

Among Latinos, Puerto Rican children less likely to use their asthma inhalers

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Puerto Rican children less likely to use their asthma inhalers. Credit: ATS

Compared to Mexican American children, Puerto Rican children were more likely to have poor or decreasing use of inhaled medication needed to control their asthma, according to new research published online in

the *Annals of the American Thoracic Society*.

The study also found that girls of both ethnic groups were more likely than boys to have poor or decreasing use of the [asthma](#) control medications.

In "[Longitudinal Patterns of Mexican and Puerto Rican Children's Asthma Controller Medication Adherence and Acute Healthcare Utilization](#)," Kimberly J. Arcoleo, Ph.D., MPH, and co-authors report on what is believed to be the first study of adherence over time to inhaled corticosteroids (ICS) for asthma within Latino populations. To control asthma and prevent exacerbations, ICS need to be taken by those with persistent asthma even when their symptoms are not apparent.

The study followed 123 children, ages 5-12, with persistent asthma living in Phoenix, Arizona, and Bronx, New York, for one year. A device attached to their inhalers monitored their inhaler use, and the researchers categorized use as poor, moderate, declining adherence or increasing adherence. All of the children received their [medication](#) for free.

The study found:

- Between 23 percent and 32 percent of all children had poor adherence (less than 50 percent of prescribed doses taken) at each three-month follow-up after enrollment.
- Less than 15 percent had good adherence (more than 80 percent of prescribed doses taken) at each three-month follow-up after enrollment.
- Puerto Rican children were more than five times as likely as Mexican American children to have their ICS use described as poor, and nearly three times as likely to have their ICS use described as decreasing.
- Girls were five times as likely as boys to have their ICS use

described as poor or decreasing.

- Children with poor adherence were more likely to go to the ER or be hospitalized for an asthma attack throughout the study period.

Study limitations include the fact that the devices only stored data on ICS use for the most recent 30 days, so adherence was not continuous across the 12 months the children were followed.

Still, the authors believe their study may help focus intervention efforts on those who are least compliant with ICS use and those who are decreasing their use of the controller medications.

Dr. Arcoleo, who is an associate professor at the University of Rochester School of Nursing in New York, said that the study shows that there are naturally changing patterns of [children's](#) ICS adherence over time.

"As clinicians and researchers, we cannot assume that a child who demonstrates good adherence at one visit will remain adherent," she explained. "We need easy-to-use, validated methods of assessing [adherence](#) during the clinical visit, which is something our team is working on developing."

Provided by American Thoracic Society

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