



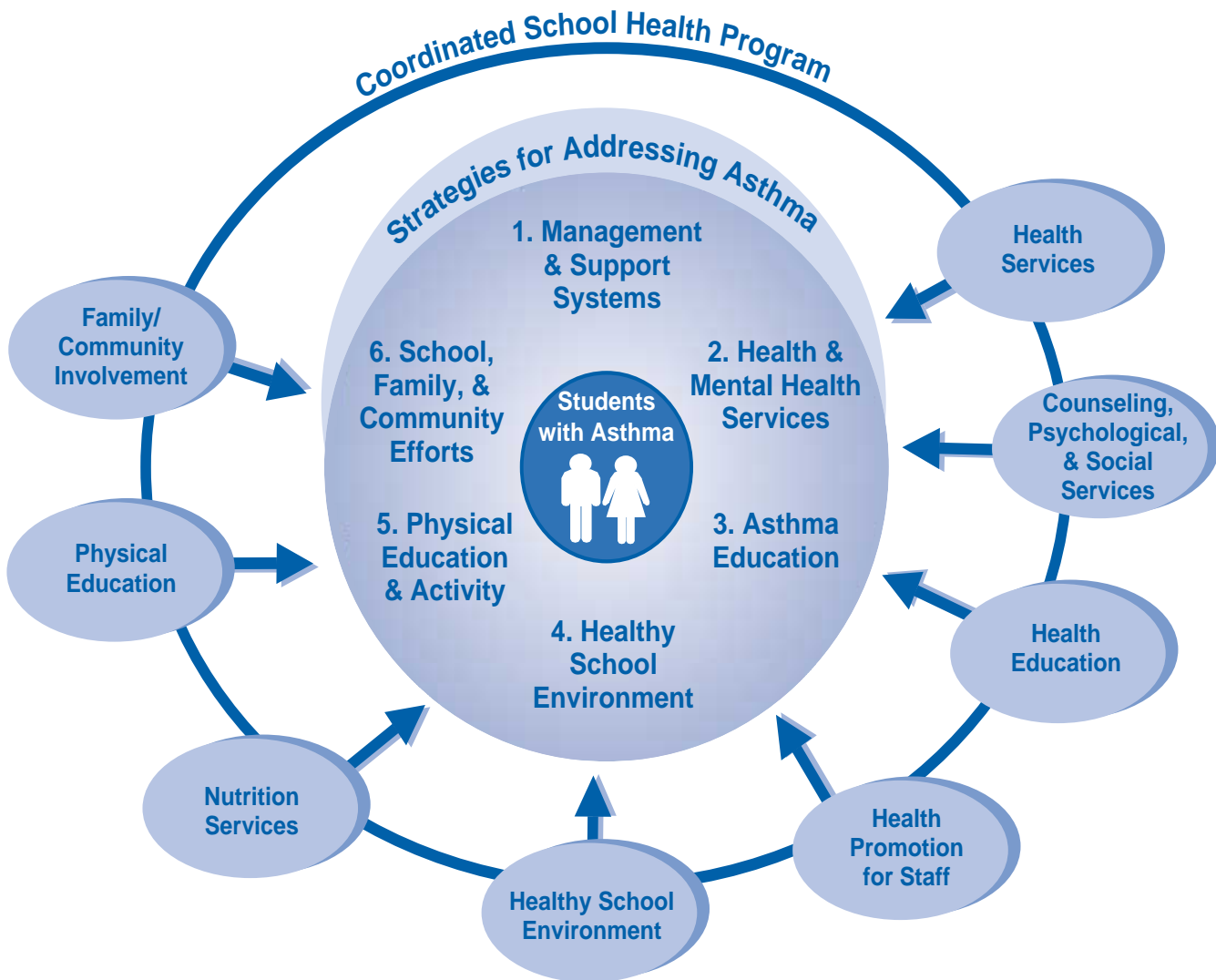
Strategies for  
**Addressing Asthma**  
Within a Coordinated School Health Program



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION



# Addressing Asthma Within a Coordinated School Health Program



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A healthy student is a student ready to learn. Asthma-friendly schools are those that make the effort to create safe and supportive learning environments for students with asthma. They have policies and procedures that allow students to successfully manage their asthma. Chances for success are better when the whole school community takes part—school administrators, teachers, and staff, as well as students and parents.

The Centers for Disease Control and Prevention (CDC) has identified six strategies for schools and districts to consider when addressing asthma within a coordinated school health program. These strategies can be effective whether your program is for the entire school district or just one school.

1. Establish **management and support systems** for asthma-friendly schools.
2. Provide appropriate school **health and mental health services** for students with asthma.
3. Provide **asthma education** and awareness programs for students and school staff.
4. Provide a safe and **healthy school environment** to reduce asthma triggers.
5. Provide safe, enjoyable **physical education and activity** opportunities for students with asthma.
6. Coordinate **school, family, and community efforts** to better manage asthma symptoms and reduce school absences among students with asthma.

## Strategy Development

These strategies are based on six key elements of school-based education and intervention developed by expert panelists at the November 2000 national conference, “Asthma Prevention, Management, and

Treatment: Community-Based Approaches for the New Millennium,” sponsored by Kaiser Permanente and the American Lung Association.<sup>1</sup> Two National Asthma Education and Prevention Program (NAEPP) documents, *Resolution on Asthma Management at School*<sup>2</sup> and *How Asthma-Friendly is Your School?*,<sup>3</sup> were used to develop these school-focused elements. CDC’s school asthma strategies also incorporate the eight interactive components of the coordinated school health program, a model used by the CDC and many state education agencies and school districts.<sup>4</sup> The figure on the facing page illustrates how the six strategies for addressing asthma fit within the eight components of a coordinated school health program.

## Strategy Implementation

Implementation of the strategies will require a team effort that involves all school administrators, faculty, and staff, as well as students and parents. These strategies can be used to develop a plan for addressing asthma within a coordinated school health program. They complement NAEPP’s *Managing Asthma: A Guide for Schools*,<sup>5</sup> which provides specific action steps for school staff members.

Every strategy is not appropriate or feasible for every school to implement. Schools and districts should determine which strategies have the highest priority on the basis of the needs of the school and available resources.

Schools and districts should, whenever possible, initially focus their asthma programs on students with poorly managed, moderate-to-severe persistent asthma as demonstrated by frequent school absences, school health office visits, emergency department visits, or hospitalizations. Low-income, minority populations and inner-city residents experience more emergency department visits, hospitalizations, and deaths due to asthma than the general population.<sup>6,7</sup>

## The Six Strategies

### 1. Establish management and support systems for asthma-friendly schools.

- Identify your school's or district's existing asthma needs, resources for meeting those needs, and potential barriers.
- Designate a person to coordinate asthma activities at the district and school levels. If your school or district has a health coordinator, determine if asthma coordination can be integrated into his or her activities.



- Share these strategies with the district health council and school health team if they exist. If you do not have a council or team, help create them. Ensure that school-based asthma management is addressed as a high priority.<sup>8</sup>
- Develop and implement written policies and procedures regarding asthma education and management. Promote asthma programs that are culturally and linguistically appropriate.<sup>9,10</sup>

- Use or adapt existing school health records to identify all students with diagnosed asthma. Use health room and attendance records to track students with asthma. Focus particularly on students with poorly managed asthma as demonstrated by frequent school absences, school health office visits, emergency room visits, or hospitalizations. Avoid mass screening\* and mass case detection† as methods for routine identification. These methods have not been shown to meet the World Health Organization's or American Academy of Pediatrics's criteria for population or school screening programs.<sup>11-16</sup>
- Use 504 Plans or Individualized Education Plans (IEPs), as appropriate, especially for health services and physical activity modifications.
- Obtain administrative support and seek support from others in the school and community for addressing asthma within a coordinated school health program.
- Develop systems to promote ongoing communication among students, parents, teachers, school nurses, and health care providers to ensure that students' asthma is well-managed at school.
- Seek available federal, state, and private funding for school asthma programs.
- Evaluate asthma program strategies and policies annually. Use this information to improve programs.

\* Screening for asthma (spirometry) can identify students who, in a test situation, exhibit signs and symptoms of asthma. These students may or may not truly have asthma.

† Case detection (symptom questionnaires) can identify students with asthma symptoms who may or may not have the disease. Only testing and evaluation by a health professional can confirm which students truly have asthma.

## 2. Provide appropriate school health and mental health services for students with asthma.

- Obtain a written asthma action plan for all students with asthma. The plan should be developed by a primary care provider and be provided by parents. It should include individualized emergency protocol, medications, peak flow monitoring, environmental triggers, and emergency contact information.<sup>17-19</sup> Share the plan with appropriate faculty and staff in accordance with the Family Educational Rights and Privacy Act (FERPA) guidelines or with parental permission.<sup>20</sup>
- Ensure that at all times students have immediate access to medications, as prescribed by a physician and approved by parents. Specific options, such as allowing students to self-carry and self-administer medications, should be determined on a case-by-case basis with input from the physician, parent, and school.<sup>21</sup>
- Use standard emergency protocols for students in respiratory distress if they do not have their own asthma action plan.<sup>1</sup>
- Ensure that case management<sup>‡</sup> is provided for students with frequent school absences, school health office visits, emergency department visits, or hospitalizations due to asthma.<sup>22</sup>
- Provide a full-time registered nurse all day, every day for each school.<sup>1</sup>
- Ensure access to a consulting physician for each school.<sup>1</sup>



- Refer students without a primary care provider to child health insurance programs and providers.<sup>23,24</sup>
- Provide and coordinate school-based counseling, psychological, and social services for students with asthma, as appropriate. Coordinate with community services.<sup>18,22,25</sup>

## 3. Provide asthma education and awareness programs for students and school staff.

- Ensure that students with asthma receive education on asthma basics, asthma management, and emergency response. Encourage parents to participate in these programs.<sup>19,26-30</sup>
- Provide school staff with education on asthma basics, asthma management, and emergency response as part of their professional development activities. Include classroom teachers, physical education teachers, coaches, secretaries, administrative assistants, principals, facility and maintenance staff, food service staff, and bus drivers.<sup>31-35</sup>
- Integrate asthma awareness and lung health education lessons into health education curricula.<sup>36</sup>
- Provide and/or support smoking prevention and cessation programs for students and staff.<sup>37</sup>



## 4. Provide a safe and healthy school environment to reduce asthma triggers.

- Prohibit tobacco use at all times, on all school property (including all buildings, facilities, and school grounds), in any form of school transportation, and at school-sponsored events on and off school property (for example, field trips).<sup>37-41</sup>

<sup>‡</sup> Case management by a trained professional includes assessing needs and planning a continuum of care for students and families.



- Prevent indoor air quality problems by reducing or eliminating allergens and irritants, including tobacco smoke; dust and debris from construction and remodeling; dust mites, molds, warm-blooded animals, cockroaches, and other pests.<sup>42–45</sup>
- Use integrated pest management (IPM)<sup>§</sup> techniques to control pests.<sup>46,47</sup>

#### 5. Provide safe, enjoyable physical education and activity opportunities for students with asthma.

- Encourage full participation in physical activities when students are well.<sup>48,49</sup>
- Provide modified activities as indicated by a student's asthma action plan, 504 Plan, and/or IEP, as appropriate.<sup>1</sup>
- Ensure that students have access to preventive medications before activity and immediate access to emergency medications during activity.<sup>50–52</sup>

#### 6. Coordinate school, family, and community efforts to better manage asthma symptoms and reduce school absences among students with asthma.

- Obtain written parental permission for school health staff and primary care providers to share student health information.<sup>53</sup>
- Educate, support, and involve family members in efforts to reduce students' asthma symptoms and school absences.<sup>33,54</sup>
- Work with local community programs. Coordinate school and community services, including community health care providers, community asthma programs and coalitions, community counselors, social workers, case managers, and before- and after-school programs. Encourage interested school staff to participate in community asthma coalitions.



§ IPM is a proactive approach to pest management that includes looking for signs of pests, controlling water and food sources, removing pest pathways and shelters, and safely using pest control products as needed.

## Resources

### Coordinated School Health Programs

- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health, Atlanta, Georgia. Web site located at [www.cdc.gov/healthyyouth](http://www.cdc.gov/healthyyouth)
- Council of Chief State School Officers. *School health starter kit*. Washington, DC: Council of Chief State School Officers, 1999. Available at [www.ccsso.org/starterkit.html](http://www.ccsso.org/starterkit.html)
- Education Development Center, Inc. *Talking about health is academic*. New York, New York: Teachers College Press, 1999.
- Education Development Center, Inc., Newton, Massachusetts. *Making health academic: creating coordinated school health programs*. Web page located at [www2.edc.org/MakingHealthAcademic](http://www2.edc.org/MakingHealthAcademic)
- Fetro J. *Step by step to health-promoting schools*. Santa Cruz, California: ETR Associates, 1998.
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- Tyson H. Special report: a load off the teachers' backs: coordinated school health programs. *Phi Delta Kappan* January 1999. Available at [www.pdkintl.org/kappan/ktys9901.htm](http://www.pdkintl.org/kappan/ktys9901.htm)

### Asthma

- Allies Against Asthma, University of Michigan, School of Public Health, Ann Arbor, Michigan. *Resource bank*. Web page located at [www.asthma.umich.edu/resources/resourcebank.html](http://www.asthma.umich.edu/resources/resourcebank.html)
- Allergy and Asthma Network Mothers of Asthmatics, Fairfax, Virginia. Resources include
  - *School house: keeping healthy at school*. Available at [www.aanma.org/schoolhouse](http://www.aanma.org/schoolhouse)
  - *School information packet*. Available at [www.aanma.org/generalstore/catalog.asp?id=BG8&qt=1&sec=schoolchild](http://www.aanma.org/generalstore/catalog.asp?id=BG8&qt=1&sec=schoolchild)
- American School Health Association. Resolution on school-based asthma management. In: *American School Health Association compendium of resolutions*. Kent, Ohio: American School Health Association, 2002. Available at [www.ashaweb.org/resolutions1.html#diseases](http://www.ashaweb.org/resolutions1.html#diseases)
- Centers for Disease Control and Prevention, National Center for Environmental Health, Atlanta, Georgia. Resources include
  - Asthma Web site located at [www.cdc.gov/asthma](http://www.cdc.gov/asthma)
  - *State asthma contacts and programs*. Web page and links located at [www.cdc.gov/nceh/airpollution/asthma/contacts/default.htm](http://www.cdc.gov/nceh/airpollution/asthma/contacts/default.htm)
- Asthma Initiative of Michigan, Lansing, Michigan. Web site located at [www.getasthmahelp.org](http://www.getasthmahelp.org)
- National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, Maryland. Web site located at [www.nhlbi.nih.gov/about/naepp](http://www.nhlbi.nih.gov/about/naepp). Resources include
  - *Asthma management model system*. Available at [www.nhlbisupport.com/asthma/index.html](http://www.nhlbisupport.com/asthma/index.html)
  - *Coalition exchange, a forum for community discussion around asthma*. Web page located at [www.nhlbisupport.com/asthma/coalitioncorner/coalition.htm](http://www.nhlbisupport.com/asthma/coalitioncorner/coalition.htm)
  - *How asthma-friendly is your school?* Available at [www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm)
  - *Managing asthma: a guide for schools*. Can be ordered at [email.nhlbihin.net/dept2.asp?dept\\_id=ASTHMA](mailto:email.nhlbihin.net/dept2.asp?dept_id=ASTHMA)
  - *Resolution on asthma management at school*. Available at [www.nhlbi.nih.gov/health/public/lung/asthma/resolut.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/resolut.htm)
- National Education Association Health Information Network, Washington, DC. *Asthma and schools*. Web site located at [www.asthmaandschools.org](http://www.asthmaandschools.org)
- National Library of Medicine, Bethesda, Maryland. *Breath of life: an exhibition that examines the history of asthma, the experiences of people with asthma, and contemporary efforts to understand the disease*. Web site located at [www.nlm.nih.gov/hmd/asthma/asthma.htm](http://www.nlm.nih.gov/hmd/asthma/asthma.htm)

### Strategy 1: Management and Support

- American Academy of Pediatrics, Elk Grove Village, Illinois. *School health: train the trainers kit. Establishing a school health coordinating council*. Available at [www.schoolhealth.org/trntrn/SECTION6/main6.html](http://www.schoolhealth.org/trntrn/SECTION6/main6.html)
- American Cancer Society, Atlanta, Georgia. *Healthy schools, healthy kids*. Web site for parents, schools, and communities located at [www.schoolhealth.info](http://www.schoolhealth.info). Resources include
  - *Improving school health: a guide to school health councils*.
  - *Improving school health: a guide to the role of the school health coordinator*.
- National Association of State Boards of Education. *Fit, healthy and ready to learn*. Alexandria, Virginia: National Association of State Boards of Education, 2000. Can be ordered at [www.nasbe.org/NASBE\\_Bookstore/Safe\\_Healthy.html](http://www.nasbe.org/NASBE_Bookstore/Safe_Healthy.html)
- National School Boards Association, Alexandria, Virginia. *NSBA's school health programs*. Web page located at [www.nsba.org/schoolhealth](http://www.nsba.org/schoolhealth)

- Centers for Disease Control and Prevention. *Coordinated school health program infrastructure development: process evaluation manual*. Atlanta, Georgia: Centers for Disease Control and Prevention, 1997. Available at [www.cdc.gov/nccdphp/dash/program\\_evaluation/cshp/index.htm](http://www.cdc.gov/nccdphp/dash/program_evaluation/cshp/index.htm)
- Family Policy Compliance Office, U.S. Department of Education. *Family Educational Rights and Privacy Act (FERPA) regulations*. Washington, DC: U.S. Department of Education, 2002. Available at [www.ed.gov/offices/OM/fpc/ferparegs.html](http://www.ed.gov/offices/OM/fpc/ferparegs.html) or by calling 202-260-3889.

## Strategy 2: Health and Mental Health

- Asthma and Allergy Foundation of America, Washington, DC. *Student asthma action card*. Available at [www.aafa.org/public/pdfs/student.pdf](http://www.aafa.org/public/pdfs/student.pdf)
- U.S. Department of Health and Human Services. Asthma objectives. *Healthy people 2010*. 2nd edition. Volume 2. Washington, DC: U.S. Government Printing Office, November 2000. Available at [www.health.gov/healthypeople/Document/HTML/Volume2/24Respiratory.htm#\\_Toc489704831](http://www.health.gov/healthypeople/Document/HTML/Volume2/24Respiratory.htm#_Toc489704831)
- National Association of School Nurses, Castle Rock, Colorado. Resources include
  - Position statements*. Available at [www.nasn.org/positions/positions.htm](http://www.nasn.org/positions/positions.htm)
  - Issue briefs*. Available at [www.nasn.org/briefs/briefs.htm](http://www.nasn.org/briefs/briefs.htm)
  - Continuing education*. Available at [www.nasn.org/continuinged/continuing\\_ed.htm](http://www.nasn.org/continuinged/continuing_ed.htm)
- National Assembly on School-Based Health Care, Washington, DC. Publications and order forms available at [www.nasbhc.org/nasbhc\\_%20resources.htm](http://www.nasbhc.org/nasbhc_%20resources.htm)
- National Asthma Education and Prevention Program. *Expert panel report 2: guidelines for the diagnosis and management of asthma*. Bethesda, Maryland: National Institutes of Health, National Heart, Lung, and Blood Institute, National Asthma Education and Prevention Program, 1997. Available at [www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm](http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm)

## Strategy 3: Asthma Education

- American Lung Association, Washington, DC. *Open airways for schools, an education program for students with asthma*. Available at [www.lungusa.org/school/oas.html](http://www.lungusa.org/school/oas.html)
- Asthma and Allergy Foundation of America, Washington, DC. Asthma education programs and materials available at [www.aafa.org/temp/display.cfm?id=11&sub=178](http://www.aafa.org/temp/display.cfm?id=11&sub=178)
- Centers for Disease Control and Prevention, Atlanta, Georgia. Resources include
  - A speaker's kit for healthcare professionals*. Available at [www.cdc.gov/nceh/airpollution/asthma/speakit/default.htm](http://www.cdc.gov/nceh/airpollution/asthma/speakit/default.htm)
  - Educational materials for parents, educators and youth group leaders*. Available at [www.cdc.gov/tobacco/edumat.htm](http://www.cdc.gov/tobacco/edumat.htm)
- National Asthma Education and Prevention Program, Bethesda, Maryland. Web page located at [www.nhlbi.nih.gov/about/naepp/index.htm](http://www.nhlbi.nih.gov/about/naepp/index.htm). Resources include
  - School asthma education slide set*. Available at [hin.nhlbi.nih.gov/naepp\\_slds/menu.htm#schl](http://hin.nhlbi.nih.gov/naepp_slds/menu.htm#schl)
  - Asthma awareness curriculum for the elementary classroom*. Bethesda, Maryland: National Institutes of Health, National Heart, Lung, and Blood Institute, National Asthma Education and Prevention Program, 1993. Available at [www.nhlbi.nih.gov/health/prof/lung/asthma/school/index.htm](http://www.nhlbi.nih.gov/health/prof/lung/asthma/school/index.htm)
- National Asthma Educator Certification Board, New York, New York. Web site located at [www.naebc.org](http://www.naebc.org)

## Strategy 4: Healthy School Environment

- Institute of Medicine. *Clearing the air: asthma and indoor air exposures*. Washington, DC: National Academy Press, 2000. Available at [www.nap.edu/books/0309064961/html](http://www.nap.edu/books/0309064961/html)
- IPM Technical Resource Center at Department of Entomology, Purdue University, West Lafayette, Indiana. *Integrated pest management for schools and childcare facilities*. Available at [www.entm.purdue.edu/entomology/outreach/schoolipm](http://www.entm.purdue.edu/entomology/outreach/schoolipm)
- President's Task Force on Environmental Health Risks and Safety Risks to Children. *Asthma and the environment: a strategy to protect children*. Washington, DC: President's Task Force on Environmental Health Risks and Safety Risks to Children, May 2000. Available at [www.epa.gov/children/whatwe/fin.pdf](http://www.epa.gov/children/whatwe/fin.pdf)
- University of Florida, Gainesville, Florida. *School IPM: integrated pest management in schools*. Web page located at [schoolipm.ifas.ufl.edu](http://schoolipm.ifas.ufl.edu)
- Centers for Disease Control and Prevention, Atlanta, Georgia. Resources include
  - Guidelines for school health programs to prevent tobacco use and addiction*. Available at [www.cdc.gov/nccdphp/dash/guidelines/nutptua.htm](http://www.cdc.gov/nccdphp/dash/guidelines/nutptua.htm)
  - School health index for physical activity, healthy eating, and a tobacco-free lifestyle*. Available at [www.cdc.gov/nccdphp/dash/SHI/index.htm](http://www.cdc.gov/nccdphp/dash/SHI/index.htm)



- U.S. Environmental Protection Agency. Resources include
  - *Indoor air quality: tools for schools*. December 2000. Available at [www.epa.gov/iaq/schools/tools4s2.html](http://www.epa.gov/iaq/schools/tools4s2.html) or by calling 800-438-4318.
  - *Integrated pest management for schools: a how-to manual*. June 1999. Available at [www.epa.gov/region09/toxic/pest/school](http://www.epa.gov/region09/toxic/pest/school)
  - *Managing asthma in the school environment*. Available at [www.epa.gov/iaq/schools/tools4s2/index.html](http://www.epa.gov/iaq/schools/tools4s2/index.html)
  - *Mold resources*. Available at [www.epa.gov/iaq/pubs/moldresources.html](http://www.epa.gov/iaq/pubs/moldresources.html)
  - *Mold remediation in schools and commercial buildings*. March 2001. Available at [www.epa.gov/iaq/molds/mold\\_remediation.html](http://www.epa.gov/iaq/molds/mold_remediation.html)

### Strategy 5: Physical Education and Activity

- Block ME. *A teacher's guide to including students with disabilities in regular physical education*. Baltimore, Maryland: Paul H. Brookes Publishing, 2000.
- Centers for Disease Control and Prevention. *Guidelines for school and community programs to promote lifelong physical activity among young people*. Atlanta, Georgia: Centers for Disease Control and Prevention, 1997. Available at [www.cdc.gov/nccdphp/dash/guidelines/physact.htm](http://www.cdc.gov/nccdphp/dash/guidelines/physact.htm)
- National Asthma Education and Prevention Program. *Asthma and physical activity in the school*. Bethesda, Maryland: National Institutes of Health, National Heart, Lung, and Blood Institute, National Asthma Education and Prevention Program, 1993. Available at [www.nhlbi.nih.gov/health/public/lung/asthma/phy\\_asth.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/phy_asth.htm)

### Strategy 6: Family and Community

- Allergy and Asthma Network Mothers of Asthmatics, Fairfax, Virginia. Resources include
  - *Welcome to Breatherville, USA*. Community resources for parents of children with asthma available at [www.aanma.org/breatherville.htm](http://www.aanma.org/breatherville.htm)
  - Toll-free hotline with trained staff to answer questions about asthma, 800-878-4403.
- American Academy of Allergy, Asthma, & Immunology, Milwaukee, Wisconsin. Resources about pediatric asthma available at [www.aaaai.org/patients/allergic\\_conditions/pediatric\\_asthma.stm](http://www.aaaai.org/patients/allergic_conditions/pediatric_asthma.stm)
- National Parent Information Network, Champaign, Illinois. *NPIN virtual library*. Web site located at [www.npin.org/library.html](http://www.npin.org/library.html)

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2. National Asthma Education and Prevention Program. *Resolution on asthma management at school*. Bethesda, Maryland: National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, 1997. Available at [www.nhlbi.nih.gov/health/public/lung/asthma/resolut.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/resolut.htm)
3. National Asthma Education and Prevention Program. *How asthma-friendly is your school?* Bethesda, Maryland: National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, 1997. Available at [www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm](http://www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm)
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## For More Information

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