

Challenges of Childhood Asthma: Policies and Programs

**“There are people who have asthma,
who don’t know they have asthma.”**

– Pediatrician Lilia Parra-Roide
St. Joseph’s Hospital and Medical Center

Asthma in Arizona

Eleven percent of Arizona children under the age of 17 have asthma, which is much higher than the national average. Asthma affects low-income Arizonans, rural communities and [ethnic minorities](#), especially Native Americans, at [higher rates than other groups](#).

In addition to the costs to families and institutions (i.e., calling in sick for work, missed school days affecting school budgets and student academic progress), there is a large financial cost in Arizona: asthma-related hospitalizations and emergency department visits [exceeded \\$471 million in 2016](#).

This is also a public health concern as [Phoenix’s air quality](#) is deteriorating. It was recently ranked the [7th most ozone-polluted metropolitan area](#) in the U.S. by the American Lung Association. Federal regulations aimed at improving air quality under the Clean Air Act are being threatened by a series of federally proposed efforts: exempting certain polluting facilities from some emissions controls, and [delaying science-based updates to air pollution standards](#).

To address these challenges, the Southwest



Interdisciplinary Research Center ([SIRC](#)) at Arizona State University convened an expert panel to further its mission of promoting health research in Arizona communities.

Community Discussion in Tempe: SIRC’s Issue Forum

SIRC organized a distinguished panel that contributed key insights about research findings and potential policy solutions at Mountain Park Health Center in Tempe. The panel included: Kim Arcoleo, PhD, SIRC Research Faculty Associate, Professor of Pediatrics; Lilia Parra-Roide, MD, Pediatrician and Professor; Ryan Sidebottom, MSN, Nurse Practitioner, Breathmobile, Phoenix Children’s Hospital; JoAnna Strother, BS, Regional Advocacy Director, American Lung Association; and Karen Kiburz, BSE, Board Member of the Arizona Asthma Coalition; and moderator Patricia K. Hibbeler, MA, CEO of the Phoenix Indian Center and Chair of SIRC’s Community Advisory Board.

Key Takeaways

“I never want to hear about another child dying from asthma” because effective treatments to manage asthma exist, said Dr. Arcoleo. Yet, [approximately 100 Arizona residents die from asthma every year](#).



Dr. Parra-Roide stated that healthcare professionals should understand their patient's mindset, home environment, culture and ability to respond to asthmatic events, otherwise they're not going to listen to medical advice. "Episodic care is bad for kids because they don't follow-up with appropriate treatment, which can make things worse ... so, self-education and management is everything," Dr. Parra-Roide said. Dr. Arcoleo agreed, "We need to move towards a patient-centered care and decision-making model." To be effective in this approach, JoAnna Strother stressed the importance of educating parents to ask their children about their asthma symptoms because children often know more about their condition than their parents. "Asthma needs management and follow-up, it should not only be treated in the ER," said Ryan Sidebottom, who runs the Breathmobile from Phoenix Children's Hospital, which provides asthma screenings and treatment for kids with the highest needs in schools around the state. "Patients should see a specialist on a regular basis."

Dr. Arcoleo said, "Most parents would be shocked to know that it's not a nurse who is responsible for their child's health while they're in school." She also stressed how important it is to inform clinicians about "the role cultural beliefs and practices play in the decisions that caregivers make for their children's [asthma management](#)." She acknowledged that there is a need for non-medical treatments, alternative therapies, and culturally-accepted practices in conjunction with medical treatment. According to Karen Kiburz, "Kids need emergency Albuterol [asthma inhaler] at every school in Arizona ... and they need nurses who know how to administer medication in case of emergency."

Action Steps

Policy recommendations from the forum align with five key areas for improvement: (1) Self-management and ongoing treatment, (2) Access to proper care in schools, (3) Advocacy, (4) Centralized Data for Decision Makers, and (5) Air quality:

- Have a registered nurse in every school.
- Improve access to follow-up care for children, and [educate families about asthma](#).
- Increase advocacy and community engagement: The American Lung Association's Lung Action Network helps individuals with asthma and their families share their stories and contact their elected representatives.
- Expand access to medications, especially emergency stocks of Albuterol inhalers in schools.
- Educate patients on the importance of the Air Quality Index and high pollution advisory days, as well as [methods to improve air quality](#) and reduce vehicle emissions.

Research in Action

SIRC is actively engaged in developing and conducting timely, relevant and culturally sensitive asthma research for children. Dr. Arcoleo recently published *Longitudinal Patterns of Mexican and Puerto Rican Children's Asthma Controller Medication Adherence and Acute Healthcare Use*, which showed how Latinx children who have low anxiety during asthma attacks might be at higher risk to disregard their asthma symptoms and therefore have poor asthma control. The study was designed to investigate the differences in asthma control between Mexican and Puerto Rican children with persistent asthma that required them to use a controller medication on a daily basis. The study included 267 children ages 5-12 of whom 188 were Mexican and 79 were Puerto Rican, plus 267 caregivers. Findings emphasize how important it is for healthcare providers to ask children directly about their emotional experiences with asthma as well as the importance of recognizing and responding to Latinx children's asthma symptoms quickly to improve treatment adherence and asthma outcomes.

This study was funded by the National Center for Complementary and Integrative Health.

Most importantly, "We need the community to tell their story" to policy makers and legislators so they understand the importance of sound asthma management policies, Strother said.