



News Release

FOR RELEASE May 18, 2015, 2:15 p.m. MDT

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Session B107: Asthma Management and Health Education

Monday, May 18, 2015, 2:15 p.m. – 4:15 p.m.

Location: Colorado Convention Center

New School-Based Program Helps Reduce Absentee Rate for Urban Minority Children with Asthma

ATS 2015, DENVER – Asthma is one of the most common chronic diseases in children, and it can only be managed, not cured. It affects a disproportionately higher percentage of low-income, urban minority children, and is also the most common disease-related reason for children missing school. This can have a negative effect on their academic achievement, as well as later success in life.

Initial results from a pilot study show that a new program called “Building Bridges for Asthma Care”—an initiative that helps school nurses identify children with asthma and support them and their families in getting the care they need—is helping reduce absenteeism. The program is a collaboration between Colorado Children’s Hospital, Connecticut Children’s Medical Center, the public school systems in Hartford, CT and Denver, CO, and GSK. The study specifically looked at 2,244 urban children attending three schools in Hartford: 40% were African American, 53% were Hispanic, and 7% were from other minority backgrounds.

The study will be presented at the ATS 2015 International Conference.

“Because children spend much of their time in school, a school nurse is ideally positioned to help. Through the program, school nurses work with children identified with asthma and their families, as well as their primary care providers to address asthma so the child does not miss as much school,” said study lead author Jessica Hollenbach, PhD, Director of Asthma Programs, Connecticut Children’s Medical Center, Hartford, Ct.

The program was piloted in five public inner-city elementary schools in Denver, Colo. and three in Hartford, Ct. during the 2013-14 school year. School nurses first identified, screened and enrolled children with inadequately controlled asthma in the program. Then, they monitored

asthma control, taught the children how to use rescue inhalers, and served as a liaison between physicians, parents and caregivers to obtain and support the children's asthma treatment plans.

For the study, absenteeism data were collected for the 2012-13 to 2013-14 school years for all children, including the Building Bridges participants in Hartford. They found that the absenteeism rate for the 67 children enrolled in Building Bridges decreased nearly 12%. For children who had asthma that was severe enough that they could qualify for the program, but were not in it, absenteeism increased by nearly 9%.

“Although we currently only have data from one of the two school districts, this study demonstrates that we can make a difference and help more children with asthma manage their disease and stay in school,” said Hollenbach. “This is positive news for everyone involved—children benefit, but also their parents, who do not need to miss work to stay home with their child. The healthcare system benefits too, since their asthma is better managed, and therefore they require fewer health services, such as emergency care or hospitalization.”

In the 2014-15 school year, the program has expanded to include 22 new schools. Data collection for the Denver, Colorado school system is ongoing and will be used to validate the current findings.

The program is funded by GlaxoSmithKline.

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** Please note that numbers in this release may differ slightly from those in the abstract. Many of these investigations are ongoing; the release represents the most up-to-date data available at press time.*

Abstract 63431

Reducing School Absenteeism Among Inner-City Children: Preliminary Results from the 2013-14 Building Bridges: Advancing Education by Improving Asthma Management in Inner-City Children Program

Type:

Scientific Abstract

Category:

01.11 - Clinical Asthma Management Programs (NUR)

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Abstract Body

Rationale: Asthma is one of the most common chronic diseases and disproportionately affects low-income, urban minority children. It is the most common disease-related reason for children missing school which can adversely affect academic achievement and later life success. Because children spend much of their time in school, the School Nurse is ideally positioned to address asthma morbidity. The Building Bridges program has been designed specifically to empower School Nurses to identify children with high asthma morbidity and school absenteeism. The goal of the program is to 'Build Bridges' of communication between the School Nurse, the child's family and their primary care provider (PCP) to address asthma.

Methods: The Building Bridges program was initiated during the 2013-14 school year in five public inner-city elementary schools in Denver, Colorado and three in Hartford, Connecticut. Children with inadequately controlled asthma were identified, screened and enrolled in the program. School Nurses monitored asthma control, taught the children how to appropriately use their rescue inhaler, and communicated with PCPs and caregivers to obtain asthma treatment plans. Absenteeism data, the primary outcome, were collected for the current and prior school year for all children, including the Building Bridges participants.

Results: Preliminary data from 2,244 children (40% African American, 53% Hispanic, 7% Other) in the three Hartford, Connecticut elementary schools demonstrated an overall increase in the absenteeism rate from the 2012-13 to 2013-14 school year (9.32% vs. 9.63%, $p < 0.001$). The absenteeism rate for the 67 children (18% African American, 78% Hispanic) enrolled in the Building Bridges intervention, however, decreased from 13.3% to 12.0% whereas those not in the intervention increased from 9.2% to 9.5%. The difference in the change of absenteeism rates between the intervention children and controls over the two school years was highly significant ($p = .0008$). In a more direct comparison to an asthma severity matched sample, the intervention children demonstrated a 11.75% drop in school absences as compared to a 8.48% increase for those children not enrolled in Building Bridges ($p < .001$).

Conclusions: Although the absenteeism data are preliminary and from only one school district, these data provide compelling evidence that school absenteeism rates can be significantly decreased by a program linking School Nurses more closely with families and primary care providers. The program is being expanded to 22 new schools in the 2014-15 school year and data collection for the Denver, Colorado school system is ongoing and will be used to validate the current findings.

This study was funded by GSK.