

EVALUATION OF A HOME-BASED PEDIATRIC ASTHMA
MANAGEMENT EDUCATION PROGRAM IN PARTNERSHIP WITH
HEALTHCARE PROVIDERS IN NORTH TEXAS: PRELIMINARY
FINDINGS

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OBJECTIVE: The objective of this study was to evaluate an ongoing Joint Commission certified referral-based, home-based pediatric asthma education program in partnership with healthcare providers based in a tertiary-care pediatric hospital in Texas. **METHOD:** Children (ages 0-18) with physician-diagnosed asthma who received healthcare provider referrals were eligible to participate in the program. Certified Asthma Educators and Registered Respiratory Therapist provided an individual asthma education through home visits. Twelve (12) bi-weekly telephone follow-ups to include asthma education, coaching, and reinforcement to treatment plan with a Registered Nurse (Certified Asthma Educator) were made for the entire length of the program. Families participated in tailored programs for 3 to 6 months including goal setting, symptom recognition, and asthma trigger mitigation. Outcomes measures were: the frequency of asthma-related emergency department (ED) visits and hospitalization in the previous 6 months as extracted by electronic patient record, PedsQL Asthma Module (Varni, 2004) and Asthma Control Test (ACT; Schatz et al., 2006) scores as completed by participants, and asthma trigger mitigation as completed by asthma educator during home visits. All of the assessments were completed at the baseline and 6 months. **RESULTS:** During January 2013 through December 2015, 654 children (mean age=9.4 years old; 63% male) and their primary caregivers completed the program. Participants were predominantly ethnic minority (52% African American and 32% Latino), with 56% on public insurance. The results of the preliminary analyses of monthly aggregate outcomes data from years 2013-2015 are summarized in Table 1. **CONCLUSION:** Our preliminary findings suggest that the referral-based, in-home asthma self-management program was effective in reducing ED visits and hospitalization among the program participants immediately following the program participation. The findings also indicate that the program had moderate but clinically meaningful improvement in asthma control, trigger mitigation, and asthma-related quality of life in the short term. Future research will evaluate the long-term effects of the program.

Table 1. Average monthly program outcomes for 2013-2015

	<i>N</i>	Pretest	Posttest	% change
ED visit	4.6	3.8	1.8	54.3% decrease
Hospitalization	6.2	1.9	0.9	90.0% decrease
PedsQL score, <i>mean</i>	6.4	81.6	93.8	15.2% increase
ACT, %>19	5.7	77.7	99.7	25.8% increase
Trigger mitigation score	5.7	6.6	7.4	13.7% increase

Note. ED visits data were available for only 2013 and 2014.