New Jersey](#), [New Mexico](#), [Oregon](#), [Pennsylvania](#), and [Rhode Island](#)) require schools to notify staff and parents of students attending the school before or after application of pesticides.
- Twelve states ([Alaska](#), [Arizona](#), [California](#), [Maine](#), [Maryland](#), [Massachusetts](#), [Montana](#), [New Jersey](#), [Oregon](#), [Pennsylvania](#), [Rhode Island](#), and [Wisconsin](#)) require schools to post signs indicating the application of pesticides.

**States with written policies on pesticide use on school grounds (2005)**

State	Requiring Integrated pest management	Limiting pesticide application	Notifying staff & parents	Posting signs
Alabama				
Alaska		X	X	X
Arizona			X	X
Arkansas				
California	voluntary		X	X
Colorado				
Connecticut	optional	X	X	
Delaware				
Florida				
Georgia				
Hawaii				
Idaho				
Illinois	X		X	
Indiana	X	X	X	
Iowa				

State	Requiring Integrated pest management	Limiting pesticide application	Notifying staff & parents	Posting signs
Kansas				
Kentucky	X		X	
Louisiana	X	X		
Maine	X	X	X	X
Maryland	X		X	X
Massachusetts	X	X	X	X
Michigan	X		X	
Minnesota	optional	X	X	
Mississippi				
Missouri				
Montana	X			X
Nebraska				
Nevada				
New Hampshire		X	X	
New Jersey	X		X	X
New Mexico	X	X	X	
New York				
North Carolina				
North Dakota				
Ohio				
Oklahoma				
Oregon		X	X	X
Pennsylvania	X		X	X
Rhode Island	X	X	X	X
South Carolina				
South Dakota				
Tennessee				
Texas	X	X		
Utah				
Vermont	X	X		
Virginia				
Washington				
West Virginia	X			
Wisconsin	optional			X
Wyoming				
<b>TOTAL</b>	<b>20</b>	<b>13</b>	<b>18</b>	<b>12</b>

X - indicates state has a written policy

## Conclusions

No state has a comprehensive set of policies that address all the asthma-related policy areas included in this analysis. Nevertheless, it is encouraging that 49 states have addressed at least one of the policy areas.

School leaders who want to minimize asthma as a barrier to student learning can use this analysis to help identify their state's policy gaps and determine priorities for policy development. Those who draft policy can use NASBE's online [State School Health Policy Database](#) to locate policies that can serve as appropriate models and provide specific wording.

In early 2005, NASBE will publish *Part III: Asthma; School Health Services; Healthy School Environments*, a new chapter of [Fit, Healthy, and Ready to Learn: A School Health Policy Guide](#). This document will provide (1) complete guidance in all the policy areas included in this analysis; (2) sample policy language that states, districts, and schools can adopt or adapt; and (3) lists of key resources for developing policies.

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- <sup>1</sup>Centers for Disease Prevention and Control (2004). *Nine Million U.S. Children Diagnosed with Asthma, New Report Finds*. Available online at [www.cdc.gov/od/oc/media/pressrel/r040331.htm](http://www.cdc.gov/od/oc/media/pressrel/r040331.htm).
- <sup>2</sup>Centers for Disease Prevention and Control. *Asthma's Impact on Children And Adolescent*. Available online at [www.cdc.gov/nceh/airpollution/asthma/children.htm](http://www.cdc.gov/nceh/airpollution/asthma/children.htm); American Lung Association (2003). *Asthma in Children Fact Sheet*. Available online at <http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=44352>.
- <sup>3</sup>A. N. Dey, J. S. Schiller, and D.A. Tai, "Summary Health Statistics for U.S. Children: National Health Interview Survey, 2002," *Vital Health Statistics*, 10 no. 221 (2004). Available online at [www.cdc.gov/nchs/data/series/sr\\_10/sr10\\_221.pdf](http://www.cdc.gov/nchs/data/series/sr_10/sr10_221.pdf).
- <sup>4</sup>D.M. Mannino, D.M. Homa, L.J. Akinbami, J.E. Moorman, C. Gwynn, S. Redd, "Surveillance for Asthma—United States, 1980-1999." *Morbidity and Mortality Weekly Report Surveillance Summary*, 51 no. SS—1 (2002): 1-13. Available online at [www.cdc.gov/mmwr/preview/mmwrhtml/ss5101a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5101a1.htm).
- <sup>5</sup>G.B. Diette, M. Leona, E.A. Skinner, T.T.H. Nguyen, P. Algatt-Bergstrom, A.W. Wu, "Nocturnal Asthma in Children Affects School Attendance, School Performance, and Parents' Work Attendance." *Archives of Pediatrics and Adolescent Medicine*, 154 no. 9 (2000): 923-928.
- <sup>6</sup>S. Neuharth-Pritchett, Y.Q. Getch, "Asthma and the School Teacher: The Status of Teacher Preparedness and Training." *Journal of School Nursing*, 17 no. 6 (2001): 323-8.
- <sup>7</sup>M.G. Fowler, M.G. Davenport, R. Garg, "School Functioning of U.S. Children with Asthma." *Pediatrics*, 90 no. 6 (1992): 939-44.
- <sup>8</sup>American Lung Association (2003). *Asthma in Children Fact Sheet*. Available online at [www.lungusa.org/asthma/ascpedfac99.html](http://www.lungusa.org/asthma/ascpedfac99.html).
- <sup>9</sup>Centers for Disease Control and Prevention, *Fact Sheet: Tobacco-Use Prevention: From CDC's School Health Policies and Programs Study (SHPPS) 2000*. Available online at [www.cdc.gov/nccdphp/dash/shpps/factsheets/fs00\\_tobacco.htm](http://www.cdc.gov/nccdphp/dash/shpps/factsheets/fs00_tobacco.htm).
- <sup>10</sup>General Accounting Office (1995). *School Facilities: Condition of America's Schools*. Available online at [www.gao.gov](http://www.gao.gov).