CONTROLLING ENVIRONMENTS AND
MANAGING ASTHMA

Part of a series on Growing Healthy Readers: Taking Action to Support the Health Determinants of Early School Success

The Campaign for GRADE-LEVEL READING
When children are healthy and developing on track, they are more likely to be successful in school. The Campaign for Grade-Level Reading recognizes the important interconnections of health and learning, known as the health determinants of early school success.

Children from low-income families have more frequent challenges that affect their health and well-being than more affluent children. The Campaign’s Healthy Readers Team has identified five Children’s Health and Learning Priorities: health-related issues with a demonstrated relationship to one or more of the Campaign’s community solutions. They include prenatal care and infant development; comprehensive screenings, follow-up and early intervention; oral health; asthma management; and nutrition and physical activity. The team has developed materials to help community stakeholders incorporate strategies that can strengthen positive impact on children’s health and learning. Growing Healthy Readers: Taking Action to Support the Health Determinants of Early School Success is a set of seven guides to assist Sponsoring Coalitions in incorporating the Children’s Health and Learning Priorities into Community Solutions Action Plans (CSAPs) to achieve the Campaign’s community solutions and improve grade-level reading.

These Healthy Readers Resource Guides will help community- and state-level Sponsoring Coalitions identify priority issues that affect children’s health and determine how to take action. The priority issues and corresponding guides — each with a research-based connection to success in learning — include:

- Prenatal Care and Infant Development
  Resource Guide: Supporting Healthy Births and Infancy
- Comprehensive Screenings, Follow-Up and Early Intervention
  Resource Guide: Ensuring Early and Appropriate Screenings and Intervention
  Resource Guide: Supporting Children’s Healthy Social-Emotional Development
- Oral Health
  Resource Guide: Ensuring Oral Health
- Asthma Management
  Resource Guide: Controlling Environments and Managing Asthma
- Nutrition and Physical Activity
  Resource Guide: Promoting Healthy Food Choices
  Resource Guide: Increasing Physical Activity
Sponsoring Coalitions will want to consult available local data and gather information to help determine which priorities to address to improve children’s health and learning. The Resource Guides include valuable resources and recommendations about how to proceed. Each guide is organized to:

- Address the important link between health and learning
- Identify evidence-based and promising models and strategies
- Help coalitions understand how to begin to take action
- Identify content and funding resources specific to that topic

Improving health and learning for children from low-income families is important work, but it need not be daunting. No matter which strategies a Sponsoring Coalition undertakes, it is useful to include representatives from Head Start, physician offices, the Health Department and a Federally Qualified Health Center (FQHC) if there is one in your community. These individuals can help Sponsoring Coalition members understand the context for children’s health in the community and reach out to others who can support the work.

The Campaign’s Healthy Readers Team and state and regional Campaign leads can provide support as well. In the coming months, we expect to establish state-level pilot projects to link communities that are working in the same focus area, support peer learning, and provide additional information and support.

If you have questions or comments, please contact Becky Miles-Polka, Healthy Readers Team Leader: bmilespolka@gradelevelreading.net.
Managing children's asthma helps them reduce absences.

More children attending school regularly.

Physical activity helps children pay attention and learn.

Breakfast in the classroom improves attendance and learning.

Regular dental care prevents lost learning time.

Screenings catch developmental, hearing and vision problems before they interfere with learning.

Social and emotional development builds curiosity and supports learning.

Prenatal care supports early brain development.

The Health Determinants of Early School Success.
CONTROLLING ENVIRONMENTS AND MANAGING ASTHMA

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<tr>
<th>Children’s Health and Learning Priority</th>
<th>Which community solution(s) does it support?</th>
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<tr>
<td>Asthma Management</td>
<td>SCHOOL READINESS SCHOOL ATTENDANCE</td>
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**DEVELOPING AWARENESS**

**What is asthma?**

Asthma is a chronic disease that affects the lungs. Asthma attacks cause inflammation and narrowing of the airways in the lungs leading to wheezing, coughing and shortness of breath. Asthma is widely recognized as one of the most common chronic diseases in children. Many children develop asthma before the age of 5. It is the most significant health-related cause of school absence among children each year.

**Why is it important for communities to implement this solution?**

Respiratory infections, allergens such as mold, pollens and furry animals, and irritants such as tobacco smoke, some cleaning products, stress and physical activity can trigger asthma symptoms.

Uncontrolled asthma symptoms pose significant risks to children’s health and learning. Minority children from low-income urban households have disproportionately high rates of asthma. Children with severe asthma experience considerably more sleep problems than other children, with more fatigue during waking hours. Fatigue from disturbed sleep can lead to less energy for learning.

Asthma is the leading medical cause of school absence, leading to 14 million missed school days annually, according to the Asthma and Allergy Foundation of America. It is also the third leading cause of hospitalization for children under 15.

- In 2010, 7 million children in the United States had asthma. Black children are twice as likely to have asthma as white children.

- Boys are 45 percent more likely than girls to have ever been diagnosed with asthma. Black youth, especially those from poor families, are disproportionately affected. (Basch, 2012)
### Developing Awareness (Cont.)

**How can asthma be managed?**

Asthma management programs include two components:

- Managing the child’s environment to reduce asthma triggers; and
- Managing symptoms of asthma through medication. Studies have shown that many children as young as 5 years of age can manage their asthma symptoms. When a child’s asthma is controlled, s/he can attend school regularly and participate fully in learning.

<table>
<thead>
<tr>
<th>What are some strategies for managing asthma?</th>
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<tr>
<td><strong>Strategies with Results</strong></td>
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<tr>
<td><strong>The Asthma Basics for Children (ABC) program</strong> — established by Columbia University’s Mailman School of Public Health and a coalition of community service organizations, educators, parenting programs and community pediatric providers — is an evidence-based program designed to help early childhood educators and parents of children under age 7 learn to reduce asthma triggers and manage asthma. This multilayered approach, focused on low-income families, including new immigrants, in the inner-city neighborhoods of northern Manhattan, offers culturally appropriate educational activities and materials to parents and children as well as training to community pediatric providers.</td>
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<tr>
<td><strong>Results</strong></td>
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<td>- 85 percent of parents reported reducing their child’s asthma triggers</td>
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<td>- The percent of children with asthma-related visits to emergency departments declined sharply from 74 to 47 percent</td>
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<tr>
<td>- Asthma-related hospitalizations for children participating in the program dropped from 24 to 11 percent</td>
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**The Long Beach (CA) Alliance for Children with Asthma (LBACA)** works to change the profile of childhood asthma in the most affected areas of Long Beach through improved: health care delivery and quality, outreach, education, support systems, living arrangements and changes in policy at all levels. LBACA uses a community health worker model, in which the health workers assess the home environment; educate families and children about asthma’s causes; establish an action plan in collaboration with families; provide families with nontoxic cleaning products and other community resources; and monitor asthma symptoms over time to reinforce the use of asthma medication.

**Results**

- Nearly 74 percent of children who missed school before enrolling in the program had not missed school at the six-month follow-up assessment
- 92 percent of clients reported good control of daytime asthma symptoms and 83 percent had good control of nighttime asthma symptoms at the follow-up
**DEVELOPING AWARENESS (CONT.)**

<table>
<thead>
<tr>
<th>What are some strategies for managing asthma? (cont.)</th>
<th>• 83 percent of clients who reported using emergency departments for asthma care before enrolling in the program did not report a visit at the six-month follow-up assessment</th>
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<tr>
<td>The national Green &amp; Healthy Homes Initiative (GHHI) creates innovative strategies to improve service delivery and ensure the efficient use of resources to reduce lead poisoning, asthma and injury in low-income housing while improving energy efficiency. GHHI provides tools to help communities combine existing resources to help manage home environments, eliminate asthma triggers and reduce asthma.</td>
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**Strategies to Build Public Awareness**

The Centers for Disease Control and Prevention (CDC) has declared May as Asthma Awareness Month, urging interested members of communities to understand — and publicize — asthma’s impact on children from low-income families. CDC’s National Asthma Control Program is a driving force in asthma control. Featured topics for information on the website include “Controlling Asthma in Schools,” with recommendations for school-based asthma control programs, and “Helping Americans Gain Asthma Control,” which describes how a CDC-funded home-based asthma management program changed a child’s life and gave his family the skills to keep him healthy.

**MOVING TO ACTION**

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<tr>
<th>How would a Sponsoring Coalition begin to implement this strategy?</th>
<th>Determine what actions the team could take now to strengthen children’s health and development to support improved grade-level reading outcomes. Often simple no-cost or low-cost actions are a way to build momentum and gain early enthusiasm and support for the work.</th>
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<tr>
<td>1. Gather information on asthma-related absences and hospitalizations for children in your community. Mapping the data may provide insight into environmental factors or housing issues if there is geographic clustering of households with children who have asthma-related absences or hospitalizations.</td>
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<td>2. Contact local preschool and education partners and parent groups to determine whether there is a need for asthma management programming and supports. The information in the Joint Statement on Improving Asthma Management in Schools is a</td>
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<td>3. <strong>Engage</strong> local health partners (pediatricians, Federally Qualified Health Centers, family-centered medical practices, insurance and health plans) to develop interest and build support for the strategy.</td>
<td>4. <strong>Learn about</strong> effective programs in other communities.</td>
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<tr>
<td>5. <strong>Determine</strong> what financing strategies are available in your community.</td>
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<tr>
<th>What funding sources may be available to support this strategy in your community?</th>
<th>Every community is different, and funding sources vary by state for asthma management programs that serve children from low-income families.</th>
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<td></td>
<td>• In some states, Medicaid may reimburse programs that serve children from low-income families for asthma management services.</td>
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<td></td>
<td>• Research existing funding streams in your community. Funding may come from multiple sources or unusual places. In communities where asthma occurs as a result of industrial pollution, mitigation funding to reduce the harm caused by pollution may be available.</td>
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<td></td>
<td>• Look for flexible funding sources. Funding may need to be braided to meet the needs of families.</td>
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• The Asthma Basics for Children program materials include a separate handbook and curriculum for educating parents and early childhood educators. For more information about the program, see www.mailman.columbia.edu/academic-departments/population-family-health/research-service/keeping-preschoolers-asthma-out-hospital. For more about the available materials, see www.aafa.org/display.cfm?id=4&sub=79&cont=482

• Long Beach (CA) Alliance for Children with Asthma: www.lbaca.org

• The Asthma and Allergy Foundation of America: www.aafa.org

• Green & Healthy Homes Initiative: www.greenandhealthyhomes.org

• Asthma: (Resource Page for) Schools and Childcare Providers, Centers for Disease Control: www.cdc.gov/asthma/schools.html

• For CDC information on asthma, see www.cdc.gov/asthma/impacts_nation/asthmafactsheet.pdf

• The CDC’s National Asthma Control Program works to reduce the number of deaths, hospitalizations, emergency room visits, missed school or work days, and limitations on activity due to asthma. To find contact information for your state, see www.cdc.gov/asthma/contacts/default.htm

• Managing Asthma in the School Environment, EPA, 2010: www.epa.gov/iaq/schools/managingasthma.html; see www.lung.org

• IAQ (Indoor Air Quality) Tools for Schools Action Kit, EPA, 2010: www.epa.gov/iaq/schools/actionkit.html

• Bridging the Gap with Community Health Workers King County Asthma Forum: www.pediatricasthma.org/community_coalitions/seattle

• State of the Air 2012, American Lung Association: www.stateoftheair.org

• Recommendations from the Task Force on Community Preventive Services to Decrease Asthma Morbidity through Home-Based, Multi-Trigger, Multicomponent Interventions: www.thecommunityguide.org/asthma/multicomponent.html

• Nonprofit hospitals may provide asthma management programs as part of their community benefit obligation to provide medically necessary services to those in need. See http://healthyamericans.org/assets/files/Partner%20With%20Nonprofit%20Hospitals04.pdf.

• Federally Qualified Health Centers (FQHCs) are focused on reducing health disparities. If asthma affects many children from low-income families in your community, the FQHC is a good place to start. www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/qualified.html.