

Educational home visits can improve asthma in children, study suggests

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A few home visits by a health care specialist to educate children with asthma about basic strategies for earlier symptom recognition and improving medication use can lead to fewer flare-ups and less frequent trips to the ER, according to research from Johns Hopkins Children's Center published in the December issue of *Pediatrics*.

An estimated 6.5 million children in the United States have [asthma](#), which is the leading pediatric [chronic illness](#) in this country and disproportionately affects minorities.

"We compared several strategies to improve [asthma control](#) among children and, much to our delight, we found that taking a few simple steps can go a long way toward doing so," says senior investigator Kristin Riekert, Ph.D., a pediatric psychologist at Hopkins and co-director of the Johns Hopkins Adherence Research Center.

Researchers say the key is providing regular asthma education that includes:

- in-the-home demonstration and training on the proper use of inhalers by an asthma specialist and a discussion with the family about regular access to a pediatrician, ensuring they have access to one
- an asthma action plan specifically tailored to each child with a list of must-take daily controller medication to keep inflammation at bay, a checklist of what to do when symptoms start and when to seek

[emergency care.](#)

Researchers compared the effectiveness of three different strategies in 250 African-American children with asthma who ended up in the ER with an [asthma attack](#). One group received a booklet with basic asthma information — the standard and usual care. The other two groups received educational home visits by asthma educators, with one group receiving education only, and the other receiving education plus feedback on how well the patient was following their medication instructions, which researchers determined by a monitoring device on the child's inhaler to record each use, as well as coaching on how to improve adherence.

Follow-ups at six, 12 and 18 months showed that:

- Children in the two groups that received home visits and whose medication use was monitored had 15 percent fewer trips to the ED compared to children who got the standard care. They also had a 52 percent faster rate of refill of inhaled corticosteroids, daily controller medication that helps keep inflammation at bay.
- Children who got educational home visits reported on average fewer symptoms per month compared to children who received the informational booklet.
- Children who got the informational pamphlet — the standard of care — had 12 percent more ED visits and 17 percent higher use of oral corticosteroids, a marker of an asthma flare-up, when compared to [children](#) from the other two groups.
- There was no added value in providing medication monitoring and feedback above providing at-home educational visits alone.

- There was no significant difference in the number of hospitalizations among the three groups.

Source: Johns Hopkins Medical Institutions

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