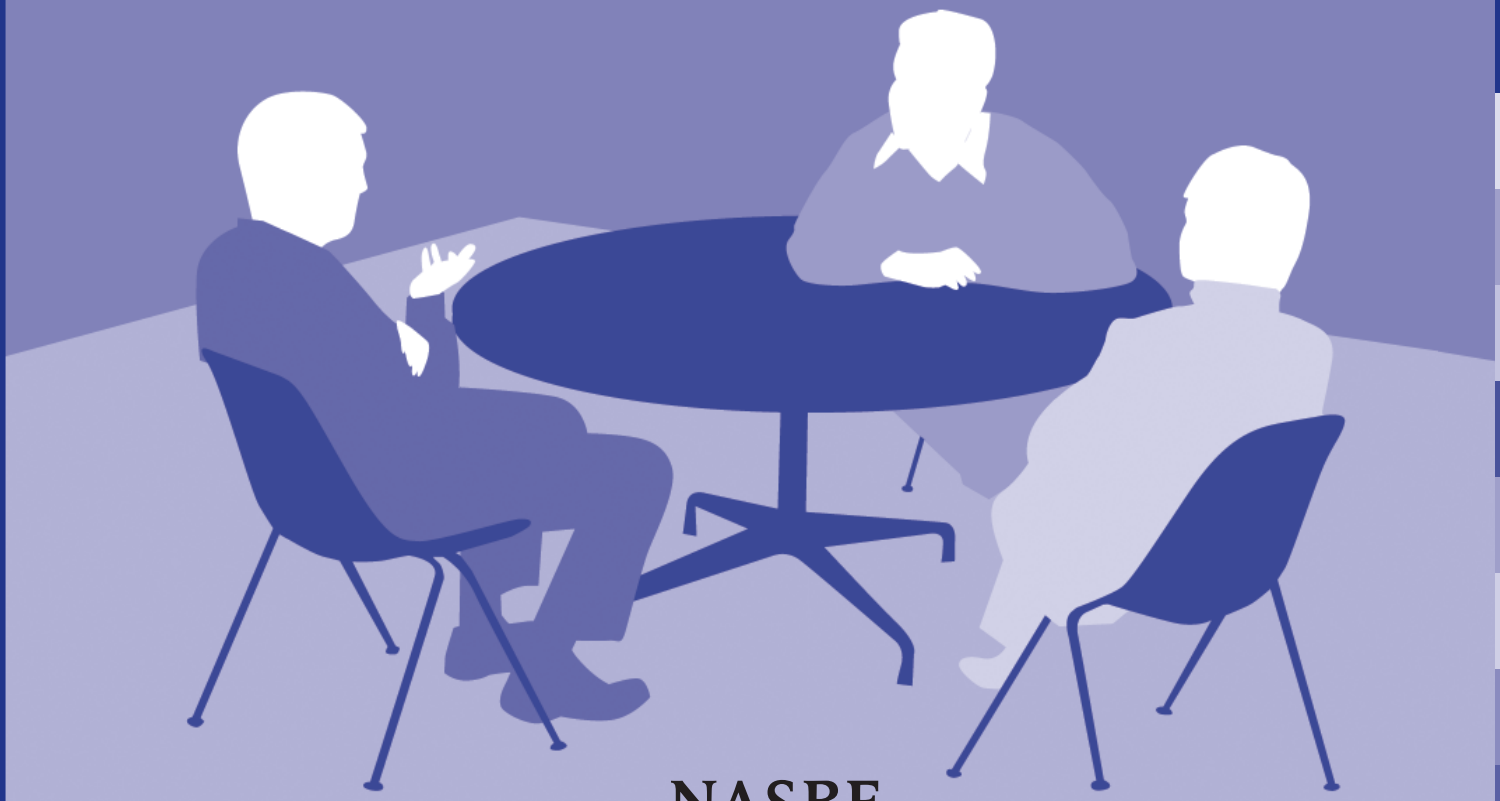
NASBE

Discussion Guide

National Association of State Boards of Education November 2013

Anaphylaxis and Schools

Developing Policies for Treating Students with Severe Allergic Reactions



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Anaphylaxis and Schools: Developing Policies for Treating Students with Severe Allergic Reactions

Contents

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I. Introduction to Anaphylaxis Among School-Age Children

In today's school environment, an urgent situation with potentially life-threatening consequences for students has led many health practitioners, parents, and educators to urge policymakers to take action. The issue is anaphylaxis, or severe allergic reaction, which has been increasing in the U.S. population, especially among the young.[1] Indeed, while both adults and children fall victim to these allergic reactions, it is children who are most at risk for anaphylaxis.[2] Consider these statistics:

- The Centers for Disease Control and Prevention (CDC) report that between 1997 and 2007, anaphylaxis prevalence increased 18% among children under 18 years old;[3]
- In 2007, it was estimated that 3 million children (3.9%) suffered from food allergies;[4]
- More recent data reported in 2012 actually show rates closer to 8% or about 5.9 million children;[5] and
- Of that 8% of children, 38.7% had a history of severe reactions and 30.4% had multiple allergies.[6]

There are multiple triggers for anaphylaxis, but food allergies are the most common, followed by insect stings, medications, and latex exposure.[7] Without prompt treatment, anaphylaxis can kill—approximately 1500 deaths attributed to allergic reactions occur annually in the United States.[8]

Avoidance of the known allergen is key to managing severe allergic reactions, but accidental exposure can still occur, and in other cases the condition may not yet be diagnosed.[9] Experts agree that accessible epinephrine auto-injectors can greatly increase positive outcomes for individuals experiencing life-threatening allergic reactions.[10]

The recent increase of students who are at risk of a life-threatening allergic reaction presents a challenge for schools. Many schools are working to put systems in place to prevent exposure to allergens and respond to children experiencing anaphylaxis. That this is a situation educators must take seriously can be seen in these numbers:

- Among children suffering from food allergies, 18% reported experiencing an event while at school,[11]
- 25% of those children experiencing a reaction at school had never been diagnosed with a food allergy,[12] and
- The annual number of hospitalizations for children under 18 years old due to allergic reactions increased more than three-fold from 1998-2000 to 2004-2006,[13] and the prevalence of food allergies for children under 18 increased from 3.4% in 1997-1999 to 5.1% in 2009-2011.[14]

Experts agree every effort should be made to eliminate allergens and recognize and treat students having an allergic reaction with epinephrine. But according to the organization Food Allergy Research and Education (FARE), only a handful of states have laws related to schools stocking epinephrine for students without a known allergy.[15] While more precise and robust data are needed, the evidence is clear that the number of people subject to severe allergic reactions is growing. It is also clear that children under 18 years old—who spend nearly half of their waking hours at school—are most at risk.

This Discussion Guide is designed for state education policymakers who want to take a deeper look into the issue of anaphylaxis among school-age children. It identifies viable state, district, and individual school policy solutions; highlights states that are already addressing the issue; and provides a framework for discussions that can lead to the development of new policies and other state-level actions.

The guide has sections that include:

- The most recent data on the prevalence of anaphylaxis, treatment strategies, and gaps in current school strategies for meeting this challenge;

What Is Anaphylaxis?

Anaphylaxis is a severe, life-threatening allergic reaction that affects both adults and children.

What are common triggers?

Food (most common)
Insect stings
Medications
Latex
Other known triggers such as exercise
Unknown triggers

What types of foods most commonly cause allergic reactions?

Peanuts (most common)
Shellfish (2nd most common)
Milk (3rd most common)
Tree nuts
Fish
Soy products
Wheat products

What are common types of responses?

Responses range from mild to fatal. A single or multiple organs can be affected during a reaction. Organs affected and common symptoms include:

Skin – swelling, rash, or itching of any body part

Respiratory – difficulty swallowing or breathing; shortness of breath; runny nose, coughing, or wheezing and change in voice

Gastrointestinal – itchy tongue, mouth, or throat; vomiting, diarrhea, or nausea; abdominal cramps

Cardiovascular – flushed, pale skin; coughing with bluish lips and mouth; fainting or loss of consciousness; dizziness or change in mental status

Other – sense of impending doom or anxiety; itchy, red, watery eyes

- Elements of effective policies being employed;
- State-level actions to address this issue; and
- A policy discussion framework.

School Response Strategies

With the prevalence of food allergies in children under 18 years old ranging from 6.2% in rural areas to nearly 10% in urban centers,[16] school districts and individual schools are preparing for these students to enter school by implementing a range of strategies and systems to ensure their safety. The most common prevention strategy is strict elimination and avoidance of known allergens.[17] While avoidance is possible when a child and his or her support system are aware of the problem, children who have never suffered an episode are still at risk. The CDC encourages all school personnel to be ready to effectively manage students with known food allergies and to be vigilant and prepared to respond effectively to the emergency needs of students who are not known to have food allergies.[18] In addition to avoidance strategies to reduce the risk of ingestion of an allergen, procedures to recognize and treat allergic reactions are critical.[19]

Epinephrine is the only first-line treatment in all cases of anaphylaxis (including those due to food allergies) and should be available at all times for people at risk of anaphylaxis.[20] The American Academy of Allergy, Asthma, and Immunology (AAAAI) issued a posi-

School Tragedy in Virginia Sparks Legislative Action

On January 2, 2012, Amarria Johnson, a first-grader in Chesterfield, Virginia, died at school after suffering a severe allergic peanut reaction. She had been given a peanut by a classmate on the playground during recess. Upon realizing what was happening to her, she alerted the teacher monitoring the playground and was taken to the school clinic. She did not have an epinephrine auto-injector and was in cardiac arrest by the time the emergency crew arrived.

Three months later, Virginia's General Assembly passed legislation requiring schools to stock epinephrine auto-injectors for use by school nurses and other trained personnel to administer to any student exhibiting signs of anaphylaxis."[21]

Excerpts from Position Statements Regarding Anaphylaxis and Schools

American Academy of Allergy, Asthma and Immunology

Epinephrine is the first drug that should be used in the emergency management of a child having a potentially life-threatening allergic reaction. Epinephrine injection is available in a number of self-administration delivery devices. There are no contraindications to the use of epinephrine for a life-threatening allergic reaction....

All individuals receiving emergency epinephrine should immediately be transported to a hospital even if symptoms appear to have resolved....

Epinephrine should be kept in locations that are easily accessible and not in locked cupboards or drawers. All staff members should know these locations....

All individuals entrusted with the care of children need to have familiarity with basic first-aid and resuscitative techniques. This should include additional formal training on how to use epinephrine devices. Training programs may be through health departments or physicians' groups to ensure that all individuals in schools and other areas of child care (e.g., school bus drivers, coaches, camp counselors, and lifeguards) are qualified in these techniques....

A school-wide food allergy awareness program for the staff, including an allergy emergency drill, should be developed to ensure that everyone will know what to do if a reaction occurs....

Legislation to provide good Samaritan protection should be passed in the many states where it does not already exist....

It would be optimal for epinephrine to be available in all schools for use by nurses or trained individuals to administer to students or staff presumed to be having an anaphylactic reaction.

Source: American Academy of Allergy, Asthma and Immunology Board of Directors, "Archived AAAAI Statements and Work Group Reports," www.aaaai.org/practice-resources/statements-and-practice-parameters/archived-aaaai-statements.aspx.

tion statement on the management of anaphylaxis in schools that recommends epinephrine as the first drug to be used in the treatment of children with life-threatening allergic reactions (see textbox above).

Gaps in School Response

Recent tragedies have brought to light the need for management and treatment strategies in schools. Over a decade ago the death of two students prompted Massachusetts to become the first state to address anaphylaxis management at school. Since then, many states have taken action of varying degrees, though not all states have enacted legislation or developed guidelines.

Despite the life-threatening potential of an anaphylaxis reaction, a number of shortcomings have been cited in the response of schools with respect to treatment and awareness. These include the following gaps in training, medicine availability, and procedures:

- Many schools do not provide their staff with education on how to prevent allergic reactions, such as reading food labels, or how to respond to life-threatening events with appropriate use of epinephrine;[22]
- Treatment delays occurred due to delayed recognition of severe allergic reactions;[23]
- Epinephrine was not always available[24] or it was administered unsuccessfully;[25]
- Epinephrine was not available because it was not stocked or this was the first reaction for a student; [26] and
- Written student-specific emergency plans for staff to follow were not always available or used.[27]

There is no doubt that these gaps have led to the loss of lives and to many potentially fatal emergencies. The next chapter examines the elements of a comprehensive plan that states, school districts, and schools can use to address this issue.

II. Elements of a Comprehensive Policy

Keeping students and school staff with allergies safe takes more than keeping a supply of epinephrine on hand at every school. Experts recommend that adequately addressing the rising concern over anaphylaxis reactions in school settings means encouraging—or even requiring—school officials to take a comprehensive approach. This includes considering:

- Developing management plans for children who have an identified allergy, as well as a plan for treating the 25% of students with an unknown allergy who have their first reaction at school;[28]
- Establishing a heightened awareness among all school personnel to ensure staff are trained to encourage avoidance of allergens;[29]
- Creating a school environment that limits or avoids exposure of allergens; and
- Ensuring that staff members are trained to identify signs and symptoms of an allergic reaction and that they know how to respond if a reaction does occur.

Management Policy

Typical elements of allergy management polices involve multi-disciplinary teams, written protocols to lessen exposure to allergens and steps to follow in the event of an emergency, and identification and reporting systems. Engaging a multi-disciplinary team will promote greater and faster spread of the plan across multiple audiences in the school setting, as well as raising awareness of the issue among the staff. Often these teams are led by the school nurse or, if applicable, a Section 504 coordinator (i.e., the person responsible for ensuring compliance with federal disability laws). Typical advisers to teams include:

School nurses
Administrative representatives
Food service directors
Teachers
School counselor
Coaches
Bus drivers
Local EMS personnel
Other staff
The students (if age appropriate).

Some states have guideline requirements for student management plans. These could include a 504 Plan as requested by a parent (see textbox below) or an Individualized Health Care Action Plan. These plans are usually agreed upon by the team overseeing the care of the child and are often endorsed by the child's physician or attending school nurse. The plan would include preventive steps to avoid exposure and what to do in the event of an emergency in the classroom, the cafeteria, on the playground, at recess, or traveling to and from school. These plans often include a picture of the child and are stored in multiple locations for ease of access.

Identification and reporting systems track students with known allergies, have procedures in place for periodically updating records, and include incident reporting for all students with a severe allergic reaction. When students enter into the school system, checking for a diagnosis of food allergies can begin the tracking process; tracking also begins if a student presents at school with an allergic reaction for the first time.

Student Allergies and 504 Plans

Students with a severe food allergy may be considered as having a disability under federal laws, such as Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). A 504 Plan outlines the accommodations, aids, or services that a student with a disability needs to fully participate in public school, and in cases of food allergies would likely include a "food allergy and anaphylaxis emergency care plan."

A disability under federal law is defined as a physical or mental issue that seriously limits one or more major life activities. Life activities include many functions that can be affected by a life-threatening food allergy, such as the heart and circulatory system, eating and the digestive system, breathing, and others.[30]

The Federal Response

The federal *Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs* was released in October 2013 (see www.cdc.gov/healthyyouth/foodallergies/pdf/13_243135_A_Food_Allergy_Web_508.pdf). It was developed by CDC in response to the 2011 FDA Food Safety Modernization Act, which required the Secretary of Health and Human Services to "develop guidelines… to manage the risk of food allergy and anaphylaxis in schools and early childhood education programs" and "make such guidelines available to local educational agencies, schools...and other interested entities and individuals." While much of the information is helpful to state-level policymakers, the document is not specifically targeted to this group. Among the topics covered:

- Parental obligations for notifying school officials about their child's allergies;
- The creation and maintenance of an individual plan for food allergy management;
- Strategies to reduce the risk of exposure to allergens in the school setting;
- Food allergy management training of school personnel who regularly come into contact with children with life-threatening food allergies and the authorization and training of personnel to administer epinephrine when the nurse is not immediately available; and
- The timely accessibility of epinephrine by school personnel when the nurse is not immediately available.

The School Access to Emergency Epinephrine Act, sent to President Obama for his signature on October 31, 2013, provides an incentive for states to pass legislation that allows schools to keep stocks of epinephrine on hand for use if students or staff show symptoms of severe allergic reactions. The act also encourages states to adopt Good Samaritan laws that shield trained school personnel who administer epinephrine from civil liability. Under the act, states that have such laws will be given an additional preference when they apply for federal asthma-related grants for child health services.

Other federal laws, such as Section 504 of the Rehabilitation Act of 1973, Individuals with Disabilities Education Act (IDEA), American with Disabilities Act (ADA) and the U.S. Department of Agriculture (USDA) regulations 7 CFR Part 15b, help protect children at risk of anaphylaxis. When a physician diagnoses a child with a food allergy that is potentially life threatening, the condition can be classified as a hidden disability under Section 504. IDEA requires that a free and appropriate public education be provided for individuals with disabilities that impact a student's ability to learn. If a student has a learning disability and a life-threatening allergy, IDEA may apply. The U.S. Department of Education has information about the rights of students with hidden disabilities at www2.ed.gov/about/offices/list/ocr/docs/hq5269.html.

The ADA extends Section 504 coverage beyond the public school setting to include private, parochial, religious schools, and day care centers. The USDA 7 regulation CFR Part 15b requires substitutions or modifications in school meals for students whose disabilities restrict their diet. When considering what regulations and laws apply to a given circumstance, it is suggested that officials seek legal counsel as necessary.

To finely tune an emergency response system many schools have included responding to an allergic reaction in an emergency drill scenario. This allows the administration to understand how prepared the staff and students in case of a real-life emergency.

Awareness

Many school districts have developed comprehensive awareness campaigns, coupled with training seminars for all staff to recognize signs and symptoms of anaphylaxis and understand the protocol for responding in an emergency situation, particularly if the school nurse is not immediately available.[31] Any staff who might be with a child during a reaction should be considered for inclusion in a training opportunity. School personnel who could be considered when developing a training plan include:

Teachers
Food service providers
Bus drivers
Recess or playground monitors
Field trip chaperones
Physical education teachers and coaches
Any other staff who could be with a child during a reaction.

During an allergic event and immediately following, it is essential to call EMS or 911 and have the child

taken to the hospital for observations. A biphasic response, meaning the reoccurrence of symptoms within 1-72 hours without additional exposure, is possible. Having informed school personnel who can educate parents or caregivers about this potential is an important consideration.

Parents and guardians play a critical role in the treatment of students with life-threatening allergies at school. If a child has his or her first reaction at school, alerting parents and working with them to create an individualized health care plan for the student will provide a new framework for ensuring the child's safety. Other students who may witness an event or be aware of a student with a life-threatening allergy can play a role in helping the student avoid allergen exposure. The potential severity of an event (or likelihood that an event will occur) can help determine the level of awareness needed by other students.

School Environment

Preventing ingestion is the best way to ensure a student does not experience a life-threatening allergic reaction. This requires looking across multiple locations and areas of activity on a school campus where a student may come into contact with food. High-risk areas and activities for consideration when developing policies include:

- Cafeteria
- Food sharing
- Hidden ingredients
- Craft and science projects
- Bus transportation
- Field trips
- Fundraisers and bake sales
- Parties and holiday celebrations
- Substitute teachers being unaware of a student with a known allergy

Cross-contamination in the food service environment is another area for consideration in developing policy. Improper cleaning and sanitation practices can be the source of an accidental exposure, as can food labels that are not properly interpreted as including an allergen.

Food Bans and Allergen-Free Zones

"School districts need to consider how to develop a plan that over time will best meet the needs of all students and prepare them for self-management and advocacy as they transition within and beyond PK through Grade 12. School options may include establishing allergen-free zones, such as a child's individual classroom, allergen-free lunch table(s) or areas in the cafeteria and food-free zones, such as libraries and music rooms, as well as enforcing relevant school policies, such as those that prohibit eating on the school buses. Individual student and family privacy needs and preferences should be considered in determining appropriate plans. Not all students or families will need or want to use an allergen-free zone during the school day."

From Connecticut State Department of Education and State Department of Health, *Guidelines for Managing Life-Threatening Food Allergies in Connecticut Schools (Includes Guidelines for Managing Glycogen Storage Disease)* (Hartford, CT: Authors, 2012), www.sde.ct.gov/sde/lib/sde/pdf/publications/food_allergies/food_allergies.pdf.

Medication and Treatment

All 50 states have laws protecting students' right to carry and use prescribed asthma medications; 49 states have similar laws regarding anaphylaxis medications (New York laws are pending).[32] Many states have guidelines that dictate who can administer epinephrine in the event of an emergency. Self-administration by a student who is of a certain age and maturity is common. Some individual health care action plans allow for any authorized and trained personnel to administer epinephrine, while many states specify that only school nurses are the only authorized personnel. Stocking of epinephrine onsite at schools has become more common practice for potential use by specifics students known to have allergies *and* for use by those who aren't known to have an allergy. This is known as having a school-based prescription.

Some epinephrine policies dictate that the drug be coded, tracked, and easily accessible. In a few cases, the drug is stored in multiple sites such as the cafeteria, classroom, and front office to ensure fastest response time. Many policies also require that epinephrine not be kept locked and that all staff members know where to find it.[33]

Due to the potential for a biphasic reaction, it is recommended that all children experiencing a reaction be taken to the emergency room.[34] As many as 20% of reactions have been known to manifest again in this way.[35]

III. State Actions

Developing a comprehensive policy for anaphylaxis in schools with guidelines for districts and individual schools to follow can be a complex process. While most states are grappling with this issue, many have tackled it and are in the implementation and evaluation phases of their policies. This section highlights states that enacted legislation around access to medication issues and produced guidelines to help districts develop policies. It also highlights several of the key state policy components, including management plans, awareness campaigns, and the school environment.

Medication and Treatment

Most states have enacted some type of legislation covering anaphylactic reactions. Many of the laws deal with access to epinephrine at school sites, identify who can administer the epinephrine, specify how the medications should be stored and labeled, and detail the use of Individualized Health Care Plans for children with an existing diagnosis. State laws around epinephrine access and treatment at school are changing quickly. As of July 2013:

- 49 states allow students with consent to carry their own epinephrine at schools. Depending on the state, this may also extend to activities held on school property and during transportation to and from school;
- 15 states authorize teachers, principals, or other trained staff delegated by the school nurse to administer epinephrine (though this authority often does not extend to contractors, such as bus drivers);
- 6 states give wide discretion to trained school staff to administer epinephrine if they believe an individual is having a life-threatening allergic reaction; and
- 28 states authorize schools to maintain a general supply of epinephrine on site to administer to a child who does not have a known allergy in the event of an emergency situation and 5 more have similar laws that are pending. However, state laws vary in several important ways, including who is permitted to administer the medication, and only a few states require schools to stock epinephrine for emergency use.[36]

According to FARE, 15 states have developed statewide guidelines to help school districts and schools develop effective policies. These include Arizona, Connecticut, Illinois, Maryland, Massachusetts, Mississippi, Missouri, New Jersey, New York, Pennsylvania, Tennessee, Texas, Virginia, Vermont, Washington, and West Virginia.

Illinois' Emergency Epinephrine Act

"On August 15, 2011, the Emergency Epinephrine Act, P.A. 97-0361...became law in Illinois, permitting schools to stock a supply of epinephrine auto-injectors, authorizing physicians to provide school districts and nonpublic schools with a prescription to obtain the emergency epinephrine auto-injectors from local pharmacists, and giving school nurses the power to administer the epinephrine to any student whom the nurse believes is having an anaphylactic reaction.

"The primary thing stopping school nurses from administering life-saving emergency epinephrine to students is the inability of schools to secure a standing order and prescription for the undesignated epinephrine auto-injectors from a physician. For the health and safety of Illinois children, we strongly encourage [physicians] to fulfill any requests by a school for a standing order and prescription for emergency undesignated epinephrine auto-injectors."

Lisa Madigan, Illinois Attorney General and LaMar Hasbrouck, Director, Illinois Department of Public Health, from the introduction to *Emergency Epinephrine Act (Illinois Public Act 97-0361): Physician's Toolkit,* www.isbe.state.il.us/pdf/school_health/physicians-tool-kit.pdf.

* * *

During the 2012-13 school year, of the 38 people in Chicago public schools who were injected with undesignated EpiPens provided through the EpiPen4Schools program, 21 did not previously know they had an allergy.[38]

These guidelines range in comprehensiveness, though common components include guidance for developing management teams and plans, elevating awareness among staff, creating environments that reduce risk of accidental exposure, and access to medications.[37]

Management Policy

In 2002, the Massachusetts Department of Education initiated a taskforce that developed the publication *Managing Life-Threatening Food Allergies in Schools.* The guidance focuses on a team approach for addressing life-threatening allergies. In the section titled "Planning for the Individual Student: Entry Into School," the use of an Individualized Health Care Plan (IHCP) is recommended. Development of the IHCP includes the following steps:

- For students with a known allergy prior to entry into school, the parent or guardian should meet with the school nurse to develop an IHCP;
- The parent/guardian should work with the school to create an appropriate strategy for management of the food allergy;
- Parents must provide documentation of the food allergy, a prescription for epinephrine, consent to administer the drug to the student, consent to share the student's information with school staff, a minimum of two up-to-date EpiPens, and information about any known reactions and the child's response; and
- School nurses initiate the IHCP and allergy action plan and complete a medication care plan for the student. Based on the student's age, class, etc., the nurse will identify the members of the multi-disciplinary team. The school nurse should also assess the ability of the student to carry and self-administer epinephrine and should provide information about the availability of medical alert bracelets.[39]

Shielding Schools from Liability

Apprehensions about staff or school district liability can sometimes inhibit schools' willingness to allow administration of medications by staff or students. Schools and school personnel need legal protection if, for example, a correctly administered medication has unforeseen consequences, if a student does not self-medicate as directed, or if a student improperly obtains and uses a medication prescribed for someone else.

Many states shield school districts and their employees from liability resulting from a student's possession or use of prescribed medications. Some (but fewer) states also shield school districts and/or employees from liability resulting from staff administration of medications to students during the school day.

Following are excerpts from a recent Virginia law showing how the state has addressed the issue of liability in cases of people responding to someone suffering an anaphylactic reaction:

> *Any person who:*
>
> *3. In good faith and without compensation, including any emergency medical services technician certified by the Board of Health, administers epinephrine in an emergency to an individual shall not be liable for any civil damages for ordinary negligence in acts or omissions resulting from the rendering of such treatment if such person has reason to believe that the individual receiving the injection is suffering or is about to suffer a life-threatening anaphylactic reaction.*
>
> *11. Is a school nurse, an employee of a school board, an employee of a local governing body, or an employee of a local health department who is authorized by a prescriber and trained in the administration of epinephrine and who provides, administers, or assists in the administration of epinephrine to a student believed in good faith to be having an anaphylactic reaction, or is the prescriber of the epinephrine, shall not be liable for any civil damages for ordinary negligence in acts or omissions resulting from the rendering of such treatment.*

State board members should consult their state education attorney for clarification of their state's laws. At the local level, individuals can contact their school district's legal counsel.

Sources: NASBE's *State School Health Policy Database,* "Administration of Medications," www.nasbe.org/healthy_schools/hs/bytopics.php?topicid=4110.

Virginia State Code § 8.01-225. "Persons rendering emergency care, obstetrical services exempt from liability," legl.state.va.us/cgi-bin/legp504.exe?000+cod+8.01-225.

Awareness and Training

The Connecticut State Department of Education and State Department of Public Health developed *Guidelines for Managing Life-Threatening Food Allergies in Connecticut Schools*[40] (2006, revised in 2012) to help public school districts and nonpublic schools meet the requirements of state statutes in effectively managing the health and safety of students with life-threatening allergies. In the section "Provisions for Initial and Ongoing Education and Training for School Communities," the publication provides a comprehensive awareness plan for developing education and training sessions for five specific target groups: school nurses, school personnel, parents, school and community partners, and students.

When developing trainings, the guidelines recommend that each school district conduct a self-assessment to answer these questions:

- Why is this training necessary and who will conduct the sessions?
- Will the training be offered on a school or district-wide basis?
- Who will attend the sessions?
- What are the key messages that need to be delivered and how often?

The guidelines provide these recommendations on trainings for the five target groups:

- For school nurses, the training should address updates in clinical knowledge and skills related to severe food allergies in the school setting. These updates may include information about IHCPs, action planning for emergencies, medication plans, transportation plans, Section 504 requirements, and collaboration with families.
- For school personnel such as teachers, substitutes, administrators, food service staff, custodians, bus drivers, coaches, and other onsite personnel who oversee before- and after-school activities, training should be provided in collaboration with the school nurse. This may include an overview of life-threatening allergies, prevention strategies, IHCPs, action plans, medication plans (as appropriate), food safety, sanitation, and other specific accommodations.
- For parents, school nurses should provide general information, school medication policies, and policies related to the development of management plans.
- For school and community partners, school nurses should provide an overview of life-threatening allergies, prevention strategies, and school policies and procedures.
- For students, school nurses should provide an overview of life-threatening allergies, prevention strategies, and school policies on allergen free zones and prohibiting swapping or sharing food, as well as school policies on bullying and teasing.

School Environment

Illinois' Public Act 96-0349 required the Illinois State Board of Education and Department of Public Health to develop guidelines for school boards to address the management of students with life-threatening food allergies.[41] Each school board was to have a policy based on the guidelines by January 1, 2011.

The guidelines include procedures for preventing exposure to food allergens. The example below shows a comprehensive approach to the school environment. The following are the best practice recommendations for schools to follow:

- Address prevention in all classrooms, food service/cafeterias, classroom projects and crafts, outdoor activity areas, on school buses, during field trips and before- and after-school activities, and in all instructional areas;
- Adapt curriculums, awards, rewards, or prizes by substituting allergen-free or non-food items;
- Limit food-related fundraisers, birthdays, celebrations, and PTA functions to cafeterias or another designated area. Incorporate allergen-free or non-food items;
- Establish cleaning procedures for common areas (e.g., libraries, computer labs, music or art rooms, and hallways);
- Avoid the use of food products as displays;
- Develop appropriate cleaning methods following events that involve food;
- Enforce policies that prohibit eating on the school bus; and
- Establish an allergen-free zone as appropriate.

IV. Discussion Worksheets

The development of policies and guidelines for schools on anaphylaxis involve complex issues and will require buy-in from multiple stakeholders. Policymakers without medical backgrounds might feel reluctant about discussing technical issues around prevention and treatment of anaphylaxis, or may feel intimidated in the presence of medical experts. Yet by asking intelligent, probing questions, non-experts can help clarify ambiguities and stimulate helpful answers to practical issues of policy and implementation. Education leaders can ask the questions that are in the minds of others who are afraid to ask. Throughout the process, it will be helpful to keep the end goal in mind—appropriate policies and guidelines could save the life of a child experiencing a life-threatening allergic reaction while at school.

The following worksheets are intended to help policymakers in their discussions around the development of policies and guidelines to address anaphylaxis in the school setting. Included in each worksheet is a process for examining current policies and a set of questions for boards to consider.

States and school districts may be at various points along the continuum of policymaking, development of comprehensive guidelines, and full implementation. The discussion questions that follow are designed to cover a broad range of issues and topics related to management of anaphylaxis, prevention of exposure to allergens, training and educating staff, and treatment with medications in order to allow board members to pursue policy options that meet the needs of their individual state.

Prior to beginning these exercises, gathering the following information will help the state board use the worksheets more effectively:

- A brief inventory of current statutes, regulations, policies, and guidelines at the state or local level regarding anaphylaxis, as well as those regarding the administration of students' medications at school;
- Challenges the state or school districts are facing in effectively addressing anaphylaxis; and
- If available, an assessment of the strengths and limitations of current statutes and policies around students and anaphylaxis.

Getting Support from State Departments of Health

As they begin discussions around anaphylaxis in schools, state board members should keep in mind that all 50 state departments of health are funded by CDC to work with schools around various health issues related to chronic disease prevention. As part of this work, nearly half of the state health departments are working to implement policies, processes, and protocols in schools to meet the management and care needs of students with chronic conditions, including food allergies. In many cases the state department of health has one or more staff members addressing these and other school health issues, or they have funded a school health liaison position within the state department of education to assist with the work. These school health subject matter experts could be your best contacts. Work with your state health department to connect with the school health staff in both agencies, and inquire about whether food allergies is included in their CDC work plan and budget. The state department of health might have key resources to support policy creation and dissemination.

Worksheet 1: Policy Development Planning

There are many policy elements that must come together to ensure students are protected from the consequences of a severe allergic reaction—simply ensuring that a stock of epinephrine is available is necessary but not nearly sufficient. Following are some key issues to consider when developing a policy development plan.

	Questions to Ask When Considering Policy Action
Policy Development Planning	• Who needs to be at the table to discuss this issue? For example: Department of education Department of health State asthma/allergy foundation Food service association School nurse association School physician association or state medical association Parent teacher association/organization Concerned parents and affected students Others? • What is the main goal of this process? To raise public awareness? To develop, revise, improve guidelines for schools? To advocate for new or revised laws that address the use of medication at schools? Or is this in response to a legislative mandate? If this is in response to a mandate, what is the particular focus? • What do state and local data say about how frequently anaphylaxis occurs? How well have the schools responded to emergencies? • What do the experts recommend? • What are the major implementation challenges?

Worksheet 2: Management Strategies

A comprehensive approach to managing anaphylaxis requires strategies that work together—at the state and the school levels—to bring the system to the desired end. Boards will need to consider every aspect of the issue: acquisition and storage of stand-by epinephrine; handling of students' medications; prevention of exposure to allergens by students known to have severe allergies; staff training needs; protocols for emergency response at school and away from school; and reporting and evaluation of incidents.

	Who Has Authority Over This Part of the System?	Questions to Ask When Considering Policy Action
Management Strategies		• Does the state require that school districts or schools develop their own policies and protocols? • Does the state provide model policies and guidance on best practices for managing life-threatening allergies in school? • Is the use of an individualized health care plan common place? Is additional school staff training necessary? • Is a multi-disciplinary management team approach being used in schools to address the needs of students who have a life-threatening allergy? If not, should this be a requirement?

Worksheet 3: Awareness Planning and School Staff Training

Training ***all*** school staff to recognize the signs and symptoms of anaphylaxis and be able to respond appropriately is a key aspect of a comprehensive plan.*

	Who Has Authority Over This Part of the System?	Questions to Ask When Considering Policy Action
Awareness Planning and School Staff Training		• Are there existing guidelines or requirements for districts or individual schools about training staff to recognize the signs of anaphylaxis and to appropriately respond in an emergency? • Is there a need for separate trainings for school transportation staff? School foodservice workers? Athletic program coaches? Or do they fall under the same guidelines as all school staff? Are contracted services staff included? • Are there training programs in the state that could be replicated or expanded statewide? • Is there an opportunity to use innovative technology to disseminate trainings (e.g., web-based technology, streaming videos, or online courses)?*

* Several organizations offer online training on anaphylaxis and epinephrine auto-injection, including the National Association of School Nurses (www.nasn.org/ToolsResources/FoodAllergyandAnaphylaxis/GetTrained) and the American Red Cross (www.redcross.org/courses/index.jsp?_requestid=506892).

Worksheet 4: School Environment Modification

Changes to school environments may be necessary to ensure those with severe allergies avoid consuming allergens or coming into direct skin contact with allergens.

	Who Has Authority Over This Part of the System?	Questions to Ask When Considering Policy Action
School Environment Modification		• Are there guidelines in place for non-food fundraisers, celebrations, and other activities that could involve food? • Are there guidelines in place for addressing the use of food items in school projects, crafts, science classes? • Are there sample letters to families available that teachers can use to explain why and how the school is managing exposure to allergens? • Are there guidelines in place to assure regular and thorough cleaning of surfaces students come into contact with, and for minimizing cross-contamination of allergens?

Worksheet 5: Medication and Treatment

Giving schools authority to stock epinephrine for use in emergencies is a vital state policy that can save the lives of students having a severe allergic reaction. Other important policies include how and where epinephrine should be stored, who is authorized to administer medications, and protocols for handling emergencies off site (such as during field trips and sporting events).

	Who Has Authority Over This Part of the System?	Questions to Ask When Considering Policy Action
Medication and Treatment		• What are the existing laws that govern use of epinephrine in school settings? • Who in a school is authorized to administer medication? If it is only the school nurse, what happens when they are not present in an emergency? Who may administer epinephrine during off site activities? • Are there current laws about the storage of epinephrine? Can the epinephrine be easily accessed in an emergency? • Do schools have the ability to stock epinephrine for use in an emergency situation with a student who has had no previous allergy (known as a "school prescription")? • What are the state laws that govern the liability of school staff who administer epinephrine? • Should the state board (or the board in conjunction with other education, health, and parent groups) advocate for legislative action regarding epinephrine access? • Who has authority over administration of medications at schools (i.e., the department of education or department of health)? • Have any nurse "train the trainer" programs been effective in the state? Is that a consideration?

Worksheet 6: Evaluation and Accountability

Evaluation and review of new policies and programs are necessary to ensure these measures are having their intended effects in the most effective and efficient way possible. At the same time, evaluations can identify any unintended negative consequences and provide suggestions for needed adjustments.

	Who Has Authority Over This Part of the System?	Questions to Ask When Considering Policy Action
Evaluation and Accountability		• How will the state board measure success of the policy? • If there are mandates for stocking epinephrine included in the policy (rather than just guidelines), what will the accountability mechanism be (e.g., through the school or district accreditation process)? • What are the requirements for schools or districts to report anaphylaxis emergencies and staff responses? • Who or what entity will conduct an evaluation and when would this occur? • Will the evaluation consider the costs of implementation?

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