Governance & POLICY SERVICES

policy briefs

California School Boards Association **March 2008**

Asthma Management in the Schools

Asthma is a concern for school districts because it affects a significant percentage of students, can quickly escalate and endanger the health and life of the student without prompt medical attention, and can interfere with school attendance and learning.

The good news is that most asthma attacks can be prevented or controlled. This policy brief presents background information about the symptoms, causes and management of asthma and suggests a combination of actions that districts can take depending on the prevalence of asthma in the district and its impact on district students.

What is asthma?

Asthma is a chronic disease of the airways in the lungs. The bronchial airways become inflamed, reducing the amount of air that can be inhaled and contributing to recurrent acute episodes of breathing problems such as shortness of breath, coughing, wheezing and chest tightness. In a severe episode, low blood oxygen, blue or gray lips or fingernails, inability to speak and severe shortness of breath may result.

Deaths due to asthma are rare among children but they can and do occur if asthma is not properly managed. In addition, asthma is the third leading cause of hospitalization among children under the age of 15.[1]

Asthma can be triggered by many different stimuli, including:

- **Allergens.** Approximately 75–80% of children with asthma have significant allergies.[2] Common allergens that trigger asthma symptoms include dust mites, feathers, molds, pet dander, insects (especially cockroaches) and pollens. Less frequently, ingested foods (e.g., milk, soy, egg) may trigger asthma symptoms.
- **Airborne irritants.** Cigarette smoke, car or bus exhaust, air pollution, strong odors, aerosol sprays, cleaning products and paint fumes are some of the substances which can irritate the tissues of the lungs and upper airways.
- **Exercise.** Exercise such as running can trigger an episode in over 80% of children with asthma.[3]
- **Respiratory infections.** Bacterial and viral respiratory infections, including the flu, can trigger severe episodes of asthma.
- **Other health factors.** Childhood asthma appears to be a disorder with genetic predispositions. In addition, it can be triggered by health factors such as being overweight.
- **Weather.** Some studies have shown that breathing cold air can provoke symptoms in asthmatic children. Sudden temperature change also may be a factor.
- **Emotional factors.** Although emotional stress is not a cause of asthma, many children with asthma suffer from severe anxiety during an episode, which can then produce rapid breathing or hyperventilation and further worsen the episode.

How does asthma impact student learning?

Asthma is the most common chronic disorder in childhood.[4] Approximately 1.7 million children in California (13.3%) have

1 Centers for Disease Control and Prevention: National Center for Health Statistics, National Hospital Discharge Survey, 1980-2005. Cited in American Lung Assocation, *Children & Asthma Fact Sheet*, September 2007.

2 California Department of Health Services, *Guidelines for the Management of Asthma in California Schools*, April 2004.

3 American Lung Association, Childhood Asthma Overview, August 2006.

4 Centers for Disease Control and Prevention: National Center for Health Statistics, National Health Interview Survey, 1982-1996, 2001-2005. Cited in American Lung Assocation, *Asthma & Children Fact Sheet*, September 2007.

been diagnosed with asthma at some point in their lives and some 827,000 children (8.6%) currently have asthma.[5] Of those children in the state who currently have symptoms, 11.9% have symptoms at least weekly. This research also found that childhood asthma rates are higher among males than females and that American Indians/Alaskan Natives and African Americans have higher rates of lifetime asthma than other racial groups.

Asthma is the leading cause of school absenteeism attributed to chronic conditions.[6] Although many school districts do not have data that isolate asthma as a reason for school absenteeism, studies estimate that students with asthma miss an average of 2.6 days of school per year due to their illness.[7] Individual case studies reveal students who miss 10, 30, even 60 school days or more per year.[8]

Some students with asthma may also be impacted by limitations on physical activity at school. Physical education and participation in sports, band and other activities sometimes need to be restricted when a student with asthma experiences an acute phase of the disease or when his/her asthma is not effectively managed. Students who cannot participate in physical activities are more likely to gain weight, which in turn can act as a trigger to asthma. However, with medications and other methods of controlling asthma, most students with asthma can participate fully in physical activities.

Research has only recently begun to link the illness to depression, anxiety, stress and problems with academic performance. Asthma can disrupt sleep, ability to concentrate and memory.

How is asthma managed?

There is no cure for asthma, but it can almost always be controlled by restricting access to known triggers, having regular access to medical care, using medication as directed, and monitoring the severity of airflow obstruction with a device called a "peak flow meter" to determine the need for intervention.

Asthma medications come in inhaler, pill and injection forms. A physician may recommend the use of medication before exercise to help prevent asthma attacks and enable the individual to participate fully in physical activities. When an asthma attack does occur, access to "quick-relief" or "rescue" medications is critical, as these medications give prompt relief of symptoms. Some individuals take medication daily on a long-term basis to maintain control of asthma.

The California Department of Public Health, American Lung Association, Centers for Disease Control and Prevention and other health organizations strongly encourage the use of a written asthma action plan. The asthma action plan is developed primarily by the student's physician in partnership with the student and his/her parent/guardian and provides daily management guidelines and emergency steps in case of an asthma episode. The plan should detail the student's specific asthma triggers, asthma severity classification, peak flow monitoring, medication(s) prescribed for the student including which ones need to be taken during school hours, instructions regarding physical activity, and emergency procedures and phone numbers.

A sample form for the asthma action plan was developed by the California Department of Health Services and is available in several languages at www.dhs.ca.gov/ps/cdic/caphi. Other samples are available in *Managing Asthma: A Guide for Schools*, published by the National Asthma Education and Prevention Program of the National Heart, Lung, and Blood Institute (www.nhlbi.nih.gov/health/prof/lung/asthma/asth_sch.pdf).

In some cases, students with asthma may be eligible for reasonable accommodations and modifications under Section 504 of the federal Rehabilitation Act of 1973, in which case the student's asthma action plan may be included in the accommodation plan required by Section 504. A student is defined as disabled under Section 504 if he/she has a substantial physical or mental impairment of a major life activity, has a record of a disability, or is regarded as disabled by others.

Depending on the severity of the condition and the extent to which it adversely affects educational performance, a student with asthma may qualify as disabled under the federal Individuals with Disabilities Education Act (IDEA). For each student identified as disabled under IDEA, the district must develop an individualized education program (IEP) which includes, among other things, a description of "related services" such as school health and school nurse services that the student may need (34 CFR 300.34).

Policy considerations for boards

Most likely, districts already have in place a number of policies that promote student health and address actions to be taken

5 California Department of Health Services, *The Burden of Asthma in California: A Surveillance Report*, June 2007.

6 American Academy of Allergy, Asthma and Immunology: Allergy and Advocate, Fall 2004. Available at www.aaaai.org/patients/advocate/2004/fall/costs.stm.

7 California Department of Health Services, June 2007.

8 Abram, S. Asthma in classroom as school year begins: 63,000 students may be affected by the disease. *Los Angeles Times*, September 4, 2007. Also American Association of School Administrators, Asthma Wellness: Keeping Children with Asthma in School and Learning, *School Governance and Leadership*, Spring 2003.

in health emergencies. For example, CSBA provides sample policies and/or administrative regulations on the following related topics: BP 5030 — Student Wellness, BP/AR 5141 — Health Care and Emergencies, BP/AR 5141.21 — Administering Medication and Monitoring Health Conditions, BP/AR 5141.24 — Specialized Health Care Services, AR 5141.32 — Health Screening for School Entry, BP/AR 5141.6 — Student Health and Social Services, BP/AR 6142.7 — Physical Education, BP/AR 6142.8 — Comprehensive Health Education, BP/AR 6159 — Individualized Education Program and BP/AR 6164.6 — Identification and Education Under Section 504.

Districts also may have policies and administrative regulations that address environmental health and safety issues, including factors that are common asthma triggers, such as BP/AR 3514 — Environmental Safety, BP/AR 3513.3 — Tobacco-Free Schools, AR 3514.2 — Integrated Pest Management, BP/AR 5141.27 — Food Allergies/Special Dietary Needs, BP 6161.3 — Toxic Art Materials and BP/AR 6163.2 — Animals at School.

All of these policies might be reviewed to determine if they adequately support the needs of students with asthma.

In addition, when districts determine that they have a significant number of students with asthma or when they wish to call special attention to the needs of students with asthma, they might adopt a policy and administrative regulation specifically addressing the role of the district and schools in asthma management. In March 2008, CSBA issued BP/AR 5141.23 — Asthma Management which may serve as a starting point for districts to develop policy that meets their unique needs.

Districts might involve school nurses, other health professionals, school administrators, health educators, school health councils or committees, facilities maintenance staff, parents/guardians, students and other interested persons in the development of policy related to asthma management.

When developing policy on asthma management or related topics, districts might consider how they will address the following major components:

- **Actions to minimize environmental triggers.** District strategies to create a healthy school environment should include a periodic assessment of school facilities to identify the presence of allergens and airborne irritants and to serve as a basis for the development of plans to improve indoor air quality.

  Examples of measures to prevent or reduce environmental asthma triggers include using integrated pest management techniques; reviewing maintenance procedures to ensure frequent removal of dust and debris; eliminating molds, mildew, and leaks; adopting policies to prohibit animals in the classroom as necessary when asthmatic students are allergic to animal dander or feathers; reducing students' exposure to bus exhaust fumes; reducing the amount of carpeting in schools; monitoring and regulating the use of potentially dangerous supplies and chemicals; and enforcing a tobacco-free environment on all school properties.

  In addition, the superintendent might assign a staff person to monitor local health advisories for high ozone days and poor outdoor air quality and to notify other staff so that outdoor physical activities may be curtailed when necessary.

  The U.S. Environmental Protection Agency's "Tools for Schools" toolkit offers additional suggestions to control asthma triggers in the indoor and outdoor environment.

- **Identification of students with asthma.** In order to assist students with asthma, districts need to establish a means for identifying such students in a way that protects their privacy in accordance with the Health Insurance Portability and Accountability Act (HIPAA) (45 CFR 164.500-164.534) and other applicable laws. Parents/guardians might be asked, when registering their child for school and annually thereafter, to notify the principal or designee if their child has been diagnosed with any serious health concerns that might require the school's attention, including asthma. Parents/guardians should be asked to give written permission allowing the principal to inform the student's teacher(s), school nurse, coaches, and other staff who will directly supervise the student about the student's health needs. Parents/guardians should be assured that their child's health status and records will remain confidential except for those persons authorized to receive the information.

- **Receipt of an individualized asthma action plan.** District procedures should include a request for parents/guardians of a student with asthma to provide the school with a physician-developed asthma action plan (as described above) and to submit an updated plan annually. With parent/guardian permission, appropriate staff need to be notified about the requirements of the plan.

- **Monitoring of health condition and administration of medication.** Monitoring and medication should be implemented in accordance with the student's asthma action plan, 504 accommodation plan, or IEP and carefully documented. For some students, the physician may have called for monitoring of lung function with a peak flow meter to allow early intervention to avoid a serious episode. When the student's asthma action plan indicates that prescribed medication is needed during the school day, the school should ensure that the student has convenient and immediate access to his/her medications as directed.

  State law requires that any student be allowed to carry and self-administer inhaled asthma medication if the district receives the appropriate written statements from

both the student's licensed physician and his/her parent/guardian (Education Code 49423, 49423.1, 5 CCR 600). Medication also may be administered by a school nurse, other designated school personnel, the parent/guardian or a person designated by the parent/guardian in accordance with law. Because these provisions apply to other health conditions that may require administration of medication, CSBA addresses these issues in BP/AR 5141.21 — Administering Medication and Monitoring Health Conditions rather than in policy specific to asthma management.

- **Student health care services.** Access to health care is critical for students with asthma, yet many students do not have a regular health care provider. Schools can assist the parents/guardians of such students by providing information about available resources for medical services upon request. When districts have established school-based health clinics, they might review the services offered by the clinics to determine whether these services need to be expanded to better serve students with asthma.
- **Emergency response.** District procedures should include a clear and specific protocol for responding to an asthma emergency. The superintendent or designee should ensure that all staff are familiar with the response procedure and may post the procedure in easily accessible locations at each school.
- **Participation of asthmatic students in physical activity.** Recognizing that physical activity is essential to good health and student learning, districts should encourage participation in physical education, sports and other activities by students with asthma. At the same time, all district staff, but especially physical education teachers, coaches and playground supervisors, need to understand that physical activity can cause symptoms in many students with asthma and need to respect students' limits. When so directed by their asthma action plan, students must be allowed to take their prescribed medication prior to engaging in exercise. In addition, the activity might be altered or an alternate activity provided to accommodate the needs of asthmatic students when indicated by the student's asthma action plan, 504 accommodation plan or IEP as appropriate.
- **The role of the school nurse and other staff.** Administrative regulations and/or job descriptions might delineate staff responsibilities related to providing support for students with health conditions, including asthma.
- **Professional development.** All school staff should have a basic understanding of asthma, be able to recognize signs and symptoms of an asthma episode, and know the appropriate response to initiate when a student experiences an episode or a severe attack. District policy and administrative regulation might address the content and delivery of professional development, including the use of school nurses or other qualified health professionals to provide the training.
- **Health education.** Health education programs might include specific education for students with asthma and asthma awareness education for all students. Curriculum is available through a number of health organizations (see Resources section below) or may be developed and provided by the school nurse, local health professionals and/or community organizations.

Resources:

CSBA

www.csba.org

Provides sample board policies and administrative regulations, policy briefs and publications on a variety of health topics.

Allergy and Asthma Network/Mothers of Asthmatics

www.aanma.org

American Association of School Administrators

www.aasa.org/focus

Powerful Practices: An Assessment Tool for School Districts Addressing the Needs of Students with Asthma, October 2005

"Asthma Wellness: Keeping Children with Asthma in School and Learning," *School Governance and Leadership*, Spring 2003

American Lung Association

www.lungusa.org

Facts About Asthma, October 2006

Asthma-Friendly Schools Initiative: Toolkit

Open Airways for Schools, an elementary school education program for children with asthma

American Lung Association of California

www.californialung.org

American School Health Association

www.ashaweb.org

Asthma and Allergy Foundation of America

www.aafa.org

California Department of Public Health/California Asthma Public Health Initiative

www.cdph.ca.gov

www.dhs.ca.gov/ps/cdic/caphi

www.californiabreathing.org

The Burden of Asthma in California: A Surveillance Report, June 2007 (available at www.californiabreathing.org/files/asthmaburdenreport.pdf)

Asthma Action Plan for Schools and Families, January 2007

Guidelines for the Management of Asthma in California Schools, April 2004

California Healthy Kids Resource Center

www.californiahealthykids.org

California School Nurses Organization

www.csno.org

Centers for Disease Control and Prevention

www.cdc.gov/asthma

Managing Asthma in Schools — What Have We Learned?, August 2006

Strategies for Addressing Asthma within a Coordinated School Health Program, 2006

School Health Index: A Self-Assessment and Planning Tool

National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, National Institutes of Health

www.nhlbi.nih.gov/health/public/lung/index.htm#asthma

Resolution on Asthma Management at School, November 2005 (contains recommendations for school policies on asthma management)

Managing Asthma: A Guide for Schools, 2003

How Asthma-Friendly is Your School?, 1997

U.S. Environmental Protection Agency

www.epa.gov/asthma

Indoor Air Quality Tools for Schools (available at www.epa.gov/iaq/schools)

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