



Center for Family Policy  
and Research  
University of Missouri

## Battling Childhood Asthma in Missouri Schools

*Childhood asthma is the most common chronic condition diagnosed among children in Missouri.<sup>1</sup> Low-income children are particularly affected by asthma due to high treatment costs. School nurses are key players in promoting childhood asthma management as they are the only health professionals that have frequent interactions with children.*

### ***Childhood Asthma***

- Asthma is a leading chronic health condition among children in the nation.<sup>2</sup>
- During the 2014-2015 school year, approximately 10% of students enrolled in Missouri's public schools were affected by asthma.<sup>3</sup>
- Asthma is one of the top five most costly health conditions in the nation.<sup>4</sup>
- Last year in Missouri, children living in zip codes with the highest poverty rates accounted for approximately 43% of childhood asthma hospital visits in the state.<sup>1</sup>
- Childhood asthma has been associated with higher school absenteeism, particularly among low-income students.<sup>2</sup>

### ***Challenges in Managing Childhood Asthma***

- Asthma treatment relies on controlling symptoms by following a regular medication regimen and avoiding substances or situations that trigger symptoms.<sup>5</sup>
- The life quality of children with asthma highly depends on how well their symptoms can be controlled.<sup>5</sup>
- Many factors, however, can get in the way of finding and maintaining effective asthma treatment including:<sup>5</sup>
  - Poor medication compliance
  - Not being able to recognize symptoms or triggers
  - Not knowing how to use inhalers correctly
  - Poor communication between children, parents, and health professionals
  - Expensive medical costs

### ***Efforts in Missouri Schools to Promote Childhood Asthma Control***

Given that children spend a substantial portion of their time at school, it is not surprising that school staff, particularly school nurses, play an essential role in coordinating and implementing asthma control efforts. Missouri has outstanding school-based programs that follow innovative approaches to improve the life quality of children with asthma.<sup>3</sup>

### ***Multifaceted Intervention at Kennett Public Schools (KPS)***

- Following a partnership model, school nurses in KPS developed and led a multi-componential intervention including: self-management education, assessment of asthma severity, home environment assessments, specialist referrals, and fostering connections between health care providers and caregivers.<sup>3</sup>
- The program improved asthma control as indicated by fewer asthma symptoms and a reduction in childhood asthma hospitalizations (i.e., 49% decline from 2006 to 2011).<sup>3</sup>

- School nurses attributed the success of the program to various factors including: sharing health information with care providers, prompting providers to adjust medications, teaching parents about asthma management, monitoring adherence to asthma controlling medications, and teaching students the skills to self-manage their asthma.<sup>3</sup>

### ***Teaming Up for Asthma Control (TUAC)***

- The Missouri Asthma Prevention and Control Program in partnership with the University of Missouri Asthma Ready Communities created TUAC.<sup>5</sup>
- School nurses served as the center of the intervention by receiving training in three main areas: (a) asthma severity assessments, (b) evaluation of student self-care behaviors, and (c) teaching students and their families about asthma.<sup>5</sup>
- Student participation resulted in better asthma control as indicated by less emergency room visits and hospitalizations, which in turn led to lower healthcare costs.<sup>5</sup>

***TUAC Success Story:*** *A student with asthma and multiple allergies had to visit the health office daily to use his rescue inhaler, sometimes more than once a day! He did not use his preventive inhaler regularly, did not know how to use his inhalers correctly, and had parents who smoked. Within a few sessions, he learned how to use his inhalers correctly and started using his preventive inhaler daily (as he was supposed to). His parents started smoking outside and Dad decided to quit smoking altogether. The student no longer visits the health office to use his rescue inhaler!*<sup>5</sup>

### ***Policy Recommendations***

- Increase funding of evidence-based programs to promote childhood asthma control in the school setting under the guidance of school nurses.
- Provide school nurses with the training and resources necessary to stay informed about the latest intervention and treatment approaches for childhood asthma.
- Facilitate communication between school nurses and other health professionals involved in the care of students with asthma by supporting data sharing as well as streamlining current health information systems.

### ***Helpful Resources***

Asthma Prevention and Control: [health.mo.gov/living/healthcondiseases/chronic/asthma/](http://health.mo.gov/living/healthcondiseases/chronic/asthma/)

Asthma and Allergy Foundation for America: [www.aafa.org/index.cfm](http://www.aafa.org/index.cfm)

Learn How to Control Asthma: [www.cdc.gov/asthma/faqs.htm](http://www.cdc.gov/asthma/faqs.htm)

Environmental Protection Agency: [www2.epa.gov/asthma](http://www2.epa.gov/asthma)

Full report, prepared in partnership with Missouri KIDS COUNT, available at:  
[mokidscount.org/stories/battling-childhood-asthma-in-missouri-schools/](http://mokidscount.org/stories/battling-childhood-asthma-in-missouri-schools/)

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The Center for Family Policy & Research is housed in the Department of Human Development and Family Science at the University of Missouri. The center serves as a resource for the development of effective public policies relating to all children, families, and communities.

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